

BEFORE THE BOARD OF COMMISSIONERS OF LANE COUNTY, OREGON

ORDINANCE NO: PA 1388

IN THE MATTER OF ADOPTING AN ORDINANCE ESTABLISHING URBAN RESERVES FOR THE CITY OF EUGENE; AMENDING THE EUGENE-SPRINGFIELD METROPOLITAN AREA GENERAL PLAN; AMENDING THE LANE COUNTY RURAL COMPREHENSIVE PLAN; AMENDING THE ENVISION EUGENE COMPREHENSIVE PLAN; AMENDING THE PUBLIC FACILITIES AND SERVICES PLAN (COUNTY FILE NO. 509-PA22-05580)

WHEREAS, the Board of Commissioners adopted the expansion of the City of Eugene's Urban Growth Boundary on August 8, 2017 (Ordinance No's PA1345, PA1347, and 17-03), and as part of this adoption, directed staff to prioritize urban reserves outside the current Urban Growth Boundary; and

WHEREAS, on December 6, 2022, the Lane County Planning Commission recommended adoption of the proposed changes to the Eugene-Springfield Metropolitan Area General Plan, Lane County Rural Comprehensive Plan, Envision Eugene Comprehensive Plan, and Public Facilities and Services Plan to the Board of Commissioners; and

WHEREAS, the Board of County Commissioners conducted a joint public hearing with Eugene City Council on this matter on February 28, 2023 and is ready to take action.

NOW, THEREFORE, the Board of County Commissioners of Lane County **ORDAINS** as follows:

1. The Eugene-Springfield Metropolitan Area General Plan ("Metro Plan") is amended as follows:
 - a. The Metro Plan is amended as shown on Exhibit A-1 to this Ordinance.
 - b. The digital files on Exhibit A-2 to this ordinance are adopted as Metro Plan Appendix F "Eugene Urban Reserves." These digital files comprise the geographic information systems layer that shall serve as the official map for identifying the location of Eugene Urban Reserve land in the area governed by the Metro Plan, shown on that map as the land located between the Eugene urban growth boundary and the Metro Plan Boundary. An illustrative version of the map, highlighting the Eugene Urban Reserve land that is in the area governed by the Metro Plan, is included within the pages of the Metro Plan, as amended by this Ordinance.

2. The Envision Eugene Comprehensive Plan is amended as shown in Exhibit B to this Ordinance for application to the land located outside the city limits of the City of Eugene.
3. The Eugene-Springfield Metropolitan Area Public Facilities and Services Plan is amended as shown on Exhibit C to this Ordinance.
4. The County Administrator is hereby authorized to sign the agreements attached to this Ordinance as Exhibit D.
5. The Lane County Rural Comprehensive Plan is amended as follows:
 - a. The Lane County Rural Comprehensive Plan is amended as shown in Exhibit E-1 to this ordinance.
 - b. The Lane County Rural Comprehensive Plan is further amended to adopt, as Appendix A to the official Lane County Rural Comprehensive Plan, the digital files on Exhibit A-2 to this ordinance. These digital files comprise the geographic information systems layer that shall serve as the official map for identifying the location of Eugene Urban Reserve land in the area governed by the Lane County Rural Comprehensive Plan, shown on that map as the land located outside of the "Metro Plan Boundary" shown on that map. An illustrative version of the map, highlighting the Eugene Urban Reserve Land that is in the area governed by the Lane County Rural Comprehensive Plan, is included within the pages of the Lane County Rural Comprehensive Plan, as amended by this Ordinance.
6. If any section, subsection, sentence, clause, phrase, or portion of this Ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion constitutes a separate, distinct and independent provision, and such holding does not affect the validity of the remaining portions hereof.

FURTHER, although not part of this Ordinance, the findings set forth in Exhibit F to this Ordinance are provided in support of the actions taken by this Ordinance.

ENACTED this 11th day of April, 2023.



Pat Farr, Chair
Lane County Board of Commissioners



Recording Secretary for this Meeting of the Board

Revise the Eugene-Springfield Metropolitan Area General Plan as follows:

(1) Add the following text to the list of appendices under “Chapter I Introduction” / “Relationship to Other Plans, Policies, and Reports” as shown below in bold, underline and italic as follows:

The following Metro Plan ~~appendix~~ is **appendices are** available at the City of Eugene Planning and Development Department:

Appendix E Eugene 2035 Transportation System Plan

Appendix F Shapefile containing the Eugene Urban Reserves Map, showing the official location of Eugene Urban Reserves between the Eugene UGB and the Metro Plan boundary

(2) Add new policies 32, 33, 34 and 35, as shown below in bold, underline and italic, to the end of “II. Fundamental Principles and Growth Management Policy Framework” / “C. Growth Management Goals, Findings and Policies” as follows:

32. The areas identified as Eugene urban reserves on the Eugene Urban Reserves map adopted as part of the Metro Plan and the Lane County Rural Comprehensive Plan shall be given priority consideration, consistent with Oregon law, for inclusion within the Eugene UGB when a UGB expansion is considered.

33. Lane County shall continue to allow the siting of a single-family dwelling on a lawfully established unit of land after it has been included in Eugene urban reserves if the County’s regulations would have allowed the single-family dwelling on the land prior to the land’s inclusion in Eugene urban reserves.

34. Lane County shall continue to plan and zone land identified as Eugene urban reserves for rural uses and shall do so in a manner that ensures a range of opportunities for the orderly, economic and efficient provision of urban services and that will not hinder the efficient transition to urban land uses when these lands are included in the Eugene urban growth boundary as follows:

a. Lane County shall not approve a change to its plans, land use code or zoning that would allow a more intensive use (including a higher residential density) on exception or nonresource land that is included in Eugene urban reserves than the use allowed on that land before the land was included in Eugene urban reserves.

b. *Lane County shall not approve a change that would allow resource land that is included in Eugene urban reserves to be rezoned or redesignated to a non-resource zone or designation, except for land awarded state or federal investment for the development of rail-related infrastructure near existing railways.*

35. Eugene, in coordination with Lane County, shall initiate a review of the sufficiency of Eugene's urban reserves no later than 10 years after Eugene's first UGB expansion following the initial adoption of urban reserves.

(3) Add a paragraph as shown below in bold, underline and italic, and a map entitled "Eugene Urban Reserves" to the end of "II. Fundamental Principles and Growth Management Policy Framework" / "G. Metro Plan Diagram" as follows:

Eugene Urban Reserves

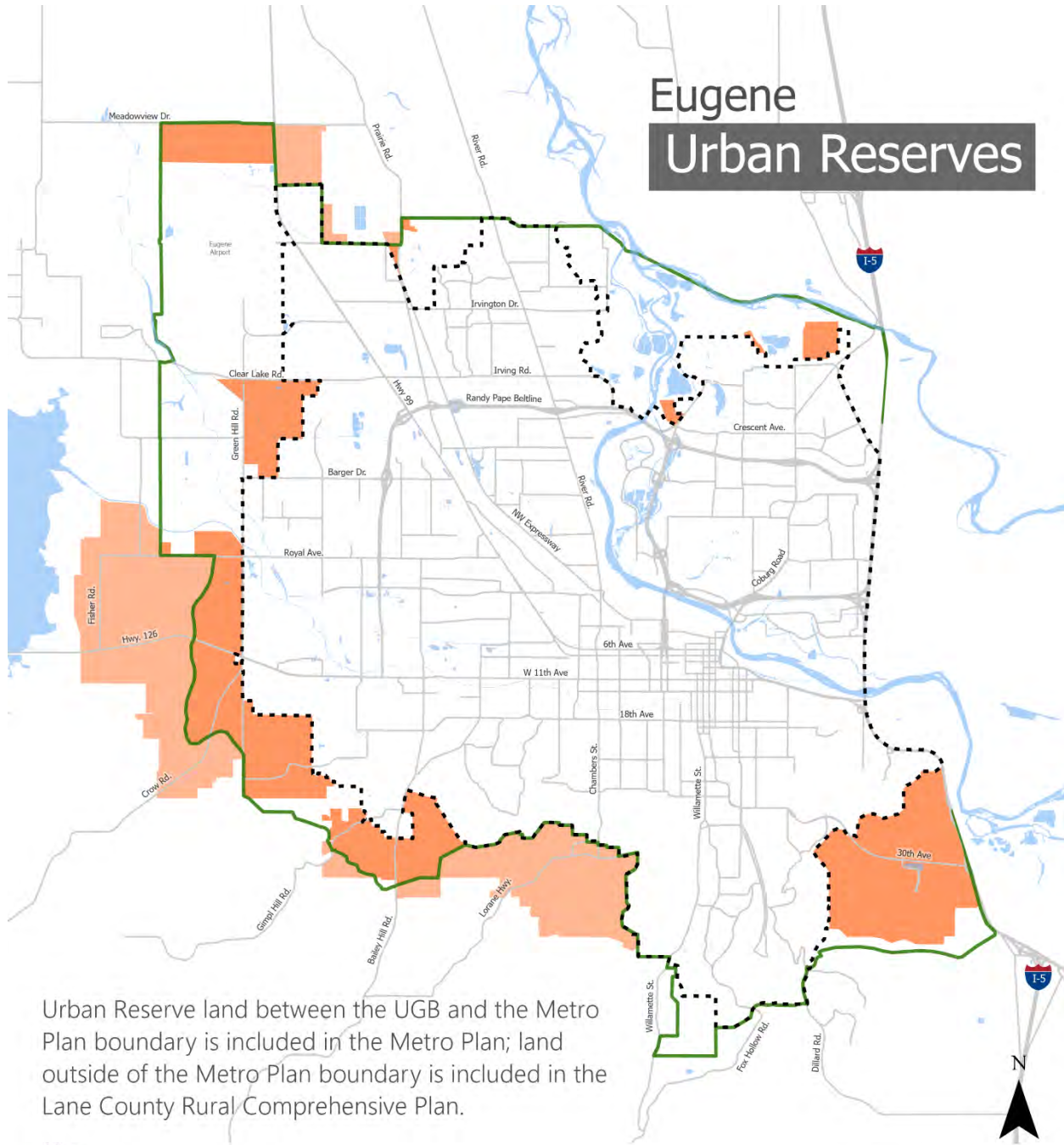
Land identified as Eugene urban reserves is the land expected to, eventually, be added to Eugene's urban growth boundary to meet Eugene's projected need for housing, employment and/or public uses when the land already within Eugene's urban growth boundary must be supplemented. Land identified as Eugene urban reserves remains unincorporated land under the jurisdiction of Lane County.

The Eugene Urban Reserves Map adopted as a shapefile at Appendix F to this Metro Plan is the official map establishing the location of the land within the Metro Plan boundary that is identified as urban reserves for the City of Eugene. The Eugene Urban Reserves Map adopted as part of the Lane County Rural Comprehensive Plan is the official map establishing the location of the land located outside the Metro Plan boundary that is identified as urban reserves for the City of Eugene. The print version of the Eugene Urban Reserves map included in the body of this Metro Plan is provided for illustrative purposes only.

(4) Under "V. Glossary," the definitions currently at numbers 55 – 58 are to be renumbered to 56 - 59 and the following definition, shown below in bold, underline and italic, is to be inserted as number 55 as follows:

55. Urban Reserves: Lands outside of an urban growth boundary that will provide for future expansion over a long-term period and the cost effective provision of public facilities and services within the area when the lands are included in the urban growth boundary.

a. *Eugene Urban Reserves: Land outside the Eugene urban growth boundary that has been identified in the Eugene-Springfield Metropolitan Area General Plan or Lane County Rural Comprehensive Plan to provide for future expansion of the Eugene urban growth boundary.*

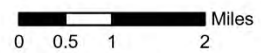


Eugene Urban Reserves

Urban Reserve land between the UGB and the Metro Plan boundary is included in the Metro Plan; land outside of the Metro Plan boundary is included in the Lane County Rural Comprehensive Plan.

Key

- Eugene Urban Reserves Outside the Metro Plan
- Eugene Urban Reserves Inside the Metro Plan
- Rivers and Waterways
- Eugene Urban Growth Boundary
- Metro Plan Boundary
- Roads



This map is provided for illustrative purposes only. The official map is adopted by ordinance as Appendix F to the Metro Plan and Appendix A to the Lane County Rural Comprehensive Plan

The dataset was compiled relative to numerous data sources (e.g. tax parcel boundaries) and the quality may be variable. Boundaries on the map represent approximate property line location and should NOT be interpreted as or used in lieu of a survey or property boundary description. This map is not suitable for legal, engineering, or surveying purposes and in no way attempts to predict, determine, or require what happens on individual lots.

Map created January 2023 by City of Eugene Planning Division

Data sources: RLID, DOGAMI and the City of Eugene

Amendments to Eugene-Springfield
Metropolitan Area General Plan –
Eugene Urban Reserves (Digital Map)

Revise the Envision Eugene Comprehensive Plan as follows:

- (1) Revise the “Eugene Urban Growth Boundary” chapter to include a new paragraph between the third and fourth paragraphs in the “Introduction” section as follows:

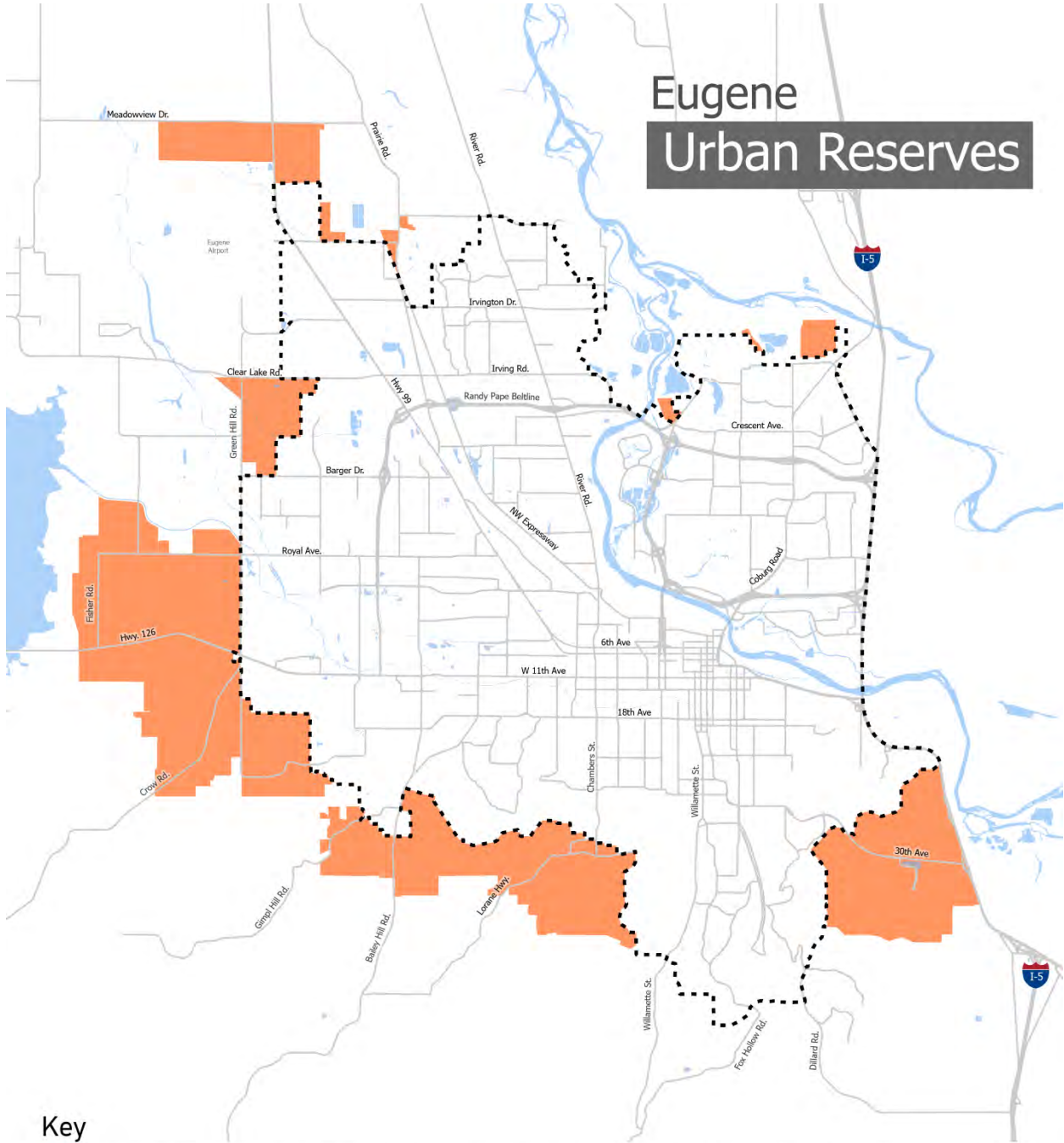
As Eugene continues to grow, the Growth Monitoring Program will track Eugene’s land supply and growth trends. State regulations also require Eugene to implement a regular cycle of urban growth boundary analysis to determine whether there is enough land in the urban growth boundary to accommodate 20-years of growth and to address any deficiencies. To plan for Eugene’s land needs beyond 2032, Eugene looked outside the urban growth boundary acknowledged by the state in 2018 (intended to meet the City’s needs through 2032) to identify urban reserves that will be prioritized for future inclusion in Eugene’s urban growth boundary. Based on the analysis conducted when the urban reserves were established, Eugene’s urban reserves include enough land to meet 27 additional years of Eugene’s projected needs for housing, employment and public uses. Lands identified as urban reserves retain their rural land use zoning and remain under the jurisdiction of Lane County. A policy adopted into the Metro Plan requires Eugene, in coordination with Lane County, to initiate a review of Eugene’s supply of urban reserves no later than 10 years after Eugene’s first urban growth boundary expansion following urban reserves adoption. (see Metro Plan Chapter II-C).

- (2) Revise the “Eugene Urban Growth Boundary” chapter to add a new policy 11.2 as follows:

11.2 Urban Reserves Map. The official map identifying Eugene’s urban reserves shall be the electronic map adopted as Appendix F to the Metro Plan and Appendix A to the Lane County Rural Comprehensive Plan entitled “Eugene Urban Reserves.” The location of all Eugene urban reserves land as depicted in this Envision Eugene Comprehensive Plan is shown for illustrative purposes only.

- (3) Add the following “Eugene Urban Reserves” map to the end of the “Eugene Urban Growth Boundary” chapter:

Eugene Urban Reserves



Key

- Eugene Urban Reserves
- Eugene Urban Growth Boundary
- Rivers and Waterways
- Roads

This map is provided for illustrative purposes only. The official map is adopted by ordinance as Appendix F to the Metro Plan and Appendix A to the Lane County Rural Comprehensive Plan.

The dataset was compiled relative to numerous data sources (e.g. tax parcel boundaries) and the quality may be variable. Boundaries on the map represent approximate property line location and should NOT be interpreted as or used in lieu of a survey or property boundary description. This map is not suitable for legal, engineering, or surveying purposes and in no way attempts to predict, determine, or require what happens on individual lots.



Map created January 2023 by City of Eugene Planning Division

Data sources: RLID, DOGAMI and the City of Eugene

(4) Revise the Glossary to add the following definition in alphabetical order:

Urban Reserves / Eugene Urban Reserves. Land outside the Eugene urban growth boundary that has been identified in the Eugene-Springfield Metropolitan Area General Plan or Lane County Rural Comprehensive Plan to provide for future expansion of the Eugene urban growth boundary.

Revise the Eugene-Springfield Metropolitan Area Public Facilities and Services Plan as follows:

Revise the first footnote under “1. Introduction” / “Refinement Plan Purpose and objectives” by adding the bold, italic and underlined text shown below as follows:

In accordance with existing Metro Plan policy, urban facilities and services are also planned for areas designated Urban Reserve in the Metro Plan diagram.¹

¹ See Existing Service Areas in Chapter IV of this plan. ***Any of the urban reserves referenced or shown in this Plan on the west side of I-5 must be disregarded because, since 2006, they are no longer an accurate depiction of the City of Eugene’s urban reserves. Through a formal process that began in 2022, Lane County and the City of Eugene adopted new urban reserve areas for Eugene through Metro Plan and Lane County Rural Comprehensive Plan amendments. Those official Eugene urban reserves are not shown in this Public Facilities and Services Plan.***

Intergovernmental Agreements

INTERGOVERNMENTAL AGREEMENT
for purposes of the
ESTABLISHMENT OF URBAN RESERVES

PARTIES

BETWEEN: **Lane County,**
 a unit of local government in the State of Oregon **(County)**

AND: **The City of Eugene,**
 a unit of local government in the State of Oregon **(City)**

RECITALS

- A.** The County and City are considering adopting plan amendments to identify specific land as “urban reserves” to accommodate future expansions of the City of Eugene’s urban growth boundary when needed.
- B.** At or prior to the establishment of urban reserves, OAR 660-021-0050 requires the County and City to enter into an “urban reserve agreement” to, as applicable to these parties:
 - a. Designate the local government that is responsible for building code administration and land use regulation for the land proposed to be identified as urban reserves prior to and after the land is identified for urban reserves, and after the land is added to the Eugene urban growth boundary.
 - b. Designate the local government that is responsible for providing transportation services and stormwater services to the land proposed to be identified as urban reserves prior to and after the land is identified for urban reserves, and after the land is added to the Eugene urban growth boundary.
- C.** The County is currently responsible for providing building code administration, land use regulation, transportation services and stormwater services to the rural Lane County land that surrounds the City of Eugene and, therefore, the area proposed for identification as urban reserve land as identified on Exhibits A and B to this Agreement.
- D.** When lands are identified as urban reserves, the lands retain their rural land use zoning; the urban reserves identification is intended to provide more certainty as to which rural lands are likely to be added to the City’s urban growth boundary at some time in the future.

- E. The County and City intend to make no changes with respect to their urban transition responsibilities with the establishment of urban reserves.

AGREEMENT

1. The County’s provision of building code administration, land use regulation, transportation services and stormwater services to the land identified as urban reserves will not be disrupted or otherwise impacted by the County and City’s identification of that land as urban reserves.
2. The County’s current level of transportation and stormwater service to the land identified as urban reserves will not be disrupted or otherwise impacted by the County and City’s eventual inclusion of the land in the City’s urban growth boundary.
3. Responsibility for the provision of transportation and stormwater services may be transferred to the City only after the eventual annexation to the City of Eugene and in accordance with current practices.
4. The City will accept the responsibility for building code administration and land use regulation services to the land identified as urban reserves at the time of the County and City take action to include that land in the City’s urban growth boundary only as provided in the existing 1987 intergovernmental agreement entitled “Agreement Regarding the Transfer of Building and Land Use Responsibilities Within the Urbanizable Portion of the Eugene Urban Growth Boundary,” including any amendments the parties make to that 1987 agreement.
5. The County will provide notice to the City of Eugene when the County is considering code amendments or land use applications regarding plan designation changes, re-zonings, or land divisions on land identified as urban reserves.
6. This Agreement will commence and take effect when both parties have executed this Agreement or finalized establishment of urban reserves, whichever occurs first.

CITY OF EUGENE 

LANE COUNTY

By: 

By: _____

Name: Sarah Medary

Name: Steve Mokrohisky

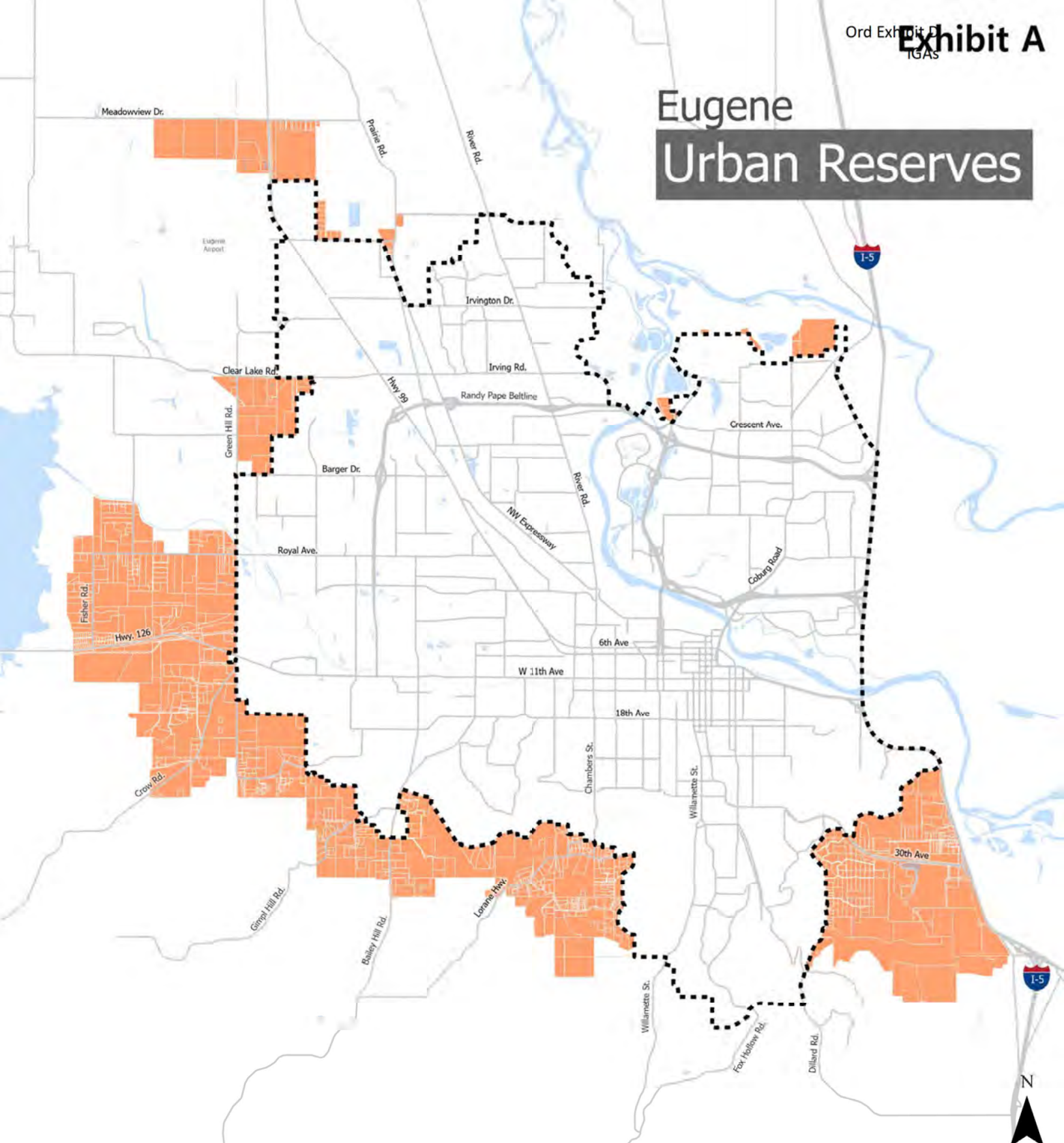
Title: City Manager

Title: County Administrator




Date: 10/27/2021



Date: _____

Eugene Urban Reserves



Key

-  Eugene Urban Reserves
-  Eugene Urban Growth Boundary
-  Rivers and Waterways

-  Roads
-  Taxlots



This dataset was compiled relative to numerous data sources (e.g. tax parcel boundaries) and the quality may be variable. Boundaries on the map represent approximate property line location and should NOT be interpreted as or used in lieu of a survey or property boundary description. This map is not suitable for legal, engineering, or surveying purposes. This map in no way attempts to predict, determine, or require what happens on individual lots.



The following properties in the Eugene Urban Reserves are within Lane County, as shown on Exhibit A:

Assessor's Map	Tax Lot	Lot Acreage	Assessor's Map	Tax Lot	Lot Acreage
16-04-28-00	901	2.64	16-04-34-00	908	9.16
16-04-29-00	77	21.77	17-03-07-00	1600	4.14
16-04-29-00	99	6.03	17-03-08-00	307	4.40
16-04-29-00	1701	40.31	17-03-08-00	7500	8.46
16-04-29-00	1702	85.25	17-03-08-24	5700	0.00
16-04-29-00	2000	18.38	17-03-09-00	77	5.83
16-04-29-00	2100	4.13	17-03-09-00	600	128.20
16-04-29-00	2200	2.62	17-03-09-00	703	7.90
16-04-29-00	2201	2.65	17-03-09-00	800	11.36
16-04-29-00	2300	3.52	17-03-18-00	300	12.73
16-04-29-00	2301	1.47	17-03-18-00	1100	12.36
16-04-29-00	2302	4.78	17-03-18-00	1201	3.32
16-04-29-00	2400	4.49	17-03-18-00	3901	3.30
16-04-29-00	2500	4.59	17-03-18-00	4200	1.14
16-04-29-00	2600	4.78	17-04-03-00	77	3.23
16-04-30-00	700	118.99	17-04-03-00	501	0.01
16-04-30-00	701	133.55	17-04-03-00	502	0.00
16-04-30-00	800	76.36	17-04-04-10	100	6.56
16-04-30-00	900	0.89	17-04-04-10	200	0.99
16-04-32-00	77	10.70	17-04-04-10	300	1.23
16-04-32-00	99	3.27	17-04-04-10	400	0.45
16-04-32-00	200	208.18	17-04-04-10	500	0.41
16-04-32-00	300	2.60	17-04-04-10	600	0.79
16-04-32-00	301	5.22	17-04-04-10	700	0.32
16-04-32-00	400	10.08	17-04-04-10	900	1.02
16-04-32-00	501	35.37	17-04-04-10	1000	0.81
16-04-33-00	77	20.26	17-04-04-10	1100	1.21
16-04-33-00	400	4.87	17-04-07-00	77	30.06
16-04-33-00	500	4.88	17-04-07-00	2700	4.78
16-04-33-00	600	4.88	17-04-07-00	2800	2.45
16-04-33-00	601	4.88	17-04-07-00	2900	22.69
16-04-33-00	700	4.88	17-04-08-00	77	4.96
16-04-33-00	800	4.89	17-04-08-00	2200	18.19
16-04-33-00	900	4.49	17-04-08-00	2500	9.77
16-04-33-00	901	4.83	17-04-08-00	2600	10.00
16-04-33-00	1002	4.48	17-04-08-00	2800	0.75
16-04-33-00	1003	5.69	17-04-08-00	2900	0.20
16-04-33-00	1004	4.20	17-04-08-00	3100	3.37
16-04-33-00	1300	18.50	17-04-08-00	3101	0.54

Assessor's Map	Tax Lot	Lot Acreage	Assessor's Map	Tax Lot	Lot Acreage
17-04-08-00	3200	8.67	17-04-30-00	77	2.70
17-04-17-00	400	40.13	17-04-30-00	77	10.44
17-04-17-00	500	63.58	17-04-30-00	100	2.17
17-04-17-00	501	5.20	17-04-30-00	101	1.88
17-04-17-00	600	1.70	17-04-30-00	200	5.00
17-04-17-00	700	8.83	17-04-30-00	300	4.99
17-04-17-00	801	42.17	17-04-30-00	400	3.80
17-04-17-00	802	39.93	17-04-30-00	500	3.93
17-04-17-00	900	1.47	17-04-30-00	501	0.37
17-04-17-00	1000	1.70	17-04-30-00	502	5.55
17-04-17-00	1100	40.17	17-04-30-00	600	4.87
17-04-17-00	1200	38.94	17-04-30-00	700	5.92
17-04-17-00	1300	40.13	17-04-30-00	800	19.76
17-04-17-00	1400	77.45	17-04-30-00	801	19.89
17-04-17-00	1700	33.68	17-04-30-00	900	59.42
17-04-17-00	1800	6.75	17-04-30-00	1000	10.14
17-04-17-14	200	0.95	17-04-30-00	1001	10.16
17-04-17-31	77	0.00	17-04-30-00	1100	18.99
17-04-19-00	77	0.04	17-04-30-00	1101	37.98
17-04-19-00	77	7.69	17-04-30-00	1200	1.48
17-04-19-00	900	0.95	17-04-30-00	1201	29.96
17-04-19-00	1000	1.84	17-04-30-00	1202	27.84
17-04-19-00	1100	1.46	17-04-30-00	1300	1.15
17-04-19-00	1200	0.94	17-04-30-00	1302	7.24
17-04-19-00	1300	0.93	17-04-30-00	1303	7.24
17-04-19-00	1400	0.99	17-04-30-00	1304	7.24
17-04-19-00	1501	1.21	17-04-30-00	1305	7.24
17-04-19-00	1502	0.61	17-04-30-00	1306	5.75
17-04-19-00	1600	5.02	17-04-30-00	1307	6.48
17-04-19-00	1700	7.49	17-04-30-00	1308	5.00
17-04-19-00	2400	9.23	17-04-30-00	1400	23.02
17-04-19-00	2500	5.10	17-04-30-00	1401	13.37
17-04-19-00	2600	5.85	17-04-30-00	1402	1.73
17-04-19-00	2700	38.23	17-04-30-00	1403	6.94
17-04-19-00	2800	5.66	17-04-30-00	1404	6.00
17-04-19-00	2900	5.34	17-04-30-00	1405	5.60
17-04-19-00	3000	5.11	17-04-30-00	1406	3.07
17-04-19-00	3100	5.04	17-04-30-00	1407	0.41
17-04-19-00	3200	1.26	17-04-30-00	1408	0.53
17-04-19-00	3300	2.93	17-04-30-00	1409	4.76
17-04-19-00	3400	10.01	17-04-30-00	1410	10.41
17-04-19-00	3500	4.22	17-04-30-00	1500	8.43

Assessor's Map	Tax Lot	Lot Acreage	Assessor's Map	Tax Lot	Lot Acreage
17-04-30-00	1501	39.91	17-04-31-00	2003	0.01
17-04-30-00	1600	1.96	17-04-31-00	2100	5.78
17-04-30-00	1800	43.85	17-04-31-00	2200	7.79
17-04-30-00	1801	16.88	17-04-31-00	2500	1.39
17-04-30-00	1900	2.60	17-04-31-00	2601	5.06
17-04-30-00	2100	78.25	17-04-31-00	2602	5.18
17-04-30-00	2200	8.87	17-04-31-00	2603	0.07
17-04-30-00	2201	25.84	17-04-31-00	2700	10.50
17-04-30-00	2202	19.36	17-04-31-00	2800	13.96
17-04-30-00	2203	16.03	17-04-31-00	2801	3.60
17-04-30-00	2204	1.46	17-04-31-00	2803	20.10
17-04-30-00	2300	2.10	17-04-31-00	2804	20.18
17-04-30-00	2400	1.64	17-04-31-00	3000	10.53
17-04-30-00	2500	0.34	17-04-31-00	3100	0.91
17-04-31-00	77	37.76	17-04-31-00	3300	10.74
17-04-31-00	101	1.07	17-04-31-00	3400	2.10
17-04-31-00	102	7.07	17-04-31-00	3500	0.81
17-04-31-00	200	33.69	17-04-31-00	3503	1.96
17-04-31-00	201	0.99	17-04-31-00	3506	2.28
17-04-31-00	203	0.63	17-04-31-00	3507	0.50
17-04-31-00	204	0.60	17-04-31-00	3600	9.31
17-04-31-00	205	0.04	17-04-31-00	3700	1.17
17-04-31-00	300	4.73	17-04-31-00	3800	1.17
17-04-31-00	400	22.87	17-04-31-00	3900	2.05
17-04-31-00	403	10.00	17-04-31-00	4000	5.87
17-04-31-00	405	5.50	17-04-31-00	4001	2.36
17-04-31-00	409	0.66	17-04-31-00	4100	5.23
17-04-31-00	500	5.35	17-04-31-00	4200	1.09
17-04-31-00	1000	0.72	17-04-31-00	4300	3.67
17-04-31-00	1100	9.43	17-04-31-00	4400	12.23
17-04-31-00	1400	3.86	17-04-31-00	4401	4.78
17-04-31-00	1500	24.84	17-04-31-00	4402	13.83
17-04-31-00	1600	96.04	17-04-31-00	4500	20.35
17-04-31-00	1702	17.37	17-04-31-14	77	0.53
17-04-31-00	1703	10.01	17-04-31-14	200	0.35
17-04-31-00	1704	9.99	17-04-31-14	300	0.56
17-04-31-00	1705	1.87	17-04-31-14	400	0.17
17-04-31-00	1800	15.98	17-04-31-14	500	0.77
17-04-31-00	1900	9.15	17-04-31-14	600	0.26
17-04-31-00	2000	45.07	17-04-31-14	700	1.43
17-04-31-00	2001	3.06	17-04-31-14	800	0.27
17-04-31-00	2002	0.59	17-04-31-14	900	0.26

Assessor's Map	Tax Lot	Lot Acreage	Assessor's Map	Tax Lot	Lot Acreage
17-04-31-14	1000	0.80	17-05-25-00	205	5.52
17-04-31-14	1100	0.51	17-05-25-00	206	20.04
17-04-32-00	6000	13.31	17-05-25-00	207	38.54
17-04-32-00	6100	0.73	17-05-25-00	208	1.40
17-05-00-00	500	32.18	17-05-25-00	209	6.14
17-05-24-00	77	9.68	17-05-25-00	301	1.79
17-05-24-00	1000	0.54	17-05-25-00	302	1.80
17-05-24-00	1100	2.46	17-05-25-00	303	2.01
17-05-24-00	1300	2.91	17-05-25-00	304	1.23
17-05-24-00	1700	41.07	17-05-25-00	305	1.12
17-05-24-00	1800	24.30	17-05-25-00	306	1.78
17-05-24-00	1900	40.44	17-05-25-00	307	4.36
17-05-24-00	2000	27.63	17-05-25-00	308	4.00
17-05-24-00	2100	13.87	17-05-25-00	309	1.33
17-05-24-00	2200	19.40	17-05-25-00	313	2.77
17-05-24-00	2300	0.78	17-05-25-00	314	2.55
17-05-24-00	2400	13.57	17-05-25-00	315	6.60
17-05-24-00	2501	1.57	17-05-25-00	316	0.90
17-05-24-00	2600	0.38	17-05-25-00	317	4.18
17-05-24-00	2700	12.62	17-05-25-00	400	2.88
17-05-24-00	2800	2.81	17-05-25-00	500	3.94
17-05-24-00	2900	2.62	17-05-25-00	600	21.94
17-05-24-00	3000	11.74	17-05-25-00	601	0.94
17-05-24-00	3100	15.40	17-05-25-00	701	19.47
17-05-24-00	3200	14.77	17-05-25-00	702	10.44
17-05-24-00	3300	7.05	17-05-25-00	703	0.03
17-05-24-00	3400	0.93	17-05-25-00	800	5.08
17-05-24-00	3500	0.36	17-05-25-00	900	0.93
17-05-24-00	3600	6.04	17-05-25-00	1000	12.13
17-05-24-00	3700	4.60	17-05-25-00	1001	1.00
17-05-24-00	3701	2.50	17-05-25-00	1100	4.00
17-05-24-00	3800	7.77	17-05-25-00	1200	14.88
17-05-24-00	3900	30.20	17-05-25-00	1300	4.94
17-05-24-00	4000	2.97	17-05-25-00	1400	28.98
17-05-24-00	4100	1.23	17-05-25-00	1401	4.67
17-05-24-00	4200	1.14	17-05-25-00	1402	4.71
17-05-24-00	4300	2.02	17-05-25-00	1500	14.13
17-05-24-00	4400	1.18	17-05-25-00	1501	0.89
17-05-24-00	4401	0.43	17-05-25-00	1600	5.58
17-05-25-00	77	17.57	17-05-25-00	1601	1.09
17-05-25-00	100	2.00	17-05-25-00	1602	9.18
17-05-25-00	200	19.71	17-05-25-00	1603	3.95

Lane County

Assessor's Map	Tax Lot	Lot Acreage	Assessor's Map	Tax Lot	Lot Acreage
17-05-25-00	1700	14.14	17-05-36-20	1700	1.14
17-05-25-00	1801	14.29	17-05-36-20	1701	0.95
17-05-25-00	1802	13.52	17-05-36-20	1800	0.74
17-05-25-00	1803	0.37	17-05-36-20	1900	0.74
17-05-25-00	1804	1.55	17-05-36-20	2000	0.74
17-05-25-00	1900	26.18	17-05-36-20	2100	0.80
17-05-25-00	2000	24.66	17-05-36-20	2200	2.41
17-05-25-00	2100	11.08	17-05-36-20	2300	1.09
17-05-25-00	2101	10.16	17-05-36-20	2400	1.03
17-05-25-00	2200	5.33	17-05-36-20	2500	1.02
17-05-25-00	2202	73.65	17-05-36-20	2600	1.01
17-05-25-00	2300	34.09	17-05-36-20	2700	1.00
17-05-25-00	2301	20.23	17-05-36-20	2800	1.00
17-05-25-00	2302	12.85	17-05-36-20	2900	1.00
17-05-25-00	2400	83.53	17-05-36-20	3000	0.99
17-05-25-00	2401	18.51	17-05-36-20	3100	0.49
17-05-25-00	2402	17.26	17-05-36-20	3101	0.51
17-05-36-00	77	21.88	17-05-36-20	3200	0.99
17-05-36-00	99	0.26	17-05-36-20	3300	1.12
17-05-36-00	100	2.19	17-05-36-20	3400	1.03
17-05-36-00	200	21.58	17-05-36-20	3500	1.02
17-05-36-00	300	6.11	17-05-36-20	3600	1.01
17-05-36-00	400	151.45	17-05-36-20	3700	1.00
17-05-36-00	401	81.47	17-05-36-20	3800	1.00
17-05-36-00	500	59.55	17-05-36-20	3900	1.00
17-05-36-20	77	5.95	17-05-36-20	4000	0.99
17-05-36-20	100	1.01	17-05-36-20	4100	2.99
17-05-36-20	200	5.32	17-05-36-20	4200	1.00
17-05-36-20	300	1.51	17-05-36-20	4300	1.01
17-05-36-20	400	1.49	17-05-36-20	4400	1.00
17-05-36-20	500	1.17	17-05-36-20	4499	1.01
17-05-36-20	600	0.98	17-05-36-20	4500	1.01
17-05-36-20	700	0.96	17-05-36-20	4600	1.01
17-05-36-20	800	0.91	17-05-36-20	4699	1.01
17-05-36-20	900	0.84	17-05-36-20	4700	1.01
17-05-36-20	1000	1.97	17-05-36-20	4800	1.00
17-05-36-20	1100	0.83	17-05-36-20	4900	0.50
17-05-36-20	1200	0.98	17-05-36-20	5000	0.50
17-05-36-20	1300	0.98	18-03-03-00	108	9.32
17-05-36-20	1400	0.98	18-03-03-00	110	12.29
17-05-36-20	1500	1.27	18-03-03-40	77	8.05
17-05-36-20	1600	1.31	18-03-03-40	1000	53.78

Assessor's Map	Tax Lot	Lot Acreage	Assessor's Map	Tax Lot	Lot Acreage
18-03-09-00	77	25.42	18-03-09-30	100	6.45
18-03-09-00	100	4.03	18-03-09-30	200	3.57
18-03-09-00	101	1.47	18-03-09-30	300	3.34
18-03-09-00	200	15.77	18-03-09-30	2500	7.64
18-03-09-00	201	0.55	18-03-09-30	2600	18.36
18-03-09-00	300	4.83	18-03-09-30	9502	0.36
18-03-09-00	700	5.49	18-03-09-30	10400	4.99
18-03-09-00	800	2.92	18-03-09-30	10401	1.01
18-03-09-00	2100	8.81	18-03-09-30	10501	1.54
18-03-09-00	2200	4.91	18-03-09-34	77	0.84
18-03-09-00	2201	0.90	18-03-09-34	1600	8.09
18-03-09-00	2300	3.31	18-03-09-34	2800	4.10
18-03-09-00	2400	2.29	18-03-09-34	2900	3.94
18-03-09-00	2500	1.16	18-03-09-34	3000	1.87
18-03-09-00	2800	4.18	18-03-09-34	3100	1.76
18-03-09-00	2801	2.59	18-03-09-34	3200	0.45
18-03-09-00	2900	2.10	18-03-10-00	22	1.14
18-03-09-00	3000	3.00	18-03-10-00	77	49.90
18-03-09-00	3100	2.70	18-03-10-00	100	7.09
18-03-09-00	3200	2.95	18-03-10-00	101	17.46
18-03-09-00	3300	5.85	18-03-10-00	200	52.05
18-03-09-00	4800	1.91	18-03-10-00	300	5.44
18-03-09-00	4900	4.13	18-03-10-00	400	5.23
18-03-09-00	5000	5.18	18-03-10-00	500	5.23
18-03-09-00	5100	4.41	18-03-10-00	600	4.92
18-03-09-00	5200	3.99	18-03-10-00	701	1.22
18-03-09-00	5300	3.81	18-03-10-00	703	0.08
18-03-09-00	5301	3.02	18-03-10-00	704	89.15
18-03-09-00	5302	2.54	18-03-10-00	800	18.46
18-03-09-00	5303	3.34	18-03-10-00	801	1.49
18-03-09-00	5700	3.33	18-03-10-00	900	1.01
18-03-09-00	5800	3.45	18-03-10-00	901	0.89
18-03-09-00	5900	3.15	18-03-10-00	1000	0.99
18-03-09-00	6000	2.98	18-03-10-00	1001	1.02
18-03-09-00	6100	3.31	18-03-10-00	1101	15.01
18-03-09-00	6200	2.83	18-03-10-00	1102	0.26
18-03-09-00	6300	2.91	18-03-10-00	1103	4.38
18-03-09-00	6800	8.20	18-03-10-00	1200	7.42
18-03-09-00	6900	14.61	18-03-10-00	1202	4.64
18-03-09-00	7000	0.67	18-03-10-00	1300	10.48
18-03-09-24	200	7.06	18-03-10-00	1301	0.14
18-03-09-30	77	4.87	18-03-10-00	1302	50.09

Lane County

Assessor's Map	Tax Lot	Lot Acreage	Assessor's Map	Tax Lot	Lot Acreage
18-03-10-00	1400	153.78	18-03-10-40	600	5.24
18-03-10-00	1600	8.58	18-03-10-40	700	0.73
18-03-10-10	77	19.13	18-03-10-40	900	1.09
18-03-10-10	300	7.63	18-03-10-40	1000	0.99
18-03-10-10	301	1.07	18-03-10-40	1100	1.18
18-03-10-10	400	11.98	18-03-10-40	1200	2.07
18-03-10-10	500	29.92	18-03-10-40	1300	0.83
18-03-10-10	600	12.62	18-03-10-40	1400	3.54
18-03-10-10	601	6.70	18-03-10-40	1402	0.86
18-03-10-10	700	12.11	18-03-10-40	1500	3.54
18-03-10-10	800	9.06	18-03-10-40	1600	1.49
18-03-10-10	900	0.86	18-03-10-40	1700	25.80
18-03-10-10	1000	0.44	18-03-11-30	77	27.66
18-03-10-10	1100	4.90	18-03-11-30	700	0.42
18-03-10-10	1101	2.38	18-03-11-30	800	0.17
18-03-10-10	1200	3.47	18-03-11-30	900	0.49
18-03-10-10	1300	1.46	18-03-11-30	1000	0.49
18-03-10-10	1400	2.33	18-03-11-30	1100	0.64
18-03-10-10	1500	1.26	18-03-11-30	1200	0.67
18-03-10-10	1501	1.30	18-03-11-30	1300	2.00
18-03-10-10	1600	1.53	18-03-11-30	1400	0.86
18-03-10-10	1700	2.32	18-03-11-30	1500	3.05
18-03-10-10	1800	1.01	18-03-11-30	1600	1.00
18-03-10-10	1900	1.01	18-03-11-30	1700	3.00
18-03-10-10	2000	1.14	18-03-11-30	1800	0.21
18-03-10-10	2100	1.14	18-03-11-30	1900	1.23
18-03-10-10	2300	2.63	18-03-11-30	2000	0.04
18-03-10-10	2400	1.21	18-03-11-30	2100	6.35
18-03-10-10	2500	0.47	18-03-11-30	2101	1.76
18-03-10-10	2601	0.93	18-03-11-30	2200	1.22
18-03-10-10	2602	0.50	18-03-11-30	4000	0.39
18-03-10-10	2603	0.50	18-03-11-30	4001	0.31
18-03-10-10	2700	0.65	18-03-14-00	77	31.32
18-03-10-10	2800	1.19	18-03-14-00	501	0.90
18-03-10-10	2900	0.64	18-03-14-00	600	0.40
18-03-10-10	3000	0.76	18-03-14-00	700	57.81
18-03-10-10	3100	0.32	18-03-14-00	800	134.60
18-03-10-10	3200	0.63	18-03-14-00	2500	61.86
18-03-10-40	200	1.06	18-03-14-00	2501	9.11
18-03-10-40	300	0.52	18-03-15-00	77	2.14
18-03-10-40	400	0.59	18-03-15-00	100	11.77
18-03-10-40	500	0.67	18-03-15-00	200	84.15

Assessor's Map	Tax Lot	Lot Acreage	Assessor's Map	Tax Lot	Lot Acreage
18-03-15-00	201	63.55	18-03-16-10	2603	2.20
18-03-15-00	202	36.46	18-03-16-10	2604	3.87
18-03-15-00	204	1.69	18-03-16-20	100	3.93
18-03-15-00	205	2.04	18-03-16-20	1500	4.91
18-03-15-00	206	10.65	18-03-16-20	1701	2.08
18-03-15-00	207	1.87	18-03-16-20	1702	2.10
18-03-15-00	208	10.43	18-03-16-20	1901	1.82
18-03-15-00	209	1.31	18-03-16-20	1905	1.57
18-03-15-00	300	81.75	18-03-16-20	1906	0.30
18-03-15-00	302	57.65	18-03-16-24	77	0.54
18-03-15-00	303	10.55	18-03-16-24	100	2.60
18-03-15-00	304	25.31	18-03-16-24	200	2.35
18-03-15-00	400	60.24	18-03-16-24	300	1.70
18-03-16-00	100	31.20	18-03-16-24	600	0.65
18-03-16-10	77	2.82	18-03-16-24	700	1.11
18-03-16-10	100	9.61	18-03-16-24	800	1.46
18-03-16-10	200	9.52	18-03-16-24	900	2.53
18-03-16-10	300	6.31	18-03-16-30	22	0.32
18-03-16-10	401	6.56	18-03-16-30	100	1.71
18-03-16-10	700	6.86	18-03-16-30	200	1.99
18-03-16-10	701	6.26	18-03-16-30	301	2.12
18-03-16-10	702	12.47	18-03-16-30	302	2.62
18-03-16-10	800	11.26	18-03-16-30	2500	284.81
18-03-16-10	900	4.92	18-03-16-30	4501	1.45
18-03-16-10	1000	4.64	18-03-16-30	4504	28.47
18-03-16-10	1100	9.96	18-03-18-30	77	0.00
18-03-16-10	1200	2.29	18-03-22-00	100	139.57
18-03-16-10	1300	2.84	18-03-22-00	300	99.66
18-03-16-10	1400	3.38	18-03-23-00	101	68.50
18-03-16-10	1500	3.38	18-03-23-10	6200	17.01
18-03-16-10	1600	3.39	18-04-04-00	1310	0.01
18-03-16-10	1700	3.39	18-04-04-00	1317	0.04
18-03-16-10	1800	4.90	18-04-04-00	1318	0.02
18-03-16-10	1900	4.75	18-04-04-00	1400	36.20
18-03-16-10	2000	4.82	18-04-04-00	1500	35.93
18-03-16-10	2100	9.67	18-04-04-00	2300	22.37
18-03-16-10	2200	4.17	18-04-05-00	77	19.36
18-03-16-10	2300	6.43	18-04-05-00	101	153.64
18-03-16-10	2400	3.56	18-04-05-00	200	34.01
18-03-16-10	2401	3.72	18-04-05-00	300	21.86
18-03-16-10	2500	8.01	18-04-05-00	400	14.81
18-03-16-10	2600	3.45	18-04-05-00	401	2.17

Assessor's Map	Tax Lot	Lot Acreage	Assessor's Map	Tax Lot	Lot Acreage
18-04-05-00	402	2.82	18-04-05-00	3101	1.00
18-04-05-00	500	11.36	18-04-05-00	3102	1.01
18-04-05-00	501	5.04	18-04-05-00	3103	1.00
18-04-05-00	700	2.17	18-04-05-00	3104	1.01
18-04-05-00	800	3.10	18-04-05-00	3105	1.00
18-04-05-00	900	2.66	18-04-05-00	3106	1.01
18-04-05-00	1000	0.46	18-04-05-00	3107	1.01
18-04-05-00	1200	0.85	18-04-05-00	3108	1.00
18-04-05-00	1300	1.75	18-04-05-00	3109	1.54
18-04-05-00	1500	3.62	18-04-05-00	3300	1.02
18-04-05-00	1501	5.98	18-04-05-00	3500	0.43
18-04-05-00	1502	1.43	18-04-05-00	3600	1.32
18-04-05-00	1600	0.06	18-04-05-00	3700	1.09
18-04-05-00	1601	2.01	18-04-05-00	3800	1.04
18-04-05-00	1602	2.00	18-04-05-00	3900	1.08
18-04-05-00	1700	0.00	18-04-05-00	4000	1.19
18-04-05-00	1800	2.62	18-04-05-00	4100	1.53
18-04-05-00	1802	2.20	18-04-05-00	4200	2.78
18-04-05-00	1900	4.82	18-04-05-00	4300	1.65
18-04-05-00	2000	12.48	18-04-05-00	4400	1.32
18-04-05-00	2001	0.97	18-04-05-00	4401	0.20
18-04-05-00	2100	3.31	18-04-05-00	4500	1.79
18-04-05-00	2101	2.04	18-04-05-00	4900	3.04
18-04-05-00	2200	3.94	18-04-05-00	4901	0.98
18-04-05-00	2201	10.66	18-04-05-00	4902	36.50
18-04-05-00	2202	10.21	18-04-05-00	5000	14.26
18-04-05-00	2203	9.94	18-04-05-00	5200	19.09
18-04-05-00	2204	9.91	18-04-06-00	77	19.03
18-04-05-00	2205	1.60	18-04-06-00	103	115.51
18-04-05-00	2300	39.15	18-04-06-00	104	2.00
18-04-05-00	2301	5.02	18-04-06-00	105	2.00
18-04-05-00	2400	21.88	18-04-06-00	200	5.38
18-04-05-00	2401	3.08	18-04-06-00	201	13.44
18-04-05-00	2500	7.85	18-04-06-00	300	1.86
18-04-05-00	2501	2.87	18-04-06-00	301	9.87
18-04-05-00	2600	1.47	18-04-06-00	303	8.21
18-04-05-00	2700	1.28	18-04-06-00	305	19.14
18-04-05-00	2900	21.14	18-04-06-00	306	0.43
18-04-05-00	2901	5.01	18-04-06-00	307	12.94
18-04-05-00	2902	4.89	18-04-06-00	308	0.30
18-04-05-00	3000	1.99	18-04-06-00	310	2.47
18-04-05-00	3100	29.09	18-04-06-00	311	79.47

Assessor's Map	Tax Lot	Lot Acreage	Assessor's Map	Tax Lot	Lot Acreage
18-04-06-00	312	31.36	18-04-09-00	1602	4.82
18-04-06-00	314	20.02	18-04-09-00	1603	4.96
18-04-06-00	400	2.29	18-04-09-00	1604	5.24
18-04-06-00	500	0.66	18-04-09-00	1700	1.38
18-04-06-00	600	37.57	18-04-09-00	1701	17.73
18-04-06-00	601	33.93	18-04-09-00	1800	4.68
18-04-06-00	700	1.60	18-04-09-00	1801	0.61
18-04-06-00	701	0.15	18-04-09-00	2802	3.46
18-04-06-00	800	3.45	18-04-09-00	2900	2.22
18-04-06-00	801	5.83	18-04-09-00	3000	2.20
18-04-06-00	802	4.56	18-04-09-00	3001	3.08
18-04-06-00	900	8.32	18-04-09-00	3100	3.89
18-04-06-00	901	1.63	18-04-09-00	3200	6.94
18-04-06-00	902	1.50	18-04-09-00	3300	6.57
18-04-06-00	1000	1.53	18-04-09-00	3400	5.33
18-04-06-00	1002	1.10	18-04-09-00	3401	6.38
18-04-06-00	1003	5.19	18-04-09-00	3402	6.51
18-04-06-00	1100	3.04	18-04-09-00	3600	40.36
18-04-06-00	1101	1.91	18-04-09-00	3601	1.96
18-04-06-00	1200	51.95	18-04-09-00	3602	10.08
18-04-06-00	1300	65.84	18-04-09-00	3603	4.84
18-04-06-00	1301	3.18	18-04-09-00	3604	1.91
18-04-06-00	1302	5.26	18-04-09-00	3605	1.12
18-04-06-00	1303	3.50	18-04-09-00	3606	36.23
18-04-06-00	1400	6.60	18-04-09-00	3700	6.85
18-04-06-00	1401	1.31	18-04-09-00	3701	5.64
18-04-06-00	1402	35.30	18-04-09-00	3702	14.14
18-04-06-00	1403	22.72	18-04-09-00	3703	0.19
18-04-06-00	1700	1.03	18-04-09-00	3704	10.15
18-04-06-00	2000	20.08	18-04-09-00	3706	2.02
18-04-08-00	104	30.71	18-04-09-00	3800	1.45
18-04-08-00	200	2.32	18-04-09-00	3900	23.82
18-04-09-00	77	17.47	18-04-09-00	3901	10.55
18-04-09-00	802	22.13	18-04-09-00	3903	3.42
18-04-09-00	1200	25.92	18-04-09-00	4000	10.26
18-04-09-00	1300	4.97	18-04-09-00	4001	8.26
18-04-09-00	1302	5.02	18-04-09-00	4002	20.83
18-04-09-00	1303	5.05	18-04-09-00	4100	8.13
18-04-09-00	1500	14.85	18-04-09-00	4101	5.04
18-04-09-00	1501	3.67	18-04-09-00	4200	4.88
18-04-09-00	1502	1.83	18-04-09-00	4201	8.73
18-04-09-00	1601	4.96	18-04-09-00	4300	0.96

Assessor's Map	Tax Lot	Lot Acreage	Assessor's Map	Tax Lot	Lot Acreage
18-04-09-00	4400	0.84	18-04-11-00	308	10.02
18-04-09-00	5000	1.51	18-04-11-00	310	15.00
18-04-09-00	5301	12.50	18-04-11-00	311	13.20
18-04-09-00	5400	3.83	18-04-11-00	312	10.01
18-04-09-00	5500	18.43	18-04-11-00	401	122.28
18-04-09-00	5900	5.06	18-04-11-00	500	31.35
18-04-09-00	6000	5.05	18-04-11-00	600	0.34
18-04-09-00	6100	4.64	18-04-11-00	900	6.20
18-04-10-00	77	1.76	18-04-11-00	1000	6.38
18-04-10-00	101	1.62	18-04-11-44	77	2.61
18-04-10-00	103	172.01	18-04-11-44	100	5.05
18-04-10-00	200	0.93	18-04-11-44	200	4.98
18-04-10-00	201	5.55	18-04-11-44	300	5.09
18-04-10-00	204	3.27	18-04-11-44	401	5.17
18-04-10-00	205	0.96	18-04-11-44	402	6.70
18-04-10-00	206	7.64	18-04-11-44	500	7.47
18-04-10-00	300	7.18	18-04-12-20	77	0.00
18-04-10-00	301	1.43	18-04-12-20	5601	0.79
18-04-10-00	304	3.26	18-04-12-20	5603	5.01
18-04-10-00	305	2.97	18-04-12-20	5604	5.01
18-04-10-00	306	0.62	18-04-12-20	6100	1.54
18-04-10-00	312	5.39	18-04-12-30	77	7.15
18-04-10-00	313	5.01	18-04-12-30	100	1.81
18-04-10-00	314	19.72	18-04-12-30	200	1.67
18-04-10-00	315	1.76	18-04-12-30	300	2.33
18-04-10-00	502	7.28	18-04-12-30	301	0.04
18-04-10-00	503	13.52	18-04-12-30	302	1.67
18-04-10-00	504	2.29	18-04-12-30	400	3.15
18-04-10-00	505	10.25	18-04-12-30	401	0.36
18-04-10-00	704	8.23	18-04-12-30	402	0.24
18-04-10-00	705	7.86	18-04-12-30	500	1.55
18-04-10-00	706	84.62	18-04-12-30	501	2.18
18-04-10-00	707	6.67	18-04-12-30	600	1.49
18-04-10-00	708	29.47	18-04-12-30	700	0.72
18-04-10-00	800	10.13	18-04-12-30	800	1.18
18-04-10-00	900	21.17	18-04-12-30	900	0.88
18-04-10-00	903	16.67	18-04-12-30	1000	4.19
18-04-10-00	904	11.38	18-04-12-30	1001	1.23
18-04-11-00	102	46.48	18-04-12-30	1003	1.71
18-04-11-00	104	1.28	18-04-12-30	1100	1.97
18-04-11-00	201	47.33	18-04-12-30	1101	1.04
18-04-11-00	307	15.03	18-04-12-30	1200	1.84

Assessor's Map	Tax Lot	Lot Acreage	Assessor's Map	Tax Lot	Lot Acreage
18-04-12-30	1300	1.75	18-04-12-43	200	2.00
18-04-12-30	1301	1.52	18-04-12-43	300	2.01
18-04-12-30	1400	1.82	18-04-12-43	401	3.40
18-04-12-30	1500	2.64	18-04-12-43	402	3.15
18-04-12-30	1600	1.89	18-04-12-43	500	0.42
18-04-12-30	1700	0.58	18-04-12-44	77	0.00
18-04-12-30	1701	0.99	18-04-12-44	100	4.07
18-04-12-30	1702	0.78	18-04-12-44	200	1.96
18-04-12-30	1800	25.97	18-04-12-44	300	1.28
18-04-12-30	1901	6.36	18-04-12-44	400	1.94
18-04-12-30	1905	5.24	18-04-12-44	500	5.98
18-04-12-30	1906	5.27	18-04-12-44	600	4.95
18-04-12-30	2100	4.96	18-04-12-44	700	4.94
18-04-12-30	2200	17.94	18-04-12-44	800	4.93
18-04-12-40	2800	0.98	18-04-12-44	900	2.12
18-04-12-40	2900	3.53	18-04-13-00	77	15.76
18-04-12-40	3000	0.60	18-04-13-00	200	0.48
18-04-12-40	3100	3.20	18-04-13-00	300	0.49
18-04-12-40	3102	0.88	18-04-13-00	400	0.52
18-04-12-40	3200	10.79	18-04-13-00	500	2.75
18-04-12-40	3801	2.11	18-04-13-00	502	0.45
18-04-12-42	77	3.49	18-04-13-00	503	0.44
18-04-12-42	3700	1.81	18-04-13-00	504	0.67
18-04-12-42	3800	3.43	18-04-13-00	505	0.88
18-04-12-42	3900	3.86	18-04-13-00	506	0.69
18-04-12-42	4000	3.56	18-04-13-00	508	0.71
18-04-12-42	4100	1.27	18-04-13-00	509	3.19
18-04-12-42	4200	1.02	18-04-13-00	510	0.88
18-04-12-42	4300	0.62	18-04-13-00	700	0.62
18-04-12-42	4400	2.00	18-04-13-00	800	0.44
18-04-12-42	4500	0.17	18-04-13-00	900	1.55
18-04-12-42	4600	0.42	18-04-13-00	1000	5.26
18-04-12-42	4700	0.49	18-04-13-00	1001	3.19
18-04-12-42	4800	0.44	18-04-13-00	1002	2.42
18-04-12-42	4900	2.00	18-04-13-00	1004	6.99
18-04-12-42	5000	0.55	18-04-13-00	1100	0.40
18-04-12-42	5100	0.31	18-04-13-00	1200	2.85
18-04-12-42	5200	0.40	18-04-13-00	1201	1.56
18-04-12-42	5300	0.30	18-04-13-00	1300	123.21
18-04-12-42	5400	0.21	18-04-13-00	1301	3.58
18-04-12-43	22	0.36	18-04-13-00	1400	3.19
18-04-12-43	100	9.65	18-04-13-00	1401	2.58

Lane County

Assessor's Map	Tax Lot	Lot Acreage	Assessor's Map	Tax Lot	Lot Acreage
18-04-13-00	1402	2.02	18-04-13-00	3306	5.00
18-04-13-00	1403	1.02	18-04-13-00	3400	0.49
18-04-13-00	1404	1.23	18-04-13-00	3401	0.95
18-04-13-00	1405	1.00	18-04-13-00	3501	0.73
18-04-13-00	1406	0.95	18-04-13-00	3502	0.91
18-04-13-00	1407	2.39	18-04-13-00	3503	1.07
18-04-13-00	1408	4.26	18-04-13-00	3504	1.26
18-04-13-00	1409	4.00	18-04-13-00	3507	3.19
18-04-13-00	1500	5.60	18-04-13-00	3509	0.63
18-04-13-00	1601	7.46	18-04-13-00	3600	1.08
18-04-13-00	1702	9.20	18-04-13-00	3700	5.00
18-04-13-00	1703	33.25	18-04-13-00	3800	60.22
18-04-13-00	1705	80.43	18-04-13-00	3801	20.15
18-04-13-00	1706	1.70	18-04-13-00	3900	0.02
18-04-13-00	1801	4.00	18-04-13-00	4300	0.67
18-04-13-00	1802	2.00	18-04-13-00	4400	1.10
18-04-13-00	1803	3.29	18-04-13-00	4800	10.00
18-04-13-00	1900	0.98	18-04-13-00	4900	10.07
18-04-13-00	1901	0.97	18-04-13-00	5000	11.95
18-04-13-00	2000	0.97	18-04-13-00	5100	10.25
18-04-13-00	2100	0.88	18-04-13-11	77	2.49
18-04-13-00	2200	1.01	18-04-13-11	1700	15.07
18-04-13-00	2201	0.89	18-04-13-11	1701	0.85
18-04-13-00	2202	1.02	18-04-14-00	4000	2.30
18-04-13-00	2300	0.91	18-04-14-00	4001	12.72
18-04-13-00	2301	1.04	18-04-14-00	4006	59.60
18-04-13-00	2302	1.04	18-04-14-00	4008	4.75
18-04-13-00	2399	1.04	18-04-14-00	4009	23.67
18-04-13-00	2400	1.08	18-04-14-11	77	1.62
18-04-13-00	2500	1.38	18-04-14-11	200	5.70
18-04-13-00	2600	0.45	18-04-14-11	201	2.40
18-04-13-00	2601	1.86	18-04-14-11	300	2.24
18-04-13-00	2700	7.79	18-04-14-11	400	2.21
18-04-13-00	2800	1.04	18-04-14-11	600	4.03
18-04-13-00	2900	7.45	18-04-14-11	700	4.67
18-04-13-00	3000	0.96	18-04-14-11	800	2.60
18-04-13-00	3200	0.44	18-04-14-11	900	4.80
18-04-13-00	3301	0.69	18-04-14-12	77	4.24
18-04-13-00	3302	2.26	18-04-14-12	100	2.36
18-04-13-00	3303	8.18	18-04-14-12	101	0.21
18-04-13-00	3304	7.59	18-04-14-12	200	0.49
18-04-13-00	3305	5.01	18-04-14-12	300	1.06

Assessor's Map	Tax Lot	Lot Acreage	Assessor's Map	Tax Lot	Lot Acreage
18-04-14-12	400	1.01	18-04-14-21	200	0.40
18-04-14-12	500	1.02	18-04-14-21	300	0.64
18-04-14-12	600	1.02	18-04-14-21	400	1.24
18-04-14-12	700	0.51	18-04-14-21	500	1.03
18-04-14-12	800	1.53	18-04-14-21	600	2.93
18-04-14-12	900	2.75	18-04-14-21	701	10.62
18-04-14-12	1000	0.11	18-04-14-21	900	2.79
18-04-14-12	1100	0.74	18-04-14-21	1000	2.95
18-04-14-12	1200	2.38	18-04-14-21	1100	0.48
18-04-14-12	1300	2.06	18-04-14-22	300	11.48
18-04-14-12	1400	6.28	18-04-15-00	300	20.07
18-04-14-12	1500	0.99	18-04-15-00	400	22.02
18-04-14-12	1600	1.00	18-04-15-00	500	22.62
18-04-14-12	1601	4.93	18-04-15-00	502	2.41
18-04-14-12	1700	0.77	18-04-15-00	600	10.02
18-04-14-12	1800	0.56	18-04-15-00	1500	2.42
18-04-14-12	1900	3.01	18-04-16-00	100	10.03
18-04-14-12	2000	2.03	18-04-16-00	200	8.21
18-04-14-12	2100	5.49	18-04-24-00	200	60.15
18-04-14-12	2200	0.04	18-04-24-00	201	19.97
18-04-14-21	77	1.31	18-05-01-00	101	48.44
18-04-14-21	100	1.22	18-05-01-00	106	5.27

INTERGOVERNMENTAL AGREEMENT
regarding the
PROVISION OF FIRE PROTECTION SERVICES
for purposes of the
ESTABLISHMENT OF URBAN RESERVES

PARTIES

BETWEEN: **Lane County,**
 a unit of local government in the State of Oregon **(County)**

AND: **The City of Eugene,**
 a unit of local government in the State of Oregon **(City)**

AND: **Bailey-Spencer Rural Fire Protection District,**
 a unit of local government of the State of Oregon **(District)**

RECITALS

- A. The County and City are considering adopting plan amendments to identify specific land as “urban reserves” to accommodate future expansions of the City of Eugene’s urban growth boundary when needed.
- B. Prior to the establishment of urban reserves, OAR 660-021-0050(2) requires the County and City to enter into an “urban reserve agreement” with a special district that currently provides, or that is projected to provide sewer, water, fire protection, parks, transportation or storm water service to land identified as urban reserves and ORS 190.010 provides that units of local government may enter into agreements for the performance of any and all functions and activities that any party to the agreement, its assigned personnel or agents have authority to perform.
- C. The District currently provides fire protection service to land that is proposed to be identified as urban reserves by the County and City, as identified on Exhibits A and B to this Agreement.

- D. When lands are identified as urban reserves, the lands retain their rural land use zoning and the urban reserve status does not grant any greater development allowance; the urban reserves identification is intended to provide more certainty as to which rural lands are likely to be added to the City's urban growth boundary at some time in the future.
- E. The County, City and District agree that the urban reserve designation should not change the way in which fire protection service will be provided to the land that is ultimately identified as urban reserve.
- F. The County, City and District further agree that the urban reserve designation should not change the way in which fire protection service is provided to land when it is added to the urban growth boundary.

AGREEMENT

- 1. The District's provision of fire protection service to land within its service boundaries will not be disrupted or otherwise impacted by the County and City's identification of that land as urban reserves.
- 2. The District's provision of fire protection service to land within its service boundaries will not be disrupted or otherwise impacted by the County and City's eventual inclusion of the land in the City's urban growth boundary.
- 3. Consistent with current practices, land will be withdrawn from the District only after the eventual annexation of the land to the City of Eugene, at which time responsibility for providing fire protection service will be transferred to the City (i.e. Eugene Springfield Fire).
- 4. The City will provide timely written notice to the District before any area within the District's boundaries is formally considered by the City and County for inclusion in the Eugene urban growth boundary or for annexation to the City of Eugene.
- 5. County, City and District staff will meet to negotiate resolution of problems or conflicts concerning interpretation or implementation of the terms of this Agreement.
- 6. This Agreement will commence and take effect when: (1) all parties have executed this Agreement; and (2) the Lane County Board of Commissioners and the Eugene City Council have both adopted an ordinance that identifies land within the District's service boundary as urban reserves.
- 7. This Agreement may be amended at any time by mutual consent of the parties.
- 8. This Agreement may be terminated by one party giving the other parties sixty (60) days written notice of intent to terminate. Not less than thirty (30) days in advance of any

termination date, the County, City and District staff will meet to discuss and attempt to resolve the reasons for termination.

CITY OF EUGENE 

By: Smedary

Name: Sarah Medary

Title: City Manager

Date: 10/27/2021

LANE COUNTY

By: _____

Name: Steve Mokrohisky

Title: County Administrator

Date: _____

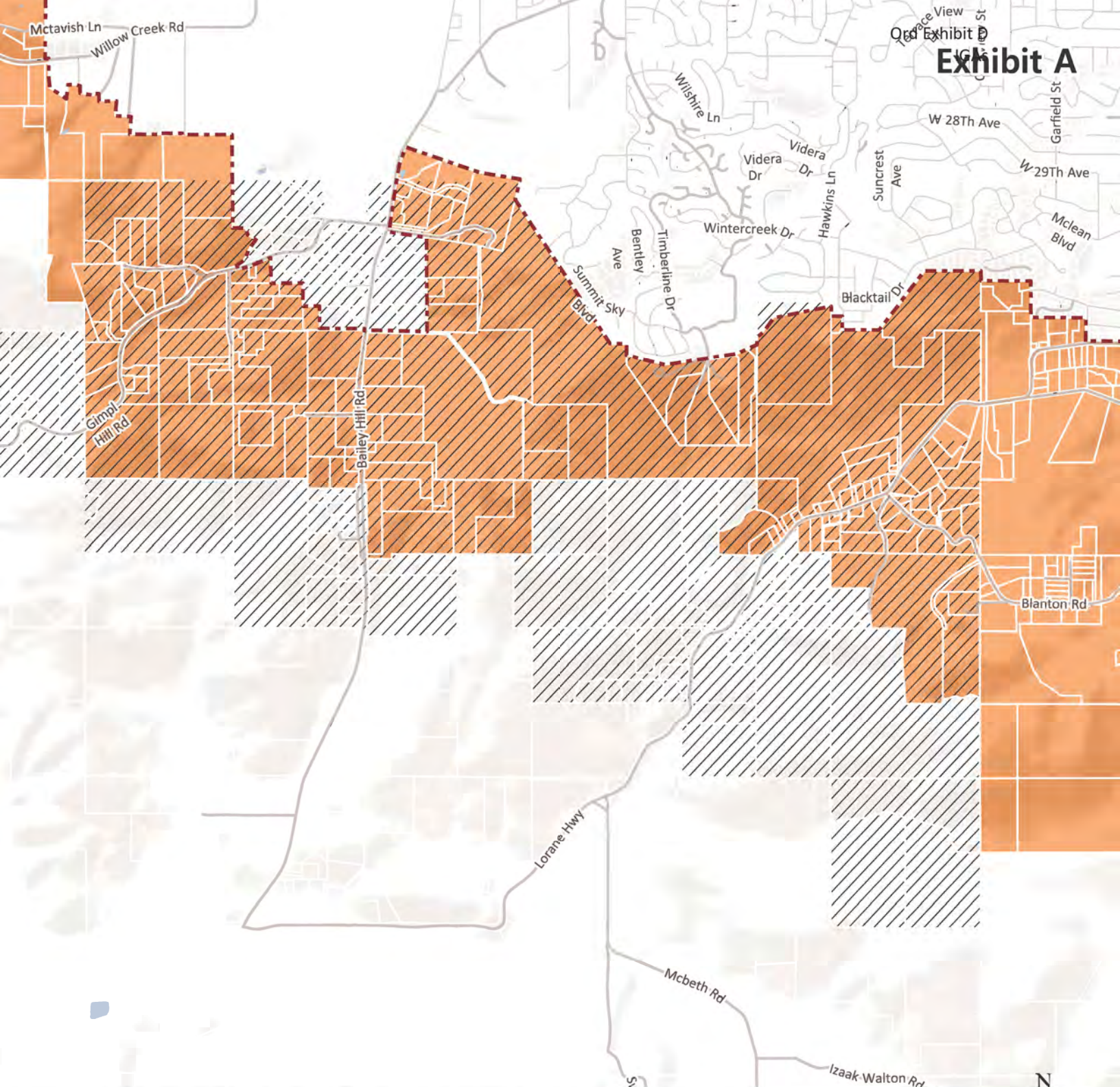
**BAILEY-SPENCER RURAL FIRE
PROTECTION DISTRICT**

By: Jerry Strand

Name: Jerry Strand

Title: Secretary & Treasurer



Date: 6/18/21



Bailey-Spencer RFPD

Service provider jurisdiction within the proposed Urban Reserves Area




Key

-  Bailey-Spencer RFPD Boundary
-  Proposed Urban Reserve Area
-  Roads
-  Taxlots
-  Rivers and Waterways
-  Eugene Urban Growth Boundary

6/17/2021

Data sources: Sources: Esri, USGS, NOAA, LCOG, and the City of Eugene

0 0.25 0.5 Miles

Caution: This map is based on imprecise source data and is subject to change

The following properties are being served by Bailey-Spencer Rural Fire Protection District in the proposed Urban Reserves area, as shown on Exhibit A:

Assessor's Map	Tax Lot	Lot Acreage
18-04-04-00	1400	36.20
18-04-04-00	1500	35.93
18-04-08-00	104	30.71
18-04-08-00	200	2.32
18-04-09-00	802	22.13
18-04-09-00	1200	25.92
18-04-09-00	1300	4.97
18-04-09-00	1302	5.02
18-04-09-00	1303	5.05
18-04-09-00	1500	14.85
18-04-09-00	1501	3.67
18-04-09-00	1502	1.83
18-04-09-00	1601	4.96
18-04-09-00	1602	4.82
18-04-09-00	1603	4.96
18-04-09-00	1604	5.24
18-04-09-00	1700	1.38
18-04-09-00	1701	17.73
18-04-09-00	1800	4.68
18-04-09-00	1801	0.61
18-04-09-00	2802	3.46
18-04-09-00	2900	2.22
18-04-09-00	3000	2.20
18-04-09-00	3001	3.08
18-04-09-00	3100	3.89
18-04-09-00	3200	6.94
18-04-09-00	3300	6.57
18-04-09-00	3400	5.33
18-04-09-00	3401	6.38
18-04-09-00	3402	6.51
18-04-09-00	3600	40.36
18-04-09-00	3601	1.96
18-04-09-00	3602	10.08
18-04-09-00	3603	4.84
18-04-09-00	3604	1.91
18-04-09-00	3605	1.12
18-04-09-00	3606	36.23
18-04-09-00	3700	6.85
18-04-09-00	3701	5.64

18-04-09-00	3702	14.14
18-04-09-00	3703	0.19
18-04-09-00	3704	10.15
18-04-09-00	3706	2.02
18-04-09-00	3800	1.45
18-04-09-00	3900	23.82
18-04-09-00	3901	10.55
18-04-09-00	3903	3.42
18-04-09-00	4000	10.26
18-04-09-00	4001	8.26
18-04-09-00	4002	20.83
18-04-09-00	4100	8.13
18-04-09-00	4101	5.04
18-04-09-00	4200	4.88
18-04-09-00	4201	8.73
18-04-09-00	4300	0.96
18-04-09-00	4400	0.84
18-04-09-00	5000	1.51
18-04-09-00	5301	12.50
18-04-09-00	5400	3.83
18-04-09-00	5500	18.43
18-04-09-00	5900	5.06
18-04-09-00	6000	5.05
18-04-09-00	6100	4.64
18-04-10-00	101	1.62
18-04-10-00	103	172.01
18-04-10-00	200	0.93
18-04-10-00	204	3.27
18-04-10-00	205	0.96
18-04-10-00	206	7.64
18-04-10-00	300	7.18
18-04-10-00	301	1.43
18-04-10-00	304	3.26
18-04-10-00	305	2.97
18-04-10-00	306	0.62
18-04-10-00	312	5.39
18-04-10-00	313	5.01
18-04-10-00	314	19.72
18-04-10-00	315	1.76
18-04-10-00	502	7.28
18-04-10-00	503	13.52
18-04-10-00	504	2.29
18-04-10-00	505	10.25
18-04-10-00	704	8.23

18-04-10-00	705	7.86
18-04-10-00	706	84.62
18-04-10-00	707	6.67
18-04-10-00	708	29.47
18-04-10-00	800	10.13
18-04-10-00	900	21.17
18-04-10-00	903	16.67
18-04-10-00	904	11.38
18-04-11-00	102	46.48
18-04-11-00	104	1.28
18-04-11-00	201	47.33
18-04-11-00	307	15.03
18-04-11-00	308	10.02
18-04-11-00	310	15.00
18-04-11-00	311	13.20
18-04-11-00	312	10.01
18-04-11-00	401	122.28
18-04-11-00	500	31.35
18-04-11-00	600	0.34
18-04-11-00	900	6.20
18-04-11-00	1000	6.38
18-04-11-44	100	5.05
18-04-11-44	300	5.09
18-04-11-44	401	5.17
18-04-11-44	402	6.70
18-04-11-44	500	7.47
18-04-12-20	5603	5.01
18-04-13-00	1408	4.26
18-04-13-00	1500	5.60
18-04-14-00	4000	2.30
18-04-14-00	4001	12.72
18-04-14-00	4006	59.60
18-04-14-00	4008	4.75
18-04-14-00	4009	23.67
18-04-14-11	200	5.70
18-04-14-11	201	2.40
18-04-14-11	300	2.24
18-04-14-11	400	2.21
18-04-14-11	600	4.03
18-04-14-11	700	4.67
18-04-14-11	800	2.60
18-04-14-11	900	4.80
18-04-14-12	100	2.36
18-04-14-12	101	0.21

18-04-14-12	200	0.49
18-04-14-12	300	1.06
18-04-14-12	400	1.01
18-04-14-12	500	1.02
18-04-14-12	600	1.02
18-04-14-12	700	0.51
18-04-14-12	800	1.53
18-04-14-12	900	2.75
18-04-14-12	1000	0.11
18-04-14-12	1100	0.74
18-04-14-12	1200	2.38
18-04-14-12	1300	2.06
18-04-14-12	1400	6.28
18-04-14-12	1500	0.99
18-04-14-12	1600	1.00
18-04-14-12	1601	4.93
18-04-14-12	1700	0.77
18-04-14-12	1800	0.56
18-04-14-12	1900	3.01
18-04-14-12	2000	2.03
18-04-14-12	2100	5.49
18-04-14-12	2200	0.04
18-04-14-21	100	1.22
18-04-14-21	200	0.40
18-04-14-21	300	0.64
18-04-14-21	400	1.24
18-04-14-21	500	1.03
18-04-14-21	600	2.93
18-04-14-21	701	10.62
18-04-14-21	900	2.79
18-04-14-21	1000	2.95
18-04-14-21	1100	0.48
18-04-14-22	300	11.48
18-04-15-00	300	20.07
18-04-15-00	400	22.02
18-04-15-00	500	22.62
18-04-15-00	502	2.41
18-04-15-00	600	10.02
18-04-15-00	1500	2.42
18-04-16-00	100	10.03
18-04-16-00	200	8.21

INTERGOVERNMENTAL AGREEMENT
regarding the
PROVISION OF FIRE PROTECTION SERVICES
for purposes of the
ESTABLISHMENT OF URBAN RESERVES

PARTIES

BETWEEN: **Lane County,**
 a unit of local government in the State of Oregon **(County)**

AND: **The City of Eugene,**
 a unit of local government in the State of Oregon **(City)**

AND: **Eugene #1 Rural Fire Protection District,**
 a unit of local government of the State of Oregon **(District)**

RECITALS

- A. The County and City are considering adopting plan amendments to identify specific land as “urban reserves” to accommodate future expansions of the City of Eugene’s urban growth boundary when needed.

- B. Prior to the establishment of urban reserves, OAR 660-021-0050(2) requires the County and City to enter into an “urban reserve agreement” with a special district that currently provides, or that is projected to provide sewer, water, fire protection, parks, transportation or storm water service to land identified as urban reserves and ORS 190.010 provides that units of local government may enter into agreements for the performance of any and all functions and activities that any party to the agreement, its assigned personnel or agents have authority to perform.


- C. The District currently provides fire protection service to land that is proposed to be identified as urban reserves by the County and City, as identified on Exhibits A and B to this Agreement.

- D. When lands are identified as urban reserves, the lands retain their rural land use zoning and the urban reserve status does not grant any greater development allowance; the urban reserves identification is intended to provide more certainty as to which rural lands are likely to be added to the City's urban growth boundary at some time in the future.
- E. The County, City and District agree that the urban reserve designation should not change the way in which fire protection service will be provided to the land that is ultimately identified as urban reserve.
- F. The County, City and District further agree that the urban reserve designation should not change the way in which fire protection service is provided to land when it is added to the urban growth boundary.

AGREEMENT

- 1. The District's provision of fire protection service to land within its service boundaries will not be disrupted or otherwise impacted by the County and City's identification of that land as urban reserves.
- 2. The District's provision of fire protection service to land within its service boundaries will not be disrupted or otherwise impacted by the County and City's eventual inclusion of the land in the City's urban growth boundary.
- 3. Consistent with current practices, land will be withdrawn from the District only after the eventual annexation of the land to the City of Eugene, at which time responsibility for providing fire protection service will be transferred to the City (i.e. Eugene Springfield Fire).
- 4. The City will provide timely written notice to the District before any area within the District's boundaries is formally considered by the City and County for inclusion in the Eugene urban growth boundary or for annexation to the City of Eugene.
- 5. County, City and District staff will meet to negotiate resolution of problems or conflicts concerning interpretation or implementation of the terms of this Agreement.
- 6. This Agreement will commence and take effect when: (1) all parties have executed this Agreement; and (2) the Lane County Board of Commissioners and the Eugene City Council have both adopted an ordinance that identifies land within the District's service boundary as urban reserves.
- 7. This Agreement may be amended at any time by mutual consent of the parties.
- 8. This Agreement may be terminated by one party giving the other parties sixty (60) days written notice of intent to terminate. Not less than thirty (30) days in advance of any

termination date, the County, City and District staff will meet to discuss and attempt to resolve the reasons for termination.

CITY OF EUGENE 
DD

By: *Sarah Medary*

Name: Sarah Medary

Title: City Manager

Date: 10/27/2021

LANE COUNTY

By: _____

Name: Steve Mokrohisky

Title: County Administrator

Date: _____

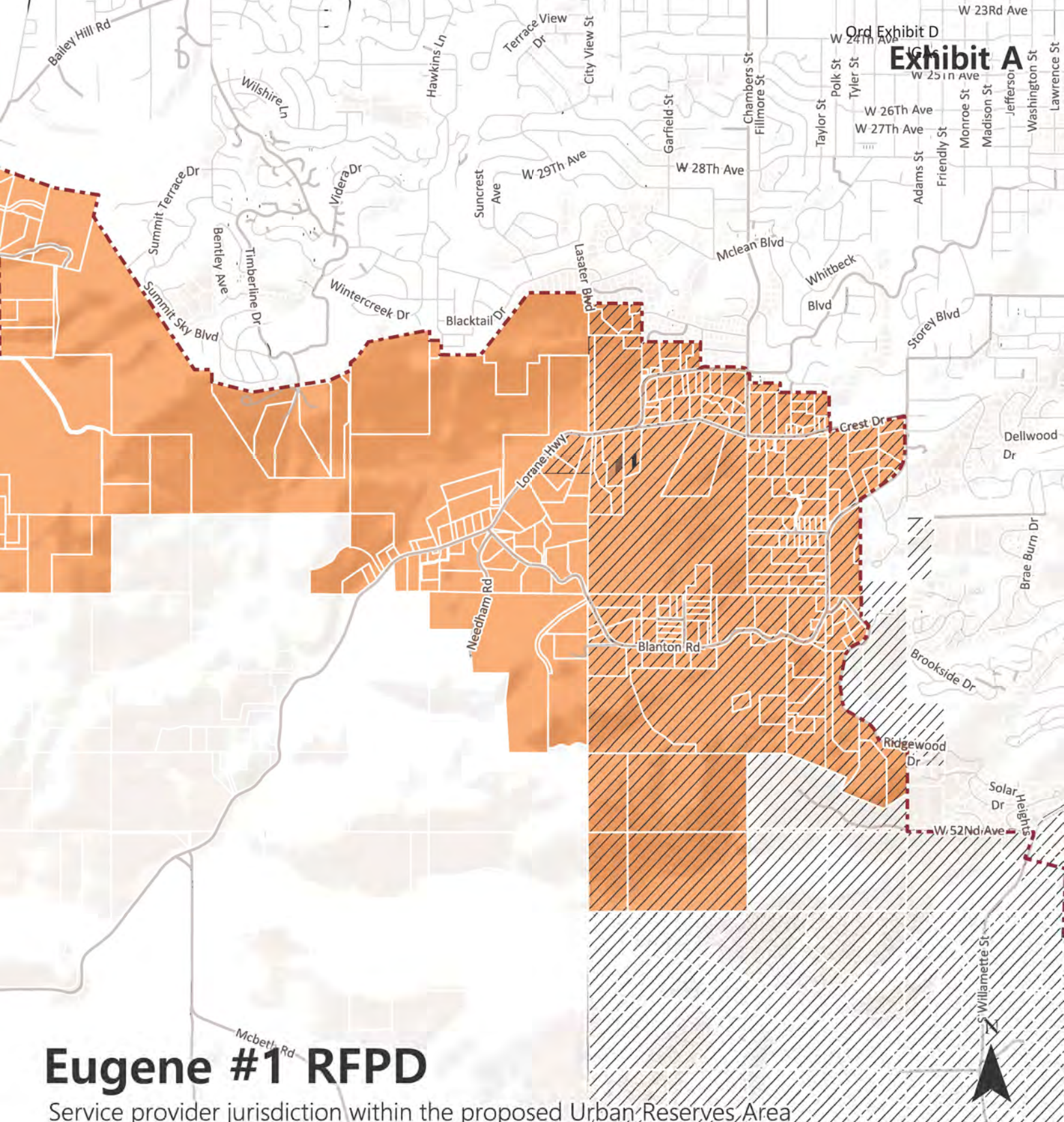
**EUGENE #1 RURAL FIRE
PROTECTION DISTRICT**

By: *Ron Apling*

Name: Ron Apling

Title: President

Date: *July 20, 2021*



Eugene #1 RFPD

Service provider jurisdiction within the proposed Urban Reserves Area

Key

-  Eugene #1 Boundary
-  Taxlots
-  Proposed Urban Reserve Area
-  Eugene Urban Growth Boundary
-  Roads

7/19/2021

Data sources: Sources: Esri, USGS, NOAA, LCOG, and the City of Eugene

0 0.25 0.5 Miles





Caution: This map is based on imprecise source data and is subject to change

The following properties are being served by Eugene #1 Rural Fire Protection District in the proposed Urban Reserves area, as shown on Exhibit A:

Assessor's Map	Tax Lot	Lot Acreage
18-04-11-00	102	46.48
18-04-11-44	100	5.05
18-04-11-44	200	4.98
18-04-11-44	300	5.09
18-04-11-44	401	5.17
18-04-12-20	5601	0.79
18-04-12-20	5603	5.01
18-04-12-20	5604	5.01
18-04-12-20	6100	1.54
18-04-12-30	100	1.81
18-04-12-30	200	1.67
18-04-12-30	300	2.33
18-04-12-30	301	0.04
18-04-12-30	302	1.67
18-04-12-30	400	3.15
18-04-12-30	401	0.36
18-04-12-30	402	0.24
18-04-12-30	500	1.55
18-04-12-30	501	2.18
18-04-12-30	600	1.49
18-04-12-30	700	0.72
18-04-12-30	800	1.18
18-04-12-30	900	0.88
18-04-12-30	1000	4.19
18-04-12-30	1001	1.23
18-04-12-30	1003	1.71
18-04-12-30	1100	1.97
18-04-12-30	1101	1.04
18-04-12-30	1200	1.84
18-04-12-30	1300	1.75
18-04-12-30	1301	1.52
18-04-12-30	1400	1.82
18-04-12-30	1500	2.64
18-04-12-30	1600	1.89
18-04-12-30	1700	0.58
18-04-12-30	1701	0.99
18-04-12-30	1702	0.78
18-04-12-30	1800	25.97
18-04-12-30	1901	6.36

18-04-12-30	1905	5.24
18-04-12-30	1906	5.27
18-04-12-30	2100	4.96
18-04-12-30	2200	17.94
18-04-12-40	2800	0.98
18-04-12-40	2900	3.53
18-04-12-40	3000	0.60
18-04-12-40	3100	3.20
18-04-12-40	3102	0.88
18-04-12-40	3200	10.79
18-04-12-40	3801	2.11
18-04-12-42	3700	1.81
18-04-12-42	3800	3.43
18-04-12-42	3900	3.86
18-04-12-42	4000	3.56
18-04-12-42	4100	1.27
18-04-12-42	4200	1.02
18-04-12-42	4300	0.62
18-04-12-42	4400	2.00
18-04-12-42	4500	0.17
18-04-12-42	4600	0.42
18-04-12-42	4700	0.49
18-04-12-42	4800	0.44
18-04-12-42	4900	2.00
18-04-12-42	5000	0.55
18-04-12-42	5100	0.31
18-04-12-42	5200	0.40
18-04-12-42	5300	0.30
18-04-12-42	5400	0.21
18-04-12-43	22	0.36
18-04-12-43	100	9.65
18-04-12-43	200	2.00
18-04-12-43	300	2.01
18-04-12-43	401	3.40
18-04-12-43	402	3.15
18-04-12-43	500	0.42
18-04-12-44	100	4.07
18-04-12-44	200	1.96
18-04-12-44	300	1.28
18-04-12-44	400	1.94
18-04-12-44	500	5.98
18-04-12-44	600	4.95
18-04-12-44	700	4.94

18-04-12-44	800	4.93
18-04-12-44	900	2.12
18-04-13-00	200	0.48
18-04-13-00	300	0.49
18-04-13-00	400	0.52
18-04-13-00	500	2.75
18-04-13-00	502	0.45
18-04-13-00	503	0.44
18-04-13-00	504	0.67
18-04-13-00	505	0.88
18-04-13-00	506	0.69
18-04-13-00	508	0.71
18-04-13-00	509	3.19
18-04-13-00	510	0.88
18-04-13-00	700	0.62
18-04-13-00	800	0.44
18-04-13-00	900	1.55
18-04-13-00	1000	5.26
18-04-13-00	1001	3.19
18-04-13-00	1002	2.42
18-04-13-00	1004	6.99
18-04-13-00	1100	0.40
18-04-13-00	1200	2.85
18-04-13-00	1201	1.56
18-04-13-00	1300	123.21
18-04-13-00	1301	3.58
18-04-13-00	1400	3.19
18-04-13-00	1401	2.58
18-04-13-00	1402	2.02
18-04-13-00	1403	1.02
18-04-13-00	1404	1.23
18-04-13-00	1405	1.00
18-04-13-00	1406	0.95
18-04-13-00	1407	2.39
18-04-13-00	1408	4.26
18-04-13-00	1409	4.00
18-04-13-00	1500	5.60
18-04-13-00	1601	7.46
18-04-13-00	1702	9.20
18-04-13-00	1703	33.25
18-04-13-00	1705	80.43
18-04-13-00	1706	1.70
18-04-13-00	1801	4.00

18-04-13-00	1802	2.00
18-04-13-00	1803	3.29
18-04-13-00	1900	0.98
18-04-13-00	1901	0.97
18-04-13-00	2000	0.97
18-04-13-00	2100	0.88
18-04-13-00	2200	1.01
18-04-13-00	2201	0.89
18-04-13-00	2202	1.02
18-04-13-00	2300	0.91
18-04-13-00	2301	1.04
18-04-13-00	2302	1.04
18-04-13-00	2399	1.04
18-04-13-00	2400	1.08
18-04-13-00	2500	1.38
18-04-13-00	2600	0.45
18-04-13-00	2601	1.86
18-04-13-00	2700	7.79
18-04-13-00	2800	1.04
18-04-13-00	2900	7.45
18-04-13-00	3000	0.96
18-04-13-00	3200	0.44
18-04-13-00	3301	0.69
18-04-13-00	3302	2.26
18-04-13-00	3303	8.18
18-04-13-00	3304	7.59
18-04-13-00	3305	5.01
18-04-13-00	3306	5.00
18-04-13-00	3400	0.49
18-04-13-00	3401	0.95
18-04-13-00	3501	0.73
18-04-13-00	3502	0.91
18-04-13-00	3503	1.07
18-04-13-00	3504	1.26
18-04-13-00	3507	3.19
18-04-13-00	3509	0.63
18-04-13-00	3600	1.08
18-04-13-00	3700	5.00
18-04-13-00	3800	60.22
18-04-13-00	3801	20.15
18-04-13-00	3900	0.02
18-04-13-00	4300	0.67
18-04-13-00	4400	1.10

Eugene #1 RFPD

Ord Exhibit D

Exhibit B

18-04-13-00	4800	10.00
18-04-13-00	4900	10.07
18-04-13-00	5000	11.95
18-04-13-00	5100	10.25
18-04-13-11	1700	15.07
18-04-13-11	1701	0.85
18-04-14-00	4000	2.30
18-04-14-00	4008	4.75
18-04-14-00	4009	23.67
18-04-24-00	200	60.15
18-04-24-00	201	19.97

INTERGOVERNMENTAL AGREEMENT
regarding the
PROVISION OF FIRE PROTECTION SERVICES
for purposes of the
ESTABLISHMENT OF URBAN RESERVES

PARTIES

BETWEEN: **Lane County,**
 a unit of local government in the State of Oregon **(County)**

AND: **The City of Eugene,**
 a unit of local government in the State of Oregon **(City)**

AND: **Goshen Rural Fire Protection District,**
 a unit of local government of the State of Oregon **(District)**

RECITALS

- A. The County and City are considering adopting plan amendments to identify specific land as “urban reserves” to accommodate future expansions of the City of Eugene’s urban growth boundary when needed.
- B. Prior to the establishment of urban reserves, OAR 660-021-0050(2) requires the County and City to enter into an “urban reserve agreement” with a special district that currently provides, or that is projected to provide sewer, water, fire protection, parks, transportation or storm water service to land identified as urban reserves and ORS 190.010 provides that units of local government may enter into agreements for the performance of any and all functions and activities that any party to the agreement, its assigned personnel or agents have authority to perform.
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AGREEMENT

- 1. The District's provision of fire protection service to land within its service boundaries will not be disrupted or otherwise impacted by the County and City's identification of that land as urban reserves.
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- 3. Consistent with current practices, land will be withdrawn from the District only after the eventual annexation of the land to the City of Eugene, at which time responsibility for providing fire protection service will be transferred to the City (i.e. Eugene Springfield Fire).
- 4. The City will provide timely written notice to the District before any area within the District's boundaries is formally considered by the City and County for inclusion in the Eugene urban growth boundary or for annexation to the City of Eugene.
- 5. County, City and District staff will meet to negotiate resolution of problems or conflicts concerning interpretation or implementation of the terms of this Agreement.
- 6. This Agreement will commence and take effect when: (1) all parties have executed this Agreement; and (2) the Lane County Board of Commissioners and the Eugene City Council have both adopted an ordinance that identifies land within the District's service boundary as urban reserves.
- 7. This Agreement may be amended at any time by mutual consent of the parties.
- 8. This Agreement may be terminated by one party giving the other parties sixty (60) days written notice of intent to terminate. Not less than thirty (30) days in advance of any

termination date, the County, City and District staff will meet to discuss and attempt to resolve the reasons for termination.

CITY OF EUGENE 

By: 

Name: Sarah Medary

Title: City Manager

Date: 10/27/2021

LANE COUNTY

By: _____

Name: Steve Mokrohisky

Title: County Administrator

Date: _____

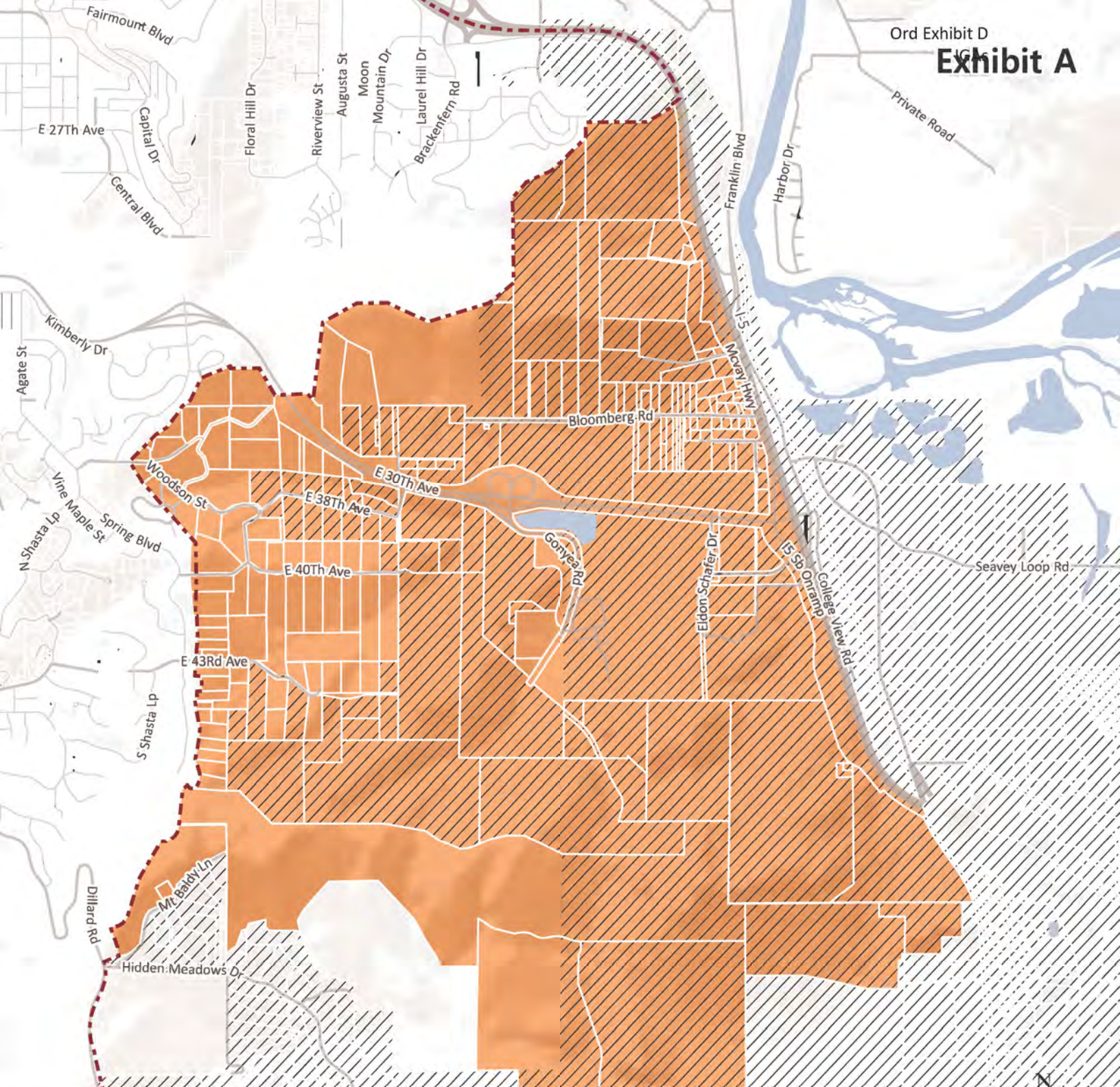
**GOSHEN RURAL FIRE
PROTECTION DISTRICT**

By: 

Name: Andrew Smith

Title: Fire Chief

Date: June 17, 2021

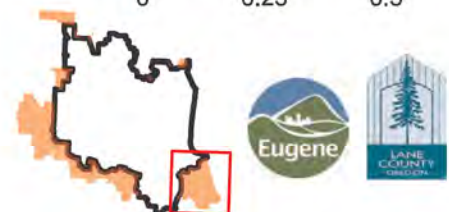
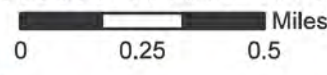


Goshen RFPD

Service provider jurisdiction within the proposed Urban Reserve Area

Key

-  Goshen RFPD Boundary
-  Proposed Urban Reserve Area
-  Roads
-  Taxlots
-  Rivers and Waterways
-  Eugene Urban Growth Boundary



6/15/2021

Data sources: Sources: Esri, USGS, NOAA, LCOG, and the City of Eugene

Caution: This map is based on imprecise source data and is subject to change

The following properties are being served by Goshen Rural Fire Protection District in the proposed Urban Reserves area, as shown on Exhibit A:

Assessor's Map	Tax Lot	Lot Acreage
18-03-03-00	108	9.32
18-03-03-00	110	12.29
18-03-03-40	1000	53.78
18-03-09-00	100	4.03
18-03-09-00	101	1.47
18-03-09-00	200	15.77
18-03-09-00	201	0.55
18-03-09-00	300	4.83
18-03-09-00	2800	4.18
18-03-09-00	2801	2.59
18-03-09-00	2900	2.10
18-03-09-00	3000	3.00
18-03-09-00	3100	2.70
18-03-09-00	3200	2.95
18-03-09-00	3300	5.85
18-03-09-00	4800	1.91
18-03-09-00	5000	5.18
18-03-09-00	5100	4.41
18-03-09-00	5200	3.99
18-03-09-00	5300	3.81
18-03-09-00	5301	3.02
18-03-09-00	5302	2.54
18-03-09-00	5303	3.34
18-03-09-00	6900	14.61
18-03-10-00	22	1.14
18-03-10-00	100	7.09
18-03-10-00	101	17.46
18-03-10-00	200	52.05
18-03-10-00	300	5.44
18-03-10-00	400	5.23
18-03-10-00	500	5.23
18-03-10-00	600	4.92
18-03-10-00	701	1.22
18-03-10-00	703	0.08
18-03-10-00	704	89.15
18-03-10-00	800	18.46
18-03-10-00	801	1.49
18-03-10-00	900	1.01
18-03-10-00	901	0.89

18-03-10-00	1000	0.99
18-03-10-00	1001	1.02
18-03-10-00	1101	15.01
18-03-10-00	1102	0.26
18-03-10-00	1103	4.38
18-03-10-00	1200	7.42
18-03-10-00	1202	4.64
18-03-10-00	1300	10.48
18-03-10-00	1301	0.14
18-03-10-00	1302	50.09
18-03-10-00	1600	8.58
18-03-10-10	300	7.63
18-03-10-10	301	1.07
18-03-10-10	400	11.98
18-03-10-10	500	29.92
18-03-10-10	600	12.62
18-03-10-10	601	6.70
18-03-10-10	700	12.11
18-03-10-10	800	9.06
18-03-10-10	900	0.86
18-03-10-10	1000	0.44
18-03-10-10	1100	4.90
18-03-10-10	1101	2.38
18-03-10-10	1200	3.47
18-03-10-10	1300	1.46
18-03-10-10	1400	2.33
18-03-10-10	1500	1.26
18-03-10-10	1501	1.30
18-03-10-10	1600	1.53
18-03-10-10	1700	2.32
18-03-10-10	1800	1.01
18-03-10-10	1900	1.01
18-03-10-10	2000	1.14
18-03-10-10	2100	1.14
18-03-10-10	2300	2.63
18-03-10-10	2400	1.21
18-03-10-10	2500	0.47
18-03-10-10	2601	0.93
18-03-10-10	2602	0.50
18-03-10-10	2603	0.50
18-03-10-10	2700	0.65
18-03-10-10	2800	1.19
18-03-10-10	2900	0.64
18-03-10-10	3000	0.76

18-03-10-10	3100	0.32
18-03-10-10	3200	0.63
18-03-10-40	200	1.06
18-03-10-40	300	0.52
18-03-10-40	400	0.59
18-03-10-40	500	0.67
18-03-10-40	600	5.24
18-03-10-40	700	0.73
18-03-10-40	900	1.09
18-03-10-40	1000	0.99
18-03-10-40	1100	1.18
18-03-10-40	1200	2.07
18-03-10-40	1300	0.83
18-03-10-40	1400	3.54
18-03-10-40	1402	0.86
18-03-10-40	1500	3.54
18-03-10-40	1600	1.49
18-03-10-40	1700	25.80
18-03-11-30	700	0.42
18-03-11-30	800	0.17
18-03-11-30	900	0.49
18-03-11-30	1000	0.49
18-03-11-30	1100	0.64
18-03-11-30	1200	0.67
18-03-11-30	1300	2.00
18-03-11-30	1400	0.86
18-03-11-30	1500	3.05
18-03-11-30	1600	1.00
18-03-11-30	1700	3.00
18-03-11-30	1800	0.21
18-03-11-30	1900	1.23
18-03-11-30	2000	0.04
18-03-11-30	2100	6.35
18-03-11-30	2101	1.76
18-03-11-30	2200	1.22
18-03-11-30	4000	0.39
18-03-11-30	4001	0.31
18-03-14-00	501	0.90
18-03-14-00	600	0.40
18-03-14-00	700	57.81
18-03-14-00	800	134.60
18-03-14-00	2500	61.86
18-03-14-00	2501	9.11
18-03-15-00	100	11.77

18-03-15-00	200	84.15
18-03-15-00	201	63.55
18-03-15-00	202	36.46
18-03-15-00	205	2.04
18-03-15-00	206	10.65
18-03-15-00	207	1.87
18-03-15-00	209	1.31
18-03-15-00	300	81.75
18-03-15-00	302	57.65
18-03-15-00	303	10.55
18-03-15-00	304	25.31
18-03-15-00	400	60.24
18-03-16-00	100	31.20
18-03-16-10	1700	3.39
18-03-16-10	1800	4.90
18-03-16-10	1900	4.75
18-03-16-10	2000	4.82
18-03-16-10	2100	9.67
18-03-16-10	2300	6.43
18-03-16-10	2500	8.01
18-03-16-10	2600	3.45
18-03-16-30	2500	284.81
18-03-22-00	100	139.57
18-03-22-00	300	99.66
18-03-23-00	101	68.50
18-03-23-10	6200	17.01

INTERGOVERNMENTAL AGREEMENT
regarding the
PROVISION OF FIRE PROTECTION SERVICES
for purposes of the
ESTABLISHMENT OF URBAN RESERVES

PARTIES

BETWEEN: **Lane County,**
 a unit of local government in the State of Oregon **(County)**

AND: **The City of Eugene,**
 a unit of local government in the State of Oregon **(City)**

AND: **Lane Fire Authority,**
 a unit of local government of the State of Oregon **(District)**

RECITALS


- A. The County and City are considering adopting plan amendments to identify specific land as “urban reserves” to accommodate future expansions of the City of Eugene’s urban growth boundary when needed.
- B. Prior to the establishment of urban reserves, OAR 660-021-0050(2) requires the County and City to enter into an “urban reserve agreement” with a special district that currently provides, or that is projected to provide sewer, water, fire protection, parks, transportation or storm water service to land identified as urban reserves and ORS 190.010 provides that units of local government may enter into agreements for the performance of any and all functions and activities that any party to the agreement, its assigned personnel or agents have authority to perform.
- C. The District currently provides fire protection service to land that is proposed to be identified as urban reserves by the County and City, as identified on Exhibits A and B to this Agreement.

- D. When lands are identified as urban reserves, the lands retain their rural land use zoning and the urban reserve status does not grant any greater development allowance; the urban reserves identification is intended to provide more certainty as to which rural lands are likely to be added to the City's urban growth boundary at some time in the future.
- E. The County, City and District agree that the urban reserve designation should not change the way in which fire protection service will be provided to the land that is ultimately identified as urban reserve.
- F. The County, City and District further agree that the urban reserve designation should not change the way in which fire protection service is provided to land when it is added to the urban growth boundary.

AGREEMENT

- 1. The District's provision of fire protection service to land within its service boundaries will not be disrupted or otherwise impacted by the County and City's identification of that land as urban reserves.
- 2. The District's provision of fire protection service to land within its service boundaries will not be disrupted or otherwise impacted by the County and City's eventual inclusion of the land in the City's urban growth boundary.
- 3. Consistent with current practices, land will be withdrawn from the District only after the eventual annexation of the land to the City of Eugene, at which time responsibility for providing fire protection service will be transferred to the City (i.e. Eugene Springfield Fire).
- 4. The City will provide timely written notice to the District before any area within the District's boundaries is formally considered by the City and County for inclusion in the Eugene urban growth boundary or for annexation to the City of Eugene.
- 5. County, City and District staff will meet to negotiate resolution of problems or conflicts concerning interpretation or implementation of the terms of this Agreement.
- 6. This Agreement will commence and take effect when: (1) all parties have executed this Agreement; and (2) the Lane County Board of Commissioners and the Eugene City Council have both adopted an ordinance that identifies land within the District's service boundary as urban reserves.
- 7. This Agreement may be amended at any time by mutual consent of the parties.
- 8. This Agreement may be terminated by one party giving the other parties sixty (60) days written notice of intent to terminate. Not less than thirty (30) days in advance of any

termination date, the County, City and District staff will meet to discuss and attempt to resolve the reasons for termination.

CITY OF EUGENE 

By: S Medary

Name: Sarah Medary

Title: City Manager

Date: 10/27/2021

LANE COUNTY

By: _____

Name: Steve Mokrohisky

Title: County Administrator

Date: _____

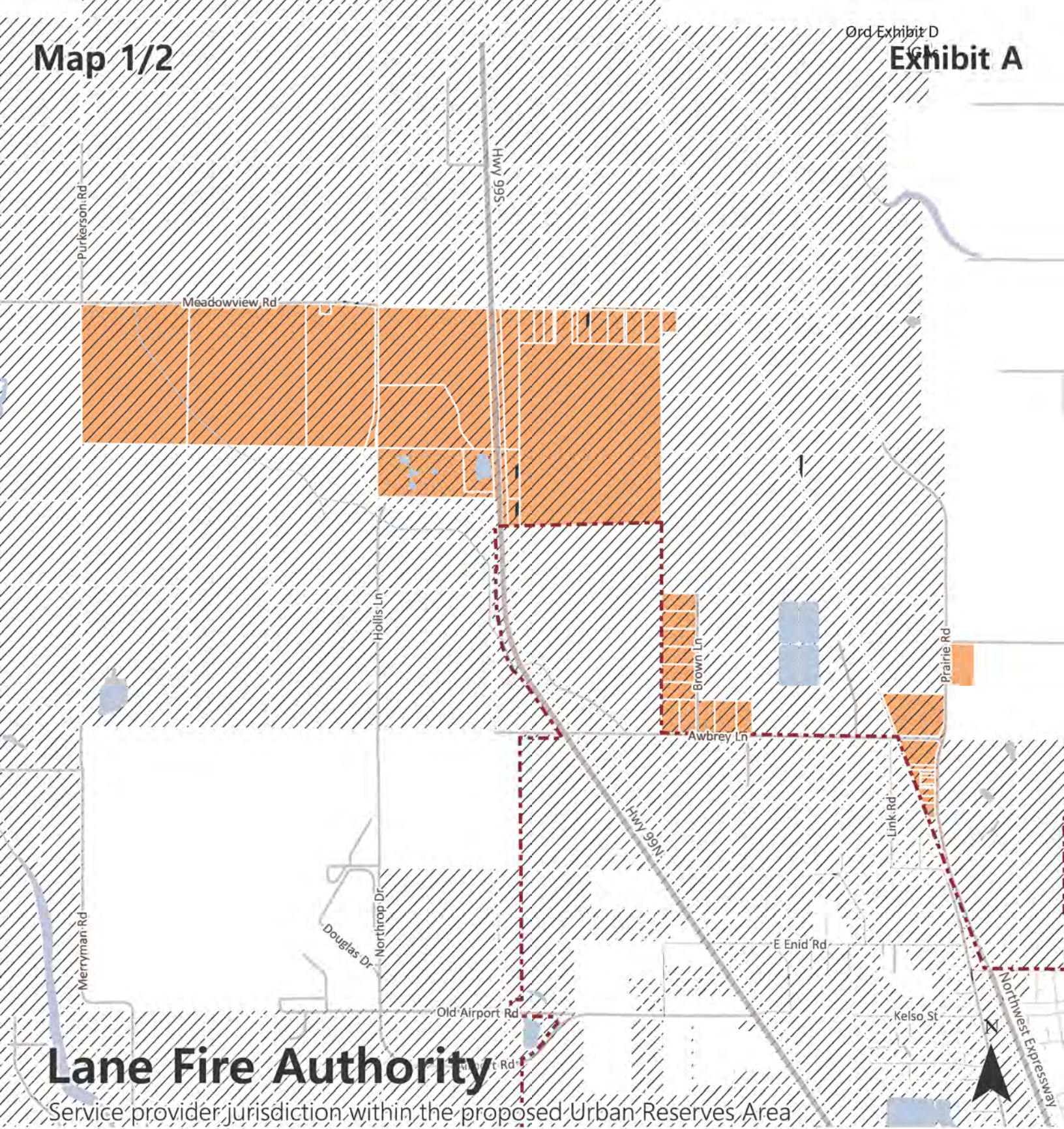
LANE FIRE AUTHORITY

By: Dale Borland

Name: Dale Borland

Title: Fire Chief

Date: 06/25/2021



Lane Fire Authority

Service provider jurisdiction within the proposed Urban Reserves Area




Key

-  Lane Fire Authority Boundary
-  Proposed Urban Reserve Area
-  Roads
-  Taxlots
-  Rivers and Waterways
-  Eugene Urban Growth Boundary

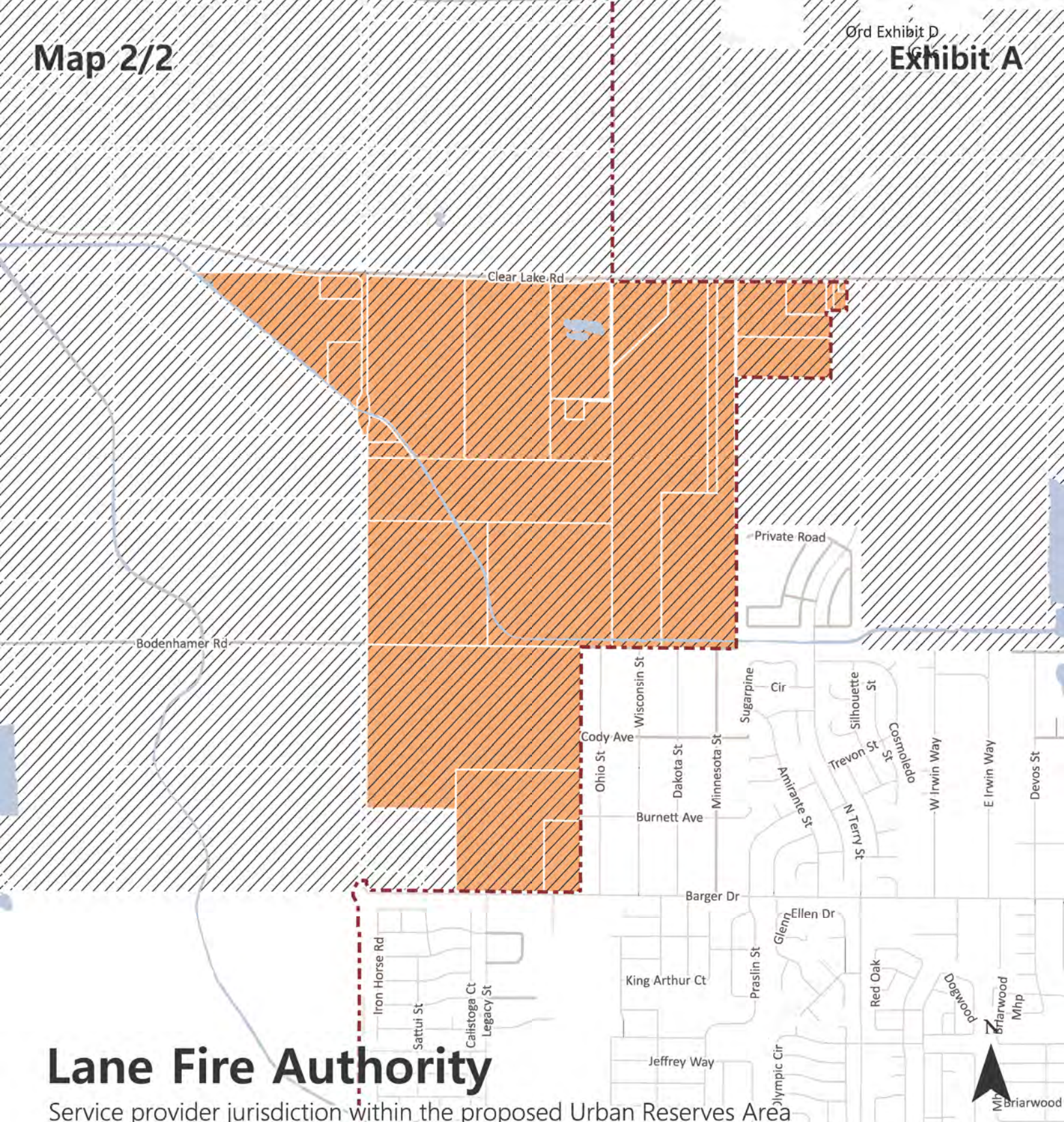
6/24/2021

Data sources: Sources: Esri, USGS, NOAA, LCOG, and the City of Eugene

0 0.25 0.5 Miles

Caution: This map is based on imprecise source data and is subject to change

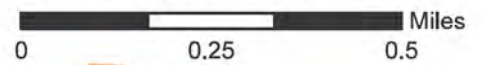


Lane Fire Authority

Service provider jurisdiction within the proposed Urban Reserves Area

Key

-  Lane Fire Authority Boundary
-  Proposed Urban Reserve Area
-  Roads
-  Taxlots
-  Rivers and Waterways
-  Eugene Urban Growth Boundary



6/24/2021

Data sources: Sources: Esri, USGS, NOAA, LCOG, and the City of Eugene

Caution: This map is based on imprecise source data and is subject to change

The following properties are being served by Lane Fire Authority in the proposed Urban Reserves area, as shown on Exhibit A:

Assessor's Map	Tax Lot	Lot Acreage
16-04-28-00	901	2.64
16-04-29-00	99	6.03
16-04-29-00	1701	40.31
16-04-29-00	1702	85.25
16-04-29-00	2000	18.38
16-04-29-00	2100	4.13
16-04-29-00	2200	2.62
16-04-29-00	2201	2.65
16-04-29-00	2300	3.52
16-04-29-00	2301	1.47
16-04-29-00	2302	4.78
16-04-29-00	2400	4.49
16-04-29-00	2500	4.59
16-04-29-00	2600	4.78
16-04-30-00	700	118.99
16-04-30-00	701	133.55
16-04-30-00	800	76.36
16-04-30-00	900	0.89
16-04-32-00	99	3.27
16-04-32-00	200	208.18
16-04-32-00	300	2.60
16-04-32-00	301	5.22
16-04-32-00	400	10.08
16-04-32-00	501	35.37
16-04-33-00	400	4.87
16-04-33-00	500	4.88
16-04-33-00	600	4.88
16-04-33-00	601	4.88
16-04-33-00	700	4.88
16-04-33-00	800	4.89
16-04-33-00	900	4.49
16-04-33-00	901	4.83
16-04-33-00	1002	4.48
16-04-33-00	1003	5.69
16-04-33-00	1004	4.20
16-04-33-00	1300	18.50
17-04-03-00	501	0.01
17-04-03-00	502	0.00
17-04-04-10	100	6.56

17-04-04-10	200	0.99
17-04-04-10	300	1.23
17-04-04-10	400	0.45
17-04-04-10	500	0.41
17-04-04-10	600	0.79
17-04-04-10	700	0.32
17-04-04-10	900	1.02
17-04-04-10	1000	0.81
17-04-04-10	1100	1.21
17-04-07-00	2700	4.78
17-04-07-00	2800	2.45
17-04-07-00	2900	22.69
17-04-08-00	2200	18.19
17-04-08-00	2500	9.77
17-04-08-00	2600	10.00
17-04-08-00	2800	0.75
17-04-08-00	2900	0.20
17-04-08-00	3100	3.37
17-04-08-00	3101	0.54
17-04-08-00	3200	8.67
17-04-17-00	400	40.13
17-04-17-00	500	63.58
17-04-17-00	501	5.20
17-04-17-00	600	1.70
17-04-17-00	700	8.83
17-04-17-00	801	42.17
17-04-17-00	802	39.93
17-04-17-00	900	1.47
17-04-17-00	1000	1.70
17-04-17-00	1100	40.17
17-04-17-00	1200	38.94
17-04-17-00	1300	40.13
17-04-17-00	1400	77.45
17-04-17-00	1700	33.68
17-04-17-00	1800	6.75
17-04-17-14	200	0.95
18-04-09-00	3606	36.23

**INTERGOVERNMENTAL AGREEMENT
MEMORIALIZING COORDINATION
for purposes of the
ESTABLISHMENT OF URBAN RESERVES**

PARTIES

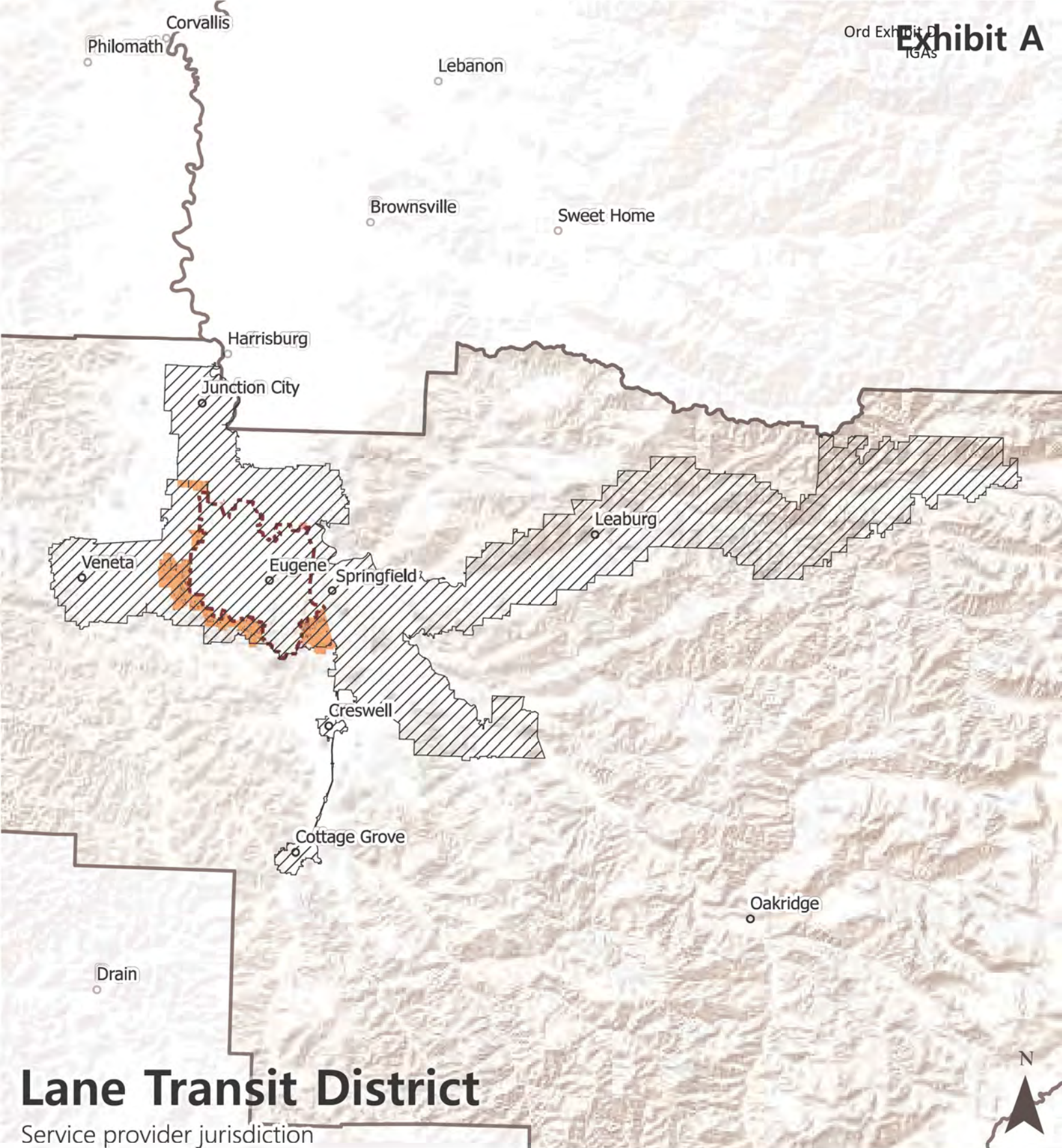
BETWEEN: **Lane County,**
 a unit of local government in the State of Oregon **(County)**

AND: **The City of Eugene,**
 a unit of local government in the State of Oregon **(City)**

AND: **Lane Transit District,**
 a Special District in the State of Oregon **(District)**

RECITALS

- A. The County and City are considering adopting plan amendments to identify specific land as “urban reserves” to accommodate future expansions of the City of Eugene’s urban growth boundary when needed.
- B. Prior to the establishment of urban reserves, OAR 660-021-0050(2) requires the County and City to enter into an “urban reserve agreement” with a special district that currently provides, or that is projected to provide sewer, water, fire protection, parks, transportation or storm water service to land identified as urban reserves and OAR 660-021-0020(1) requires the County and City to coordinate with districts currently providing other services to land identified as urban reserves.
- C. The County and City proposed this Agreement as a means to coordinate with the District because the District is a “mass transit district” organized in accordance with the provisions of ORS 267.010 to 267.430 to provide a mass transit system for the inhabitants of its service area, which currently includes land that is proposed to be identified as urban reserves by the County and City, as identified on Exhibits A and B to this Agreement.
- D. When lands are identified as urban reserves, the lands retain their rural land use zoning and the urban reserve status does not grant any greater development allowance; the urban reserves identification is intended to provide more certainty as to which rural lands are likely to be added to the City’s urban growth boundary at some time in the future.

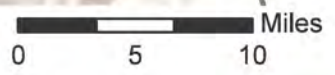


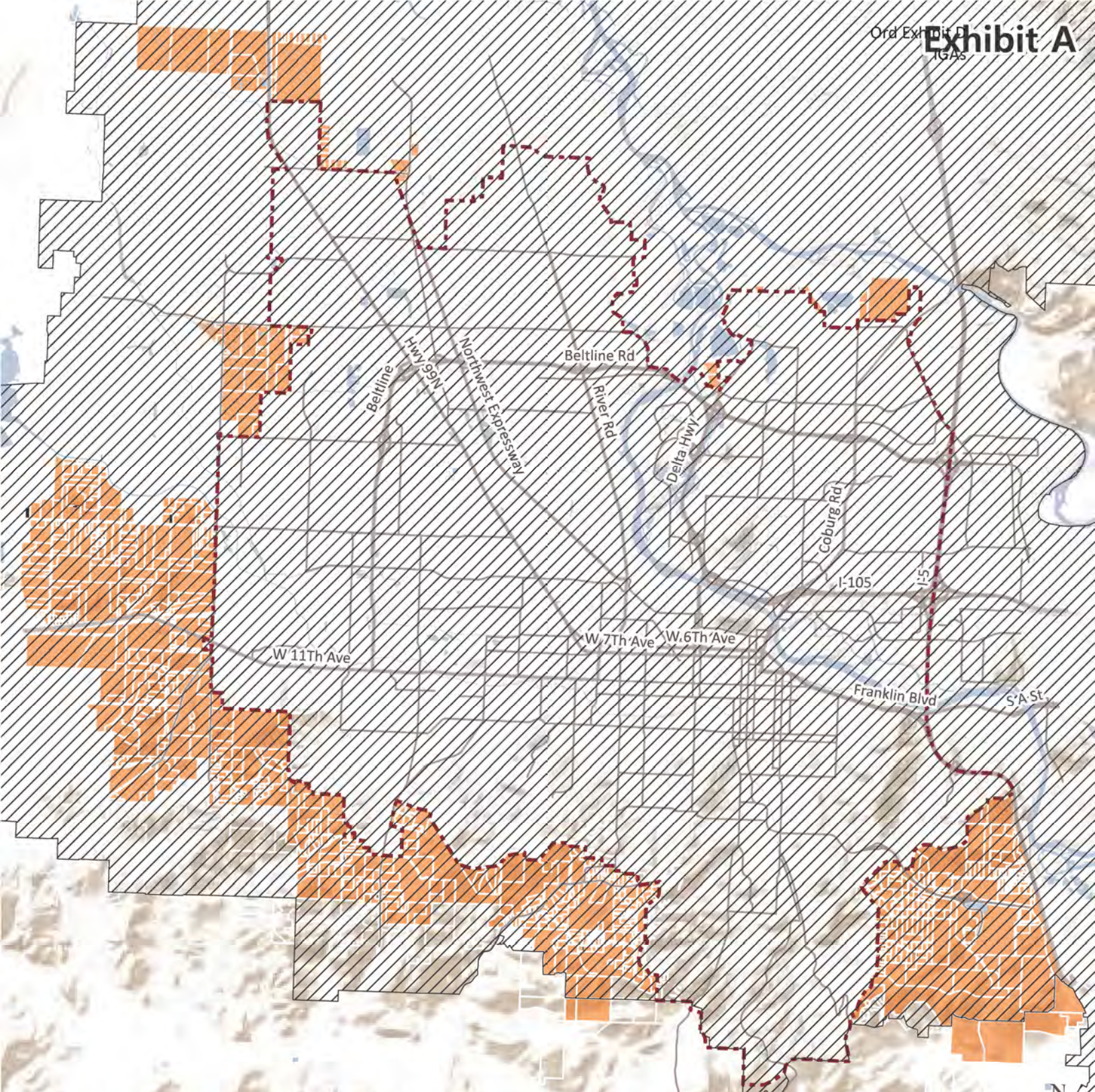
Lane Transit District

Service provider jurisdiction

Key

-  Lane Transit District
-  Eugene Urban Growth Boundary
-  Proposed Urban Reserve Area
-  Cities
-  County Lines





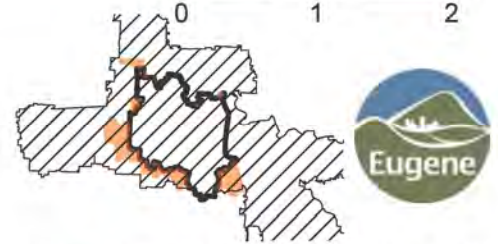
Lane Transit District

Service provider jurisdiction within the proposed Urban Reserves Area

Key

- Lane Transit District
- Proposed Urban Reserve Area
- Taxlots
- Eugene Urban Growth Boundary
- Roads
- Rivers and Waterways

0 1 2 Miles



The following properties in the proposed Urban Reserves area are within Lane Transit District's service area, as shown on Exhibit A:

Assessor's Map	Tax Lot	Lot Acreage
16-04-28-00	901	2.64
16-04-29-00	99	6.03
16-04-29-00	1701	40.31
16-04-29-00	1702	85.25
16-04-29-00	2000	18.38
16-04-29-00	2100	4.13
16-04-29-00	2200	2.62
16-04-29-00	2201	2.65
16-04-29-00	2300	3.52
16-04-29-00	2301	1.47
16-04-29-00	2302	4.78
16-04-29-00	2400	4.49
16-04-29-00	2500	4.59
16-04-29-00	2600	4.78
16-04-30-00	700	118.99
16-04-30-00	701	133.55
16-04-30-00	800	76.36
16-04-30-00	900	0.89
16-04-32-00	99	3.27
16-04-32-00	200	208.18
16-04-32-00	300	2.60
16-04-32-00	301	5.22
16-04-32-00	400	10.08
16-04-32-00	501	35.37
16-04-33-00	400	4.87
16-04-33-00	500	4.88
16-04-33-00	600	4.88
16-04-33-00	601	4.88
16-04-33-00	700	4.88
16-04-33-00	800	4.89
16-04-33-00	900	4.49
16-04-33-00	901	4.83
16-04-33-00	1002	4.48
16-04-33-00	1003	5.69
16-04-33-00	1004	4.20
16-04-33-00	1300	18.50
16-04-34-00	908	9.16
17-03-07-00	1600	4.14
17-03-08-00	307	4.40
17-03-08-00	7500	8.46

17-03-08-24	5700	0.00
17-03-09-00	600	128.20
17-03-09-00	703	7.90
17-03-09-00	800	11.36
17-03-18-00	300	12.73
17-03-18-00	1100	12.36
17-03-18-00	1201	3.32
17-03-18-00	3901	3.30
17-03-18-00	4200	1.14
17-04-03-00	501	0.01
17-04-03-00	502	0.00
17-04-04-10	100	6.56
17-04-04-10	200	0.99
17-04-04-10	300	1.23
17-04-04-10	400	0.45
17-04-04-10	500	0.41
17-04-04-10	600	0.79
17-04-04-10	700	0.32
17-04-04-10	900	1.02
17-04-04-10	1000	0.81
17-04-04-10	1100	1.21
17-04-07-00	2700	4.78
17-04-07-00	2800	2.45
17-04-07-00	2900	22.69
17-04-08-00	2200	18.19
17-04-08-00	2500	9.77
17-04-08-00	2600	10.00
17-04-08-00	2800	0.75
17-04-08-00	2900	0.20
17-04-08-00	3100	3.37
17-04-08-00	3101	0.54
17-04-08-00	3200	8.67
17-04-17-00	400	40.13
17-04-17-00	500	63.58
17-04-17-00	501	5.20
17-04-17-00	600	1.70
17-04-17-00	700	8.83
17-04-17-00	801	42.17
17-04-17-00	802	39.93
17-04-17-00	900	1.47
17-04-17-00	1000	1.70
17-04-17-00	1100	40.17
17-04-17-00	1200	38.94
17-04-17-00	1300	40.13

17-04-17-00	1400	77.45
17-04-17-00	1700	33.68
17-04-17-00	1800	6.75
17-04-17-14	200	0.95
17-04-19-00	900	0.95
17-04-19-00	1000	1.84
17-04-19-00	1100	1.46
17-04-19-00	1200	0.94
17-04-19-00	1300	0.93
17-04-19-00	1400	0.99
17-04-19-00	1501	1.21
17-04-19-00	1502	0.61
17-04-19-00	1600	5.02
17-04-19-00	1700	7.49
17-04-19-00	2400	9.23
17-04-19-00	2500	5.10
17-04-19-00	2600	5.85
17-04-19-00	2700	38.23
17-04-19-00	2800	5.66
17-04-19-00	2900	5.34
17-04-19-00	3000	5.11
17-04-19-00	3100	5.04
17-04-19-00	3200	1.26
17-04-19-00	3300	2.93
17-04-19-00	3400	10.01
17-04-19-00	3500	4.22
17-04-30-00	100	2.17
17-04-30-00	101	1.88
17-04-30-00	200	5.00
17-04-30-00	300	4.99
17-04-30-00	400	3.80
17-04-30-00	500	3.93
17-04-30-00	501	0.37
17-04-30-00	502	5.55
17-04-30-00	600	4.87
17-04-30-00	700	5.92
17-04-30-00	800	19.76
17-04-30-00	801	19.89
17-04-30-00	900	59.42
17-04-30-00	1000	10.14
17-04-30-00	1001	10.16
17-04-30-00	1100	18.99
17-04-30-00	1101	37.98
17-04-30-00	1200	1.48

Lane Transit District

17-04-30-00	1201	29.96
17-04-30-00	1202	27.84
17-04-30-00	1300	1.15
17-04-30-00	1302	7.24
17-04-30-00	1303	7.24
17-04-30-00	1304	7.24
17-04-30-00	1305	7.24
17-04-30-00	1306	5.75
17-04-30-00	1307	6.48
17-04-30-00	1308	5.00
17-04-30-00	1400	23.02
17-04-30-00	1401	13.37
17-04-30-00	1402	1.73
17-04-30-00	1403	6.94
17-04-30-00	1404	6.00
17-04-30-00	1405	5.60
17-04-30-00	1406	3.07
17-04-30-00	1407	0.41
17-04-30-00	1408	0.53
17-04-30-00	1409	4.76
17-04-30-00	1410	10.41
17-04-30-00	1500	8.43
17-04-30-00	1501	39.91
17-04-30-00	1600	1.96
17-04-30-00	1800	43.85
17-04-30-00	1801	16.88
17-04-30-00	1900	2.60
17-04-30-00	2100	78.25
17-04-30-00	2200	8.87
17-04-30-00	2201	25.84
17-04-30-00	2202	19.36
17-04-30-00	2203	16.03
17-04-30-00	2204	1.46
17-04-30-00	2300	2.10
17-04-30-00	2400	1.64
17-04-30-00	2500	0.34
17-04-31-00	101	1.07
17-04-31-00	102	7.07
17-04-31-00	200	33.69
17-04-31-00	201	0.99
17-04-31-00	203	0.63
17-04-31-00	204	0.60
17-04-31-00	205	0.04
17-04-31-00	300	4.73

17-04-31-00	400	22.87
17-04-31-00	403	10.00
17-04-31-00	405	5.50
17-04-31-00	409	0.66
17-04-31-00	500	5.35
17-04-31-00	1000	0.72
17-04-31-00	1100	9.43
17-04-31-00	1400	3.86
17-04-31-00	1500	24.84
17-04-31-00	1600	96.04
17-04-31-00	1702	17.37
17-04-31-00	1703	10.01
17-04-31-00	1704	9.99
17-04-31-00	1705	1.87
17-04-31-00	1800	15.98
17-04-31-00	1900	9.15
17-04-31-00	2000	45.07
17-04-31-00	2001	3.06
17-04-31-00	2002	0.59
17-04-31-00	2003	0.01
17-04-31-00	2100	5.78
17-04-31-00	2200	7.79
17-04-31-00	2500	1.39
17-04-31-00	2601	5.06
17-04-31-00	2602	5.18
17-04-31-00	2603	0.07
17-04-31-00	2700	10.50
17-04-31-00	2800	13.96
17-04-31-00	2801	3.60
17-04-31-00	2803	20.10
17-04-31-00	2804	20.18
17-04-31-00	3000	10.53
17-04-31-00	3100	0.91
17-04-31-00	3300	10.74
17-04-31-00	3400	2.10
17-04-31-00	3500	0.81
17-04-31-00	3503	1.96
17-04-31-00	3506	2.28
17-04-31-00	3507	0.50
17-04-31-00	3600	9.31
17-04-31-00	3700	1.17
17-04-31-00	3800	1.17
17-04-31-00	3900	2.05
17-04-31-00	4000	5.87

17-04-31-00	4001	2.36
17-04-31-00	4100	5.23
17-04-31-00	4200	1.09
17-04-31-00	4300	3.67
17-04-31-00	4400	12.23
17-04-31-00	4401	4.78
17-04-31-00	4402	13.83
17-04-31-00	4500	20.35
17-04-31-14	200	0.35
17-04-31-14	300	0.56
17-04-31-14	400	0.17
17-04-31-14	500	0.77
17-04-31-14	600	0.26
17-04-31-14	700	1.43
17-04-31-14	800	0.27
17-04-31-14	900	0.26
17-04-31-14	1000	0.80
17-04-31-14	1100	0.51
17-04-32-00	6000	13.31
17-04-32-00	6100	0.73
17-05-00-00	500	32.18
17-05-24-00	1000	0.54
17-05-24-00	1100	2.46
17-05-24-00	1300	2.91
17-05-24-00	1700	41.07
17-05-24-00	1800	24.30
17-05-24-00	1900	40.44
17-05-24-00	2000	27.63
17-05-24-00	2100	13.87
17-05-24-00	2200	19.40
17-05-24-00	2300	0.78
17-05-24-00	2400	13.57
17-05-24-00	2501	1.57
17-05-24-00	2600	0.38
17-05-24-00	2700	12.62
17-05-24-00	2800	2.81
17-05-24-00	2900	2.62
17-05-24-00	3000	11.74
17-05-24-00	3100	15.40
17-05-24-00	3200	14.77
17-05-24-00	3300	7.05
17-05-24-00	3400	0.93
17-05-24-00	3500	0.36
17-05-24-00	3600	6.04

17-05-24-00	3700	4.60
17-05-24-00	3701	2.50
17-05-24-00	3800	7.77
17-05-24-00	3900	30.20
17-05-24-00	4000	2.97
17-05-24-00	4100	1.23
17-05-24-00	4200	1.14
17-05-24-00	4300	2.02
17-05-24-00	4400	1.18
17-05-24-00	4401	0.43
17-05-25-00	100	2.00
17-05-25-00	200	19.71
17-05-25-00	205	5.52
17-05-25-00	206	20.04
17-05-25-00	207	38.54
17-05-25-00	208	1.40
17-05-25-00	209	6.14
17-05-25-00	301	1.79
17-05-25-00	302	1.80
17-05-25-00	303	2.01
17-05-25-00	304	1.23
17-05-25-00	305	1.12
17-05-25-00	306	1.78
17-05-25-00	307	4.36
17-05-25-00	308	4.00
17-05-25-00	309	1.33
17-05-25-00	313	2.77
17-05-25-00	314	2.55
17-05-25-00	315	6.60
17-05-25-00	316	0.90
17-05-25-00	317	4.18
17-05-25-00	400	2.88
17-05-25-00	500	3.94
17-05-25-00	600	21.94
17-05-25-00	601	0.94
17-05-25-00	701	19.47
17-05-25-00	702	10.44
17-05-25-00	703	0.03
17-05-25-00	800	5.08
17-05-25-00	900	0.93
17-05-25-00	1000	12.13
17-05-25-00	1001	1.00
17-05-25-00	1100	4.00
17-05-25-00	1200	14.88

17-05-25-00	1300	4.94
17-05-25-00	1400	28.98
17-05-25-00	1401	4.67
17-05-25-00	1402	4.71
17-05-25-00	1500	14.13
17-05-25-00	1501	0.89
17-05-25-00	1600	5.58
17-05-25-00	1601	1.09
17-05-25-00	1602	9.18
17-05-25-00	1603	3.95
17-05-25-00	1700	14.14
17-05-25-00	1801	14.29
17-05-25-00	1802	13.52
17-05-25-00	1803	0.37
17-05-25-00	1804	1.55
17-05-25-00	1900	26.18
17-05-25-00	2000	24.66
17-05-25-00	2100	11.08
17-05-25-00	2101	10.16
17-05-25-00	2200	5.33
17-05-25-00	2202	73.65
17-05-25-00	2300	34.09
17-05-25-00	2301	20.23
17-05-25-00	2302	12.85
17-05-25-00	2400	83.53
17-05-25-00	2401	18.51
17-05-25-00	2402	17.26
17-05-36-00	99	0.26
17-05-36-00	100	2.19
17-05-36-00	200	21.58
17-05-36-00	300	6.11
17-05-36-00	400	151.45
17-05-36-00	401	81.47
17-05-36-00	500	59.55
17-05-36-20	100	1.01
17-05-36-20	200	5.32
17-05-36-20	300	1.51
17-05-36-20	400	1.49
17-05-36-20	500	1.17
17-05-36-20	600	0.98
17-05-36-20	700	0.96
17-05-36-20	800	0.91
17-05-36-20	900	0.84
17-05-36-20	1000	1.97

17-05-36-20	1100	0.83
17-05-36-20	1200	0.98
17-05-36-20	1300	0.98
17-05-36-20	1400	0.98
17-05-36-20	1500	1.27
17-05-36-20	1600	1.31
17-05-36-20	1700	1.14
17-05-36-20	1701	0.95
17-05-36-20	1800	0.74
17-05-36-20	1900	0.74
17-05-36-20	2000	0.74
17-05-36-20	2100	0.80
17-05-36-20	2200	2.41
17-05-36-20	2300	1.09
17-05-36-20	2400	1.03
17-05-36-20	2500	1.02
17-05-36-20	2600	1.01
17-05-36-20	2700	1.00
17-05-36-20	2800	1.00
17-05-36-20	2900	1.00
17-05-36-20	3000	0.99
17-05-36-20	3100	0.49
17-05-36-20	3101	0.51
17-05-36-20	3200	0.99
17-05-36-20	3300	1.12
17-05-36-20	3400	1.03
17-05-36-20	3500	1.02
17-05-36-20	3600	1.01
17-05-36-20	3700	1.00
17-05-36-20	3800	1.00
17-05-36-20	3900	1.00
17-05-36-20	4000	0.99
17-05-36-20	4100	2.99
17-05-36-20	4200	1.00
17-05-36-20	4300	1.01
17-05-36-20	4400	1.00
17-05-36-20	4499	1.01
17-05-36-20	4500	1.01
17-05-36-20	4600	1.01
17-05-36-20	4699	1.01
17-05-36-20	4700	1.01
17-05-36-20	4800	1.00
17-05-36-20	4900	0.50
17-05-36-20	5000	0.50

18-03-03-00	108	9.32
18-03-03-00	110	12.29
18-03-03-40	1000	53.78
18-03-09-00	100	4.03
18-03-09-00	101	1.47
18-03-09-00	200	15.77
18-03-09-00	201	0.55
18-03-09-00	300	4.83
18-03-09-00	700	5.49
18-03-09-00	800	2.92
18-03-09-00	2100	8.81
18-03-09-00	2200	4.91
18-03-09-00	2201	0.90
18-03-09-00	2300	3.31
18-03-09-00	2400	2.29
18-03-09-00	2500	1.16
18-03-09-00	2800	4.18
18-03-09-00	2801	2.59
18-03-09-00	2900	2.10
18-03-09-00	3000	3.00
18-03-09-00	3100	2.70
18-03-09-00	3200	2.95
18-03-09-00	3300	5.85
18-03-09-00	4800	1.91
18-03-09-00	4900	4.13
18-03-09-00	5000	5.18
18-03-09-00	5100	4.41
18-03-09-00	5200	3.99
18-03-09-00	5300	3.81
18-03-09-00	5301	3.02
18-03-09-00	5302	2.54
18-03-09-00	5303	3.34
18-03-09-00	5700	3.33
18-03-09-00	5800	3.45
18-03-09-00	5900	3.15
18-03-09-00	6000	2.98
18-03-09-00	6100	3.31
18-03-09-00	6200	2.83
18-03-09-00	6300	2.91
18-03-09-00	6800	8.20
18-03-09-00	6900	14.61
18-03-09-00	7000	0.67
18-03-09-24	200	7.06
18-03-09-30	100	6.45

18-03-09-30	200	3.57
18-03-09-30	300	3.34
18-03-09-30	2500	7.64
18-03-09-30	2600	18.36
18-03-09-30	9502	0.36
18-03-09-30	10400	4.99
18-03-09-30	10401	1.01
18-03-09-30	10501	1.54
18-03-09-34	1600	8.09
18-03-09-34	2800	4.10
18-03-09-34	2900	3.94
18-03-09-34	3000	1.87
18-03-09-34	3100	1.76
18-03-09-34	3200	0.45
18-03-10-00	22	1.14
18-03-10-00	100	7.09
18-03-10-00	101	17.46
18-03-10-00	200	52.05
18-03-10-00	300	5.44
18-03-10-00	400	5.23
18-03-10-00	500	5.23
18-03-10-00	600	4.92
18-03-10-00	701	1.22
18-03-10-00	703	0.08
18-03-10-00	704	89.15
18-03-10-00	800	18.46
18-03-10-00	801	1.49
18-03-10-00	900	1.01
18-03-10-00	901	0.89
18-03-10-00	1000	0.99
18-03-10-00	1001	1.02
18-03-10-00	1101	15.01
18-03-10-00	1102	0.26
18-03-10-00	1103	4.38
18-03-10-00	1200	7.42
18-03-10-00	1202	4.64
18-03-10-00	1300	10.48
18-03-10-00	1301	0.14
18-03-10-00	1302	50.09
18-03-10-00	1400	153.78
18-03-10-00	1600	8.58
18-03-10-10	300	7.63
18-03-10-10	301	1.07
18-03-10-10	400	11.98

18-03-10-10	500	29.92
18-03-10-10	600	12.62
18-03-10-10	601	6.70
18-03-10-10	700	12.11
18-03-10-10	800	9.06
18-03-10-10	900	0.86
18-03-10-10	1000	0.44
18-03-10-10	1100	4.90
18-03-10-10	1101	2.38
18-03-10-10	1200	3.47
18-03-10-10	1300	1.46
18-03-10-10	1400	2.33
18-03-10-10	1500	1.26
18-03-10-10	1501	1.30
18-03-10-10	1600	1.53
18-03-10-10	1700	2.32
18-03-10-10	1800	1.01
18-03-10-10	1900	1.01
18-03-10-10	2000	1.14
18-03-10-10	2100	1.14
18-03-10-10	2300	2.63
18-03-10-10	2400	1.21
18-03-10-10	2500	0.47
18-03-10-10	2601	0.93
18-03-10-10	2602	0.50
18-03-10-10	2603	0.50
18-03-10-10	2700	0.65
18-03-10-10	2800	1.19
18-03-10-10	2900	0.64
18-03-10-10	3000	0.76
18-03-10-10	3100	0.32
18-03-10-10	3200	0.63
18-03-10-40	200	1.06
18-03-10-40	300	0.52
18-03-10-40	400	0.59
18-03-10-40	500	0.67
18-03-10-40	600	5.24
18-03-10-40	700	0.73
18-03-10-40	900	1.09
18-03-10-40	1000	0.99
18-03-10-40	1100	1.18
18-03-10-40	1200	2.07
18-03-10-40	1300	0.83
18-03-10-40	1400	3.54

18-03-10-40	1402	0.86
18-03-10-40	1500	3.54
18-03-10-40	1600	1.49
18-03-10-40	1700	25.80
18-03-11-30	700	0.42
18-03-11-30	800	0.17
18-03-11-30	900	0.49
18-03-11-30	1000	0.49
18-03-11-30	1100	0.64
18-03-11-30	1200	0.67
18-03-11-30	1300	2.00
18-03-11-30	1400	0.86
18-03-11-30	1500	3.05
18-03-11-30	1600	1.00
18-03-11-30	1700	3.00
18-03-11-30	1800	0.21
18-03-11-30	1900	1.23
18-03-11-30	2000	0.04
18-03-11-30	2100	6.35
18-03-11-30	2101	1.76
18-03-11-30	2200	1.22
18-03-11-30	4000	0.39
18-03-11-30	4001	0.31
18-03-14-00	501	0.90
18-03-14-00	600	0.40
18-03-14-00	700	57.81
18-03-14-00	800	134.60
18-03-14-00	2500	61.86
18-03-14-00	2501	9.11
18-03-15-00	100	11.77
18-03-15-00	200	84.15
18-03-15-00	201	63.55
18-03-15-00	202	36.46
18-03-15-00	204	1.69
18-03-15-00	205	2.04
18-03-15-00	206	10.65
18-03-15-00	207	1.87
18-03-15-00	208	10.43
18-03-15-00	209	1.31
18-03-15-00	300	81.75
18-03-15-00	302	57.65
18-03-15-00	303	10.55
18-03-15-00	304	25.31
18-03-15-00	400	60.24

18-03-16-00	100	31.20
18-03-16-10	100	9.61
18-03-16-10	200	9.52
18-03-16-10	300	6.31
18-03-16-10	401	6.56
18-03-16-10	700	6.86
18-03-16-10	701	6.26
18-03-16-10	702	12.47
18-03-16-10	800	11.26
18-03-16-10	900	4.92
18-03-16-10	1000	4.64
18-03-16-10	1100	9.96
18-03-16-10	1200	2.29
18-03-16-10	1300	2.84
18-03-16-10	1400	3.38
18-03-16-10	1500	3.38
18-03-16-10	1600	3.39
18-03-16-10	1700	3.39
18-03-16-10	1800	4.90
18-03-16-10	1900	4.75
18-03-16-10	2000	4.82
18-03-16-10	2100	9.67
18-03-16-10	2200	4.17
18-03-16-10	2300	6.43
18-03-16-10	2400	3.56
18-03-16-10	2401	3.72
18-03-16-10	2500	8.01
18-03-16-10	2600	3.45
18-03-16-10	2603	2.20
18-03-16-10	2604	3.87
18-03-16-20	100	3.93
18-03-16-20	1500	4.91
18-03-16-20	1701	2.08
18-03-16-20	1702	2.10
18-03-16-20	1901	1.82
18-03-16-20	1905	1.57
18-03-16-20	1906	0.30
18-03-16-24	100	2.60
18-03-16-24	200	2.35
18-03-16-24	300	1.70
18-03-16-24	600	0.65
18-03-16-24	700	1.11
18-03-16-24	800	1.46
18-03-16-24	900	2.53

Lane Transit District

18-03-16-30	22	0.32
18-03-16-30	100	1.71
18-03-16-30	200	1.99
18-03-16-30	301	2.12
18-03-16-30	302	2.62
18-03-16-30	2500	284.81
18-03-16-30	4501	1.45
18-03-16-30	4504	28.47
18-04-04-00	1310	0.01
18-04-04-00	1317	0.04
18-04-04-00	1318	0.02
18-04-04-00	1400	36.20
18-04-04-00	1500	35.93
18-04-04-00	2300	22.37
18-04-05-00	101	153.64
18-04-05-00	200	34.01
18-04-05-00	300	21.86
18-04-05-00	400	14.81
18-04-05-00	401	2.17
18-04-05-00	402	2.82
18-04-05-00	500	11.36
18-04-05-00	501	5.04
18-04-05-00	700	2.17
18-04-05-00	800	3.10
18-04-05-00	900	2.66
18-04-05-00	1000	0.46
18-04-05-00	1200	0.85
18-04-05-00	1300	1.75
18-04-05-00	1500	3.62
18-04-05-00	1501	5.98
18-04-05-00	1502	1.43
18-04-05-00	1600	0.06
18-04-05-00	1601	2.01
18-04-05-00	1602	2.00
18-04-05-00	1700	0.00
18-04-05-00	1800	2.62
18-04-05-00	1802	2.20
18-04-05-00	1900	4.82
18-04-05-00	2000	12.48
18-04-05-00	2001	0.97
18-04-05-00	2100	3.31
18-04-05-00	2101	2.04
18-04-05-00	2200	3.94
18-04-05-00	2201	10.66

18-04-05-00	2202	10.21
18-04-05-00	2203	9.94
18-04-05-00	2204	9.91
18-04-05-00	2205	1.60
18-04-05-00	2300	39.15
18-04-05-00	2301	5.02
18-04-05-00	2400	21.88
18-04-05-00	2401	3.08
18-04-05-00	2500	7.85
18-04-05-00	2501	2.87
18-04-05-00	2600	1.47
18-04-05-00	2700	1.28
18-04-05-00	2900	21.14
18-04-05-00	2901	5.01
18-04-05-00	2902	4.89
18-04-05-00	3000	1.99
18-04-05-00	3100	29.09
18-04-05-00	3101	1.00
18-04-05-00	3102	1.01
18-04-05-00	3103	1.00
18-04-05-00	3104	1.01
18-04-05-00	3105	1.00
18-04-05-00	3106	1.01
18-04-05-00	3107	1.01
18-04-05-00	3108	1.00
18-04-05-00	3109	1.54
18-04-05-00	3300	1.02
18-04-05-00	3500	0.43
18-04-05-00	3600	1.32
18-04-05-00	3700	1.09
18-04-05-00	3800	1.04
18-04-05-00	3900	1.08
18-04-05-00	4000	1.19
18-04-05-00	4100	1.53
18-04-05-00	4200	2.78
18-04-05-00	4300	1.65
18-04-05-00	4400	1.32
18-04-05-00	4401	0.20
18-04-05-00	4500	1.79
18-04-05-00	4900	3.04
18-04-05-00	4901	0.98
18-04-05-00	4902	36.50
18-04-05-00	5000	14.26
18-04-05-00	5200	19.09

18-04-06-00	103	115.51
18-04-06-00	104	2.00
18-04-06-00	105	2.00
18-04-06-00	200	5.38
18-04-06-00	201	13.44
18-04-06-00	300	1.86
18-04-06-00	301	9.87
18-04-06-00	303	8.21
18-04-06-00	305	19.14
18-04-06-00	306	0.43
18-04-06-00	307	12.94
18-04-06-00	308	0.30
18-04-06-00	310	2.47
18-04-06-00	311	79.47
18-04-06-00	314	20.02
18-04-06-00	400	2.29
18-04-06-00	500	0.66
18-04-06-00	600	37.57
18-04-06-00	601	33.93
18-04-06-00	700	1.60
18-04-06-00	701	0.15
18-04-06-00	800	3.45
18-04-06-00	801	5.83
18-04-06-00	802	4.56
18-04-06-00	900	8.32
18-04-06-00	901	1.63
18-04-06-00	902	1.50
18-04-06-00	1000	1.53
18-04-06-00	1002	1.10
18-04-06-00	1003	5.19
18-04-06-00	1100	3.04
18-04-06-00	1101	1.91
18-04-06-00	1200	51.95
18-04-06-00	1300	65.84
18-04-06-00	1400	6.60
18-04-06-00	1401	1.31
18-04-06-00	1402	35.30
18-04-06-00	1403	22.72
18-04-06-00	1700	1.03
18-04-06-00	2000	20.08
18-04-08-00	104	30.71
18-04-08-00	200	2.32
18-04-09-00	802	22.13
18-04-09-00	1200	25.92

18-04-09-00	1300	4.97
18-04-09-00	1302	5.02
18-04-09-00	1303	5.05
18-04-09-00	1500	14.85
18-04-09-00	1501	3.67
18-04-09-00	1502	1.83
18-04-09-00	1601	4.96
18-04-09-00	1602	4.82
18-04-09-00	1603	4.96
18-04-09-00	1604	5.24
18-04-09-00	1700	1.38
18-04-09-00	1701	17.73
18-04-09-00	1800	4.68
18-04-09-00	1801	0.61
18-04-09-00	2802	3.46
18-04-09-00	2900	2.22
18-04-09-00	3000	2.20
18-04-09-00	3001	3.08
18-04-09-00	3100	3.89
18-04-09-00	3200	6.94
18-04-09-00	3300	6.57
18-04-09-00	3400	5.33
18-04-09-00	3401	6.38
18-04-09-00	3402	6.51
18-04-09-00	3600	40.36
18-04-09-00	3601	1.96
18-04-09-00	3602	10.08
18-04-09-00	3603	4.84
18-04-09-00	3604	1.91
18-04-09-00	3605	1.12
18-04-09-00	3606	36.23
18-04-09-00	3700	6.85
18-04-09-00	3701	5.64
18-04-09-00	3702	14.14
18-04-09-00	3703	0.19
18-04-09-00	3704	10.15
18-04-09-00	3706	2.02
18-04-09-00	3800	1.45
18-04-09-00	3900	23.82
18-04-09-00	3901	10.55
18-04-09-00	3903	3.42
18-04-09-00	4000	10.26
18-04-09-00	4001	8.26
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18-04-09-00	4100	8.13
18-04-09-00	4101	5.04
18-04-09-00	4200	4.88
18-04-09-00	4201	8.73
18-04-09-00	4300	0.96
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18-04-09-00	5000	1.51
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18-04-09-00	5400	3.83
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18-04-10-00	101	1.62
18-04-10-00	103	172.01
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18-04-10-00	201	5.55
18-04-10-00	204	3.27
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18-04-10-00	206	7.64
18-04-10-00	300	7.18
18-04-10-00	301	1.43
18-04-10-00	304	3.26
18-04-10-00	305	2.97
18-04-10-00	306	0.62
18-04-10-00	312	5.39
18-04-10-00	313	5.01
18-04-10-00	314	19.72
18-04-10-00	315	1.76
18-04-10-00	502	7.28
18-04-10-00	503	13.52
18-04-10-00	504	2.29
18-04-10-00	505	10.25
18-04-10-00	704	8.23
18-04-10-00	705	7.86
18-04-10-00	706	84.62
18-04-10-00	707	6.67
18-04-10-00	708	29.47
18-04-10-00	800	10.13
18-04-10-00	900	21.17
18-04-10-00	903	16.67
18-04-10-00	904	11.38
18-04-11-00	102	46.48
18-04-11-00	104	1.28

18-04-11-00	201	47.33
18-04-11-00	307	15.03
18-04-11-00	308	10.02
18-04-11-00	310	15.00
18-04-11-00	311	13.20
18-04-11-00	312	10.01
18-04-11-00	401	122.28
18-04-11-00	500	31.35
18-04-11-00	600	0.34
18-04-11-00	900	6.20
18-04-11-00	1000	6.38
18-04-11-44	100	5.05
18-04-11-44	200	4.98
18-04-11-44	300	5.09
18-04-11-44	401	5.17
18-04-11-44	402	6.70
18-04-11-44	500	7.47
18-04-12-20	5601	0.79
18-04-12-20	5603	5.01
18-04-12-20	5604	5.01
18-04-12-20	6100	1.54
18-04-12-30	100	1.81
18-04-12-30	200	1.67
18-04-12-30	300	2.33
18-04-12-30	301	0.04
18-04-12-30	302	1.67
18-04-12-30	400	3.15
18-04-12-30	401	0.36
18-04-12-30	402	0.24
18-04-12-30	500	1.55
18-04-12-30	501	2.18
18-04-12-30	600	1.49
18-04-12-30	700	0.72
18-04-12-30	800	1.18
18-04-12-30	900	0.88
18-04-12-30	1000	4.19
18-04-12-30	1001	1.23
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18-04-12-30	1500	2.64
18-04-12-30	1600	1.89
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18-04-12-30	1905	5.24
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18-04-12-30	2200	17.94
18-04-12-40	2800	0.98
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18-04-12-40	3200	10.79
18-04-12-40	3801	2.11
18-04-12-42	3700	1.81
18-04-12-42	3800	3.43
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18-04-12-42	4000	3.56
18-04-12-42	4100	1.27
18-04-12-42	4200	1.02
18-04-12-42	4300	0.62
18-04-12-42	4400	2.00
18-04-12-42	4500	0.17
18-04-12-42	4600	0.42
18-04-12-42	4700	0.49
18-04-12-42	4800	0.44
18-04-12-42	4900	2.00
18-04-12-42	5000	0.55
18-04-12-42	5100	0.31
18-04-12-42	5200	0.40
18-04-12-42	5300	0.30
18-04-12-42	5400	0.21
18-04-12-43	22	0.36
18-04-12-43	100	9.65
18-04-12-43	200	2.00
18-04-12-43	300	2.01
18-04-12-43	401	3.40
18-04-12-43	402	3.15
18-04-12-43	500	0.42
18-04-12-44	100	4.07

Lane Transit District

18-04-12-44	200	1.96
18-04-12-44	300	1.28
18-04-12-44	400	1.94
18-04-12-44	500	5.98
18-04-12-44	600	4.95
18-04-12-44	700	4.94
18-04-12-44	800	4.93
18-04-12-44	900	2.12
18-04-13-00	200	0.48
18-04-13-00	300	0.49
18-04-13-00	400	0.52
18-04-13-00	500	2.75
18-04-13-00	502	0.45
18-04-13-00	503	0.44
18-04-13-00	504	0.67
18-04-13-00	505	0.88
18-04-13-00	506	0.69
18-04-13-00	508	0.71
18-04-13-00	509	3.19
18-04-13-00	510	0.88
18-04-13-00	700	0.62
18-04-13-00	800	0.44
18-04-13-00	900	1.55
18-04-13-00	1000	5.26
18-04-13-00	1001	3.19
18-04-13-00	1002	2.42
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18-04-13-00	1100	0.40
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18-04-13-00	1403	1.02
18-04-13-00	1404	1.23
18-04-13-00	1405	1.00
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18-04-13-00	1500	5.60
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18-04-13-00	1702	9.20
18-04-13-00	1703	33.25
18-04-13-00	1705	80.43
18-04-13-00	1706	1.70
18-04-13-00	1801	4.00
18-04-13-00	1802	2.00
18-04-13-00	1803	3.29
18-04-13-00	1900	0.98
18-04-13-00	1901	0.97
18-04-13-00	2000	0.97
18-04-13-00	2100	0.88
18-04-13-00	2200	1.01
18-04-13-00	2201	0.89
18-04-13-00	2202	1.02
18-04-13-00	2300	0.91
18-04-13-00	2301	1.04
18-04-13-00	2302	1.04
18-04-13-00	2399	1.04
18-04-13-00	2400	1.08
18-04-13-00	2500	1.38
18-04-13-00	2600	0.45
18-04-13-00	2601	1.86
18-04-13-00	2700	7.79
18-04-13-00	2800	1.04
18-04-13-00	2900	7.45
18-04-13-00	3000	0.96
18-04-13-00	3200	0.44
18-04-13-00	3301	0.69
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18-04-13-00	3303	8.18
18-04-13-00	3304	7.59
18-04-13-00	3305	5.01
18-04-13-00	3306	5.00
18-04-13-00	3400	0.49
18-04-13-00	3401	0.95
18-04-13-00	3501	0.73
18-04-13-00	3502	0.91
18-04-13-00	3503	1.07
18-04-13-00	3504	1.26
18-04-13-00	3507	3.19
18-04-13-00	3509	0.63
18-04-13-00	3600	1.08
18-04-13-00	3700	5.00
18-04-13-00	3800	60.22

18-04-13-00	3801	20.15
18-04-13-00	3900	0.02
18-04-13-00	4300	0.67
18-04-13-00	4400	1.10
18-04-13-00	4800	10.00
18-04-13-00	4900	10.07
18-04-13-00	5000	11.95
18-04-13-00	5100	10.25
18-04-13-11	1700	15.07
18-04-13-11	1701	0.85
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18-04-14-00	4001	12.72
18-04-14-00	4006	59.60
18-04-14-00	4008	4.75
18-04-14-00	4009	23.67
18-04-14-11	200	5.70
18-04-14-11	201	2.40
18-04-14-11	300	2.24
18-04-14-11	400	2.21
18-04-14-11	600	4.03
18-04-14-11	700	4.67
18-04-14-11	800	2.60
18-04-14-11	900	4.80
18-04-14-12	100	2.36
18-04-14-12	101	0.21
18-04-14-12	200	0.49
18-04-14-12	300	1.06
18-04-14-12	400	1.01
18-04-14-12	500	1.02
18-04-14-12	600	1.02
18-04-14-12	700	0.51
18-04-14-12	800	1.53
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18-04-14-12	1500	0.99
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18-04-14-12	1700	0.77
18-04-14-12	1800	0.56
18-04-14-12	1900	3.01

18-04-14-12	2000	2.03
18-04-14-12	2100	5.49
18-04-14-12	2200	0.04
18-04-14-21	100	1.22
18-04-14-21	200	0.40
18-04-14-21	300	0.64
18-04-14-21	400	1.24
18-04-14-21	500	1.03
18-04-14-21	600	2.93
18-04-14-21	701	10.62
18-04-14-21	900	2.79
18-04-14-21	1000	2.95
18-04-14-21	1100	0.48
18-04-14-22	300	11.48
18-04-15-00	300	20.07
18-04-15-00	400	22.02
18-04-15-00	500	22.62
18-04-15-00	502	2.41
18-04-15-00	600	10.02
18-04-15-00	1500	2.42
18-04-16-00	100	10.03
18-04-16-00	200	8.21
18-05-01-00	101	48.44
18-05-01-00	106	5.27
18-04-06-00	312	31.36
18-04-06-00	1301	3.18
18-04-06-00	1302	5.26
18-04-06-00	1303	3.50












LTD FINAL Eugene UR - IGA

Final Audit Report

2021-08-04

Created:	2021-08-04
By:	Kristin Kokkeler (kristin.kokkeler@ltd.org)
Status:	Signed
Transaction ID:	CBJCHBCAABAAUy2zD0ce4xS5CRYOzsLLyKHRGHV7a-r0

"LTD FINAL Eugene UR - IGA" History

-  Document created by Kristin Kokkeler (kristin.kokkeler@ltd.org)
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2021-08-04 - 10:37:51 PM GMT
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Signature Date: 2021-08-04 - 10:39:19 PM GMT - Time Source: server- IP address: 67.171.210.223
-  Document emailed to Wendi Frisbie (wendi.frisbie@ltd.org) for signature
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-  Document e-signed by Wendi Frisbie (wendi.frisbie@ltd.org)
Signature Date: 2021-08-04 - 10:40:16 PM GMT - Time Source: server- IP address: 140.211.84.124
-  Document emailed to Aurora Jackson (aurora.jackson@ltd.org) for signature
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-  Document e-signed by Aurora Jackson (aurora.jackson@ltd.org)
Signature Date: 2021-08-04 - 11:48:06 PM GMT - Time Source: server- IP address: 140.211.84.124
-  Agreement completed.
2021-08-04 - 11:48:06 PM GMT



INTERGOVERNMENTAL AGREEMENT
regarding the
PROVISION OF FIRE PROTECTION SERVICES
for purposes of the
ESTABLISHMENT OF URBAN RESERVES

PARTIES

BETWEEN: **Lane County,**
 a unit of local government in the State of Oregon **(County)**

AND: **The City of Eugene,**
 a unit of local government in the State of Oregon **(City)**

AND: **Santa Clara Rural Fire Protection District,**
 a unit of local government of the State of Oregon **(District)**

RECITALS

- A. The County and City are considering adopting plan amendments to identify specific land as “urban reserves” to accommodate future expansions of the City of Eugene’s urban growth boundary when needed.
- B. Prior to the establishment of urban reserves, OAR 660-021-0050(2) requires the County and City to enter into an “urban reserve agreement” with a special district that currently provides, or that is projected to provide sewer, water, fire protection, parks, transportation or storm water service to land identified as urban reserves and ORS 190.010 provides that units of local government may enter into agreements for the performance of any and all functions and activities that any party to the agreement, its assigned personnel or agents have authority to perform.
- C. The District currently provides fire protection service to land that is proposed to be identified as urban reserves by the County and City, as identified on Exhibits A and B to this Agreement.

- D. When lands are identified as urban reserves, the lands retain their rural land use zoning and the urban reserve status does not grant any greater development allowance; the urban reserves identification is intended to provide more certainty as to which rural lands are likely to be added to the City's urban growth boundary at some time in the future.
- E. The County, City and District agree that the urban reserve designation should not change the way in which fire protection service will be provided to the land that is ultimately identified as urban reserve.
- F. The County, City and District further agree that the urban reserve designation should not change the way in which fire protection service is provided to land when it is added to the urban growth boundary.

AGREEMENT

- 1. The District's provision of fire protection service to land within its service boundaries will not be disrupted or otherwise impacted by the County and City's identification of that land as urban reserves.
- 2. The District's provision of fire protection service to land within its service boundaries will not be disrupted or otherwise impacted by the County and City's eventual inclusion of the land in the City's urban growth boundary.
- 3. Consistent with current practices, land will be withdrawn from the District only after the eventual annexation of the land to the City of Eugene, at which time responsibility for providing fire protection service will be transferred to the City (i.e. Eugene Springfield Fire).
- 4. The City will provide timely written notice to the District before any area within the District's boundaries is formally considered by the City and County for inclusion in the Eugene urban growth boundary or for annexation to the City of Eugene.
- 5. County, City and District staff will meet to negotiate resolution of problems or conflicts concerning interpretation or implementation of the terms of this Agreement.
- 6. This Agreement will commence and take effect when: (1) all parties have executed this Agreement; and (2) the Lane County Board of Commissioners and the Eugene City Council have both adopted an ordinance that identifies land within the District's service boundary as urban reserves.
- 7. This Agreement may be amended at any time by mutual consent of the parties.
- 8. This Agreement may be terminated by one party giving the other parties sixty (60) days written notice of intent to terminate. Not less than thirty (30) days in advance of any

termination date, the County, City and District staff will meet to discuss and attempt to resolve the reasons for termination.

CITY OF EUGENE


DD

By: _____

Name: Sarah Medary

Title: City Manager

Date: 10/27/2021

LANE COUNTY

By: _____

Name: Steve Mokrohisky

Title: County Administrator

Date: _____

**SANTA CLARA RURAL FIRE
PROTECTION DISTRICT**

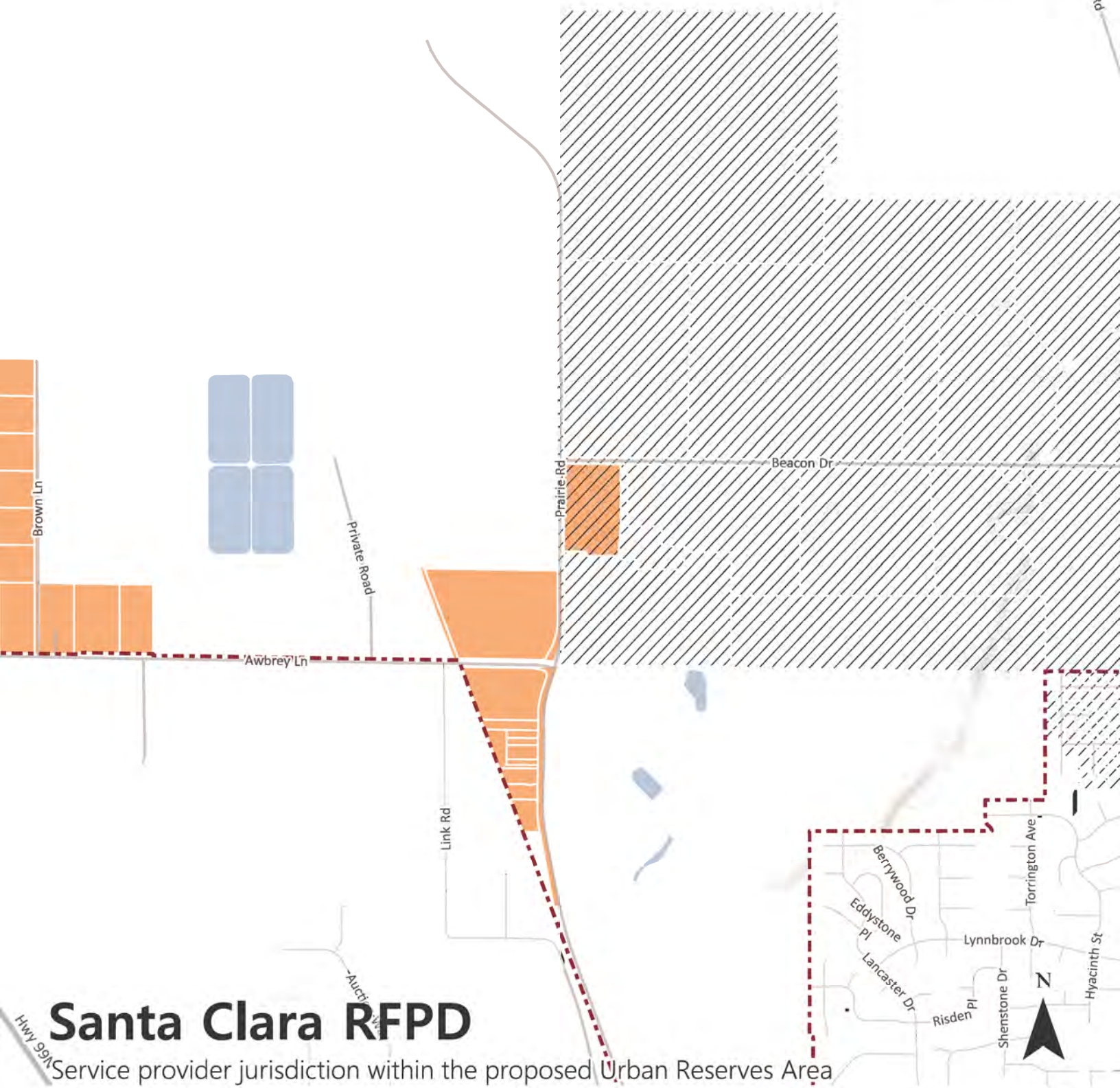
By: Dale Borland

Name: Dale Borland

Title: Fire Chief

Date: 06/25/2021

River Rd

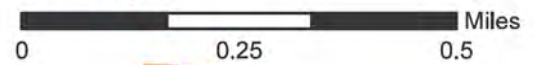


Santa Clara RFPD

Service provider jurisdiction within the proposed Urban Reserves Area

Key

-  Santa Clara RFPD Boundary
-  Proposed Urban Reserve Area
-  Roads
-  Taxlots
-  Rivers and Waterways
-  Eugene Urban Growth Boundary



6/24/2021

Data sources: Sources: Esri, USGS, NOAA, LCOG, and the City of Eugene

Caution: This map is based on imprecise source data and is subject to change

The following properties are being served by Santa Clara Rural Fire Protection District in the proposed Urban Reserves area, as shown on Exhibit A:

Assessor's Map	Tax Lot	Lot Acreage
16-04-34-00	908	9.16

INTERGOVERNMENTAL AGREEMENT
regarding the
PROVISION OF FIRE PROTECTION SERVICES
for purposes of the
ESTABLISHMENT OF URBAN RESERVES

PARTIES

- BETWEEN:** **Lane County,**
 a unit of local government in the State of Oregon **(County)**
- AND:** **The City of Eugene,**
 a unit of local government in the State of Oregon **(City)**
- AND:** **Zumwalt Rural Fire Protection District,**
 a unit of local government of the State of Oregon **(District)**

RECITALS


- A. The County and City are considering adopting plan amendments to identify specific land as “urban reserves” to accommodate future expansions of the City of Eugene’s urban growth boundary when needed.
- B. Prior to the establishment of urban reserves, OAR 660-021-0050(2) requires the County and City to enter into an “urban reserve agreement” with a special district that currently provides, or that is projected to provide sewer, water, fire protection, parks, transportation or storm water service to land identified as urban reserves and ORS 190.010 provides that units of local government may enter into agreements for the performance of any and all functions and activities that any party to the agreement, its assigned personnel or agents have authority to perform.
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- 4. The City will provide timely written notice to the District before any area within the District's boundaries is formally considered by the City and County for inclusion in the Eugene urban growth boundary or for annexation to the City of Eugene.
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termination date, the County, City and District staff will meet to discuss and attempt to resolve the reasons for termination.

CITY OF EUGENE 

LANE COUNTY

By: 

By: _____

Name: Sarah Medary

Name: Steve Mokrohisky

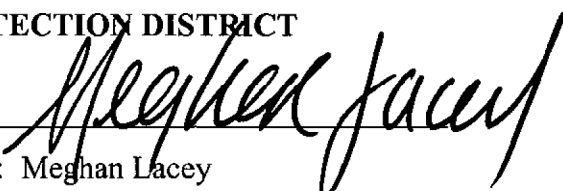
Title: City Manager

Title: County Administrator

Date: 10/27/2021

Date: _____

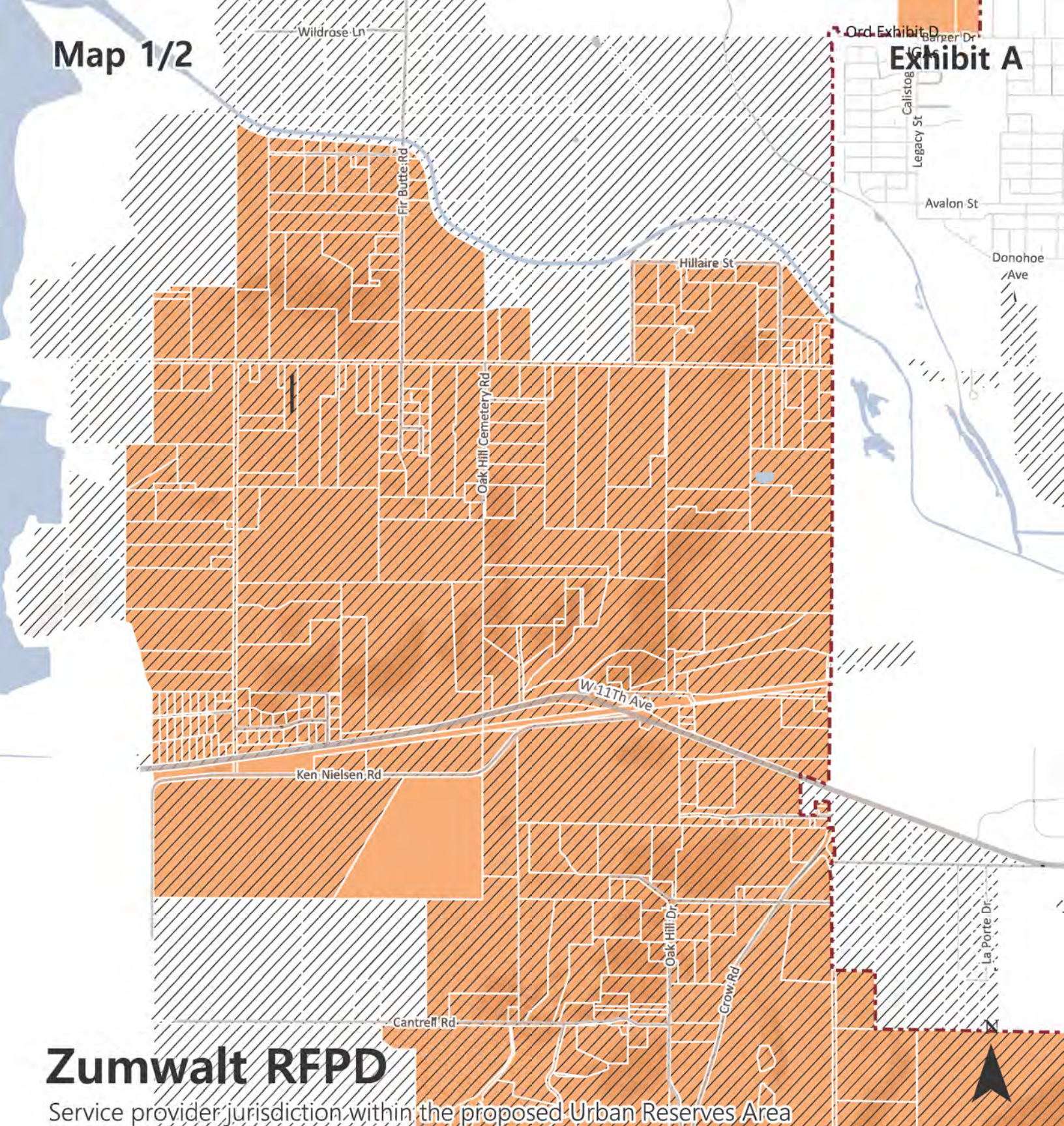
**ZUMWALT RURAL FIRE
PROTECTION DISTRICT**

By: 

Name: Meghan Lacey

Title: Treasurer

Date: 6/21/2021

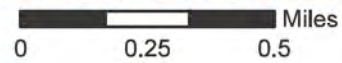


Zumwalt RFPD

Service provider jurisdiction within the proposed Urban Reserves Area

Key

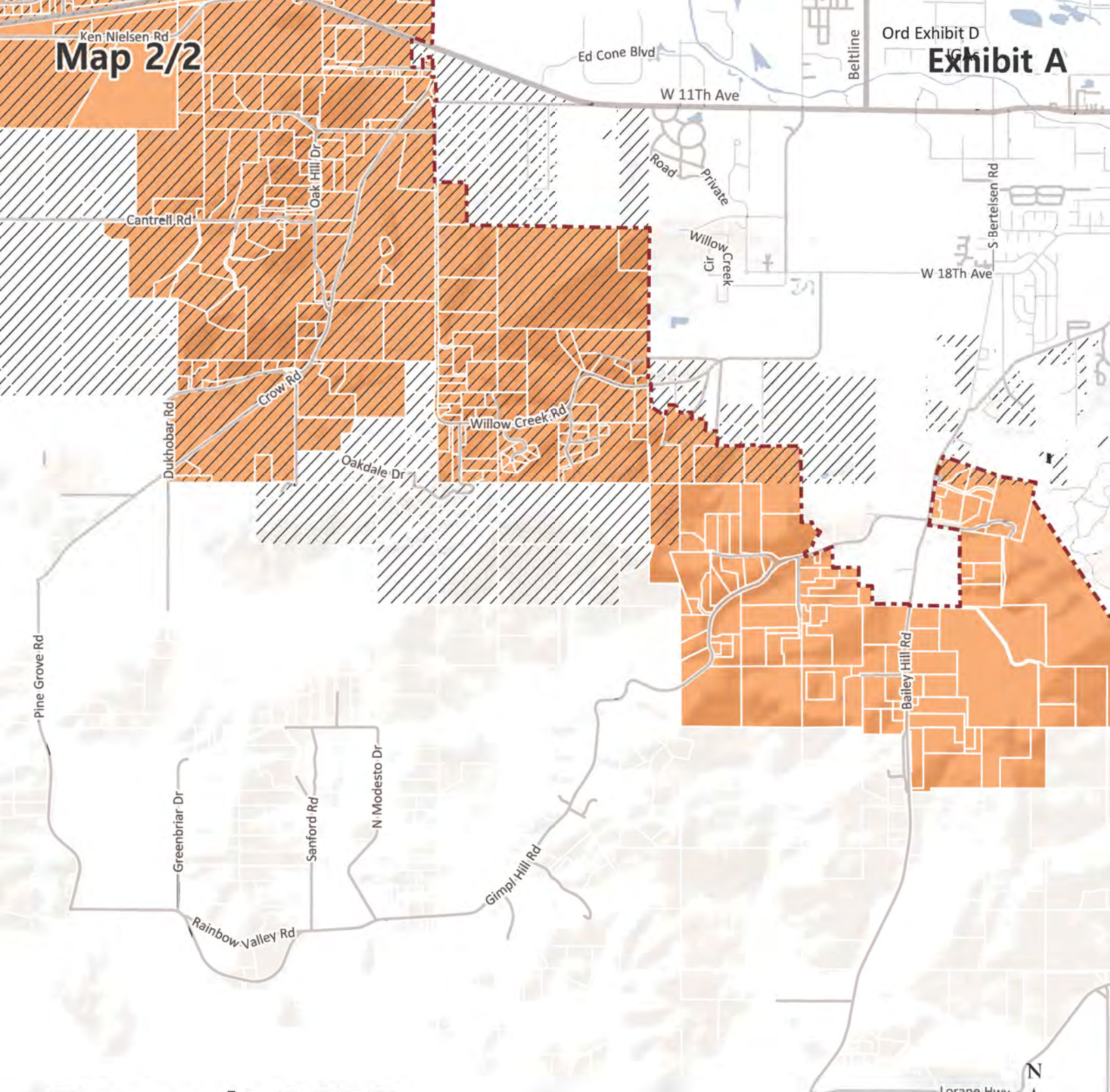
-  Zumwalt RFPD Boundary
-  Proposed Urban Reserve Area
-  Roads
-  Taxlots
-  Rivers and Waterways
-  Eugene Urban Growth Boundary



6/10/2021

Data sources: Sources: Esri, USGS, NOAA, LCOG, and the City of Eugene

Caution: This map is based on imprecise source data and is subject to change



Zumwalt RFPD

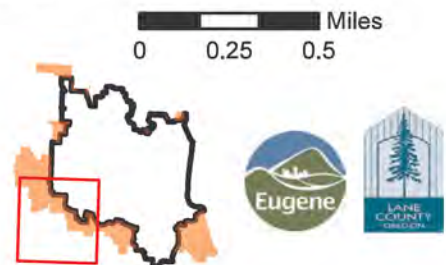
Service provider jurisdiction within the proposed Urban Reserves Area

Key

- Zumwalt RFPD Boundary
- Proposed Urban Reserve Area
- Taxlots
- Rivers and Waterways
- Roads
- Eugene Urban Growth Boundary

6/10/2021

Data sources: Sources: Esri, USGS, NOAA, LCOG, and the City of Eugene



Caution: This map is based on imprecise source data and is subject to change

The following properties are being served by Zumwalt Rural Fire Protection District in the proposed Eugene Urban Reserves, as shown on Exhibit A:

Assessor's Map	Tax Lot	Lot Acreage
17-04-19-00	900	0.95
17-04-19-00	1000	1.84
17-04-19-00	1100	1.46
17-04-19-00	1200	0.94
17-04-19-00	1300	0.93
17-04-19-00	1400	0.99
17-04-19-00	1501	1.21
17-04-19-00	1502	0.61
17-04-19-00	1600	5.02
17-04-19-00	1700	7.49
17-04-19-00	2400	9.23
17-04-19-00	2500	5.10
17-04-19-00	2600	5.85
17-04-19-00	2700	38.23
17-04-19-00	2800	5.66
17-04-19-00	2900	5.34
17-04-19-00	3000	5.11
17-04-19-00	3100	5.04
17-04-19-00	3200	1.26
17-04-19-00	3300	2.93
17-04-19-00	3400	10.01
17-04-19-00	3500	4.22
17-04-30-00	100	2.17
17-04-30-00	101	1.88
17-04-30-00	200	5.00
17-04-30-00	300	4.99
17-04-30-00	400	3.80
17-04-30-00	500	3.93
17-04-30-00	501	0.37
17-04-30-00	502	5.55
17-04-30-00	600	4.87
17-04-30-00	700	5.92
17-04-30-00	800	19.76
17-04-30-00	801	19.89
17-04-30-00	900	59.42
17-04-30-00	1000	10.14
17-04-30-00	1001	10.16
17-04-30-00	1100	18.99
17-04-30-00	1101	37.98
17-04-30-00	1200	1.48
17-04-30-00	1201	29.96
17-04-30-00	1202	27.84

17-04-30-00	1300	1.15
17-04-30-00	1302	7.24
17-04-30-00	1303	7.24
17-04-30-00	1304	7.24
17-04-30-00	1305	7.24
17-04-30-00	1306	5.75
17-04-30-00	1307	6.48
17-04-30-00	1308	5.00
17-04-30-00	1400	23.02
17-04-30-00	1401	13.37
17-04-30-00	1402	1.73
17-04-30-00	1403	6.94
17-04-30-00	1404	6.00
17-04-30-00	1405	5.60
17-04-30-00	1406	3.07
17-04-30-00	1407	0.41
17-04-30-00	1408	0.53
17-04-30-00	1409	4.76
17-04-30-00	1410	10.41
17-04-30-00	1500	8.43
17-04-30-00	1501	39.91
17-04-30-00	1600	1.96
17-04-30-00	1800	43.85
17-04-30-00	1801	16.88
17-04-30-00	1900	2.60
17-04-30-00	2100	78.25
17-04-30-00	2200	8.87
17-04-30-00	2201	25.84
17-04-30-00	2202	19.36
17-04-30-00	2203	16.03
17-04-30-00	2204	1.46
17-04-30-00	2300	2.10
17-04-30-00	2400	1.64
17-04-30-00	2500	0.34
17-04-31-00	101	1.07
17-04-31-00	102	7.07
17-04-31-00	200	33.69
17-04-31-00	201	0.99
17-04-31-00	203	0.63
17-04-31-00	204	0.60
17-04-31-00	205	0.04
17-04-31-00	300	4.73
17-04-31-00	400	22.87
17-04-31-00	403	10.00
17-04-31-00	405	5.50
17-04-31-00	409	0.66
17-04-31-00	500	5.35

17-04-31-00	1000	0.72
17-04-31-00	1100	9.43
17-04-31-00	1400	3.86
17-04-31-00	1500	24.84
17-04-31-00	1600	96.04
17-04-31-00	1702	17.37
17-04-31-00	1703	10.01
17-04-31-00	1704	9.99
17-04-31-00	1705	1.87
17-04-31-00	1800	15.98
17-04-31-00	1900	9.15
17-04-31-00	2000	45.07
17-04-31-00	2001	3.06
17-04-31-00	2002	0.59
17-04-31-00	2003	0.01
17-04-31-00	2100	5.78
17-04-31-00	2200	7.79
17-04-31-00	2500	1.39
17-04-31-00	2601	5.06
17-04-31-00	2602	5.18
17-04-31-00	2603	0.07
17-04-31-00	2700	10.50
17-04-31-00	2800	13.96
17-04-31-00	2801	3.60
17-04-31-00	2803	20.10
17-04-31-00	2804	20.18
17-04-31-00	3000	10.53
17-04-31-00	3100	0.91
17-04-31-00	3300	10.74
17-04-31-00	3400	2.10
17-04-31-00	3500	0.81
17-04-31-00	3503	1.96
17-04-31-00	3506	2.28
17-04-31-00	3507	0.50
17-04-31-00	3600	9.31
17-04-31-00	3700	1.17
17-04-31-00	3800	1.17
17-04-31-00	3900	2.05
17-04-31-00	4000	5.87
17-04-31-00	4001	2.36
17-04-31-00	4100	5.23
17-04-31-00	4200	1.09
17-04-31-00	4300	3.67
17-04-31-00	4400	12.23
17-04-31-00	4401	4.78
17-04-31-00	4402	13.83
17-04-31-00	4500	20.35

17-04-31-14	200	0.35
17-04-31-14	300	0.56
17-04-31-14	400	0.17
17-04-31-14	500	0.77
17-04-31-14	600	0.26
17-04-31-14	700	1.43
17-04-31-14	800	0.27
17-04-31-14	900	0.26
17-04-31-14	1000	0.80
17-04-31-14	1100	0.51
17-04-32-00	6000	13.31
17-04-32-00	6100	0.73
17-05-00-00	500	32.18
17-05-24-00	1000	0.54
17-05-24-00	1100	2.46
17-05-24-00	1300	2.91
17-05-24-00	1700	41.07
17-05-24-00	1800	24.30
17-05-24-00	1900	40.44
17-05-24-00	2000	27.63
17-05-24-00	2100	13.87
17-05-24-00	2200	19.40
17-05-24-00	2300	0.78
17-05-24-00	2400	13.57
17-05-24-00	2501	1.57
17-05-24-00	2600	0.38
17-05-24-00	2700	12.62
17-05-24-00	2800	2.81
17-05-24-00	2900	2.62
17-05-24-00	3000	11.74
17-05-24-00	3100	15.40
17-05-24-00	3200	14.77
17-05-24-00	3300	7.05
17-05-24-00	3400	0.93
17-05-24-00	3500	0.36
17-05-24-00	3600	6.04
17-05-24-00	3700	4.60
17-05-24-00	3701	2.50
17-05-24-00	3800	7.77
17-05-24-00	3900	30.20
17-05-24-00	4000	2.97
17-05-24-00	4100	1.23
17-05-24-00	4200	1.14
17-05-24-00	4300	2.02
17-05-24-00	4400	1.18
17-05-24-00	4401	0.43
17-05-25-00	100	2.00

17-05-25-00	200	19.71
17-05-25-00	205	5.52
17-05-25-00	206	20.04
17-05-25-00	207	38.54
17-05-25-00	208	1.40
17-05-25-00	209	6.14
17-05-25-00	301	1.79
17-05-25-00	302	1.80
17-05-25-00	303	2.01
17-05-25-00	304	1.23
17-05-25-00	305	1.12
17-05-25-00	306	1.78
17-05-25-00	307	4.36
17-05-25-00	308	4.00
17-05-25-00	309	1.33
17-05-25-00	313	2.77
17-05-25-00	314	2.55
17-05-25-00	315	6.60
17-05-25-00	316	0.90
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17-05-25-00	400	2.88
17-05-25-00	500	3.94
17-05-25-00	600	21.94
17-05-25-00	601	0.94
17-05-25-00	701	19.47
17-05-25-00	702	10.44
17-05-25-00	703	0.03
17-05-25-00	800	5.08
17-05-25-00	900	0.93
17-05-25-00	1000	12.13
17-05-25-00	1001	1.00
17-05-25-00	1100	4.00
17-05-25-00	1200	14.88
17-05-25-00	1300	4.94
17-05-25-00	1400	28.98
17-05-25-00	1401	4.67
17-05-25-00	1402	4.71
17-05-25-00	1500	14.13
17-05-25-00	1501	0.89
17-05-25-00	1600	5.58
17-05-25-00	1601	1.09
17-05-25-00	1602	9.18
17-05-25-00	1603	3.95
17-05-25-00	1700	14.14
17-05-25-00	1801	14.29
17-05-25-00	1802	13.52
17-05-25-00	1803	0.37

17-05-25-00	1804	1.55
17-05-25-00	1900	26.18
17-05-25-00	2000	24.66
17-05-25-00	2100	11.08
17-05-25-00	2101	10.16
17-05-25-00	2200	5.33
17-05-25-00	2202	73.65
17-05-25-00	2300	34.09
17-05-25-00	2301	20.23
17-05-25-00	2302	12.85
17-05-25-00	2400	83.53
17-05-25-00	2401	18.51
17-05-25-00	2402	17.26
17-05-36-00	100	2.19
17-05-36-00	200	21.58
17-05-36-00	300	6.11
17-05-36-00	400	151.45
17-05-36-00	500	59.55
17-05-36-20	100	1.01
17-05-36-20	200	5.32
17-05-36-20	300	1.51
17-05-36-20	400	1.49
17-05-36-20	500	1.17
17-05-36-20	600	0.98
17-05-36-20	700	0.96
17-05-36-20	800	0.91
17-05-36-20	900	0.84
17-05-36-20	1000	1.97
17-05-36-20	1100	0.83
17-05-36-20	1200	0.98
17-05-36-20	1300	0.98
17-05-36-20	1400	0.98
17-05-36-20	1500	1.27
17-05-36-20	1600	1.31
17-05-36-20	1700	1.14
17-05-36-20	1701	0.95
17-05-36-20	1800	0.74
17-05-36-20	1900	0.74
17-05-36-20	2000	0.74
17-05-36-20	2100	0.80
17-05-36-20	2200	2.41
17-05-36-20	2300	1.09
17-05-36-20	2400	1.03
17-05-36-20	2500	1.02
17-05-36-20	2600	1.01
17-05-36-20	2700	1.00
17-05-36-20	2800	1.00

17-05-36-20	2900	1.00
17-05-36-20	3000	0.99
17-05-36-20	3100	0.49
17-05-36-20	3101	0.51
17-05-36-20	3200	0.99
17-05-36-20	3300	1.12
17-05-36-20	3400	1.03
17-05-36-20	3500	1.02
17-05-36-20	3600	1.01
17-05-36-20	3700	1.00
17-05-36-20	3800	1.00
17-05-36-20	3900	1.00
17-05-36-20	4000	0.99
17-05-36-20	4100	2.99
17-05-36-20	4200	1.00
17-05-36-20	4300	1.01
17-05-36-20	4400	1.00
17-05-36-20	4499	1.01
17-05-36-20	4500	1.01
17-05-36-20	4600	1.01
17-05-36-20	4699	1.01
17-05-36-20	4700	1.01
17-05-36-20	4800	1.00
17-05-36-20	4900	0.50
17-05-36-20	5000	0.50
18-04-04-00	1310	0.01
18-04-04-00	1317	0.04
18-04-04-00	1318	0.02
18-04-04-00	1400	36.20
18-04-04-00	1500	35.93
18-04-04-00	2300	22.37
18-04-05-00	101	153.64
18-04-05-00	200	34.01
18-04-05-00	300	21.86
18-04-05-00	400	14.81
18-04-05-00	401	2.17
18-04-05-00	402	2.82
18-04-05-00	500	11.36
18-04-05-00	501	5.04
18-04-05-00	700	2.17
18-04-05-00	800	3.10
18-04-05-00	900	2.66
18-04-05-00	1000	0.46
18-04-05-00	1200	0.85
18-04-05-00	1300	1.75
18-04-05-00	1500	3.62
18-04-05-00	1501	5.98

18-04-05-00	1502	1.43
18-04-05-00	1600	0.06
18-04-05-00	1601	2.01
18-04-05-00	1602	2.00
18-04-05-00	1700	0.00
18-04-05-00	1800	2.62
18-04-05-00	1802	2.20
18-04-05-00	1900	4.82
18-04-05-00	2000	12.48
18-04-05-00	2001	0.97
18-04-05-00	2100	3.31
18-04-05-00	2101	2.04
18-04-05-00	2200	3.94
18-04-05-00	2201	10.66
18-04-05-00	2202	10.21
18-04-05-00	2203	9.94
18-04-05-00	2204	9.91
18-04-05-00	2205	1.60
18-04-05-00	2300	39.15
18-04-05-00	2301	5.02
18-04-05-00	2400	21.88
18-04-05-00	2401	3.08
18-04-05-00	2500	7.85
18-04-05-00	2501	2.87
18-04-05-00	2600	1.47
18-04-05-00	2700	1.28
18-04-05-00	2900	21.14
18-04-05-00	2901	5.01
18-04-05-00	2902	4.89
18-04-05-00	3000	1.99
18-04-05-00	3100	29.09
18-04-05-00	3101	1.00
18-04-05-00	3102	1.01
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18-04-05-00	3107	1.01
18-04-05-00	3108	1.00
18-04-05-00	3109	1.54
18-04-05-00	3300	1.02
18-04-05-00	3500	0.43
18-04-05-00	3600	1.32
18-04-05-00	3700	1.09
18-04-05-00	3800	1.04
18-04-05-00	3900	1.08
18-04-05-00	4000	1.19

18-04-05-00	4100	1.53
18-04-05-00	4200	2.78
18-04-05-00	4300	1.65
18-04-05-00	4400	1.32
18-04-05-00	4401	0.20
18-04-05-00	4500	1.79
18-04-05-00	4900	3.04
18-04-05-00	4901	0.98
18-04-05-00	4902	36.50
18-04-05-00	5000	14.26
18-04-05-00	5200	19.09
18-04-06-00	103	115.51
18-04-06-00	104	2.00
18-04-06-00	105	2.00
18-04-06-00	200	5.38
18-04-06-00	201	13.44
18-04-06-00	300	1.86
18-04-06-00	301	9.87
18-04-06-00	303	8.21
18-04-06-00	305	19.14
18-04-06-00	306	0.43
18-04-06-00	307	12.94
18-04-06-00	308	0.30
18-04-06-00	310	2.47
18-04-06-00	311	79.47
18-04-06-00	314	20.02
18-04-06-00	400	2.29
18-04-06-00	500	0.66
18-04-06-00	600	37.57
18-04-06-00	601	33.93
18-04-06-00	700	1.60
18-04-06-00	701	0.15
18-04-06-00	800	3.45
18-04-06-00	801	5.83
18-04-06-00	802	4.56
18-04-06-00	900	8.32
18-04-06-00	901	1.63
18-04-06-00	902	1.50
18-04-06-00	1000	1.53
18-04-06-00	1002	1.10
18-04-06-00	1003	5.19
18-04-06-00	1100	3.04
18-04-06-00	1101	1.91
18-04-06-00	1200	51.95
18-04-06-00	1300	65.84
18-04-06-00	1400	6.60
18-04-06-00	1401	1.31

18-04-06-00	1402	35.30
18-04-06-00	1403	22.72
18-04-06-00	1700	1.03
18-04-06-00	2000	20.08
18-04-08-00	104	30.71
18-04-10-00	201	5.55
18-04-10-00	204	3.27
18-04-10-00	206	7.64
18-04-10-00	314	19.72
18-05-01-00	101	48.44
18-05-01-00	106	5.27
18-04-06-00	312	31.36
18-04-06-00	1301	3.18
18-04-06-00	1302	5.26
18-04-06-00	1303	3.50

INTERGOVERNMENTAL AGREEMENT
regarding the
PROVISION OF FIRE PROTECTION SERVICES
for purposes of the
ESTABLISHMENT OF URBAN RESERVES

PARTIES

BETWEEN: **Lane County,**
 a unit of local government in the State of Oregon **(County)**

AND: **The City of Eugene,**
 a unit of local government in the State of Oregon **(City)**

AND: **Willakenzie Rural Fire Protection District,**
 a unit of local government of the State of Oregon **(District)**

RECITALS

- A. The County and City are considering adopting plan amendments to identify specific land as “urban reserves” to accommodate future expansions of the City of Eugene’s urban growth boundary when needed.

- B. Prior to the establishment of urban reserves, OAR 660-021-0050(2) requires the County and City to enter into an “urban reserve agreement” with a special district that currently provides, or that is projected to provide sewer, water, fire protection, parks, transportation or storm water service to land identified as urban reserves and ORS 190.010 provides that units of local government may enter into agreements for the performance of any and all functions and activities that any party to the agreement, its assigned personnel or agents have authority to perform.

- C. The District currently provides fire protection service to land that is proposed to be identified as urban reserves by the County and City, as identified on Exhibits A and B to this Agreement.

- D. When lands are identified as urban reserves, the lands retain their rural land use zoning and the urban reserve status does not grant any greater development allowance; the urban reserves identification is intended to provide more certainty as to which rural lands are likely to be added to the City's urban growth boundary at some time in the future.
- E. The County, City and District agree that the urban reserve designation should not change the way in which fire protection service will be provided to the land that is ultimately identified as urban reserve.
- F. The County, City and District further agree that the urban reserve designation should not change the way in which fire protection service is provided to land when it is added to the urban growth boundary.

AGREEMENT

- 1. The District's provision of fire protection service to land within its service boundaries will not be disrupted or otherwise impacted by the County and City's identification of that land as urban reserves.
- 2. The District's provision of fire protection service to land within its service boundaries will not be disrupted or otherwise impacted by the County and City's eventual inclusion of the land in the City's urban growth boundary.
- 3. Consistent with current practices, land will be withdrawn from the District only after the eventual annexation of the land to the City of Eugene, at which time responsibility for providing fire protection service will be transferred to the City (i.e. Eugene Springfield Fire).
- 4. The City will provide timely written notice to the District before any area within the District's boundaries is formally considered by the City and County for inclusion in the Eugene urban growth boundary or for annexation to the City of Eugene.
- 5. County, City and District staff will meet to negotiate resolution of problems or conflicts concerning interpretation or implementation of the terms of this Agreement.
- 6. This Agreement will commence and take effect when: (1) all parties have executed this Agreement; and (2) the Lane County Board of Commissioners and the Eugene City Council have both adopted an ordinance that identifies land within the District's service boundary as urban reserves.
- 7. This Agreement may be amended at any time by mutual consent of the parties.
- 8. This Agreement may be terminated by one party giving the other parties sixty (60) days written notice of intent to terminate. Not less than thirty (30) days in advance of any

termination date, the County, City and District staff will meet to discuss and attempt to resolve the reasons for termination.

CITY OF EUGENE 
DD

By: 

Name: Sarah Medary

Title: City Manager

Date: 10/27/2021

LANE COUNTY

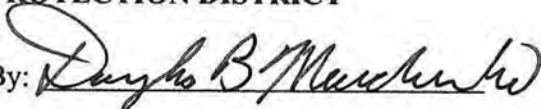
By: _____

Name: Steve Mokrohisky

Title: County Administrator

Date: _____

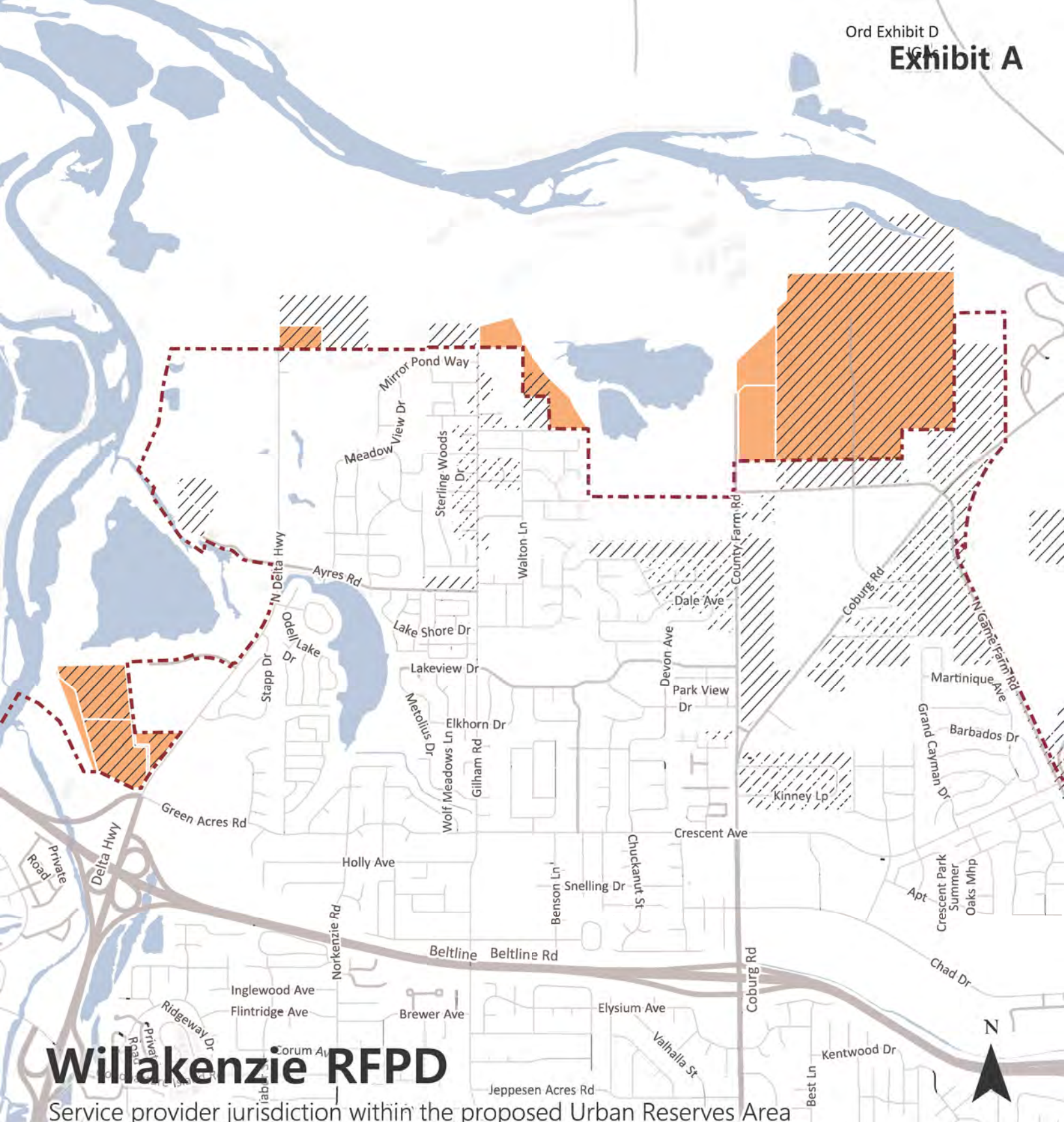
**WILLAKENZIE RURAL FIRE
PROTECTION DISTRICT**

By: 

Name: Doug MacDonald

Title: Secretary & Treasurer

Date: 8/12/2021



Willakenzie RFPD

Service provider jurisdiction within the proposed Urban Reserves Area

Key

-  Willakenzie Eugene RFPD Boundary
-  Proposed Urban Reserve Area
-  Roads
-  Taxlots
-  Rivers and Waterways
-  Eugene Urban Growth Boundary

7/15/2021

Data sources: Sources: Esri, USGS, NOAA, LCOG, and the City of Eugene

0 0.25 0.5 Miles



Caution: This map is based on imprecise source data and is subject to change

The following properties are being served by Willakenzie Rural Fire Protection District in the proposed Urban Reserves area, as shown on Exhibit A:

Assessor's Map	Tax Lot	Lot Acreage
17-03-07-00	1600	4.14
17-03-08-00	7500	8.46
17-03-18-00	300	12.73
17-03-18-00	1100	12.36
17-03-18-00	1201	3.32
17-03-18-00	4200	1.14

**INTERGOVERNMENTAL AGREEMENT
MEMORIALIZING COORDINATION
for purposes of the
ESTABLISHMENT OF URBAN RESERVES**

PARTIES

BETWEEN: **Lane County,**
 a unit of local government in the State of Oregon **(County)**

AND: **The City of Eugene,**
 a unit of local government in the State of Oregon **(City)**

AND: **Junction City Water Control District,**
 a unit of local government of the State of Oregon **(District)**

RECITALS

- A. The County and City are considering adopting plan amendments to identify specific land as “urban reserves” to accommodate future expansions of the City of Eugene’s urban growth boundary when needed.
- B. Prior to the establishment of urban reserves, OAR 660-021-0050(2) requires the County and City to enter into an “urban reserve agreement” with a special district that currently provides, or that is projected to provide sewer, water, fire protection, parks, transportation or storm water service to land identified as urban reserves and OAR 660-021-0020(1) requires the County and City to coordinate with districts currently providing other services to land identified as urban reserves.
- C. The County and City proposed this Agreement as a means to coordinate with the District because the District is a “water control” district organized under ORS Chapter 553 and the County and City are considering land within the District’s boundaries for identification as urban reserves.
- D. At the time of this Agreement, the land within the District’s service boundary that is proposed for identification as urban reserves is composed of the tax lots listed at Exhibit A, as shown on the map at Exhibit B.

- E. When lands are identified as urban reserves, the lands retain their rural land use zoning and the urban reserve status does not grant any greater development allowance; the urban reserves identification is intended to provide more certainty as to which rural lands are likely to be added to the City's urban growth boundary at some time in the future.
- F. The City provides stormwater services and requires new development within the urban growth boundary to include stormwater facilities that comply with stormwater regulations set out primarily in Sections 9.6790 through 9.6797 of the Eugene Code and of Lane County's code for urbanizable land; these regulations include limits on flow rates.
- G. In 2012, the City and District signed a Memorandum of Understanding to address the annexation of District land to the City by agreeing that, each time a property containing a District ditch or waterway is proposed for annexation to the City, City staff and District staff will meet to discuss what actions would need to be taken with the particular drainage area including maintenance actions, responsibilities, access and the potential vacation or transfer of any District easements (City Contract No 2013-00209).
- H. In 2017, as a result of the County's and City's coordination with the District, the County and City adopted additional code provisions to address the addition of land to the City's urban growth boundary by requiring that, when considering a development application within an area identified on a "Special Stormwater Flood Control Area Map," the City and County will require the applicant to demonstrate that the post-development peak flow rate will not exceed the pre-development peak flow rate for the applicable flood control design storm unless the applicant submits documentation from the District showing that the proposed flow rate is acceptable (Section 9.6791 of the Eugene Code and of Lane County's code for urbanizable land).

AGREEMENT

- 1. The District's authority and ability to provide water control service to land within its boundaries will not be disrupted or otherwise impacted by the County and City's identification of that land as urban reserves.
- 2. The County and City will not take action to add land that is located within the District's boundaries to the City's urban growth boundary without first conferring with the District, including to determine whether the land should be added to the "Special Stormwater Flood Control Area Map" referenced in Section 9.6791 of Lane County's code for urbanizable land and of the Eugene Code.
- 3. Any City annexation of land located within the District's boundaries or withdrawal of such land from the District's boundaries will occur only after the City and District have coordinated as described in the 2012 Memorandum of Understanding (City Contract No.

2013-00209) and Consistent with the applicable notice and hearing requirements of Eugene Code 9.7835 and ORS 222.520.

4. County, City and District staff will meet to negotiate resolution of problems or conflicts concerning interpretation or implementation of the terms of this Agreement.
5. This Agreement will commence and take effect when: (1) all parties have executed this Agreement; and (2) the Lane County Board of Commissioners and the Eugene City Council have both adopted an ordinance that identifies land within the District's service boundary as urban reserves.
6. This Agreement may be amended at any time by mutual consent of the parties.
7. This Agreement may be terminated by one party giving the other parties sixty (60) days written notice of intent to terminate. Not less than thirty (30) days in advance of any termination date, the County, City and District staff will meet to discuss and attempt to resolve the reasons for termination.

CITY OF EUGENE 

By: 

Name: Sarah Medary

Title: City Manager

Date: _____

LANE COUNTY

By: _____

Name: Steve Mokrohisky

Title: County Administrator

Date: _____

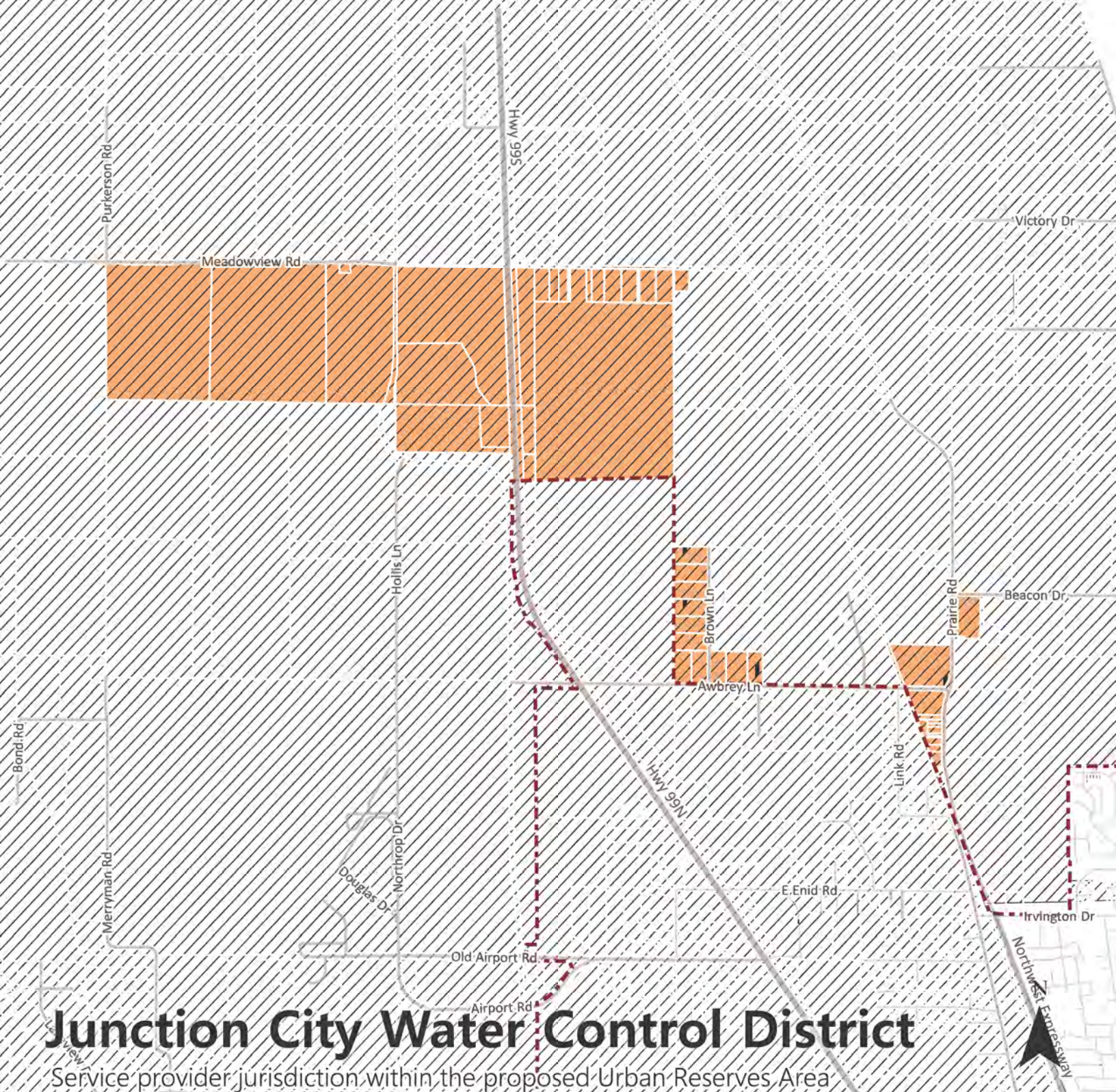
**JUNCTION CITY WATER
CONTROL DISTRICT**

By: 

Name: Bart Edwards

Title: President

Date: July 28 2021

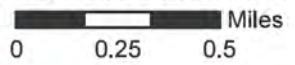


Junction City Water Control District

Service provider jurisdiction within the proposed Urban Reserves Area

Key

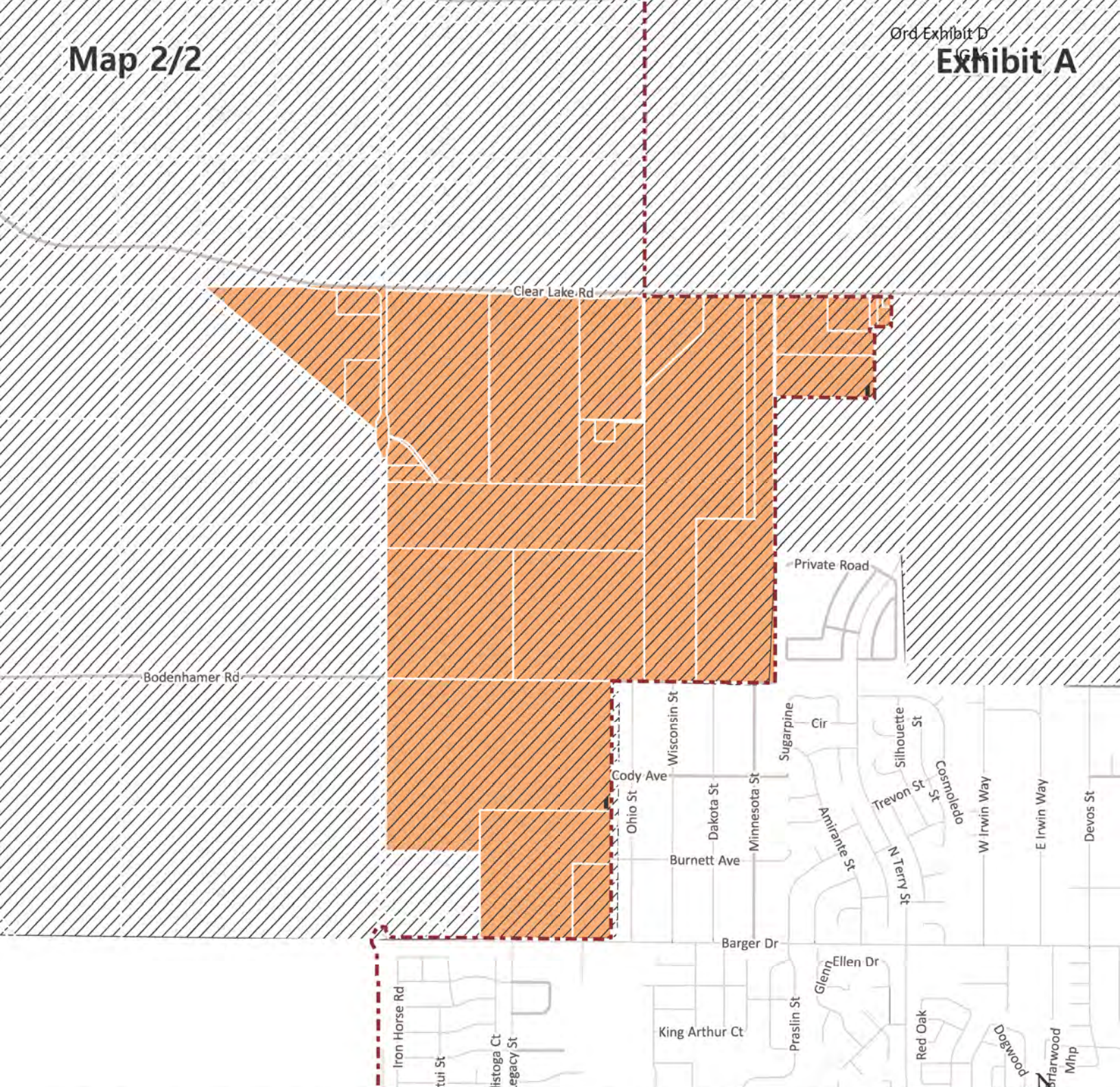
-  Junction City Water Control District Boundary
-  Proposed Urban Reserve Area
-  Roads
-  Taxlots
-  Eugene Urban Growth Boundary



7/19/2021

Data sources: Sources: Esri, USGS, NOAA, LCOG, and the City of Eugene






Caution: This map is based on imprecise source data and is subject to change

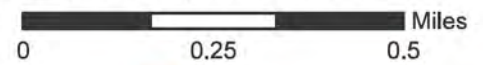


Junction City Water Control District

Service provider jurisdiction within the proposed Urban Reserves Area

Key

-  Junction City Water Control District - Clear Lake Boundary
-  Proposed Urban Reserve Area
-  Roads
-  Taxlots
-  Eugene Urban Growth Boundary



7/19/2021

Data sources: Sources: Esri, USGS, NOAA, LCOG, and the City of Eugene

Caution: This map is based on imprecise source data and is subject to change

Junction City Water Control District

The following properties are being served by Junction City Water Control District in the proposed Urban Reserves area, as shown on Exhibit A:

Assessor's Map	Tax Lot	Lot Acreage
16-04-28-00	901	2.64
16-04-29-00	99	6.03
16-04-29-00	1701	40.31
16-04-29-00	1702	85.25
16-04-29-00	2000	18.38
16-04-29-00	2100	4.13
16-04-29-00	2200	2.62
16-04-29-00	2201	2.65
16-04-29-00	2300	3.52
16-04-29-00	2301	1.47
16-04-29-00	2302	4.78
16-04-29-00	2400	4.49
16-04-29-00	2500	4.59
16-04-29-00	2600	4.78
16-04-30-00	700	118.99
16-04-30-00	701	133.55
16-04-30-00	800	76.36
16-04-30-00	900	0.89
16-04-32-00	99	3.27
16-04-32-00	200	208.18
16-04-32-00	300	2.60
16-04-32-00	301	5.22
16-04-32-00	400	10.08
16-04-32-00	501	35.37
16-04-33-00	400	4.87
16-04-33-00	500	4.88
16-04-33-00	600	4.88
16-04-33-00	601	4.88
16-04-33-00	700	4.88
16-04-33-00	800	4.89
16-04-33-00	900	4.49
16-04-33-00	901	4.83
16-04-33-00	1002	4.48
16-04-33-00	1003	5.69
16-04-33-00	1004	4.20
16-04-33-00	1300	18.50
16-04-34-00	908	9.16
17-04-03-00	501	0.01
17-04-03-00	502	0.00

Junction City Water Control District

17-04-04-10	100	6.56
17-04-04-10	200	0.99
17-04-04-10	300	1.23
17-04-04-10	400	0.45
17-04-04-10	500	0.41
17-04-04-10	600	0.79
17-04-04-10	700	0.32
17-04-04-10	900	1.02
17-04-04-10	1000	0.81
17-04-04-10	1100	1.21
17-04-07-00	2700	4.78
17-04-07-00	2800	2.45
17-04-07-00	2900	22.69
17-04-08-00	2200	18.19
17-04-08-00	2500	9.77
17-04-08-00	2600	10.00
17-04-08-00	2800	0.75
17-04-08-00	2900	0.20
17-04-08-00	3100	3.37
17-04-08-00	3101	0.54
17-04-08-00	3200	8.67
17-04-17-00	400	40.13
17-04-17-00	500	63.58
17-04-17-00	501	5.20
17-04-17-00	600	1.70
17-04-17-00	700	8.83
17-04-17-00	801	42.17
17-04-17-00	802	39.93
17-04-17-00	900	1.47
17-04-17-00	1000	1.70
17-04-17-00	1100	40.17
17-04-17-00	1200	38.94
17-04-17-00	1300	40.13
17-04-17-00	1400	77.45
17-04-17-00	1700	33.68
17-04-17-00	1800	6.75
17-04-17-14	200	0.95

INTERGOVERNMENTAL AGREEMENT
regarding the
PROVISION OF PARK AND RECREATION SERVICES
for purposes of the
ESTABLISHMENT OF URBAN RESERVES

PARTIES

- BETWEEN:** **Lane County,**
 a unit of local government in the State of Oregon **(County)**
- AND:** **The City of Eugene,**
 a unit of local government in the State of Oregon **(City)**
- AND:** **Willamalane Park and Recreation District,**
 a unit of local government of the State of Oregon **(District)**

RECITALS

- A. The County and City are considering adopting plan amendments to identify specific land as “urban reserves” to accommodate future expansions of the City of Eugene’s urban growth boundary when needed.
- B. Prior to the establishment of urban reserves, OAR 660-021-0050(2) requires the County and City to enter into an “urban reserve agreement” with a special district that currently provides, or that is projected to provide sewer, water, fire protection, parks, transportation or storm water service to land identified as urban reserves and ORS 190.010 provides that units of local government may enter into agreements for the performance of any and all functions and activities that any party to the agreement, its assigned personnel or agents have authority to perform.
- C. The District currently provides park and recreation services to land that is proposed to be identified as urban reserves by the County and City, as identified on Exhibits A and B to this Agreement.
- D. When lands are identified as urban reserves, the lands retain their rural land use zoning and the urban reserve status does not grant any greater development allowance; the urban reserves identification is intended to provide more certainty as to which rural lands are likely to be added to the City’s urban growth boundary at some time in the future.

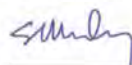
- E. The County, City and District agree that the urban reserve designation should not change the way in which park and recreation services will be provided to the land that is ultimately identified as urban reserves.

AGREEMENT

1. The District’s provision of park and recreation services to land within its service boundary will not be disrupted or otherwise impacted by the County and City’s identification of that land as urban reserves.
2. The District’s provision of park and recreation services to land within its service boundary will not be disrupted or otherwise impacted by the County and City’s eventual inclusion of the land in the City’s urban growth boundary.
3. Consistent with current practices, land will be withdrawn from the District only after the eventual annexation of the land to the City of Eugene, at which time responsibility for providing park and recreation services will be transferred to the City.
4. Any City withdrawal of land from the District’s boundary will occur only after the City has provided notice and an opportunity to participate in a hearing consistent with the requirements of Eugene Code 9.7835 and ORS 222.520.
5. This Agreement will commence and take effect when all parties have executed this Agreement.


CITY OF EUGENE 

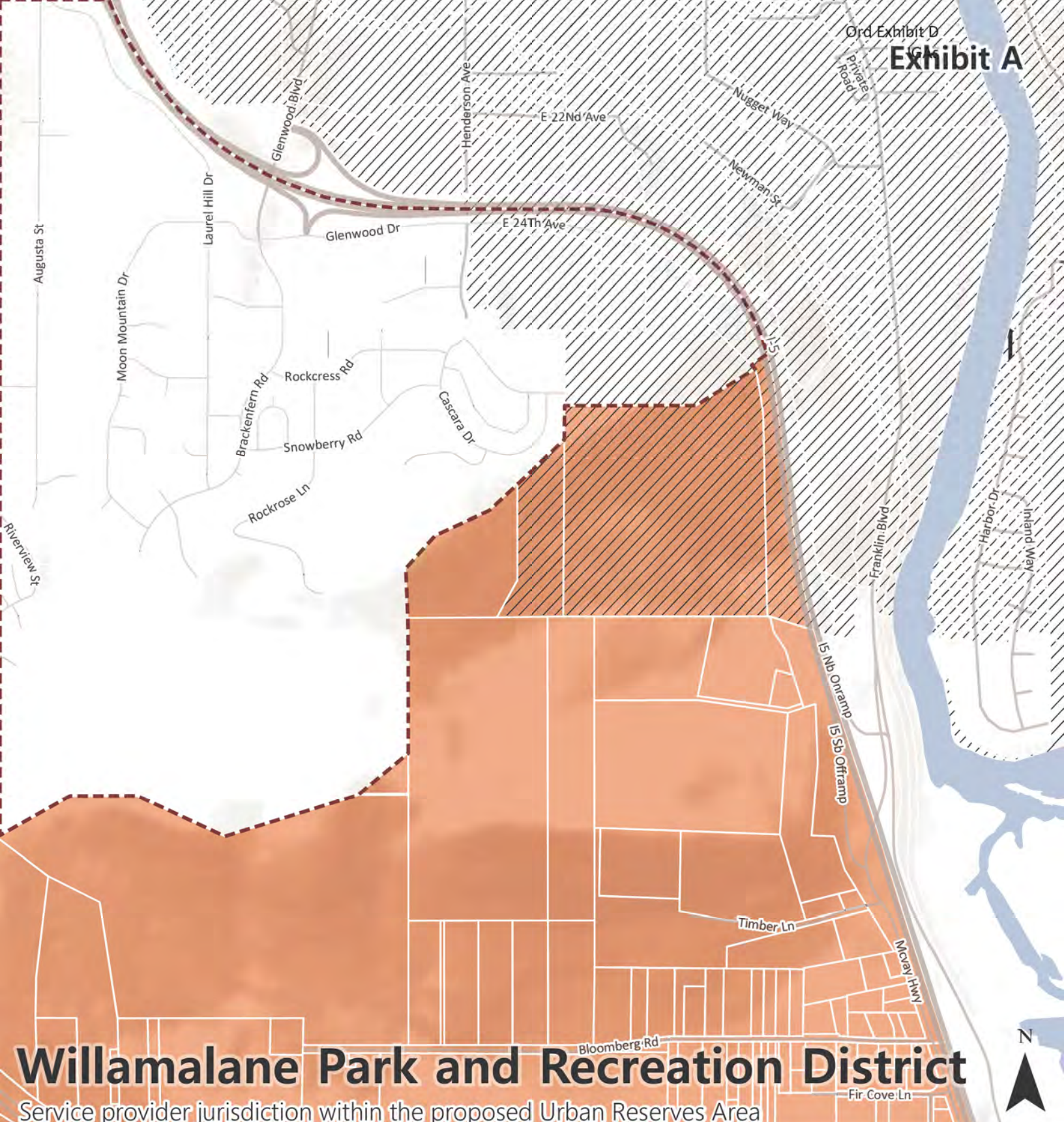
LANE COUNTY

By:  _____
 Name: Sarah Medary
 Title: City Manager
 Date: 10/27/2021

By: _____
 Name: Steve Mokrohisky
 Title: County Administrator
 Date: _____

WILLAMALANE PARK AND RECREATION DISTRICT






By:  _____
Michael Wargo [Jun 14, 2021 09:33 PDT]
 Name: Michael Wargo
 Title: District Superintendent
 Date: Jun 14, 2021

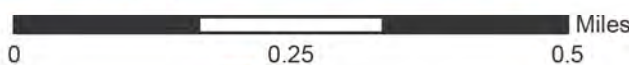


Willamalane Park and Recreation District

Service provider jurisdiction within the proposed Urban Reserves Area

Key

-  Willamalane Park and Recreation District Boundary
-  Proposed Urban Reserve Area
-  Roads
-  Taxlots
-  Rivers and Waterways
-  Eugene Urban Growth Boundary



5/26/2021

Data sources: Sources: Esri, USGS, NOAA, LCOG, and the City of Eugene

Caution: This map is based on imprecise source data and is subject to change

The following properties are being served by Willamalane Park and Recreation District in the proposed Urban Reserves, as shown on Exhibit A:

Assessor's Map	Tax Lot	Lot Acreage
18-03-03-00	108	9.31508964
18-03-03-40	1000	53.78473769

Revise the Lane County Rural Comprehensive Plan as follows:

- (1) Add the text shown below in bold, underline and italic under “Part I: INTRODUCTORY MATERIAL” / “A. INTRODUCTION TO THE RURAL COMPREHENSIVE PLAN” as follows:**

A. INTRODUCTION TO THE RURAL COMPREHENSIVE PLAN

The Lane County Rural Comprehensive Plan applies to all unincorporated lands within the County beyond the Urban Growth Boundaries of incorporated cities in the County and beyond the Boundary of the Eugene-Springfield Metropolitan Area Plan. Where these lands are beyond County jurisdiction (such as National Forest lands), the Plan applies but its application is regulated by federal law. In addition, it does contain provisions and representations of County positions on various issues, to be used by those agencies, such as the US Forest Service, in their own management actions, and also used in the event that lands not in County jurisdiction enter County jurisdiction.

The Plan follows the format of the LCDC Statewide Planning Goals, recognizing that they must be met by all local jurisdictions in Oregon. It is composed of two major elements:

1. County General Plan Policies: For each LCDC Goal, there are one or more Policies to be applied by the County toward land use and other planning and resource-management issues, in the interests of compliance with sound planning principles and statewide planning law. Policies are binding commitments, but will be carried out within established work programs and over all County priorities. The application of Policies which call for any programs or studies will occur as County resources in terms of both staff and budgetary allocations permit
2. Plan Diagrams: Two major planning regions are identified for Lane County-the Coastal Region and the Inland Region. For each, detailed representations of land use are depicted on maps, on Plan Diagrams. Land use regulation methods, such as zoning, are applied to carry out the intent of the designations. The application of the general plan is primarily through zoning. In fact planning and zoning designations are set forth on the same map.

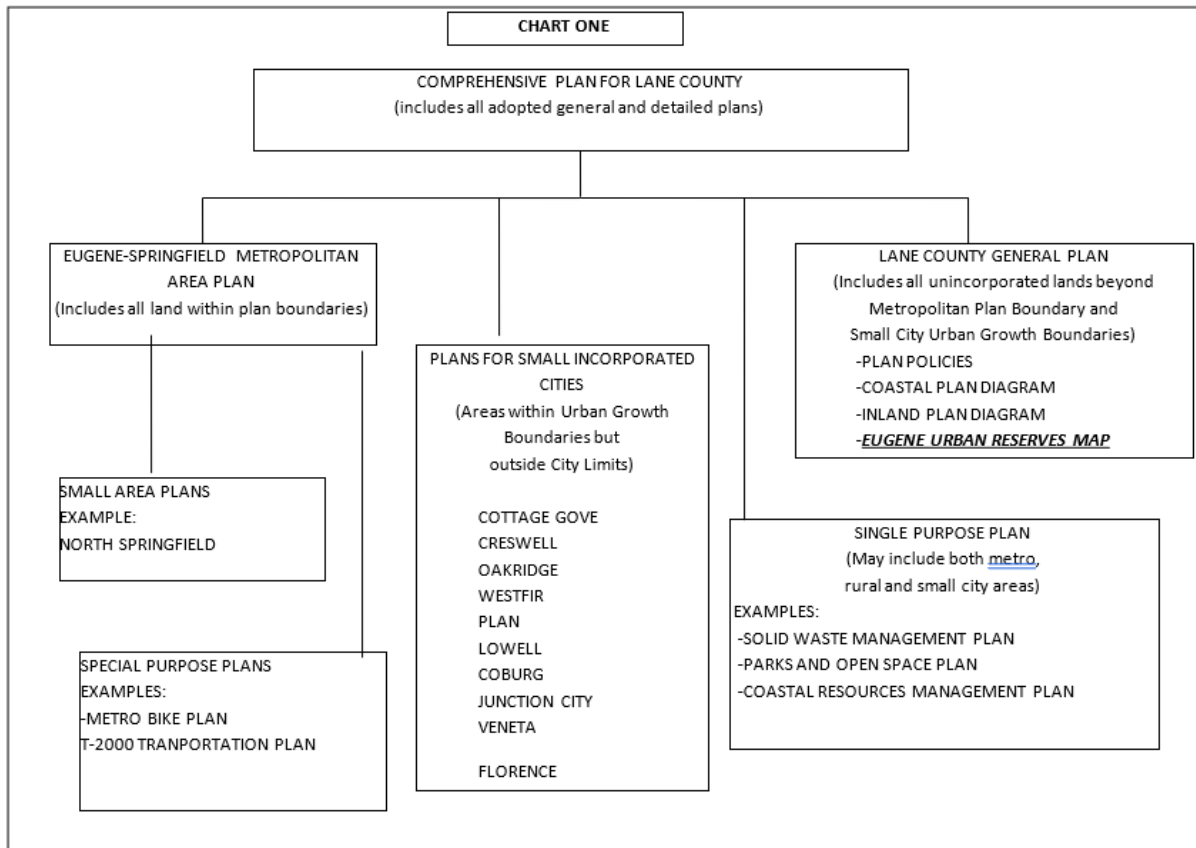
Chart One diagrams the relationship of these elements, and also indicates relationships with other portions of the County Comprehensive Plan. ***The appendix below, as well as other plans and maps that are components of the Lane County Rural Comprehensive Plan are available for review at the Lane County Planning Office.***

Appendix A. Eugene Urban Reserves Map

The document now before the reader is one of the two above components-the County General Plan Policies document. The Policies document is the broad, direction-setting portion of the Plan, and lays out approaches for interpretation of County planning needs and means of complying with State of Oregon planning law. This law attaches great importance to local jurisdictions having adopted comprehensive plans which in turn meet the requirements of Statewide Planning Goals. Accordingly, matters of interpretation concerning the General Plan are to be resolved in favor

of compliance with these Goals, and the Plan itself shall be recognized as representing the County's best effort in meeting the requirements of LCDC and its policy expressions, including Goals.

- (2) To “CHART ONE” Add the text shown below in bold, underline and italic as follows:



- (3) Under “Part I: INTRODUCTORY MATERIAL” / “D. CITIES COMMUNITIES AND RURAL LANDS” following the “Rural Lands” heading and paragraph, add the text shown below in bold, underline and italic and the map entitled “Eugene Urban Reserves” as follows:

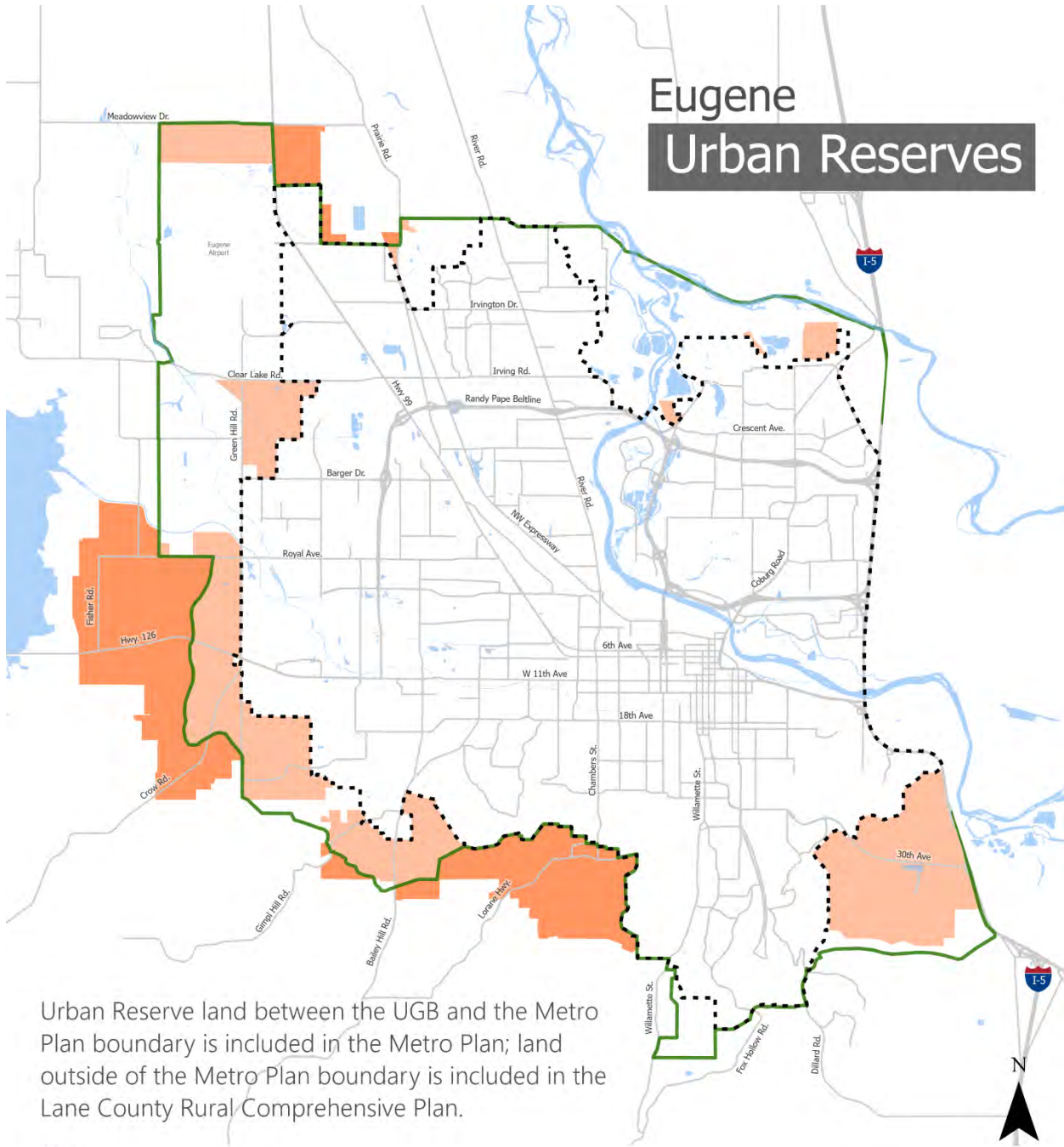
Eugene Urban Reserves

Land identified as Eugene urban reserves is the land expected to, eventually, be added to Eugene’s urban growth boundary to meet Eugene’s projected need for housing, employment and/or public uses when the land already within Eugene’s urban growth boundary must be supplemented. Land identified as Eugene urban reserves remains unincorporated land under the jurisdiction of Lane County.

The Eugene Urban Reserves Map adopted as a shapefile at Appendix A to this Lane County Rural Comprehensive Plan is the official map establishing the location of the land located outside of the Metro Plan boundary that is identified as urban reserves for the City of Eugene. The Eugene Urban Reserves Map adopted as part of the Eugene-Springfield Metro Plan is the official map establishing the location of the land located within the Metro Plan boundary that is identified as urban reserves for the City of Eugene. The print version of the Eugene Urban Reserves map included in the body of the Lane County Rural Comprehensive Plan is provided for illustrative purposes only.

The unofficial map, below, illustrates the location of the Eugene urban reserves that are located within the boundaries of this Rural Comprehensive Plan (outside of the boundary of the Eugene-Springfield Metropolitan Area General Plan).

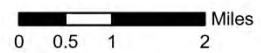
Eugene Urban Reserves



Urban Reserve land between the UGB and the Metro Plan boundary is included in the Metro Plan; land outside of the Metro Plan boundary is included in the Lane County Rural Comprehensive Plan.

Key

- Eugene Urban Reserves Inside the Metro Plan
- Eugene Urban Reserves Outside the Metro Plan
- Rivers and Waterways
- Eugene Urban Growth Boundary
- Metro Plan Boundary
- Roads



This map is provided for illustrative purposes only. The official map is adopted by ordinance as Appendix F to the Metro Plan and Appendix A to the Lane County Rural Comprehensive Plan

The dataset was compiled relative to numerous data sources (e.g. tax parcel boundaries) and the quality may be variable. Boundaries on the map represent approximate property line location and should NOT be interpreted as or used in lieu of a survey or property boundary description. This map is not suitable for legal, engineering, or surveying purposes and in no way attempts to predict, determine, or require what happens on individual lots.

- (4) Under “Part I: INTRODUCTORY MATERIAL” / “E. IMPLEMENTATION” / “GOAL TWO: LAND USE PLANNING” add a new policy 28 as shown below in bold, underline and italic as follows:

28. Lane County shall continue to plan and zone land identified as Eugene urban reserves for rural uses and shall do so in a manner that ensures a range of opportunities for the orderly, economic, and efficient provision of urban services and that will not hinder the efficient transition to urban land uses when these lands are included in the Eugene urban growth boundary as follows:

- a. ***Lane County shall not approve a change to its plans, land use code, or zoning that would allow a more intensive use (including higher residential density) on exception or nonresource land that is included in Eugene urban reserves than the use allowed on that land before the land was included in Eugene urban reserves unless otherwise required by state law.***
- b. ***Lane County shall not approve a change that would allow resource land that is included in Eugene urban reserves to be rezoned or redesignated to a non-resource zone or designation, except for land awarded state or federal investment for the development of rail-related infrastructure near existing railways.***

- (5) Under “Part I: INTRODUCTORY MATERIAL” / “E. IMPLEMENTATION” / “GOAL FOURTEEN: URBANIZATION” revise policy 12 as follows:

12. The County will provide each city the opportunity to review and comment upon County consideration of plans, ordinances, development proposals (zoning and land division), public improvement projects, sale of County lands and other similar matters of city interest which occur within the city's area of influence, ***including but not necessarily limited to [and/or] the*** urban growth boundary, via "joint agreements for planning [~~coordinator~~ ***coordination***" executed with each city.

- (6) Under “Part I: INTRODUCTORY MATERIAL” / “E. IMPLEMENTATION” / “GOAL FOURTEEN: URBANIZATION” add new policies 18 and 19 as shown below in bold, underline and italic as follows:

18. The areas identified as Eugene urban reserves on the Eugene Urban Reserves map adopted as part of the Metro Plan and the Lane County Rural Comprehensive Plan shall be given priority consideration, consistent with Oregon law, for inclusion within the Eugene UGB when a UGB expansion is considered.

19. The County shall continue to allow the siting of a single-family dwelling on a lawfully established unit of land as after it has been included in Eugene urban reserves if the County's regulations would have allowed the single-family dwelling on the land prior to the land's inclusion in Eugene urban reserves.

Findings in Support of the Establishment of Urban Reserves for the City of Eugene

Findings in Support of the Establishment of Urban Reserves for the City of Eugene

The findings, below, present State criteria first, then local government criteria. The State criteria are presented in order of the Statewide Planning Goals. State statutes and administrative rules are addressed under the Statewide Planning Goal to which they relate.

Statewide Planning Goal 1 – Citizen Involvement

“To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.”

The actions taken by this ordinance do not amend or affect either jurisdiction’s state acknowledged citizen involvement program. Therefore, Statewide Planning Goal 1 does not directly apply to the City and County actions.

The City’s and County’s citizen involvement programs were adopted into the Eugene Code, the County’s Code for the Eugene urban transition area and the Lane Code. They include a formal land use review procedure with public notification, meetings and hearings. The public engagement actions for the urban reserves work were completed consistently with the acknowledged citizen involvement programs and went far beyond the requirements of those programs to ensure that citizens had opportunities to be involved in the process.

The document titled *Eugene Urban Reserves Public Engagement Summary (Findings Appendix 1)* and included in the record, summarizes the public engagement efforts used to educate the public and obtain feedback on Urban Reserves for Eugene.

Statewide Planning Goal 2 – Land Use Planning

Statewide Planning Goal 2 -- “To establish a land use planning process and policy framework as a basis for all decision and actions related to use of land and to assure an adequate factual base for such decisions and actions.”

The Eugene and Lane County codes specify the procedures and criteria that were used in considering these amendments. These findings and the documents they reference show that the record includes an adequate factual base for the amendments. The record shows the City studied its future needs for land to accommodate employment, housing and public uses such as parks and schools (to accommodate needs beyond those expected to be addressed by the inventory of lands recently adopted as part of the UGB work acknowledged in 2017 and 2018), evaluated alternative courses of actions, and made ultimate policy choices based on the criteria addressed in more detail throughout these findings.

Consistent with the Goal 2 coordination requirement, there was a significant exchange, or invitation for such an exchange, between City of Eugene, Lane County and affected governmental units. Specifically relating to the subject action, *OAR 660-021-0020 “Authority to Establish Urban Reserve” states that “(1) Cities and counties cooperatively . . . may designate urban reserves under the requirements of this division, in coordination with special districts listed in OAR 660-021-0050(2)*

and other affected local governments, including neighboring cities within two miles of the urban growth boundary.”

The City and County coordinated with:

- The **Department of Land Conservation and Development (DLCD)**. DLCD was engaged through notice of the proposed action and regular contact with the City of Eugene’s regional representative.

The following local governments were engaged through notice of the proposed action and opportunity to comment:

- **City of Springfield**
- **City of Junction City**
- **City of Veneta**
- **City of Coburg**
- **City of Creswell**

The following agencies, organizations and special districts were engaged through direct coordination regarding the delivery of services to the study area:

- **Eugene Water and Electric Board (EWEB)**
- **Metropolitan Wastewater Management Commission (MWMC)**
- **Oregon Department of Transportation**
- **Lane Transit District (LTD)**

The following educational institutions were consulted with regard to their future land need, or lack thereof, within the Urban Reserves study area:

- **Lane Community College**
- **University of Oregon**
- **Bethel School District**
- **Eugene 4J School District**

In addition, to ensure an adequate factual base for the establishment of Eugene urban reserves, the City and County coordinated extensively throughout the project. This included City of Eugene Public Works Engineering (Wastewater, Stormwater, and Transportation) and Parks and Open Space Divisions, the City of Eugene Airport, Eugene Springfield Fire and EMS, and Lane County Land Management Division and Transportation Planning.

Urban reserves planning also included coordination with special district service providers located within the Eugene urban reserves, per OAR 660-021-0050. As discussed in the findings related to Goals 11 and 14, the City and County entered into urban reserve agreements with the following special districts:

- **Bailey-Spencer Rural Fire Protection District**
- **Eugene #1 Rural Fire Protection District**
- **Goshen Pleasant Hill Rural Fire Protection District**
- **Junction City Water Control District**

- Lane Fire Authority
- Lane Transit District (LTD)
- Santa Clara Rural Fire Protection District
- Willakenzie Rural Fire Protection District
- Willamalane Park and Recreation District
- Zumwalt Rural Fire Protection District

Statewide Planning Goal 3 – Agricultural Lands

Statewide Planning Goal 3 -- “To preserve and maintain agricultural lands.”

The actions taken by this ordinance do not change the zoning, plan designation or regulations for any agricultural lands within the County. Agricultural lands that are within Eugene’s urban reserves will continue to be planned and zoned for agricultural use and will not be considered for urbanization until such time as Eugene pursues an urban growth boundary expansion through a separate process.

In addition, the process for selecting land for urban reserves requires that agricultural and forest lands be the last priority for inclusion after all suitable exception areas, nonresource land and marginal lands have been included, with higher priority given to land of lower capability (OAR 660-021-0030). The City and the County specifically selected a 27-year urban reserves option to limit the amount of agricultural land with Class I and II soils in the Eugene urban reserves.

Consideration of agricultural land is further addressed under Goal 14, specifically in response to OAR 660-021-0030(2) and (3):

OAR 660-021-0030(2) “Inclusion of land within an urban reserve shall be based upon the locational factors of Goal 14 and a demonstration that there are no reasonable alternatives that will require less, or have less effect upon, resource land.”

OAR 660-021-0030(3) “Land found suitable for an urban reserve may be included within an urban reserve only according to the following priorities ...(c) If land of higher priority is inadequate to accommodate the amount of land estimated in section (1) of this rule, third priority goes to land designated in an acknowledged comprehensive plan for agriculture or forestry, or both. Higher priority shall be given to land of lower capability as measured by the capability classification system or by cubic foot site class, whichever is appropriate for the current use.”

The City and County addressed the requirements of these rules in a study called the *Eugene Urban Reserves Study (Findings Appendix 2)* that is attached to these findings and incorporated herein by reference.

Statewide Planning Goal 4 – Forest Lands

Statewide Planning Goal 4 -- “To conserve forest lands. . .”

The actions taken by this ordinance do not change the zoning, plan designation or regulations for any forest lands within the County. Forest lands that are within Eugene’s Urban Reserves will continue to be planned and zoned for forest use and will not be considered for urbanization until such time as Eugene pursues an urban growth boundary expansion through a separate process.

In addition, the process for selecting land for urban reserves requires that agricultural and forest lands be the last priority for inclusion after all suitable exception areas, nonresource land and marginal lands have been included, with higher priority given to land of lower capability (OAR 660-021-0030). Consideration of forest land is addressed under Goal 14 in the same manner as the consideration of agricultural land, as described in Goal 3.

Statewide Planning Goal 5 – Natural Resources, Scenic and Historic Areas, and Open Spaces

Statewide Planning Goal 5 -- “To protect natural resources and conserve scenic and historic areas and open spaces.”

Both the City of Eugene and Lane County have adopted / acknowledged programs for protecting and conserving the types of resources, areas and spaces referenced in Statewide Planning Goal 5 for land within with the Metro Plan (outside the UGB) and land within the Rural Comprehensive Plan. All lands will retain their rural zoning and be subject to current rural regulations. The actions taken by this ordinance do not include any actions which would change the Goal 5 program of lands outside of Eugene’s UGB.

To the extent it is relevant under Goal 5, as detailed in the *Eugene Urban Reserves Study (Findings Appendix 2)*, in the development of urban reserves, most lands designated or zoned to protect natural resources are assumed to have no potential capacity for residential or employment development and are classified as “undevelopable” for the purposes of the establishment of urban reserves. The types of land that are Designated / Zoned to Protect Natural Resources and assumed to have no development capacity in the Urban Reserves Land Supply Model are:

- Lane County Goal 5 adopted riparian corridors with applicable setbacks
- Lane County Goal 5 adopted wetlands, wetlands on the National Wetlands Inventory, and wetlands designated as protect or restore in the West Eugene Wetlands Plan
- Critical habitat (federal and state-listed threatened and endangered species) from U.S. Fish and Wildlife Service and the Oregon Biodiversity Information Center
- Historic and cultural resources, which are properties classified as eligible and listed according to the Oregon Heritage State Historic Preservation Office
- Designated Natural Areas on the Oregon State Register of Natural Heritage Resources
- Plan designations: Natural Resource (Metro Plan), Natural Resource: Conservation Area (Rural Comprehensive Plan), and Natural Resource: Wildlife (Rural Comprehensive Plan)

Also to the extent it is relevant under Goal 5, the assumption that these land types will not serve future needs for urban development is consistent with LCDC’s new rules for UGB expansions at OAR 660-024-0065 “Establishment of Study Area to Evaluate Land for Inclusion in the UGB.” Subsection (4)(c) of that

rule allows a city to exclude from its preliminary UGB study area land that “consists of a significant scenic, natural, cultural or recreational resource described in this subsection.”

Lastly, consistent with OAR 660-021-0030(2) the environmental consequences of urbanization were evaluated as part of the Urban Reserves suitability analysis. This was done as part of Goal 14, Locational Factor 3, Comparative environmental, energy, economic and social consequences, as described in the findings for Goal 14 and in the Eugene Urban Reserves Study Subarea Reports that are attached to the Eugene Urban Reserves Study (*Findings Appendix 2*). The City and County considered, but did not completely discount the development potential of, the development limitations on land identified with Goal 5 big game habitat and sand and gravel resources, described further below.

For the land outside of the Metro Plan boundary, Lane County has identified, as significant Goal 5 resources, areas that were identified as either “Major” or “Peripheral” Big Game Habitat by Oregon Department of Fish and Wildlife in the “1982 Lane County Working Paper on Flora and Fauna.” The County’s acknowledged Goal 5 program includes Rural Comprehensive Plan Goal 5 Policy 11, which establishes density standards for residential development on properties in “Major” and “Peripheral” Big Game Habitat, to avoid conflicts with deer and elk habitat that are protected under Goal 5.

Because the County Goal 5 study that identified the location and significance of big game habitat is over 40 years old, the changes in development patterns over that time, and due to the vast expanse of identified habitat around and within the urban reserves study area (including within the UGB), the County and City did not make an assumption that all Big Game Habitat areas currently protected under Goal 5 will be classified as “undevelopable” for the purposes of the establishment of urban reserves. Instead, as noted, the presence of big game habitat is evaluated, as part of the Goal 14, Locational Factor 3 Comparative environmental, energy, economic and social consequences analysis as described in the suitability analysis (Section C) of the Eugene Urban Reserves Study, and, in some cases, is part of the basis for the determination that certain lands in the study area are unsuitable for future urban development. Later, when land in urban reserves is considered for a UGB expansion, the County and City may update the mapping and Goal 5 analysis as provided by law.

The Goal 14, Locational Factor 3 analysis shows that adoption of the Eugene urban reserves, as proposed, would have no effect on the big game habitat that is identified in the County Rural Comprehensive Plan as a significant Goal 5 resource. Urban reserves will not impact or amend the maps adopted by the County to identify the big game habitat that the County protects. When land is included in urban reserves, it remains rural and under county jurisdiction. County regulations continue to apply, zoning and plan designations do not change, and the protection measures adopted by the County are undisturbed and will remain in place.

The City and County chose not to completely discount the development potential of land with sand and gravel resources. Information received by the City and County showed that the mining activities on some sand and gravel land in the study area will be completed before or within the time that the urban reserve land is expected to be considered for addition to Eugene’s UGB. Therefore, Land identified by the County as Goal 5 sand and gravel land is not classified as “undevelopable” for the purposes of the establishment of urban reserves. Instead, it is evaluated as part of the Eugene Urban Reserve Study’s suitability analysis (section C) Goal 14, Locational Factor 3, Comparative environmental, energy, economic and social consequences analysis and where substantial evidence demonstrates that mining operations on the land are /will be completed and that the land will be reclaimed for new uses by the

end of the urban reserves planning period it may be on balance found suitable for urban reserves. Later, when land in urban reserves is considered for a UGB expansion, the County and City may update the mapping and Goal 5 analysis as provided by law.

This was done so as part of Goal 14, Locational Factor 3, Comparative environmental, energy, economic and social consequences, as described in the findings for Goal 14 and the Eugene Urban Reserves Study Subarea Reports that are attached to the Eugene Urban Reserves Study (*Findings Appendix 2*). As noted above, existing regulations intended to address the protection of natural and historic resources in the context of proposed developments will continue to apply when land is included in urban reserves.

Statewide Planning Goal 6 – Air, Water and Land Resources Quality

Statewide Planning Goal 6 -- “To maintain and improve the quality of the air, water and land resources of the state.”

The State has not yet adopted specific requirements for complying with Statewide Planning Goal 6. The City and County are in compliance with environmental standards and statutes, including the federal Clean Water Act and Clean Air Act. The actions taken are consistent with the jurisdictions’ future compliance with those laws.

Statewide Planning Goal 7 – Areas Subject to Natural Hazards

Statewide Planning Goal 7 -- “To protect people and property from natural hazards.”

The State has not yet adopted specific requirements for complying with Statewide Planning Goal 7. In determining which areas are appropriate for future addition to the City’s UGB and, therefore, included in urban reserves, the City and County considered the existence of natural hazards in terms of slope, flood hazards, and landslide risk. Together, they are categorized as “Land that is Severely Constrained by Natural Hazards;” identified and used in the Urban Reserves Land Supply Model are as follows:

- Federal Emergency Management Agency (FEMA) floodway and Special Flood Hazard Areas (100-year flood plain)
- Steep slopes ($\geq 30\%$); LiDAR data used to calculate slope
- High risk landslide areas (from Oregon Department of Geology and Mineral Industries)

To the extent it is relevant under Goal 7, for purposes of the Eugene urban reserves, lands that are severely constrained by natural hazards are assumed to have no potential capacity for residential or employment development and are categorized as “undevelopable.” Therefore, land containing significant hazards were removed from development capacity assumptions when selecting Eugene urban reserves.

Also to the extent it is relevant under Goal 7, these FEMA floodway and Special Flood Hazard Areas and DOGAMI high risk landslide areas are consistent with in OAR 660-024-0065 “Establishment of Study Area to Evaluate Land for Inclusion in the UGB ... (b) the land is subject to significant development hazards...” According to state rules, these lands may be excluded from the preliminary study area when considering a UGB expansion. These natural hazard areas were identified as “undevelopable” for the purposes of establishment of the Eugene urban reserves in part to be consistent with state rules for UGB

expansion, as urban reserves will be among the first land considered when expanding the UGB in the future.

To the extent it is relevant under Goal 7, risk from these hazards were evaluated as part of the Urban Reserves Study suitability analysis, primarily under Locational Factor 3, evaluation of Environmental Consequences, under the prompt, “to what extent would urbanization of this area increase the potential risk of natural hazards ...?” as described in the findings for Goal 14 and found in the *Eugene Urban Reserves Study Subarea Reports attached to the Eugene Urban Reserves Study (Findings Appendix 2)*. Existing regulations intended to address hazard areas in the context of proposed developments will continue to apply.

Statewide Planning Goal 8 – Recreation Needs

Statewide Planning Goal 8 -- “To satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts.”

Goal 8 focuses on the provision of destination resorts. State statutes (e.g. ORS 195.120, 195.125) impose no park planning requirements on the City. The City’s actions do not implement a master plan for a particular park and, therefore, state administrative rules at OAR 660-0034 also impose no requirements.

Goal 8 does impose a general obligation on the City to plan for meeting its residents’ recreational needs: “(1) in coordination with private enterprise; (2) in appropriate proportions; and (3) in such quantity, quality and locations as is consistent with the availability of the resources to meet such requirements.”

Goal 8 provides that “Recreation Needs -- refers to existing and future demand by citizens and visitors for recreations areas, facilities and opportunities.” Goal 8 also provides that “Recreation Areas, Facilities and Opportunities -- provide for human development and enrichment, and include but are not limited to: open space and scenic landscapes; recreational lands; history, archaeology and natural science resources; scenic roads and travelers; sports and cultural events; camping, picnicking and recreational lodging; tourist facilities and accommodations; trails; waterway use facilities; hunting; angling; winter sports; mineral resources; active and passive games and activities.”

In planning for urban reserves, the City and County took into consideration the recreation needs of future residents in determining land need. Using the City’s Parks and Recreation System Plan (2018), the City developed a future level of service of 3.59 acres of neighborhood and community parks per 1,000 people in Eugene. The *Eugene Urban Reserves Land Need Model (Findings Appendix 4, attachment A)* uses this estimated level of service to determine the land need for neighborhood and community parks in Eugene urban reserves. Only neighborhood and community parks are considered because they would serve future neighborhoods and would traditionally require urban services. This approach is different from the estimation of land need for parks taken in the City and County’s most recent UGB adoption, where specific park acreage was used. Part of the reason for this difference is that, at the time of the UGB work, the City had an adopted list of expected parkland acquisitions for within the UGB, which doesn’t exist for urban reserves.

A number of existing parks and open space properties are included in the land encompassed by Eugene urban reserves, which will help serve the recreation needs of future residents. Public parks in the

Eugene urban reserve are not considered developable for jobs or housing. Their value lies in providing recreation opportunities like hiking, bird watching, mountain biking and nature appreciation in perpetuity to Eugene's growing population. These parks are included in Eugene urban reserves if there is developable land for future homes and jobs around them; their inclusion in urban reserves will benefit future residents and will aid in the orderly and economic provision of public facilities and services by their ability to act as contiguous connections for public facilities and services to nearby developable land.

Statewide Planning Goal 9 – Economic Development

Statewide Planning Goal 9 – “To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon’s citizens.”

Goal 9 and OAR 660-009 require the City and County to provide, through comprehensive plans, at least an adequate supply of sites of suitable sizes, types, locations, and service levels for a variety of industrial and commercial uses within the UGB. This need was addressed when the City and County adopted an expanded UGB in 2017. The Envision Eugene Employment Land Supply Study includes an acknowledged inventory of land for economic growth and activity in Eugene's UGB. That inventory is expected to address the City's needs for such land through 2032. The City's and County's policies pertaining to employment are housed in their relevant comprehensive plans.

While the actions taken by this ordinance do not impact the City's supply or demand for employment land, urban reserves will enable the City to expand that inventory in the future when it is determined that there is a need for additional employment land and the UGB is expanded.

To the extent that it is relevant under Goal 9, the *Urban Reserves Land Need Model (Findings Appendix 4, attachment A)* estimates the employment growth over a 27-year urban reserve time frame, calculating the commercial and industrial employment land need during that time. This was based on the same general criteria used for the most recent establishment of Eugene's UGB. Furthermore, the Urban Reserves Land Supply Model developed a capacity analysis which evaluated the ability of the land within the urban reserves study area to provide industrial land in the future. Industrial land has certain characteristics that are different from residential or commercial land, which are primarily located in mixed use neighborhoods. The industrial capacity analysis doesn't assign uses to specific land in the study area; it simply identifies whether there is enough land with the characteristics to potentially meet the industrial jobs need identified. In this way, the Eugene urban reserves are addressing future economic growth.

Lastly, the economic consequences of urbanization were evaluated as part of the Urban Reserves suitability analysis. This was done so as part of Goal 14, Locational Factor 3, Comparative environmental, energy, economic and social consequences, as described in the findings for Goal 14 and in the *Eugene Urban Reserves Study Subarea Reports that are attached to the Eugene Urban Reserves Study (Findings Appendix 2)*.

Statewide Planning Goal 10 – Housing

Statewide Planning Goal 10 -- “To provide for the housing needs of citizens of the state. Buildable lands for residential use shall be inventoried and plans shall encourage the availability of adequate numbers of needed housing units at price ranges and rent levels which are commensurate with the financial capabilities of Oregon households and allow for flexibility of housing location, type and density.”

When the City and County approved an expansion of Eugene’s UGB in 2017, they adopted, and received State acknowledgement of a 20-year inventory of buildable lands for residential use. The *Envision Eugene Residential Land Supply Study* includes an acknowledged inventory that is expected to address the City’s needs for such land through 2032. As explained in Parts II and IV of that Study, the City encourages the availability of adequate numbers of needed housing units at price ranges and rent levels which are commensurate with the financial capabilities of Eugene households and allow for flexibility of housing location, type and density.

While the actions taken by this ordinance do not impact the City’s supply of, or demand for, residential land, urban reserves will enable the City to expand that inventory when there is an identified need in the future. To the extent that it is relevant under Goal 10, the *Urban Reserves Land Need Model (Findings Appendix 4, attachment A)* estimates the demand for new residential land needed from population growth over a 27-year urban reserve time frame. The Urban Reserves Land Supply Model develops a residential capacity analysis using a similar but more streamlined methodology to estimate residential capacity than the 2012-2032 BLI. The estimate of residential capacity starts with quantifying the acres of developable land which includes undeveloped land and developable portions of partially vacant land. It uses information from the density of recent development within Eugene to convert from acres of developable land to capacity for residential development in dwelling units. The result of the capacity analysis is an estimate of the number of dwelling units that can be accommodated within the Eugene urban reserves. Complete information can be found in the *Eugene Urban Reserves Technical Memo (Findings Appendix 4)*.

Statewide Planning Goal 11 – Public Facilities and Services

Statewide Planning Goal 11 -- “To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.”

Goal 11 requires that urban development be supported by urban facilities and services. Goal 11 and ORS 197.712 require Eugene to have a public facilities plan for water, sewer and transportation services within the UGB. The Land Conservation and Development Commission has acknowledged the Eugene-Springfield Metropolitan Area Public Facilities and Services Plan (PFSP) as Eugene’s public facilities plan for wastewater and stormwater. Transportation planning is addressed under Goal 12, below.

While the lands within Eugene’s Urban Reserves will remain rural, retain their rural zoning and plan designation and will not be eligible for urbanization unless eventually brought into Eugene’s UGB, the

cost-effective provision of public facilities and services is an integral component of urban reserves planning, as shown in the definition of Urban Reserve in OAR 660-021-0010:

OAR 660-021-0010(1) "Urban Reserves" means lands outside of an urban growth boundary that will provide for:

(a) Future expansion over a long-term period; and

(b) The cost-effective provision of public facilities and services within the area when the lands are included within the urban growth boundary.

The definition of "public facilities and services" used for the Eugene urban reserves is consistent with the definition from Statewide Planning Goal 11, as directed in OAR 660-021-0010: "*Public Facilities and Services--projects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.*" (Statewide Planning Goal 11)

An Urban Reserves Service Provider Working Group, comprised of representatives from local service providers, was formed to evaluate the serviceability of the land within the urban reserves study area. Input received was based on the definition of urban reserves and public facilities and services and on the evaluation of the "orderly and economic provision of public facilities and services" (Goal 14, Locational Factor #2) as directed by OAR 660-021-0030(2).

This evaluation focused on the future provision of water, wastewater, fire, transit, transportation, and stormwater, per OAR 660-021-0050(2), as described below. Other public facilities and services evaluated to a lesser extent included parks, electricity and schools (also described in Findings related to Goal 2).

As noted above, developable land in the urban reserves study area was evaluated for whether public facilities and services could be provided to the land in an orderly and economic manner. Staff began this evaluation by coordinating with Eugene's current urban service providers as well as with the rural service providers who currently serve the area included in the Eugene urban reserves. Information was mainly received from current urban service providers because it is assumed that they would eventually expand their service area coverage into land designated as Eugene urban reserves when such land is added into the urban growth boundary. Input received was then compiled into the *Eugene Urban Reserves Serviceability Analysis Report (Findings Appendix 3)*, which is a preliminary assessment of providing urban levels of public services to the developable land within the Eugene urban reserves study area. The analysis includes the relative serviceability of each subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff, and a generalized cost estimate in order to identify whether urbanizable land could be served in an orderly and economic manner.

The findings of this report were incorporated into the *Eugene Urban Reserves Study Subarea Reports* that are attached to the Eugene Urban Reserves Study (*Findings Appendix 2*), and helped to identify developable land that would be suitable for urban reserves, specifically by the evaluation of the "orderly and economic provision of public facilities and services" (from Goal 14, Locational Factor #2) as directed by OAR 660-021-0030(2), and noted above. Further information on this analysis can be found in the *Eugene Urban Reserves Study (Findings Appendix 2)* and found in the findings for Goal 14.

OAR 660-021-0050 - Urban Reserve Agreements

(2) Designation of the local government or special district responsible for the following services: sewer, water, fire protection, parks, transportation, and storm water. The agreement shall include maps indicating areas and levels of current rural service responsibility and areas projected for future urban service responsibility when included in the urban growth boundary.

Urban reserve agreements have been developed between City of Eugene, Lane County and the ten (10) special districts (listed in the findings of Goal 2) responsible for fire protection, parks, transportation and stormwater; their boundaries are included all or in part within the Eugene urban reserves, consistent with OAR 660-021-0050(2). No statutory special districts provide sewer or water services in the Eugene urban reserves. See *Exhibit D* for copies of the agreements and the findings of Goals 2 and 14 for more information. As previously noted, these agreements will be adopted concurrently with Eugene urban reserves adoption.

Furthermore, consistent with OAR 660-021-0040(6), below, the urban reserves public facilities and services analysis is at a high level for planning purposes, and does not authorize urban levels of development or services in urban reserves prior to their inclusion in the urban growth boundary or place any limitations on the provision of rural facilities and services.

OAR 660-021-0040(6) provides that *“[c]ities and counties are authorized to plan for the eventual provision of urban public facilities and services to urban reserves. However, this division is not intended to authorize urban levels of development or services in urban reserves prior to their inclusion in the urban growth boundary. This division is not intended to prevent any planning for, installation of, or connection to public facilities or services in urban reserves consistent with the statewide planning goals and with acknowledged comprehensive plans and land use regulations in effect on the applicable date of this division.*

Analyzing the serviceability of urbanizable land is a key component of urban reserves planning and helped identify the land included in the Eugene urban reserves, increasing the likelihood that urban reserves, when brought into the UGB, can eventually be provided with urban facilities and services in an efficient and cost-effective manner, consistent with Goal 11. The City and County elected not to include any public facilities and services projects for urban reserves into the PFSP at this time.

Statewide Planning Goal 12 – Transportation

Statewide Planning Goal 12 -- “To provide and encourage a safe, convenient and economic transportation system.”

The Transportation Planning Rule (OAR 660-012-0060) contains the following requirement:

- (1) If an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation (including a zoning map) would significantly affect an existing or planned transportation facility, then the local government must put in place measures as provided in section (2) of this rule, unless the amendment is allowed under section**

(3), (9) or (10) of this rule. A plan or land use regulation amendment significantly affects a transportation facility if it would:

- (a) Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);**
- (b) Change standards implementing a functional classification system; or**
- (c) Result in any of the effects listed in paragraphs (A) through (C) of this subsection. * * ***
 - (A) Types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;**
 - (B) Degrade the performance of an existing or planned transportation facility such that it would not meet the performance standards identified in the TSP or comprehensive plan; or**
 - (C) Degrade the performance of an existing or planned transportation facility that is otherwise projected to not meet the performance standards identified in the TSP or comprehensive plan.**

The actions taken by this ordinance do not change the zoning, plan designation or regulations for any land being included as urban reserves, and therefore do not increase the development potential of these lands. The actions do not change the functional classification of a transportation facility, change the standards implementing a functional classification system or degrade the performance of a facility otherwise projected to not meet performance standards. Therefore, the amendments do not have a significant effect under OAR 660-012-0060(1)(c)(A), (B) or (C). As such, the amendments do not significantly affect any existing or future transportation facilities.

As described in the findings related to Goal 11, transportation is one of the public facilities and services analyzed for urban reserves planning. While the action of adopting urban reserves does not affect any existing or future transportation facilities, analyzing the serviceability of public facilities, including transportation, is a key component of urban reserves planning and helped identify the land included in the Eugene urban reserves. This increased the likelihood that urban reserves, when brought into the UGB, can eventually be provided with transportation facilities and services that provide and encourage a safe, convenient and economic transportation system, consistent with Goal 12.

The identification of developable land that would be suitable for Eugene urban reserves included criteria on how efficiently transportation systems could be provided, as directed by Goal 14, Locational Factor 2, "Orderly and economic provision of public facilities and services," described further in the findings related to Goal 11. The *Eugene Urban Reserves Serviceability Analysis Report (Findings Appendix 3)* and *Eugene Urban Reserves Study (Findings Appendix 2)* further describe the analysis related to the provision of transportation services (including transit). To assist in evaluating particular areas under the Goal 14 locational factors, the City considered some prompting questions related to Goal 12, including:

- How easy or difficult is it to serve each subarea which includes analysis of transportation and transit?
- To what extent is there good multi-modal access to this area?
- To what extent is the area easily accessible to downtown?

- To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt)?
- How cost-efficient is service provision in this area (includes transportation and transit)?
- Will urbanization in this area allow for connected, integrated neighborhoods? (from the *Eugene Urban Reserves Study, Findings Appendix 2*)

Agencies participating on the Eugene Urban Reserves Service Provider Working Group, related to transportation provision, include Oregon Department of Transportation, Lane Transit District, Lane County Transportation Division and Eugene Transportation Division.

Statewide Planning Goal 13 – Energy Conservation

Statewide Planning Goal 13 -- “To conserve energy.”

The State has not adopted specific rules for complying with Statewide Planning Goal 13. Consistent with Goal 13, the City of Eugene’s plans for accommodating growth are based on a philosophy of compact urban development, with land use regulations to preserve livability. The adoption package does not adopt or amend a local energy policy or implementing provisions.

Statewide Planning Goal 14 – Urbanization

Statewide Planning Goal 14 -- “To provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities.”

Goal 14 requires cities to plan for urbanization within an urban growth boundary. Urban reserves are the result of longer-term planning. The requirements for establishing urban reserves are set out at ORS 197.626 and OAR Chapter 660 Division 21.

660-021-0020 -- Authority to Establish Urban Reserve

(1) Cities and counties cooperatively . . . may designate urban reserves under the requirements of this division, in coordination with special districts listed in OAR 660-021-0050(2) and other affected local governments, including neighboring cities within two miles of the urban growth boundary. Where urban reserves are adopted . . . they shall be shown on all applicable comprehensive plan and zoning maps, and plan policies and land use regulations shall be adopted to guide the management of these reserves in accordance with the requirements of this division.

The City’s and County’s cooperation, and coordination with special districts and affected local governments is addressed in detail above, under the findings for Statewide Planning Goal 2, and those findings are incorporated herein by reference.

In summary, since the commencement of this project in 2018, the City and County have worked cooperatively to designate urban reserves. As detailed in *Eugene Urban Reserves Public Engagement Summary (Findings Appendix 1)*, the City and the County have provided a wide-range of opportunities

for the general public, property owners and agency partners like affected local governments to participate in urban reserves planning.

Consistent with OAR 660-21-0050(2), below, the City and County coordinated and developed an intergovernmental agreement on the transfer of services related to building code administration, land use regulation, transportation services and stormwater services. Intergovernmental agreements were also coordinated and developed with special districts responsible for the provision of fire protection, parks, transportation, and storm water within the Eugene urban reserves.

In addition to coordinating with special districts, the City and County coordinated with other potentially affected local governments, including neighboring cities within two miles of the City of Eugene's urban growth boundary, as directed in OAR 660-021-0020(1). These entities were engaged through informal consultation and participation on the Eugene Urban Reserves Service Provider Working Group.

Official maps of the Eugene urban reserves are being adopted as amendments to the Metro Plan (for areas between the UGB and the Metro Plan boundary) and the Lane County Rural Comprehensive Plan (for areas outside of the Metro Plan boundary). In addition, an illustrative map showing Eugene urban reserves is being adopted as an amendment to the City of Eugene Envision Eugene Comprehensive Plan. The Lane County zoning map is not applicable because the County is not applying an associated zone or overlay zone; instead, urban reserves will be identified on County maps (by boundary lines, similar to the urban growth boundary or a special district boundary, with hatched lines showing the Eugene urban reserves) and the City and County are amending the Metro Plan and the Lane County Rural Comprehensive Plan to include policies that will apply to the development of the Eugene urban reserve land. These policies relate to continuing to plan and zone land for rural uses in the Eugene urban reserves until brought into Eugene's urban growth boundary. The amendments will implement regulatory measures for land within the Urban Reserves. The new policies are consistent OAR 660-021-0040, as noted in the findings below.

660-021-0030 -- Determination of Urban Reserve

(1) Urban reserves shall include an amount of land estimated to be at least a 10-year supply and no more than a 30-year supply of developable land beyond the 20-year time frame used to establish the urban growth boundary. Local governments designating urban reserves shall adopt findings specifying the particular number of years over which designated urban reserves are intended to provide a supply of land.

The adopted 20-year time frame used to establish Eugene's current urban growth boundary is 2012 through 2032. The Eugene urban reserves adopted by the City and County are intended to serve the City's growing population for 27 years beyond the 20-year timeframe used for establishing the urban growth boundary, or until 2059.

(2) Inclusion of land within an urban reserve shall be based upon the locational factors of Goal 14 and a demonstration that there are no reasonable alternatives that will require less, or have less effect upon, resource land. Cities and counties cooperatively . . . shall first study lands adjacent to, or nearby, the urban growth boundary for suitability for inclusion within urban reserves, as measured by the factors and criteria set forth in this section. Local

governments shall then designate, for inclusion within urban reserves, that suitable land which satisfies the priorities in section (3) of this rule.

The City and County addressed the requirements of this rule in a study called the *Eugene Urban Reserves Study (Findings Appendix 2)* that is attached to these findings and incorporated herein by reference.

(3) Land found suitable for an urban reserve may be included within an urban reserve only according to the following priorities:

- (a) First priority goes to land adjacent to, or nearby, an urban growth boundary and identified in an acknowledged comprehensive plan as an exception area or nonresource land. First priority may include resource land that is completely surrounded by exception areas unless these are high value crop areas as defined in Goal 8 or prime or unique agricultural lands as defined by the United States Department of Agriculture;**
- (b) If land of higher priority is inadequate to accommodate the amount of land estimated in section (1) of this rule, second priority goes to land designated as marginal land pursuant to former ORS 197.247 (1991 edition);**
- (c) If land of higher priority is inadequate to accommodate the amount of land estimated in section (1) of this rule, third priority goes to land designated in an acknowledged comprehensive plan for agriculture or forestry, or both. Higher priority shall be given to land of lower capability as measured by the capability classification system or by cubic foot site class, whichever is appropriate for the current use.**

The City and County addressed the requirements of this rule in a study called the *Eugene Urban Reserves Study (Findings Appendix 2)* that is attached to these findings and incorporated herein by reference.

(4) Land of lower priority under section (3) of this rule may be included if land of higher priority is found to be inadequate to accommodate the amount of land estimated in section (1) of this rule for one or more of the following reasons:

- (a) Future urban services could not reasonably be provided to the higher priority area due to topographical or other physical constraints; or**
- (b) Maximum efficiency of land uses within a proposed urban reserve requires inclusion of lower priority lands in order to include or to provide services to higher priority lands.**

The City and County addressed the requirements of this rule in a study called the *Eugene Urban Reserves Study (Findings Appendix 2)* that is attached to these findings and incorporated herein by reference.

660-021-0040 -- Urban Reserve Area Planning and Zoning

To fulfill the requirements of OAR 660-021-0040 Urban Reserve Area Planning and Zoning, several plan amendments will regulate the Eugene urban reserves. As detailed below, new plan policies are added to the Eugene Springfield Metropolitan Area General Plan (Metro Plan) and the Lane County Rural Comprehensive Plan.

(1) Until included in the urban growth boundary, lands in urban reserves shall continue to be planned and zoned for rural uses in accordance with the requirements of this rule and the applicable statutes and goals, but in a manner that ensures a range of opportunities for the orderly, economic and efficient provision of urban services when these lands are included in the urban growth boundary.

Lands designated urban reserves will remain under the jurisdiction of Lane County and will continue to be planned and zoned for rural uses in accordance with the requirements of this rule and the applicable statutes and goals. To ensure a range of opportunities for the orderly, economic and efficient provision of urban services when these lands are included in the urban growth boundary, the lands designated urban reserves will be subject to land use policies that regulate and limit development potential until the lands are included in the Eugene urban growth boundary and are able to urbanize.

These land use policies will be adopted in two primary places: the Eugene-Springfield Metropolitan Area General Plan and the Lane County Rural Comprehensive Plan. Both plans are amended with identical policies as follows:

Policy II(c)(34) in the Eugene-Springfield Metropolitan Area General Plan (Exhibit A-1): “Lane County shall continue to plan and zone land included in Eugene urban reserves for rural uses and shall do so in a manner that ensures a range of opportunities for the orderly, economic and efficient provision of urban services and that will not hinder the efficient transition to urban land uses when these lands are included in the Eugene urban growth boundary ...”

Policy 28 in the Lane County Rural Comprehensive Plan (Exhibit E-1 to the Lane County Ordinance): “Lane County shall continue to plan and zone land included in Eugene urban reserves for rural uses and shall do so in a manner that ensures a range of opportunities for the orderly, economic, and efficient provision of urban services and that will not hinder the efficient transition to urban land uses when these lands are included in the Eugene urban growth boundary ...”

Both of these policies have subsections (a) and (b) described further below.

(2) Urban reserve land use regulations shall ensure that development and land divisions in exception areas and nonresource lands will not hinder the efficient transition to urban land uses and the orderly and efficient provision of urban services. These measures shall be adopted by the time the urban reserves are designated.

The Lane County Code (Lane Code Chapters 13 and 16) that applies to the area that includes the Eugene urban reserves already regulates development and land divisions in exception areas and nonresource lands in a manner that ensures the efficient transition to urban land uses and the orderly and efficient

provision of urban services. Therefore, no new land use regulations are needed for exception areas and nonresource lands in the Eugene urban reserves.

The majority of the Eugene urban reserves in exception areas and nonresource lands is already developed at rural levels. The current County zoning allows only one dwelling per parcel. Therefore, the potential for new development before urbanization is minimal, and no additional policies regulating development in exception areas and nonresource lands are needed.

In the Eugene urban reserves, there is only one exception or nonresource parcel that could be divided into parcels of less than ten acres in size, based on the County's minimum acreage standards. However, that parcel is encumbered by subdivision restrictions as common space and would be unable to apply for a land division. Therefore, no policies prohibiting the creation of new parcels less than 10 acres, requiring clustering as a condition of approval of new parcels, or requiring pre-platting of future lots or parcels is needed.

Furthermore, neither public sewer, water or streets are planned beyond the Eugene urban growth boundary. Therefore, no policy requiring written waivers of remonstrance against annexation to a provider of sewer, water, or streets is needed.

Additionally, Oregon Administrative Rule 660-004-0040 states that for new exception areas, the minimum parcel size must be at least ten acres with allowance for clustering (OAR 660-004-0040(8)(i)(A)). Therefore, no additional policies regulating land divisions in exception areas and nonresource lands are needed.

(3) For exception areas and nonresource land in urban reserves, land use regulations shall prohibit zone amendments allowing more intensive uses, including higher residential density, than permitted by acknowledged zoning in effect as of the date of establishment of the urban reserves. Such regulations shall remain in effect until such time as the land is included in the urban growth boundary.

As Eugene urban reserves includes land both inside and Metro Plan, both the Metro Plan and Lane County Rural Comprehensive Plan apply, and identical new policies are included in both plans to implement this rule, as described further below:

Policy II(c)(34)(a) in the Eugene-Springfield Metropolitan Area General Plan (Exhibit A-1): "Lane County shall not approve a change to its plans, land use code, or zoning that would allow a more intensive use (including a higher residential density) on exception or nonresource land that is included in Eugene urban reserves than the use allowed on that land before the land was included in Eugene urban reserves unless otherwise required by state law."

Policy 28(a) in the Lane County Rural Comprehensive Plan (Exhibit E-1 to the Lane County Ordinance): "Lane County shall not approve a change to its plans, land use code, or zoning that would allow a more intensive use (including higher residential density) on exception or nonresource land that is included in Eugene urban reserves than the use allowed on that land before the land was included in Eugene urban reserves unless otherwise required by state law."

These policies will remain in effect on land within the Eugene urban reserves until such time as the land is included in the Eugene urban growth boundary.

(4) Resource land that is included in urban reserves shall continue to be planned and zoned under the requirements of applicable statewide planning goals.

Consistent with this rule, resource land in Eugene urban reserves is already planned and zoned by Lane County as required by applicable statewide planning goals; no action is required to maintain this status quo. That said, the following new policies emphasize the adherence to this rule:

Policy II(c)(34)(b) in the Eugene-Springfield Metropolitan Area General Plan (Exhibit A-1): “Lane County shall not approve a change that would allow resource land that is included in Eugene urban reserves to be rezoned or redesignated to a nonresource zone or designation, except for land awarded state or federal investment for the development of rail-related infrastructure near existing railways.”

Policy 28(b) in the Lane County Rural Comprehensive Plan (Exhibit E-1 to the Lane County Ordinance): “Lane County shall not approve a change that would allow resource land that is included in Eugene urban reserves to be rezoned or redesignated to a nonresource zone or designation, except for land awarded state or federal investment for the development of rail-related infrastructure near existing railways.”

This policy will retain larger and fairly undeveloped parcels for resource uses in Eugene urban reserves until such time as the land is included in the Eugene urban growth boundary. This policy will continue to allow qualifying Farm and Forest-zoned properties to be redesignated/rezoned to Marginal Lands, but not to residential, commercial, or industrial.

(5) Urban reserve agreements consistent with applicable comprehensive plans and meeting the requirements of OAR 660-021-0050 shall be adopted for urban reserves.

As discussed in the findings related to Goal 2 and Goal 11, Lane County and City of Eugene are entering into Urban Reserve agreements with each other and with ten special districts providing services within the Eugene urban reserves, consistent with the requirements of OAR 660-021-0040(5) addressed above and -0050, addressed below.

All agreements are included as part of the Eugene Urban Reserve Ordinance, included as *Eugene Urban Reserve Agreements (Exhibit D)*, and will be adopted at the time of urban reserve adoption. Each urban reserve agreement has been signed by the special district representative and the Eugene City Manager. The County Administrator will sign the agreements upon authorization of the Board of County Commissioners, concurrent with adoption of Eugene urban reserves. The agreements will go into effect when all parties have executed the agreements and when the County and City have both adopted ordinances identifying land within District boundaries as urban reserves.

(7) A local government shall not prohibit the siting of a single family dwelling on a legal parcel pursuant to urban reserve planning requirements if the single family dwelling would otherwise have been allowed under law existing prior to the designation of the parcel as part of an urban reserve.

Although Lane County already complies with this rule and no action is required, the following policies are included to emphasize compliance with this criterion.

Policy II(c)(33) in the Eugene-Springfield Metropolitan Area General Plan (Exhibit A-1): “Lane County shall continue to allow the siting of a single-family dwelling on a lawfully established unit of land after it has been included in Eugene urban reserves if the County’s regulations would have allowed the single-family dwelling on the land prior to the land’s inclusion in Eugene urban reserves.”

Policy 19 in the Lane County Rural Comprehensive Plan (Exhibit E-1 to the Lane County Ordinance): “Lane County shall continue to allow the siting of a single-family dwelling on a lawfully established unit of land after it has been included in Eugene urban reserves if the County’s regulations would have allowed the single-family dwelling prior to the land’s inclusion in Eugene urban reserves.”

660-021-0050 -- Urban Reserve Agreements

Urban reserve planning shall include the adoption and maintenance of urban reserve agreements among cities, counties and special districts serving or projected to serve the designated urban reserves. These agreements shall be adopted by each applicable jurisdiction at or prior to the time of reserve designation and shall contain:

- (1) Designation of the local government responsible for building code administration and land use regulation in the urban reserves, both at the time of reserve designation and upon inclusion of these reserves within the urban growth boundary.**
- (2) Designation of the local government or special district responsible for the following services: sewer, water, fire protection, parks, transportation and storm water. The agreement shall include maps indicating areas and levels of current rural service responsibility and areas projected for future urban service responsibility when included in the urban growth boundary.**
- (3) Terms and conditions under which service responsibility will be transferred or expanded for areas where the provider of the service is expected to change over time.**
- (4) Procedures for notification and review of land use actions to ensure involvement by all affected local governments and special districts.**

The requirement set forth by OAR 660-021-0050(1) will be satisfied by the intergovernmental agreement between the City of Eugene and Lane County (see *Eugene Urban Reserve Agreements, Ordinance Exhibit D*). The County at the time of urban reserve designation is responsible for building code administration, land use regulation, transportation services and stormwater services to the rural Lane County land that surrounds the City of Eugene and included in Eugene urban reserves. Pursuant to a 1987 intergovernmental agreement between the County and City, when land, including Eugene urban reserve land, is added to the urban growth boundary, the City assumes responsibility for building code administration and land use regulation.

Urban reserve agreements have been developed between City of Eugene, Lane County and the ten (10) special districts (listed in the findings of Goal 2) responsible for fire protection, parks, transportation and stormwater; their boundaries are included all or in part within the Eugene urban reserves, consistent with OAR 660-021-0050(2). No statutory special districts provide sewer or water services in the Eugene urban reserves. See *Exhibit D* for copies of the agreements. As previously noted, these agreements will be adopted concurrently with Eugene urban reserves adoption.

In addition to the terms and conditions specified in OAR 660-021-0050(3) and (4), each Urban Reserve agreement includes map and tax lot exhibits, satisfying OAR 660-021-0050(2). The map exhibits for the agreements with service providers depict the district's jurisdictional boundary where it overlaps with the Eugene urban reserves. GIS data used to depict each special district's jurisdictional boundary was acquired from the Lane Council of Governments and then confirmed with each district for accuracy. The tax lot exhibits list the map and tax lot number along with the approximate acreage from November 1, 2018, when the urban reserves study area was created.

OAR 660-021-0050(3) and (4) are fulfilled by the specific language within each intergovernmental agreement (see *Eugene Urban Reserve Agreements, Exhibit D*)

Statewide Planning Goal 15 – Willamette Greenway

Statewide Planning Goal 15 -- “To protect, conserve, enhance and maintain the natural, scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River as the Willamette River Greenway.”

Three tax lots included in Eugene urban reserves are partially within the adopted boundary of the Willamette River Greenway. The City and County have adopted acknowledged programs for addressing Statewide Planning Goal 15 for land within with the Metro Plan (outside the UGB) and land within the Rural Comprehensive Plan. All lands will retain their rural zoning and be subject to current rural regulations. The actions taken by this ordinance do not include any actions which would change the Goal 15 status of lands outside of Eugene’s UGB.

Statewide Planning Goal 16 – Estuarine Resources

Statewide Planning Goal 17 - Coastal Shorelands

Statewide Planning Goal 18 - Beaches and Dunes

Statewide Planning Goal 19 - Ocean Resources

As no portion of the Eugene urban reserves is located near the coast or ocean, Statewide Planning Goals 16, 17, 18 and 19 do not apply.

Local Government Criteria

City of Eugene Criteria

EC 9.7735 Metro Plan Amendments – Criteria for Approval. The following criteria shall be applied by the city council in approving or denying a Metro Plan amendment application:

(1) The proposed amendment is consistent with the relevant Statewide Planning Goals; and

See findings addressing the Statewide Planning Goals, above.

(2) The proposed amendment does not make the Metro Plan internally inconsistent.

These amendments introduce Eugene urban reserves to the Metro Plan, which did not include Eugene urban reserves. The new policies apply to land identified as Eugene urban reserve land that is located within the Metro Plan boundary. There are no conflicting policies for the management of that land.

Further, as it is relevant to this local government criterion, there is one existing policy that is consistent with how the planning for Eugene urban reserves was undertaken:

Chapter II, Fundamental Principles and Growth Management Policy Framework, Policy 30 “Eugene, Springfield, and Lane County shall continue to involve affected local governments and other urban service providers in development of future, applicable Metro Plan revisions, including amendments and updates.” (p. II-C-8)

Urban reserves planning, included local government and urban service provider coordination consistent with the Goal 2 coordination requirement, and OAR 660-021-0020. As noted in the findings for Goal 2, there was a significant exchange, or invitation for such an exchange, between City of Eugene, Lane County and affected governmental units. As discussed in the findings related to Goals 11 and 14, the City and County also coordinated with and entered into urban reserve agreements between themselves and ten special districts, consistent with Metro Plan Policy 30 above.

(3) When the city-specific local comprehensive plan also applies, the proposed amendment is consistent with the city-specific local comprehensive plan.

The city-specific local comprehensive plan does not, per se, “apply” as lands designated as Eugene urban reserves will remain under the jurisdiction of Lane County. However, because the city-specific Envision Eugene Comprehensive Plan is a long-range planning document, this action includes amendments to the Envision Eugene Comprehensive Plan that are consistent with the amendments in Metro Plan. These amendments include language that states that lands identified as Eugene urban reserves retain their rural land use zoning and remain under the jurisdiction of Lane County. (See Exhibit B)

The amendments to the Envision Eugene Comprehensive Plan also include language that refers to a policy adopted into the Metro Plan requiring Eugene, in coordination with Lane County, to initiate a review of Eugene’s supply of urban reserves no later than 10 years after Eugene’s first urban growth boundary expansion following urban reserves adoption. This is consistent with the proposed amendments to the Metro Plan. (See Exhibit B)

One new Eugene urban reserves policy is added to the Envision Eugene Comprehensive Plan that specifically points users of the plan how to find the officially adopted Eugene urban reserves maps:

Policy 11.2 in the Envision Eugene Comprehensive Plan (Exhibit B): “Urban Reserves Map. The official map identifying Eugene’s urban reserves shall be the electronic map adopted as Appendix F to the Metro Plan and Appendix A to the Lane County Rural Comprehensive Plan entitled “Eugene Urban

Reserves.” The location of all Eugene urban reserves land as depicted in this Envision Eugene Comprehensive Plan is shown for illustrative purposes only.”

This new policy is consistent with the amendments to the Metro Plan.

Lastly, the Envision Eugene Comprehensive Plan amendments include a new definition of Eugene urban reserves in the glossary. This is consistent with the amendments to the Metro Plan. (See Exhibit B)

Because the Envision Eugene Comprehensive Plan did not previously address or include urban reserves, there are no conflicting provisions within the plan.

EC 9.8424 Refinement Plan Amendment Approval Criteria. Approval, or approval with modifications shall be based on compliance with the following criteria:

- (1) The refinement plan amendment is consistent with all of the following:**
 - (a) Statewide planning goals.**
 - (b) Applicable provisions of the Metro Plan.**
 - (c) Remaining portions of the refinement plan.**

The Eugene-Springfield Metropolitan Area Public Facilities and Services Plan (PFSP) is a refinement plan of the Metro Plan. References and depictions of urban reserves throughout the PFSP are vestige references to now-defunct “urban reserves” that were established by the Eugene-Springfield region in 1982, before the State of Oregon had any laws or rules referring to “urban reserves.” By DLCD order, these 1982 urban reserve areas were effectively decommissioned by their removal from the Metro Plan, to comply with new state law imposing standards for establishment of urban reserves. The PFSP is now being amended by the City and County to clarify that, west of the I-5, the only land in urban reserves is the land being identified through this action.

The PFSP amendment is consistent with the Statewide Planning Goals and the Metro Plan as described in the findings provided above. This amendment is consistent with the remaining portions of the PFSP because it is clarifying the understanding of ‘urban reserves’ and how it is depicted in the PFSP as described above. This amendment complies with EC 9.8424(1)(a)(b) and (c), and is shown as Exhibit C.

- (2) The refinement plan amendment addresses one or more of the following:**
 - (a) An error in the publication of the refinement plan.**
 - (b) New inventory material which relates to a statewide planning goal.**
 - (c) New or amended community policies.**
 - (d) New or amended provisions in a federal law or regulation, state statute, state regulation, statewide planning goal, or state agency land use plan.**
 - (e) A change of circumstances in a substantial manner that was not anticipated at the time the refinement plan was adopted.**

As stated above, in the findings for EC 9.8424(1), the amendment to the Public Facilities and Services Plan will clarify the distinction between the Eugene urban reserves and references to the previous urban reserves west of I-5 that were removed from the Metro Plan. This amendment complies with EC 9.8424(2)(c) and (e). Regarding (c), it addresses a previous change in community policy when the 1982 urban reserves were removed from the Metro Plan. Now, with the adoption of new Eugene urban reserves, the Public Facilities and Services Plan will be amended to resolve the discrepancy between the

outdated references to urban reserves and the new Eugene urban reserves. Regarding (e), the amendment addresses a change in circumstances in a substantial manner that was not anticipated at the time the refinement plan was adopted.

Lane County Criteria

LC 12.225 Metro Plan Amendment Criteria.

The following criteria will be applied by the Board of Commissioners and other applicable governing body or bodies in approving or denying a Metro Plan amendment application:

- (1) The proposed amendment is consistent with the relevant Statewide Planning Goals; and**
- (2) The proposed amendment does not make the Metro Plan internally inconsistent.**

See above findings under EC 9.7735.

LC 12.050 Method of Adoption and Amendment [Lane County Rural Comprehensive Plan].

(2) The Board may amend or supplement the comprehensive plan upon a finding of:

- (a) an error in the plan; or**
- (b) changed circumstances affecting or pertaining to the plan; or**
- (c) a change in public policy; or**
- (d) a change in public need based on a reevaluation of factors affecting the plan; provided, the amendment or supplement does not impair the purpose of the plan as established by LC 12.005 ...**

The Lane County Board of Commissioners adopts Eugene urban reserve amendments to the Lane County Rural Comprehensive Plan by ordinance. Lane Code section 12.050(b) and 12.050(c) both apply to the Eugene urban reserves amendments in the Rural Comprehensive Plan: there has been both a change in circumstances and a change in public policy.

Regarding (b), the change in circumstances affecting or pertaining to the plan is the development of Eugene urban reserves, which was a collaborative process by City of Eugene and Lane County that began in 2018, as documented in findings for Goals 1 and 2. Previously, there were no urban reserves, and specifically Eugene urban reserves, in the Lane County Rural Comprehensive Plan. The text and map amendments in the Rural Comprehensive Plan are in reference to the land in the Eugene urban reserves located outside of the Metro Plan boundary.

Regarding (c), the change in public policy is the interest in adoption of the Eugene urban reserves by the Lane County Board of Directors and the Eugene City Council as a joint project, under separate ordinance. In November 2020, the Lane County Board of Commissioners and Eugene City Council provided consistent direction to proceed with what was referred to as the “27-Year Option,” as the Eugene urban reserves, and initiated the adoption process.

Eugene urban reserves are also consistent with the purpose of and criteria for amending the Rural Comprehensive Plan:

Lane Code 16.400, Rural Comprehensive Plan Amendments

(1) Purpose. The Board shall adopt a Rural Comprehensive Plan. The general purpose of the Rural Comprehensive Plan is the guiding of social, economic and physical development of the County to best promote public health, safety, order, convenience, prosperity and general welfare. The Rural Comprehensive Plan shall be considered to be a dynamic policy instrument that can be modified to reflect changing circumstances and conditions as well as to correct errors and oversights. It is recognized that the Rural Comprehensive Plan affects the people of Lane County, and it is, therefore, important that the ability by individuals to propose amendments be free of restraint.

The Eugene urban reserves amendments to the Rural Comprehensive Plan are consistent with the purpose of the plan as stated above and with state land use goals as detailed in these findings. An example of this is the new plan policy (#19) which requires Lane County to continue to allow the siting of a single-family dwelling on a lawfully-established unit of land after it has been included in Eugene urban reserves if the County's regulations would have allowed the single-family dwelling prior to the land's inclusion in Eugene urban reserves, as described in the findings for Goal 14, and included in Exhibit E-1 to the Lane County Ordinance. This is consistent with the purpose of the plan to 'best promote public health, safety, order ... and general welfare.'

Lane Code 16.400(6)(h) Method of Adoption and Amendment

(iii) The Board may amend or supplement the Rural Comprehensive Plan upon making the following findings:

(aa) For Major and Minor Amendments as defined in LC 16.400(8)(a) below, the Plan component or amendment meets all applicable requirements of local and state law, including Statewide Planning Goals and Oregon Administrative Rules.

The Eugene urban reserves plan amendments are Major Amendments, as Minor Amendments are limited to the Plan Diagram only, as defined in LC 16.400(8)(a)(i) and (ii), and Major Amendments are any amendment not classified as a minor amendment, as described below.

Lane Code 16.400 (8) Additional Amendment Provisions.

(a) Amendments to the Rural Comprehensive Plan shall be classified according to the following criteria:

(i) Minor Amendment. An amendment limited to the Plan Diagram only and, if requiring an exception to Statewide Planning Goals, justifies the exception solely on the basis that the resource land is already built upon or is irrevocably committed to other uses not allowed by an applicable goal.

(ii) Major Amendment. Any amendment that is not classified as a minor amendment.

As shown in these findings, Eugene urban reserves meet all applicable requirements of local and state law. The Eugene urban reserves are consistent with all applicable Statewide Planning Goals and Oregon Administrative Rules as described in these findings. The State criteria are presented in order of the Statewide Planning Goals, and the state statutes and administrative rules are addressed under the Statewide Planning Goal to which they relate.

(bb) For Major and Minor Amendments as defined in LC 16.400(8)(a) below, the Plan amendment or component is:

(i-i) necessary to correct an identified error in the application of the Plan; OR

(ii-ii) necessary to fulfill an identified public or community need for the intended result of the component or amendment; OR

(iii-iii) necessary to comply with the mandate of local, state or federal policy or law; OR

(iv-iv) necessary to provide for the implementation of adopted Plan policy or elements; OR

(v-v) otherwise deemed by the Board, for reasons briefly set forth in its decision, to be desirable, appropriate or proper.

Lane Code section 16.400(6)(h)(iii)(bb)(i-i) and (iv-iv) applies to the Eugene urban reserves amendments to the Rural Comprehensive Plan.

With regard to subsection (i-i) one amendment clarifies wording and corrects a typo in the Policy #12 of the Goal Fourteen: Urbanization Chapter, related to County/City coordination, as shown in Exhibit E-1 to the Lane County Ordinance.

With regard to subsection (iv-iv), the Eugene urban reserves amendments included in the Rural Comprehensive Plan provide direction to the County on how to regulate the land within the Eugene urban reserves that is located outside of the Metro Plan boundary, consistent with statewide planning goals. The policy language included in the Rural Comprehensive Plan is also included in the Metro Plan, as the intention is to treat all of the land within the Eugene urban reserves consistently, whether inside or outside of the Metro Plan boundary. Therefore, the amendments to the Rural Comprehensive Plan are required for consistent implementation of the Eugene urban reserves.

Appendices to Legal Findings

Appendix 1: Eugene Urban Reserves Public Engagement Summary

Appendix 2: Eugene Urban Reserves Study, with attached

Appendix 2a: Eugene Urban Reserves Suitability Analysis Subarea Reports

Appendix 3: Eugene Urban Reserves Serviceability Analysis Report

Appendix 4: Eugene Urban Reserves Technical Memo, with attached

Appendix 4a: Eugene Urban Reserves Land Need Model

Appendix 4b: Eugene Urban Reserves Map Documentation of Undevelopable Land

Appendix 5: Tax Lots Within the Eugene Urban Reserves



Urban Reserves Public Engagement Summary

The City of Eugene has a long track record of high levels of public engagement. It is a City goal to provide a “government that works openly, collaboratively, and fairly with the community,” and includes “transparent and interactive communication” as well as “public engagement that involves the community broadly.” The following summarizes the Eugene urban reserves public engagement efforts used to educate the public and obtain feedback on the urban reserves planning efforts, from the technical analysis process through to the now-proposed Eugene urban reserves adoption package.

Project Background

Urban reserves are a special designation, allowed by state law, for lands outside the urban growth boundary (UGB) that can be considered a first priority if and when Eugene needs to expand for its growing population. Land designated as Eugene urban reserves will remain rural, and cannot be urbanized, unless it is brought into the city’s UGB through a formal process for expansion.

Eugene’s UGB is currently projected to have enough land for our population through 2032. Since population and development trends can change, urban reserves allows us to plan beyond 2032. The urban reserves planning process analyzed how much land was needed for housing, parks, schools, and jobs to serve Eugene’s population in the long-term future (between 2032 and 2062) while implementing the area’s regional open space vision, including preservation of significant farm and forest land, waterways, and natural resources.

Urban Reserves Engagement Overview

Below is a high-level look at some of the key Public Engagement tools used throughout the project.

The Project Webpage hosts details on the project process and implementation.

An Online Engagement Portal (Engage Eugene) hosts surveys and other opportunities to interact.

Direct Mailings sent to all residents and property owners within the project study area.

Informational documents created throughout the process to inform stakeholders.

Monthly E-Newsletter articles sent to 19,000 subscribers.

Interested Parties List received in-depth project updates and opportunities to provide input.

GIS story maps provided a data-driven, interactive tool for learning about the project.

Social media posts to over 1,300 followers on the EUGPlanning Facebook and Instagram.

Public open house events gathered interested community members and provided opportunities for questions.

On-line surveys and comment forms gathered community feedback.

A video promoted Urban Reserves in an accessible way.

A statewide conference presentation shared how the project team pivoted during the pandemic.

Meetings with Stakeholders and Public Officials built trust and confidence in the project work.

A Technical Advisory Committee to review and guide the project for technical integrity.

A Service Provider Working Group to provide multijurisdictional guidance of future service delivery.

A Triple Bottom Line Sounding Board evaluated the project for equity, the environment, and economic impact.



Project Phases

Urban Reserves planning was split into five phases, with public engagement playing important and different roles in each. Below is a description of the different public engagement activities in each project phase.

I. Project Initiation *(Spring 2018)*

Urban Reserves planning kicked-off in earnest in January 2018. The project had its Public Involvement Plan approved, a city webpage created, project communication began, the first round of meetings with public officials were held, and project committees were developed to help guide the Urban Reserves process.

Urban Reserves Public Involvement Plan

The Public Involvement Plan (PIP) described the outreach strategies for each of the five phases of the planning process. The PIP illustrated when key engagement opportunities would take place, how they were sequenced, and how they helped shape the project. The PIP was approved by the Eugene Planning Commission acting as the Citizen Involvement Committee in June 2018.

Webpage

The Urban Reserves webpage provided simple, accurate, and up-to-date project information. It included regularly updated project updates and frequently asked questions. It provided links to interactive platforms as much as possible, using GIS story mapping and the later introduced Engage Eugene. The

website also linked to other communication methods, such as the Interested Parties List updates, City of Eugene Planning social media, and project and community events.

Envision Eugene Technical Advisory Committee (EETAC)

In this project phase, staff began recruitment for the 13-member Envision Eugene Technical Advisory Committee (EETAC). The EETAC was intended to review project assumptions, technical analysis, and development of options. Their purpose was to advise and provide feedback to staff on technical-related issues, maintain institutional memory regarding assumptions and analysis related to long-term growth management-related efforts, and review technical information used to inform policy decisions. They represented varied voices from across the community with diverse interests and areas of expertise, and included Planning Commission, Sustainability Commission and City Council representation. County and unincorporated area representation was encouraged.

Triple Bottom Line Sounding Board

To promote consistency among diverse policy directives and ensure representation of broader community perspectives in the Urban Reserves project, a Triple Bottom Line Sounding Board was charged with employing a metro area-wide perspective to provide advice, feedback, and critical review of policies and project ideas; provide input on how best to reach community members and their topic-specific constituencies; and act as liaisons to the boards, committees and commissions they represent.

The TBL Sounding Board was comprised of representatives from the following: City of Eugene Human Rights Commission, City of Eugene Planning Commission, City of Eugene Sustainability Commission, Eugene Water and Electric Board, Housing Policy Board, Lane County Planning Commission, Lane County Transportation Advisory Committee, and Lane Transit District Strategic Planning Committee.

Service Provider Working Group

Technical staff and leadership of Urban Reserve-area service providers worked together to develop high level cost estimates and evaluate ease of serviceability for the Urban Reserves study area, while acting as liaisons to their agency leadership. This culminated in the ***Preliminary Analysis of Orderly and Economic Provision of Public Facilities and Services*** report which evaluated the potential future provision of sewer, water, fire protection, parks, transportation and stormwater within the urban reserve study area.

Meetings with Public Officials

- **Eugene Planning Commission** – May and June 2018
- **Lane County Planning Commission** – May and June 2018
- **Eugene City Council** – May and June 2018
- **Lane County Board of Commissioners** – June 2018

Other Meetings and Events

Project staff also created an Interested Parties email list and recruited for the EETAC via the Planning Newsletter, City Council Newsletter, InMotion Transportation Newsletter, and a presentation to the Neighborhood Leaders Council.

II. Technical Analysis Phase (*Summer 2018-Spring 2019*)

In the Technical Analysis Phase, work got underway to answer the question, ‘how much will we need to grow?’ During this phase, staff established a project study area, estimated the future land need, estimated the land supply, and conducted a capacity analysis. This phase involved the first notification of residents and people that owned property within the Urban Reserves study area as well as the first interactive GIS story map.

Study Area Mailing to Residents and Property Owners

All residents and owners of land within the Urban Reserves study area were mailed a two-sided postcard that included project information, ways to be involved, an invitation to the Planning Division Project Fair, and a link to project materials, including the Technical Analysis GIS story map.

Making It Happen! Planning Division Project Fair

Urban Reserves planning was featured at two different Planning Division Project Fairs held near the beginning and end of the Technical Analysis Phase (Fall 2018 and Spring 2019). The goal of these events was to streamline information sharing, encourage the community’s involvement in planning, and show how various planning projects are interconnected. The Urban Reserves project table provided information, shared our interactive map, and offered community members the opportunity to ask questions directly to staff. To promote the event, postcards were sent to all study area residents, flyers were distributed around the community, and information was shared with neighborhood associations. Both Project Fairs had well over 100 participants.

Technical Analysis GIS Story Map

The Technical Analysis story map used maps, text and graphics to illustrate the stages of the Urban Reserves technical analysis, where housing and job capacity was being assumed, and allowed users to search for their address to see potential impacts of the project.

Envision Eugene Technical Advisory Committee Appointments

In August 2018, the City Manager appointed 13 community volunteers to serve on the Envision Eugene Technical Advisory Committee (EETAC), a new department-level advisory committee that has been playing a key role in both the Urban Reserves and Growth Monitoring projects. Members have a wide variety of interests and come from around the city, with one representative living outside the UGB but within the study area. The EETAC has been guiding Urban Reserves Planning by reviewing technical information that was used to inform policy decisions, providing feedback to staff on technical-related issues, and reviewing assumptions and analysis related to long-term growth management efforts.

Envision Eugene Technical Advisory Committee Meetings

The EETAC held seven meetings to evaluate, provide input, and approve the methodology of the Technical Analysis phase:

- 2018: November, December
- 2019: February, March, April, May, August

Triple Bottom Line Sounding Board

The Triple Bottom Line (TBL) Sounding Board held its first meeting in May 2019 to provide an overview of Urban Reserves and discuss the Technical Analysis phase.

Meetings with Public Officials

Staff made the following presentations to review the results of the Technical Analysis phase:

- **Eugene Planning Commission** – May 2019
- **Lane County Planning Commission** – May 2019
- **Eugene City Council** – June 2019
- **Lane County Board of Commissioners** – June 2019

Other Meetings and Events

Throughout this phase, project staff sent out monthly Planning Newsletter article updates, held project stakeholder meetings, and facilitated property owner conversations.

III. Suitability Analysis Phase (*Summer 2019-Spring 2020*)

After completing the technical analysis, staff developed suitability criteria to further evaluate the Urban Reserves study area. These suitability criteria were based on the state-directed outline of analysis and reflect the City's Triple Bottom Line Framework. Staff subdivided the study area into 18 subareas and structured the analysis to explicitly address the suitability criteria.

Urban Reserves Suitable Lands Web Map

Staff developed an interactive suitable lands GIS map that allowed users to search for their address to see characteristics of their property and how it was evaluated in the Urban Reserves analysis.

Outreach to Additional Study Area Residents

As staff went through the suitability analysis and removed non-suitable land from further consideration, it became clear that there was not enough 'suitable' land within the study area for a 30-year Urban Reserve option. At the advice of the EETAC, service providers, and the project management team, the study area was expanded farther west of Eugene near Fisher Road. Direct mailings and other outreach activities informed residents and property owners in this newly added area that their land was being studied and offered the opportunity to ask questions and provide input.

Suitability Analysis and Open House Mailings

Two postcards were sent to all residents and property owners within the expanded study area to promote three Open House events to review the results of the Suitability Analysis.

Urban Reserves Open Houses

Three in-person Open House Events were held at locations near the Urban Reserves study area to present the results of the suitability analysis and answer questions. Over 125 people attended the meetings.

- *January 9, 2020* at Meadow View School
- *January 14, 2020* at Kennedy Middle School
- *January 22, 2020* at the Irving Grange

Urban Reserves Engage Eugene

In February 2020, project staff launched the Urban Reserves Engage Eugene page on the City's interactive platform. At this time, the Engage Eugene site hosted all materials from the in-person Suitability Analysis Open House Events including the PowerPoint presentation, printable materials, an interactive question and answer module, and a survey asking for feedback on the Suitability Analysis. The survey was promoted to people unable to attend the in-person event and received 22 responses.

Triple Bottom Line Sounding Board

The TBL Sounding Board met in November 2019 to evaluate how well the Suitability Analysis Reports addressed the City's Triple Bottom Line framework.

Envision Eugene Technical Advisory Committee

The EETAC held 5 meetings to evaluate, provide input, and approve the methodology and findings of the Suitability Analysis phase:

2019

- October (*twice*)
- November
- December

2020

- January
- March

Meetings with Public Officials

Staff made the following presentations to review the results of the Suitability Analysis phase:

- **Eugene City Council** – January 2020
- **Lane County Board of Commissioners** – January 2020

Other Meetings and Events

Throughout this phase, the project team also sent monthly EUG Planning Newsletter (formerly the "Envision Eugene Newsletter") updates, posted on social media, provided Interested Parties List

updates, updated the project webpage and Engage Eugene site, and published City Council Newsletter articles.

IV. Option Development Phase (*Spring 2020-Fall 2020*)

Using the results of the technical and suitability analysis, staff developed four growth scenario alternatives within the study area that identified the additional land that Eugene is likely to need between 10 and 30 years after 2032, or as late as 2062. Staff engaged community members, service providers, public agencies, community groups and our elected and appointed officials to determine the preferred planning period, location and size of an urban reserve.

Adapting to COVID-19 and Going Virtual

In March 2020, due to public health guidance, the entire project team began working remotely and in-person meetings and events were restricted. The project team then shifted public engagement online and continued communicating with community members. The team combined older style outreach efforts like mailing postcards to property owners with new virtual engagement such as online open houses and social media. The team also extended the engagement timeline to allow for more people to be involved. The EETAC moved online along with Eugene City Council, Eugene Planning Commission, Lane County Planning Commission, and Lane County Board of Commissioners meetings.

Engage Eugene Virtual Open House

To receive feedback on the four Urban Reserves Options, the project Engage Eugene page hosted a month-long (June 26 – July 26, 2020) virtual Open House. The Open House included opportunities for online office hours with project staff, an interactive question and answer module, a GIS story map, and an Urban Reserves Options survey (see below). Overall, the Open House hosted over 1,300 attendees and received 210 survey responses.

Urban Reserves Options Survey

The survey included open ended short answer questions asking for specific feedback on each of the options. The most prevalent feedback, by far, was respondents' desire to preserve farmland. 83 responses mentioned farmland preservation- more than half of the overall comments. The 27-year option was the most supported option with 47.6% of respondents supporting it. It was also the least opposed with 31.9% of respondents opposing it. Feedback included that the 27-year option provided a desirable longer-term planning horizon while at the same time preserving class 1 and class 2 soils.

Online Options Story Map

The Online Options Story Map gave project background, explained the high-level pros and cons of each option, and allowed users to search for their address to see whether their property was included.

Envision Eugene Technical Advisory Committee Meetings

The EETAC held two meetings, in May and July 2020, to evaluate, provide input, and make a recommendation on a preferred option. They also heard updates on Urban Reserves at three additional meetings (in August, September, and November 2020).

Envision Eugene Technical Advisory Committee Recommendation

On July 16, 2020, after seventeen meetings over the course of 22 months, the Envision Eugene Technical Advisory Committee (EETAC) provided their final input and recommendation to staff on the Urban Reserve Options under consideration. Two motions were passed. The first supported the urban reserves analysis as technically sound. The second motion supported the recommendation of Option 3, the 27-year option, that preserves Class 1 and adjacent Class 2 land, with the acknowledgement that the year-range is an estimate based on current population forecasts and existing land use code requirements.

Meetings with Public Officials

Staff met twice with the Eugene and Lane County Planning Commissions to review the four Urban Reserves options and the results of public input, and receive their recommendations:

- *Eugene Planning Commission* on August 17, 2020 the Eugene Planning Commission voted 7-0 to recommend the 27-Year option.
- *Lane County Planning Commission* on August 18, 2020 the Lane County Planning Commission voted 5-3 to recommend the 30-Year Option with a plan policy requiring the Class 1 and 2 farm land in the Awbrey subarea to be the last of the urban reserve land to be considered for expansion of Eugene's urban growth boundary.

Other Meetings and Events

Throughout this phase, the project team also sent monthly EUG Planning Newsletter updates, posted on social media, provided Interested Parties List updates, updated the project webpage and Engage Eugene site, and published City Council Newsletter articles.

V. Urban Reserves Direction (*Fall 2020 - Winter 2020*)

Decision-makers for both the City of Eugene and Lane County directed staff to move forward with Option 3, the 27-year Urban Reserves Option. Option 3 included almost 6,000 acres of land, enough to meet approximately 27 years of growth beyond 2032, and strove to protect our highest value soils by removing from consideration all agricultural properties with predominant Class 1 soil and directly adjacent agricultural properties with predominant Class 2 soil.

Presenting to Decision Makers

- *Joint Eugene City Council and Lane County Board of Commissioners work session* September 21, 2020 staff presented four Urban Reserves Options at a joint work session. Staff shared the recommendations from the Envision Eugene Technical Advisory Committee (EETAC), Eugene Planning Commission, Lane County Planning Commission, and the results of our Virtual Open House survey.
- *Eugene City Council* October 21, 2020, the Eugene City Council passed a motion, in a 7 - 1 vote, to support Urban Reserve Option 3, which includes enough land to meet approximately 27 years of growth beyond 2032. Prior to passing the motion, the City Council held a work session on October 12, 2020, to allow for additional time to ask questions and receive information.
- *Lane County Board of Commissioners* November 10, 2020, the Lane County Board of Commissioners unanimously passed a motion to support the Eugene City Council's initiation of a public review and adoption process to consider the establishment of Urban Reserves as described in Option 3, the 27-Year Option.

Other Meetings and Events

Throughout this phase, the project team also sent monthly EUG Planning Newsletter updates, posted on social media, provided Interested Parties List updates, updated the project webpage and Engage Eugene site, and published City Council Newsletter articles.

VI. Adoption Process Phase (*Winter 2021 - Spring 2023*)

The final phase includes development of service provider intergovernmental agreements, ordinance development, plan amendments, and a complete Urban Reserves adoption package with findings. Public engagement in this phase is focused on communicating the City and County direction on urban reserves to the community, sharing opportunities to provide public comment, and coordinating with service providers and other project stakeholders.

Intergovernmental Agreements

Beginning in March of 2021, project staff held meetings with representatives from special districts whose boundaries were included in the proposed urban reserves to discuss urban reserves, service provider agreements and ensure that the boundaries of the districts were correctly identified. Following these meetings, the City and County developed 11 intergovernmental agreements (IGAs) regarding coordinated planning between themselves and the 10 statutory special districts whose boundaries are

included in urban reserves. These agreements are included as part of the Eugene Urban Reserves adoption package and will take effect when all parties have executed them, and the Lane County Board of Commissioners and the Eugene City Council have adopted ordinances that identify land within the districts' service boundaries as Eugene urban reserves.

The Urban Reserves Adoption Process

The formal adoption process for the Urban Reserves adoption package is consistent with the adopted public engagement requirements for public notices and hearings, as found in the Eugene and Lane County Codes for the applicable land use applications.

The joint Eugene and Lane County Planning Commission public hearing on the proposal was held on October 18, 2022. Almost 4,000 public notices were mailed to owners and residents within the proposed Eugene urban reserves, nearby the proposed urban reserves, in the initial study area, and interested parties who have requested to receive public notice. It was also noticed to all neighborhood organizations, community groups and individuals who have requested notice, as well as to the City of Springfield and Lane County. The notice of the public hearing was also published in the Register Guard.

Meetings with Eugene and Lane County Planning Commissions

- *Lane County Planning Commission work session* October 4, 2022, staff presented the urban reserves adoption package to the Lane County Planning Commission.
- *Eugene Planning Commission work session* October 11, 2022, staff presented the urban reserves adoption package to the Eugene Planning Commission.
- *Joint Eugene Planning Commission and Lane County Planning Commission Public Hearing* October 18, 2022, a joint public hearing was held for the public to provide oral testimony regarding the adoption package to both the Eugene Planning Commission and Lane County Planning Commission.
- *Lane County Planning Commission* December 6, 2022, the Lane County Planning Commission voted unanimously (9-0) to recommend approval to the Lane County Board of Commissioners of the urban reserves adoption package and staff recommended changes.
- *Eugene Planning Commission deliberations* December 13, 2022, the City of Eugene Planning Commission voted unanimously (7-0) to recommend approval to the Eugene City Council of the urban reserves adoption package and staff recommended changes.

Meetings with Decision Makers

Following action by the Eugene and Lane County Planning Commissions, the Eugene City Council and the Board of Commissioners will hold a duly noticed public hearing and deliberations to consider approval, modification, or denial of the urban reserves proposal adoption package. Work sessions with the Board of Commissioners and the Eugene City Council will be held February 7 and 15, 2023, respectively. Following the work sessions, a joint virtual public hearing is scheduled for February 28, 2023, with deliberations scheduled for April 10 for the Eugene City Council and April 11 for the Lane County Board of Commissioners.

Other Meetings and Events

Throughout October and November of 2022, the project team held office hours on Thursdays, both in-person and virtually, to answer questions and provide information to community members regarding urban reserves. On October 6, 2022, staff provided an update to the Envision Eugene Technical Advisory Committee and on January 11, 2023, staff provided an update to the Local Government Affairs Council (LGAC) which is appointed by the Eugene Chamber Board of Directors. Throughout this phase, project staff answered emails and calls about urban reserves, sent monthly EUG Planning Newsletter updates, posted on social media, provided Interested Parties List updates, updated the project webpage and Engage Eugene site.

Combined, these processes afford ample opportunity for citizen involvement consistent with Goal 1. Therefore, the proposed ordinances are consistent with Statewide Planning Goal 1. See the *Urban Reserves Summary of Public Engagement Activities 2018-2023* for further details.

Urban Reserves

Summary of Public Engagement Activities 2018-2023

This is a summary of the major events, presentations, and input opportunities. It is not an exhaustive list. Not included here are the numerous updates to about 600 interested parties, neighborhood or other newsletter articles, individual meetings, online information updates and personal contacts.

2018

monthly	EE Newsletters sent to subscribers
throughout	Interested Parties List emails
throughout	Meetings with property owners
May 8	Eugene Planning Commission
May 15	Lane County Planning Commission
June 5	Lane County Planning Commission
June 11	Eugene City Council
June 19	Lane County Board of Commissioners
June 25	Eugene Planning Commission
July 10	Eugene Planning Commission
October 3	Envision Eugene Technical Advisory Committee Meeting
October 4	City Council Newsletter
October 10	Making It Happen! Planning Division Project Fair
November 1	Envision Eugene Technical Advisory Committee Meeting
November 15	Envision Eugene Technical Advisory Committee Meeting
December 6	Envision Eugene Technical Advisory Committee Meeting

2019

monthly	EE Newsletters sent to subscribers
throughout	Interested Parties List emails
February 14	Service Provider Working Group
February 21	Envision Eugene Technical Advisory Committee Meeting
March 21	Envision Eugene Technical Advisory Committee Meeting
April 2	Service Provider Working Group
April 10	Service Provider Working Group
April 18	Envision Eugene Technical Advisory Committee Meeting
May	Study Area Mailing
May 9	Triple Bottom Line Sounding Board
May 16	Envision Eugene Technical Advisory Committee Meeting
May 20	Eugene Planning Commission
May 21	Lane County Planning Commission
June 5	Making It Happen! Planning Division Project Fair
June 11	Lane County Board of Commissioners
June 24	Eugene City Council
August 15	Envision Eugene Technical Advisory Committee Meeting
October 17	Envision Eugene Technical Advisory Committee Meeting

November 7	Envision Eugene Technical Advisory Committee Meeting
November 12	Service Provider Working Group
November 21	Triple Bottom Line Sounding Board
December	Fisher Road Expanded Study Area Mailing
December	Open House Mailing
December 5	Envision Eugene Technical Advisory Committee Meeting

2020

throughout	Social media posts
monthly	EUG Planning articles sent to subscribers
throughout	Interested Parties List emails
January 9	Urban Reserves Open House
January 14	Urban Reserves Open House
January 16	Envision Eugene Technical Advisory Committee Meeting
January 16	City Council Newsletter
January 22	Urban Reserves Open House
January 28	Lane County Board of Commissioners
January 29	Eugene City Council
February 6	City Council Newsletter
March 5	Envision Eugene Technical Advisory Committee Meeting
May 21	Envision Eugene Technical Advisory Committee Meeting
June	Option Virtual Open House Mailing
June 26-July26	Virtual Open House
July	Option Virtual Open House Reminder Mailing
July 6	City Council Newsletter
July 16	Envision Eugene Technical Advisory Committee Meeting
August 3	Eugene Planning Commission
August 4	Lane County Planning Commission
August 17	Eugene Planning Commission
August 18	Lane County Planning Commission
August 20	Envision Eugene Technical Advisory Committee Meeting
September 17	Envision Eugene Technical Advisory Committee Meeting
September 21	Joint Eugene City Council and Lane County Board of Commissioners
October 12	Eugene City Council
October 21	Eugene City Council
October	Oregon/Washington American Planning Association Conference Presentation
November 10	Lane County Board of Commissioners
November 19	Envision Eugene Technical Advisory Committee Meeting

2021

throughout	Social media posts
monthly	EUG Planning articles sent to subscribers
throughout	Interested Parties List emails
June 15	Lane County Planning Commission

2022

throughout	Social media posts
monthly	EUG Planning articles sent to subscribers
throughout	Interested Parties List emails
throughout	Meetings with project stakeholders and partners
September 16	Joint Planning Commission Public Notice mailed to approximately 4,000 addresses
October	Virtual and in-person office hours held on Thursdays
October 4	Lane County Planning Commission work session
October 6	Envision Eugene Technical Advisory Committee
October 11	Eugene Planning Commission work session
October 18	Joint Lane County and Eugene Planning Commission public hearing
November	Virtual and in-person office hours held on Thursdays
December 6	Lane County Planning Commission deliberations
December 13	Eugene Planning Commission deliberations

2023

throughout	Social media posts
monthly	EUG Planning articles sent to subscribers
throughout	Interested Parties List emails
January 11	Local Government Affairs Council (LGAC) presentation
Forthcoming: ¹	
February 7	Lane County Board of Commissioners work session
February 15	Eugene City Council work session
February 28	Joint Lane County Board of Commissioners and Eugene City Council public hearing
April 10	Eugene City Council deliberations
April 11	Lane County Board of Commissioners deliberations

¹ This includes a partial list of forthcoming engagement activities; to be updated

Eugene Urban Reserves Study

I. Introduction

State law authorizes that “[t]o ensure that the supply of land available for urbanization is maintained... [l]ocal governments may cooperatively designate lands outside urban growth boundaries as urban reserves.” ORS 195.145. The State’s rules for establishing urban reserves have been established by the Oregon Department of Land Conservation and Development (DLCD). Those rules, at OAR 660-021-0030(1), direct that “[u]rban reserves shall include an amount of land estimated to be at least a 10-year supply and no more than a 30-year supply of developable land beyond the 20-year time frame used to establish the urban growth boundary. Local governments designating urban reserves shall adopt findings specifying the particular number of years over which designated urban reserves are intended to provide a supply of land.”

This study documents the analysis of land for inclusion in Eugene urban reserves based on the steps required by State statute and rules. The 20-year time frame used to establish the Eugene urban growth boundary was 2012-2032. The lands identified for inclusion in the Eugene urban reserves are intended to provide an additional 27-year supply of developable land, to accommodate growth between 2032 and 2059 (the urban reserves planning period).¹

II. Urban Reserves Land Study

A. Development of the Urban Reserve Study Area / Candidate Land for Evaluation

The Oregon Administrative Rules governing the establishment of urban reserves give very little direction on how to establish the urban reserve study area, other than to say “Cities and Counties cooperatively ...shall first study lands adjacent to, or nearby, the urban growth boundary for suitability for inclusion within urban reserves” (OAR 660-021-0030(2)).

¹ As explained in Section III of this Study, the expectation that the land designated for urban reserves will supply the City with needed land for a period of 27 years is based on the City and County decision to not include in urban reserves land with the most productive soil - class 1 and adjacent class 2 soils – which are the last priority for inclusion in an urban reserve area under State law. The suitable land for urban reserves, without extending onto such land, was analyzed using a “land need model,” and a “land capacity analysis” developed with a geospatial “land supply model.” The land need model is based upon population projections from Portland State University, employment forecasts from the Oregon Employment Department and the policy and density assumptions developed as part of the recent work to update the Eugene UGB, acknowledged by DLCD in 2018. The land capacity analysis applies the same density assumptions to the developable land in the urban reserves study area to determine how many homes and/or jobs could be accommodated on that developable land. See the *Eugene Urban Reserves Technical Memo*, (Findings Appendix 4), for complete information.

The rules define “adjacent” as “abutting” and define “nearby land” as “land that lies wholly or partially within a quarter mile of an urban growth boundary” (OAR 660-021-0010). In the case of Eugene, studying only the land within a quarter mile of the UGB could not possibly result in a supply of developable, suitable land to accommodate 10- to 30- years of Eugene’s anticipated growth.² To identify appropriate boundaries for a larger urban reserves study area, the City and County consulted DLCD’s rules for establishing a UGB study area, at OAR 660-024-0065(1)(b)(B). While those rules do not apply to the establishment of urban reserves, they are clearly supported by DLCD and using similar parameters for establishing the urban reserves boundary may streamline UGB analysis in the future.

In addition, the parameters used to establish the urban reserves study area were designed to reach as much non-resource land surrounding the Eugene UGB as practicable, to minimize as much as possible the impact on farm and forest land.

Parameters used to establish the Eugene urban reserves study area:

1. Except as described in 2., below, include all of the following land in the urban reserves study area:
 - a. All land within 1 mile of the Eugene UGB.
 - b. All “Priority 1” land, as described at OAR 660-021-0030(3)(a), that is:
 - i. located within 1.5 miles of the Eugene UGB, where such Priority 1 land is contiguous with any Priority 1 land located within 1 mile of the Eugene UGB; or
 - ii. part of the same tax lot as land described in 1.b.(i), regardless of how far that tax lot extends beyond the Eugene UGB.
 - c. All “Priority 2” marginal land, as described at OAR 660-021-0030(3)(b), that is part of the same tax lot as such marginal land that is located within 1 mile of the Eugene UGB, regardless of how far that tax lot extends beyond the Eugene UGB.
 - d. All land within the boundary of the Eugene-Springfield Metropolitan Area General Plan (“Metro Plan”), regardless of how far the Metro Plan boundary extends beyond the Eugene UGB.

² As this study later documents, the land within ¼ mile of Eugene’s UGB includes a great deal of land that has no, or extremely little, capacity for future urban development to accommodate the City’s growing needs for homes and jobs. The entire east side of the UGB abuts Springfield’s UGB. As shown on Map 2, the land to the northeast of the UGB and south of the Airport is land that is severely constrained by natural hazards or designated/zoned to protect natural resources. There is also a significant amount of land that is occupied or committed to other development immediately adjacent to the UGB, as shown on Map 3, including the Eugene Airport, land for wastewater facilities and parks. Since none of this land has capacity for employment or residential development, the Urban Reserves study area had to be expanded.

- e. All publicly owned land where such land is contiguous to publicly owned land located within the Metro Plan boundary, regardless of how far that land extends beyond the Eugene UGB.
 - f. All land that is contiguous to land identified as developable and suitable for urban reserves (under Sections II.B and II.C of the Urban Reserves Study) and that is connected to land within the Eugene UGB by an existing major transportation corridor.³
2. Do not include the following land in the urban reserves study area:
- a. Land located north of the McKenzie River
 - b. Land located east of Interstate-5⁴
 - c. Land located within a different jurisdiction's UGB (i.e., Junction City, Springfield)

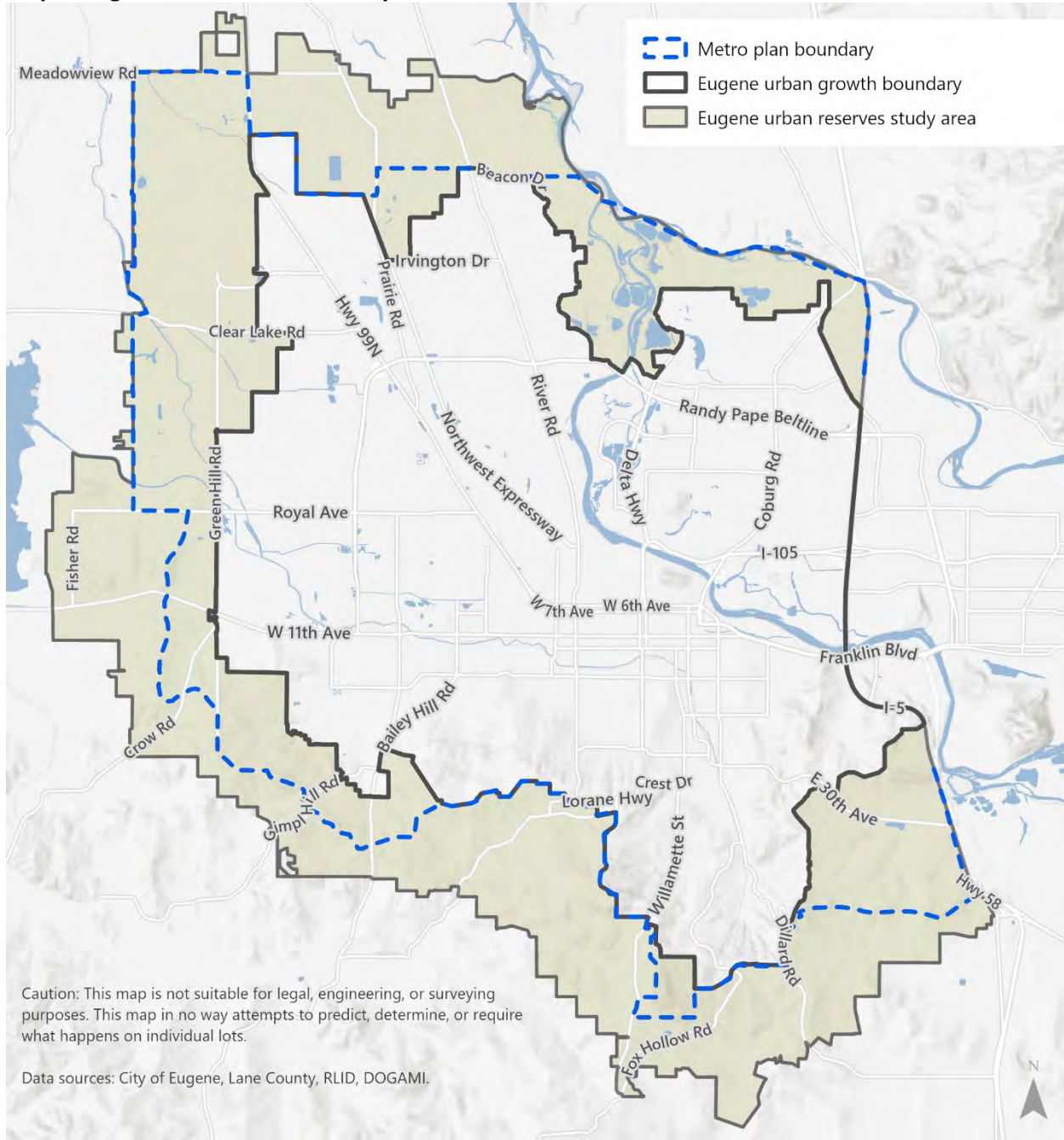
In arriving at the parameters for the study area, the City and County coordinated both internally and externally. In addition, the Envision Eugene Technical Advisory Committee (EETAC) provided technical review and input on the development of the draft study area.

Map 1, Eugene Urban Reserves Study Area shows the boundaries of the Eugene urban reserves study area that result from the application of the parameters described above.

³ The process for establishing urban reserves is an iterative process. The City added this parameter when early in the Study's preparation, it became clear that a study area based on the other parameters (without this parameter), did not include enough suitable developable land to accommodate 25-30 years of growth. This parameter was then added and the land analysis was re-visited. All of the land that meets this parameter is land located to the west of the current UGB, between the UGB and Fern Ridge reservoir. To avoid the possibility of creating a sliver of unurbanizable land, the land included in the study based on this parameter extended west to Fern Ridge reservoir (approximately).

⁴ ORS 197.304, passed in 2007, requires Eugene's UGB to remain on the west side of Interstate 5.

Map 1: Eugene Urban Reserves Study Area



B. Evaluation of Land

Identification of Land in the Study Area that Would Be “Developable”

OAR 660-021-0030(1) requires that urban reserves include “at least a 10-year supply and no more than a 30-year supply of *developable* land.” This requires the City and County to identify which lands within the study area have development capacity.⁵

OAR 660-021-0010(5) defines “developable land” as “land that is not severely constrained by natural hazards or designated or zoned to protect natural resources and that is either entirely vacant or has a portion of its area unoccupied by structures or roads.” Based on this definition of “developable land,” land was assigned no development capacity if it falls within one of the these “undevelopable” categories:

1. the land is severely constrained by natural hazards or is designated or zoned to protect natural resources; or
2. the land is not classified as vacant or partially vacant in the land supply model (i.e. the land is already occupied)

These categories are elaborated on below:

1. Land that is Severely Constrained by Natural Hazards or Designated / Zoned to Protect Natural Resources⁶

For purposes of this study, lands in this category are assumed to have no potential capacity for residential or employment development, and are as follows:⁷

- Federal Emergency Management Agency (FEMA) floodway and Special Flood Hazard Areas (100-year flood plain)
- Lane County Goal 5 adopted riparian corridors with applicable setbacks
- Lane County Goal 5 adopted wetlands, wetlands on the National Wetlands Inventory, and wetlands designated as protect or restore in the West Eugene Wetlands Plan
- Critical habitat (federal and state-listed threatened and endangered species) from U.S. Fish and Wildlife Service and the Oregon Biodiversity Information Center
- Historic and cultural resources, which are properties classified as eligible and listed according to the Oregon Heritage State Historic Preservation Office
- Designated Natural Areas on the Oregon State Register of Natural Heritage Resources
- Plan designations: Natural Resource (Metro Plan), Natural Resource: Conservation Area (Rural Comprehensive Plan), and Natural Resource: Wildlife (Rural Comprehensive Plan)
- Steep slopes ($\geq 30\%$); LiDAR data used to calculate slope

⁵ This determination of which land has capacity for future development informs the later evaluation of study area land (in section II.C) to determine which is most suitable to include in the urban reserves.

⁶ Also referred to in urban reserves materials as “land severely constrained by natural hazards or subject to natural resource protections.”

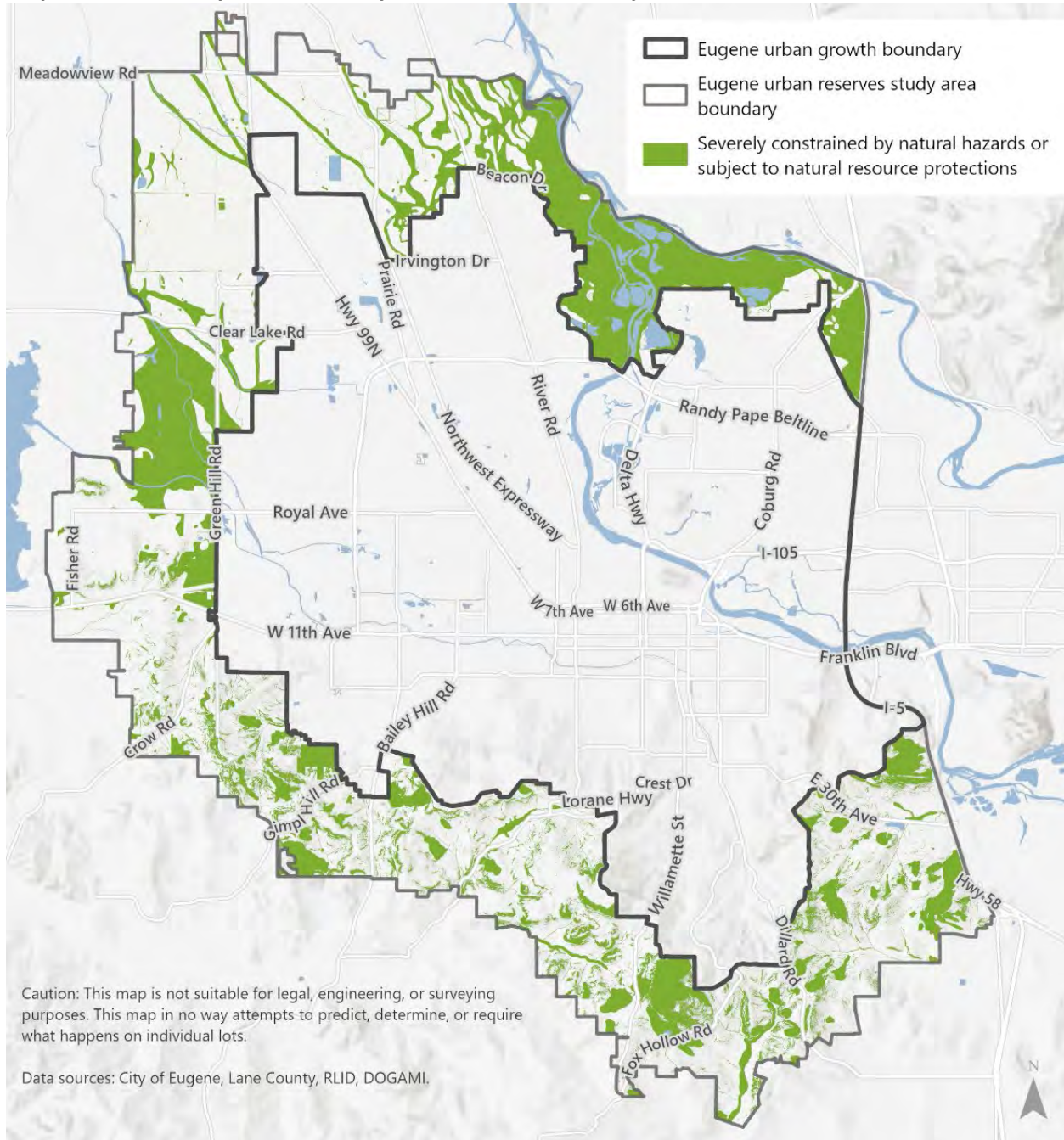
⁷ See the Eugene Urban Reserves Technical Memo (Findings Appendix 4) and the Map Documentation of Undevelopable Land (Findings Appendix 4b) for more information, including source dates.

- High-risk landslide areas (from Oregon Department of Geology and Mineral Industries)⁸

Map 2, Land Severely Constrained by Natural Hazards or Subject to Natural Resource Protections shows all the land within the study area that falls within the first category of “undevelopable land.”

⁸ The urban reserves study area includes some land identified with Goal 5 big game habitat and sand and gravel resources. The City and County considered, but did not completely discount the development potential of that land; it is not categorized as “undevelopable” land. Instead, the environmental consequences of urbanization on these land types are evaluated later in the Study as part of the suitability analysis (Section C), consistent with OAR 660-021-0030(2) and Goal 14, Locational Factor 3, Comparative environmental, energy, economic and social consequences. This is further described in the Findings in Support of the Establishment of Urban Reserves for the City of Eugene, Goal 5 and Goal 14 (Exhibit F) and the Eugene Urban Reserves Study Subarea Reports that are attached to this Study (Findings Appendix 2).

Map 2: Land Severely Constrained by Natural Hazards or Subject to Natural Resource Protections



2. Land that is Occupied

For purposes of this study, lands are assumed to have no potential capacity for residential or employment development if they are already occupied (i.e. developed or committed to public use). Occupied land is identified in a variety of ways, using tax assessor data, address, building footprint and aerial imagery datasets. It includes:

- Publicly owned land that is being used or that is committed to public use (including park land, land owned for schools and utilities, airport property and utility and transportation easements and rights-of-way)⁹
- Cemeteries
- Privately owned land that is developed¹⁰

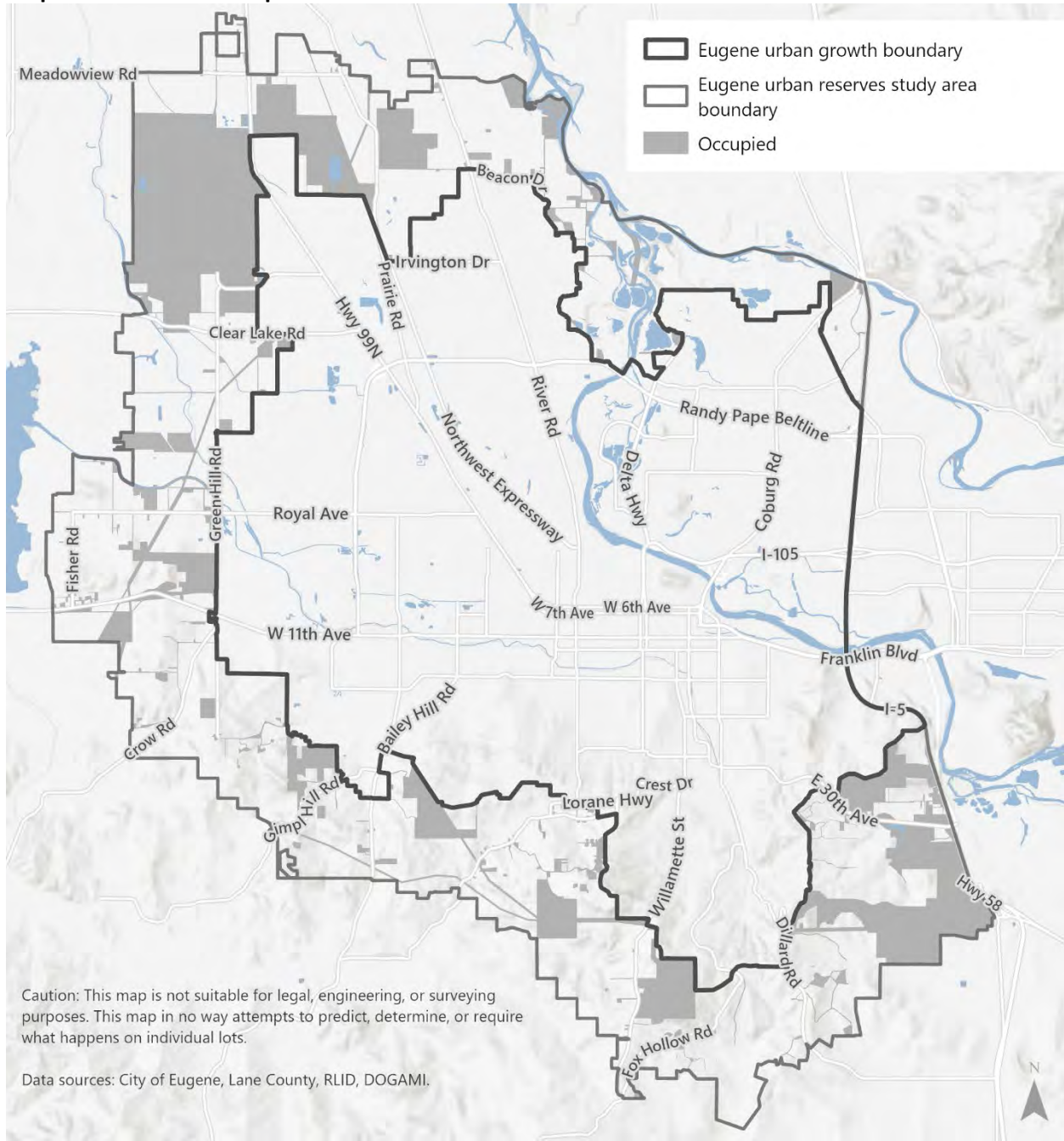
Map 3, Land That is Occupied, shows all the land within the study area that falls within this second category of “undevelopable” land.¹¹

⁹ Land in public ownership that has been identified as surplus by the public agency is not classified as “occupied” because it may be sold in the foreseeable future, making it available to accommodate new housing or employment. Undevelopable land, including “occupied” land, may be needed to provide public services for the future urban populations. This study analyzes such land for these types of land needs within the subarea suitability analyses in Section II.C.

¹⁰For purposes of this study, a tax lot is classified as “developed” if it has significant improvement value without adequate acreage for additional development. Land that is only partially developed, with some remaining development capacity, is referred to as “partially vacant” land and is not considered “undevelopable” land. Complete information on the criteria used to determine when a tax lot is classified as developed can be found in the Eugene Urban Reserves Technical Memo (Findings Appendix 4).

¹¹ Some land in the study area falls within both the first category and the second category of “undevelopable” land. For example, land that is subject to natural resource protections may also be occupied for public park uses. For purposes of this study, land that falls within both categories of “undevelopable” land is counted only under the second category, land that is occupied, so as to not double count acreage.

Map 3: Land That is Occupied

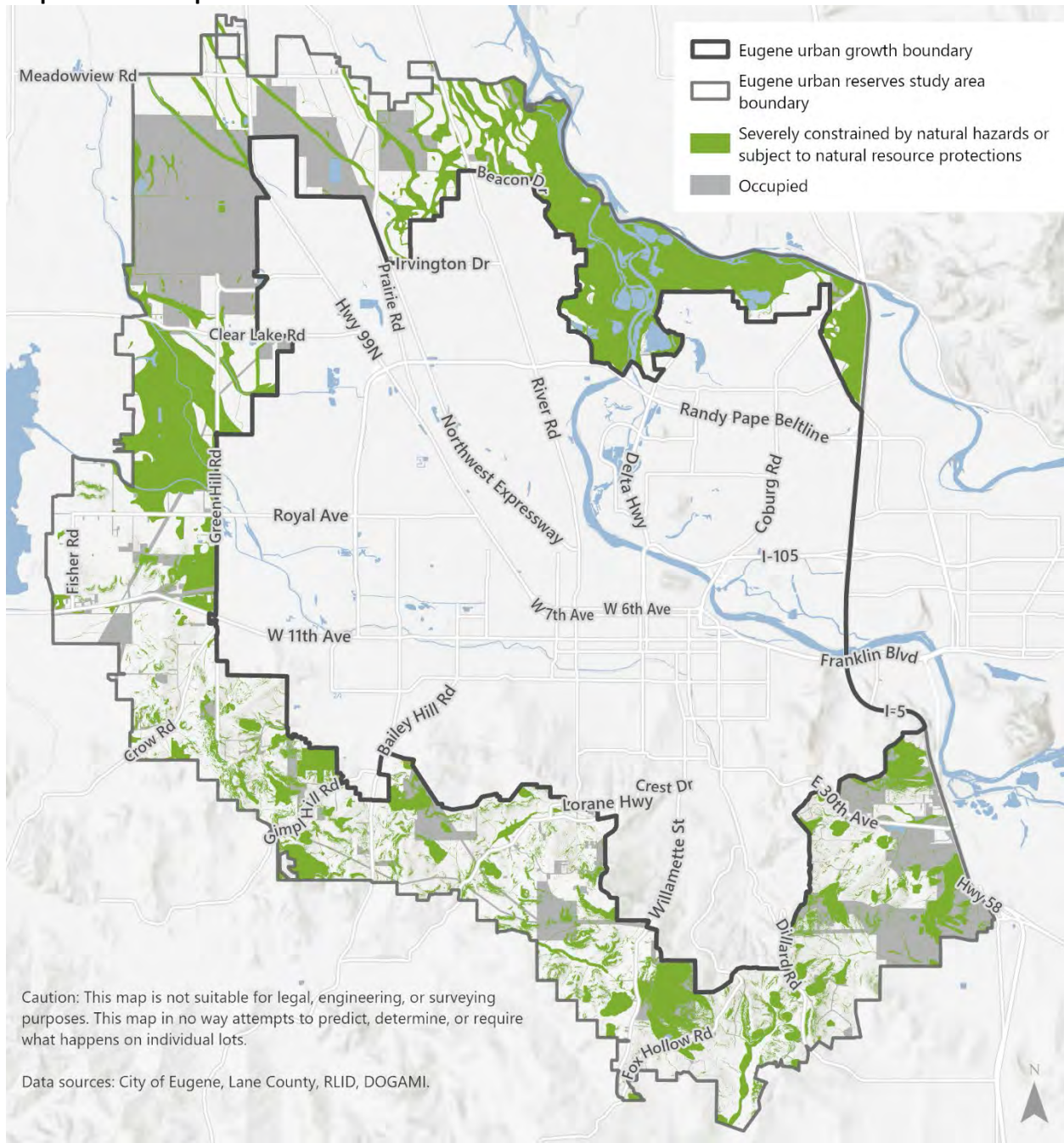


Conclusion / Land that is “Developable”

The land identified on **Map 4 “Undevelopable” Land**, shown on the following page (Maps 2 and 3, combined) represent all of the “undevelopable” land in the study area, except for portions of partially vacant tax lots containing existing development. Undevelopable land is assigned no capacity to accommodate the future needs for housing or employment land.¹²

¹² This does not include portions of partially vacant lots containing existing development.

Map 4: “Undevelopable” Land

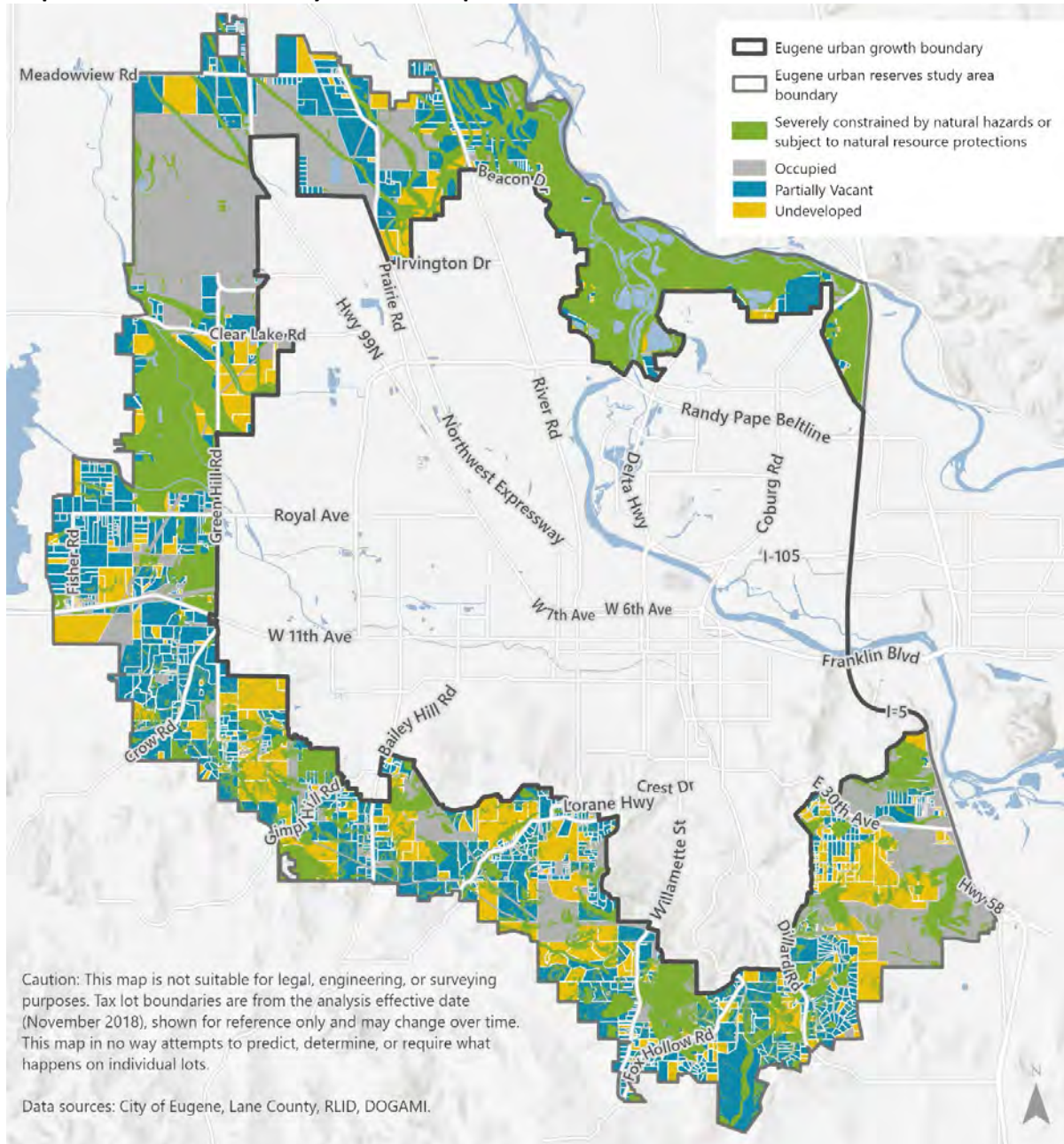


Developable land is composed of the remaining land in the study area, located on lots that are either classified as **undeveloped or partially vacant**. For purposes of this study, a lot is classified as undeveloped if it is not occupied, there is no significant improvement value and the assessor identified it as vacant. A lot is classified as partially vacant if it contains development, is over the threshold of one acre, and has adequate acreage for additional development. City staff used the urban reserves geospatial land supply model to automate this classification work which was manually reviewed by City staff and the Envision Eugene Technical Advisory Committee to confirm

its accuracy.¹³ Consistent with Eugene’s adopted 2012-2032 Buildable Lands Inventory, residential or employment capacity is only counted on developable (i.e., buildable) land.

Developable land in the study area is made up of 7,226 acres on lots classified as partially vacant¹⁴ and 3,987 acres on lots classified as undeveloped. Overall, the land supply model identifies approximately 11,213 acres of “developable” land, as shown on the following page as blue or yellow on **Map 5, Urban Reserves Study Area Development Potential**.

Map 5: Urban Reserves Study Area Development Potential



¹³Complete information can be found in the *Eugene Urban Reserves Technical Memo* (Findings Appendix 4).

¹⁴ These acreage amounts exclude the existing development on partially vacant lots.

C. Identification of Land in the Study Area That Would be “Suitable”

OAR 660-021-0030(2) sets out a two-step analytical process for identifying which land to include in urban reserves. It states that “[i]nclusion of land within an urban reserve shall be based upon the locational factors of Goal 14 and a demonstration that there are no reasonable alternatives that will require less, or have less effect upon, resource land.” This Section II.C. addresses the first part of OAR 660-021-0030(2): identifying the land that is “suitable” for urban reserves based on the four locational factors of Goal 14.¹⁵

Locational Factors of Goal 14

The Goal 14 locational factors are not independent criteria; they are factors to be considered and balanced to identify land that, while perhaps not perfect, would be *suitable* for urban reserves. All four factors are applied to the land, but the land found to be suitable may be identified as such because of a compelling result when considered under one of the factors, even though that area or parcel may have less favorable, or even negative, results when considered under another factor. To assist in a consistent means of applying the locational factors of Goal 14, a set of prompts was developed for each of the four factors. These prompts, which are reflective of the City’s Triple Bottom Line¹⁶ framework, provide for a uniform means of considering the four locational factors throughout the study area to identify the land that would be “suitable” for urban reserves. Land that, on balance, would not be suitable for urban reserves is dismissed from further consideration.

The following are the four locational factors from Statewide Planning Goal 14, and the prompts the City and County used to assist in the consideration of land under each of the factors. Following each prompt is an explanation of how the prompt helps evaluate the suitability of land based on the locational factor.

Goal 14 Locational Factor 1: Efficient accommodation of identified land needs

Prompting questions with rationale below to assist in the consideration of land for Locational Factor 1:

To what extent is there ...

1. *developable land adjacent to or nearby (within .25 mile) the UGB?*

OAR 660-021-0030(2) directs cities and counties to “first study lands adjacent to, or nearby, the urban growth boundary for suitability ...” therefore identifying the amount and location of developable land within .25 miles of the UGB helps inform whether land

¹⁵ In section III, this Study addresses the second step: applying the criteria set forth in OAR 660-021-0030 (3), the OAR’s prescribed priority system, to the suitable land to ensure that the identified urban reserves represent the most reasonable alternative in terms of minimizing the effect upon resource land. That OAR states that “[l]and found suitable for an urban reserve may be included within an urban reserve only according to the following priorities” based on the land’s designation.

¹⁶ The Triple Bottom Line is a framework the City of Eugene uses to assist in reaching its sustainability goals. It is designed to be applied to City decision-making at all levels so that actions are vetted based on their environmental, equity and economic impacts.

needs could be efficiently accommodated adjacent to or near the UGB in the future when a UGB expansion is necessary. Land that is within .25 miles of the UGB is likely to more efficiently accommodate the identified land needs than land that is further away from the UGB because of street, utility and neighborhood connections to already urbanized land.

2. *partially vacant developable land (that could be developed for the identified land needs)?*

Partially vacant developable land already has some development on it, with capacity for more. Identifying the amount and location of partially vacant developable land, and analyzing whether this land is suitable for future urbanization, helps inform the evaluation of whether it can efficiently accommodate identified land needs since partially vacant land already includes some level of existing development and therefore may be more appropriate for future urbanization than vacant land.

3. *developable land that is identified in the capacity analysis¹⁷ as potentially able to be urbanized with a mix of residential housing? How does this translate into potential dwelling units (per the capacity analysis)?*

This prompt references work in the urban reserves capacity analysis, the methodology of which is included in the Urban Reserves Technical Memo (Findings Appendix 4). It is important to identify whether developable land in the study area could potentially accommodate a variety of housing needs, and what the potential average residential capacity is, because the City of Eugene will continue to need a variety of housing types as new development occurs. If an area can accommodate only low-density residential, it is less likely to efficiently accommodate the City's overall housing needs.

4. *developable land that is identified in the capacity analysis as potentially able to be urbanized with industrial land? How does this translate into potential industrial sites (per the capacity analysis)?*

This prompt also references work in the urban reserves capacity analysis, the methodology of which is included in the Urban Reserves Technical Memo (Findings Appendix 4). This prompt asks whether developable land in the study area could efficiently accommodate industrial land, and how that could translate into potential industrial sites and jobs, to help identify whether industrial land needs could be efficiently accommodated on that land.

¹⁷The urban reserves capacity analysis estimates how many homes or jobs could be accommodated on the developable land in the urban reserves study area considering the slope, elevation, size, and other characteristics of each lot. The capacity analysis is summarized in the Eugene Urban Reserves Technical Memo (Findings Appendix 4)

5. *topography, steep slopes or other “undevelopable” lands that would make efficient urbanization difficult?*

This prompt identifies land in the subarea with little or no potential development capacity, such as land that is occupied or severely constrained by natural hazards or subject to natural resource protections. The amount and location of these “undevelopable” lands are analyzed for how they may impact the efficient accommodation of identified land needs.

Goal 14 Locational Factor 2: Orderly and economic provision of public facilities and services

The definition of “public facilities and services,” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines, is: “[p]rojects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.”

The information below addresses the feasibility of serving each subarea with public facilities and services in an orderly and economical way. It considers the capacity of the current system to serve the area and the extent of new infrastructure that would be needed to serve the area if urbanized: It includes an analysis of wastewater, water, transportation, transit, stormwater, and fire/emergency services and also, to a lesser extent, it includes provision of electricity, schools and parks.¹⁸

Prompting questions with rationale below to assist in the consideration of land for Locational Factor 2:

- 1-7. *How easy or difficult is it to serve the land in each sub-area, including capacity of current system, and new infrastructure needed to serve if urbanized. Includes analysis of wastewater, water, transportation, transit, stormwater, and fire/emergency services. Also, to a lesser extent, include provision of electric, schools and parks (narrative description).*

City, county and area service providers were asked to provide a narrative evaluation of the developable land in the study area in terms of whether the land could be served in an orderly and economic manner. The analysis was completed on a subarea level. It was first compiled in the *Urban Reserves Serviceability Analysis Report* [Findings Appendix 3] and summarized further in the Subarea Analysis Reports (Attachments 1-18). Since the urban reserve planning period is so far out, between 2032 and 2062, service provider input was by necessity high-level. The evaluation focuses on the public facilities and services called out in OAR 660-021-0050(2) primarily.

Based on the input from the service providers, for each subarea report (Attachments 1-18), there is a summary table showing the generalized serviceability

¹⁸ The summarized information used in this section is based on the results of the more detailed *Urban Reserves Serviceability Analysis Report* (Findings Appendix 3).

of the subarea (easy, moderate or difficult), and a generalized cost estimate, which represents preliminary estimates for the major components of the individual systems. Generalized serviceability is expressed in terms of “ease,” such that an area that can be served in an orderly and efficient way is found to be “easy” to serve. Cost information is provided on a \$ to \$\$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$\$) denoting the greatest cost. The scale used for each type of service varies and is not comparable to other utilities or services. For example, a \$ for wastewater does not equate to a \$ for transportation. Cost estimates do not include future maintenance costs. The evaluation takes into account the availability of existing services nearby and the orderliness of an extension of services to the subject area. Generally, the easier and least expensive land to serve equates with more orderly and economic service provision.

8. *Is there undeveloped land within the UGB that would be helped in its development/serviceability if this area were included in urban reserves, or is there undeveloped land within the UGB that would negatively impact the orderly and economic provision of public facilities and services?*

This prompt assists in the analysis under Locational Factor 2 by considering the impact that the developability of nearby land can have on the orderly and efficient service provision to areas being considered for urban reserves. The information gathered in response to this prompt helped determine whether nearby undeveloped land within the UGB would aid or hinder in the extension of services to the land in the urban reserves subarea. For example, a nearby undeveloped area within the UGB may increase the order of magnitude of future development, thereby increasing the likelihood for economic provision of public facilities and services to the entire area. Conversely, if the land located within the UGB, between existing services and the urban reserves subarea, is undevelopable or a steep ridgeline area, that land within the UGB may act as a barrier to orderly and economic serviceability outside of the UGB.

Goal 14 Locational Factor 3: Comparative environmental, energy, economic and social consequences

Prompting questions with rationale below to assist in the consideration of land for Locational Factor 3:

1. Environmental Consequences:

- a. *Presence of natural resources: To what extent would urbanization of this area negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources?*

Self-explanatory¹⁹

¹⁹ If prompting language needs no additional elaboration, it is described as “self-explanatory.”

- b. *Presence of hazard areas (steep slope, landslides, floodplain): To what extent would urbanization of this area increase the potential risk of natural hazards, such as landslides, wildfire or flooding*

Self-explanatory

- c. *Presence of nearby public open space: To what extent would nearby public open space benefit future residents of the area?*

Natural resources and hazards are present in and near the urban reserves study area on developable and “undevelopable” land both. Some “undevelopable” land includes public parks that include “open space” with these features. The amount and location of nearby public (i.e., protected) open space may offset some of the negative environmental consequences of urbanization on developable land, therefore it is important to evaluate.

2. Energy Consequences: (priority for lower energy usage)²⁰

- a. *To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt)?*

It is important to evaluate whether developable land in the study area could potentially accommodate a variety of housing types, jobs and services in close proximity to each other (also referred to as a “20-minute neighborhood”) because the City of Eugene will continue to need a variety of housing types as new development occurs (as documented in Locational Factor 1, prompt III), and the ability of the land to also accommodate jobs and services nearby reduces the need for vehicle use. The assumption is this type of development pattern would thereby lower vehicle miles traveled and have positive energy outcomes.²¹

- b. *To what extent is the area easily accessible to other services or uses (e.g., neighborhood commercial, parks, schools)?*

The proximity of future residents to existing nearby services or uses is important for potentially reducing vehicle miles traveled and carbon emissions; the evaluation of

²⁰ This Locational Factor section evaluates the energy consequences of urbanization of the developable land in the subarea. “Priority for lower energy use” refers to the summary table below, where low energy use is synonymous with “Positive” energy consequences, while the likelihood of higher-energy usage is evaluated as having “Negative” energy consequences. “Mixed” is synonymous with medium, and falls in between the two.

²¹ The concept in this prompt is also a system-wide policy documented in the 2035 Eugene Transportation System Plan (TSP) as an example of how the city can achieve a 20 percent greenhouse gas emission reduction target, “fostering neighborhoods where Eugene residents can meet most of their basic daily needs without an automobile by providing streets, sidewalks, bikeways, and access to transit in an inviting environment where all travelers feel safe and secure. The related potential action item is the creation of a strategy to facilitate 90 percent of Eugene residences to be within 20-minute neighborhoods (Active transportation strategy #6).” (p. 8, 2035 Eugene 2035 TSP)

the proximity of developable land in the study area to existing services and uses helps identify potential energy impacts.

c. *To what extent is the area adjacent to or nearby the UGB?*

As explained in Locational Factor 1, prompt I, OAR 660-021-0030(2) directs cities and counties to “first study lands adjacent to, or nearby, the urban growth boundary for suitability ...” therefore identifying the amount and location of developable land within .25 miles of the UGB helps inform whether land needs could be efficiently accommodated adjacent to or near the UGB in the future when a UGB expansion is necessary. Land that is within .25 miles of the UGB is likely to more efficiently accommodate the identified land needs than land that is further away from the UGB because of street, utility and neighborhood connections to already urbanized land.

d. *To what extent is there good multi-modal transportation access to this area? To what extent is the area easily accessible to job centers and downtown?*

This prompt looks at the existing ways and potential for future ways people will travel to and from land in this subarea if it is urbanized, such as walking, bicycling, public transportation (bus and bus rapid transit) and driving. The greater the variety of transportation options assumes lower energy consequences in the future, as the reliance on single-car travel produces significantly more carbon emissions than other forms of transportation. Also, evaluating the distance to and transportation options for future residents’ commutes to job centers and downtown (the City’s largest job center) helps indicate future potential energy consequences related to transportation (e.g., if the developable land would not be suitable for multi-modal transportation options and it is not easily accessible to job centers then it is assumed urbanization would have negative energy consequences for this consideration).²²

e. *To what extent does future urbanization directly or indirectly generate energy or climate burdens (e.g. loss of open space, loss of growing lands, increased traffic, increased carbon emissions)*

Higher energy use is equated with higher climate burdens. This energy use can be from transportation, as addressed above, or from other impacts of urbanization, such as the development of open space (including forest land) or farmland, and increased carbon emissions from other forms of urbanization (such as pollution from industry, gas heat, etc.)²³ This prompt identifies the ways urbanization could directly or indirectly generate energy or climate burdens on land from these activities.

²²“The 2035 TSP policies promote improved transit services that are integrated through context-specific multimodal planning for all Key Corridors.” See 2035 Eugene Transportation System Plan, transit strategies #3 and #4. (p. 8, Eugene 2035 TSP)

²³ “The City is committed to address climate recovery and reducing fossil fuel consumption. In July 2014, the Eugene City Council adopted a Climate Recovery Ordinance that codified a Council goal of achieving a 50 percent citywide reduction of fossil fuel use by 2030. The goal of reducing fossil fuel use by 50 percent is also a stated goal of the 2035 TSP.” (p. 8, 2035 Eugene TSP)

3. Economic Consequences:

- a. *In general, how much economic activity would urbanization of this area bring? Ex: Additional construction opportunities.*

Different land characteristics allow for different amounts of development potential, as discussed previously in Locational Factor 1, regarding the potential for residential and industrial capacity. This is discussed here, as well as the correlations between higher capacity and more construction opportunities, which would provide greater economic activity and thereby positive economic consequences.

- b. *Is the area appropriate for future urbanization with a variety of identified uses (not just LDR), to support connected, integrated neighborhoods?*

This is similar to Locational Factor 3, Energy Consequences, prompt a. It is important to evaluate whether developable land in the study area could potentially accommodate a variety of housing types, jobs and services in close proximity to each other (also referred to as a “20-minute neighborhood”) because the City of Eugene will continue to need a variety of housing types as new development occurs (as documented in Locational Factor 1, prompt III), and the ability of the land to also accommodate jobs and services nearby supports economically vital neighborhoods with a strong tax base. The assumption is this type of development pattern would thereby have positive economic outcomes.

- c. *Are there concerns about future urbanization causing a loss of economic activity for existing and nearby uses?*

This prompt speaks to the risk of displacement caused by urbanization if the land were included in the UGB in the future. Landowners would choose whether to develop their land to urban levels, presumably doing so for economic benefits. However, in some cases, it could have negative economic consequences on adjacent lands, where urbanization is incompatible with their existing use, or on their own land, where workers would be displaced. This may have the most impact on resource land where urbanization on land used for food production could have negative economic implications for the broader economy (when less local food is available) and on adjacent farms who may feel the pressure to urbanize.

- d. *How cost-efficient is service provision in this area?*

This prompt looks at the information presented in Locational Factor 2, with a focus on the economic consequences of urbanization. Land in some of the subareas is significantly more costly to serve than others. Some of this cost would be passed onto landowners. At the same time, many landowners would benefit from urban services (such as drinking water and wastewater) and while expensive to hook up to these services, there could be long-term economic benefits from doing so.

4. Social Consequences²⁴:

a. *Will urbanization negatively impact current residents?*

This prompt looks the most generally at how urbanization could impact current residents. On a high level, impacts such as noise, traffic, and viewshed obstruction are evaluated. Positive impacts such as additional development opportunities are also discussed. The capacity of the land, as evaluated in Locational Factor 1, and its suitability for residential or industrial use, may have differing impacts on current residents, and those factors are also evaluated.

b. *How would urbanization worsen or improve service delivery to residents in this area (e.g. adequate fire response times, access to water, parks)?*

This prompt looks at the information presented in Locational Factor 2, with a focus on how urban levels of service provision would impact residents. A variety of service delivery impacts are evaluated, such as: In some areas, urbanization could increase wildfire risk and there may or may not be adequate fire response times without significant additional investment. Some areas are lacking good access to water, as ground water wells are running dry, and connections to City water would be beneficial, but not without a price. Land in some areas is already well-connected to parks, while others would depend on future neighborhood development for additional parks.

c. *Will urbanization exacerbate the impacts of potential natural hazards, such as flooding, fire, and landslides?*

The impact of urbanization on potential natural hazards was also addressed in Locational Factor 3, Environmental Consequences, prompt b. In this case, the focus is on how those hazards may directly impact people on and around the impacted land.

d. *How might urbanization in this area impact vulnerable populations²⁵ and underserved groups currently living in the subarea? Could one segment of the population be impacted more than another (e.g. low income households)?*

As detailed in footnote 23, staff reviewed the most recent compiled data on vulnerable populations that generally correspond with land in the study area. However, as noted below, the extent to which vulnerable populations and underserved populations currently live in the study area is speculative and therefore

²⁴ The definition of “social consequences” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines is: “[t]he tangible and intangible effects upon people and their relationships with the community in which they live resulting from a particular action or decision.”

²⁵ Vulnerable populations are defined as populations that identify as a non-white race or ethnicity, younger or older populations, populations with a disability, and/or single-headed households (from Livability Lane, 2013 Equity and Opportunity Assessment, Social and Demographic Characteristics Map). The extent to which vulnerable populations and underserved groups currently live in the subarea is speculative.

the analysis in this prompt is very high-level.

- e. *Will urbanization in this area allow for connected, integrated neighborhoods?*

This prompt is similar to Locational Factor 3, Energy Consequences, prompt a, and Economic Consequences, prompt b. It is included here because the ability of the land to allow for connected, integrated neighborhoods also has positive social consequences related to quality of life, such as shorter commutes, close-to-home schools and shopping, and more independence for children, seniors and other individuals who do not, or do not want to drive.

Goal 14 Locational Factor 4: Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

Prompting questions with rationale below to assist in the consideration of land for Locational Factor 4:

1. *How will urbanization impact agricultural and forest activities on farm and forest designated land within the subarea?*

See below.

2. *Is urbanization compatible with existing agricultural and forest uses on farm and forest designated land nearby (outside of the subarea)?*

These two prompts looked at impacts of urbanization on active farming and forestry operations on agriculture- and forest-designated land inside the subarea (prompt I) and on nearby lands outside the subarea (prompt II) – both areas outside of the UGB. Commercial forestry operations were much less prevalent in the study area than farming. In the study area, there are a range of types of farm-related uses; they were generally described from passive (e.g., pastureland) to active (e.g., row crops), with the assumption that urbanization would have more impacts on active farming uses. This is due in part to the economic investment, and adjacent uses may be less compatible with active farming due to activities such as odor, over-spray, or noise from farm operations. Buffers between these uses and urbanization to lessen impacts, such as roadways, ridges, and undevelopable land, were also evaluated.

Suitability Analysis by Subarea

To manage the suitability analysis as described above, the urban reserves study area was divided into 18 subareas, as shown on Map 6, the **Urban Reserves Subareas**. These subareas encompass the entire study area and were developed to organize the analysis into manageable groups of lots that are affiliated geographically.

There are 18 **Suitability Analysis Subarea Reports** included as attachments to this Study. Each subarea report sets out the detailed suitability analysis for one of the 18 subareas. Each subarea report is organized as follows:

- Background
- Detailed narrative of the analysis, organized by Locational Factor, and the prompting questions as described above
- Narrative and tabular conclusions for each Locational Factor
- Suitable land (results) map, and analysis maps

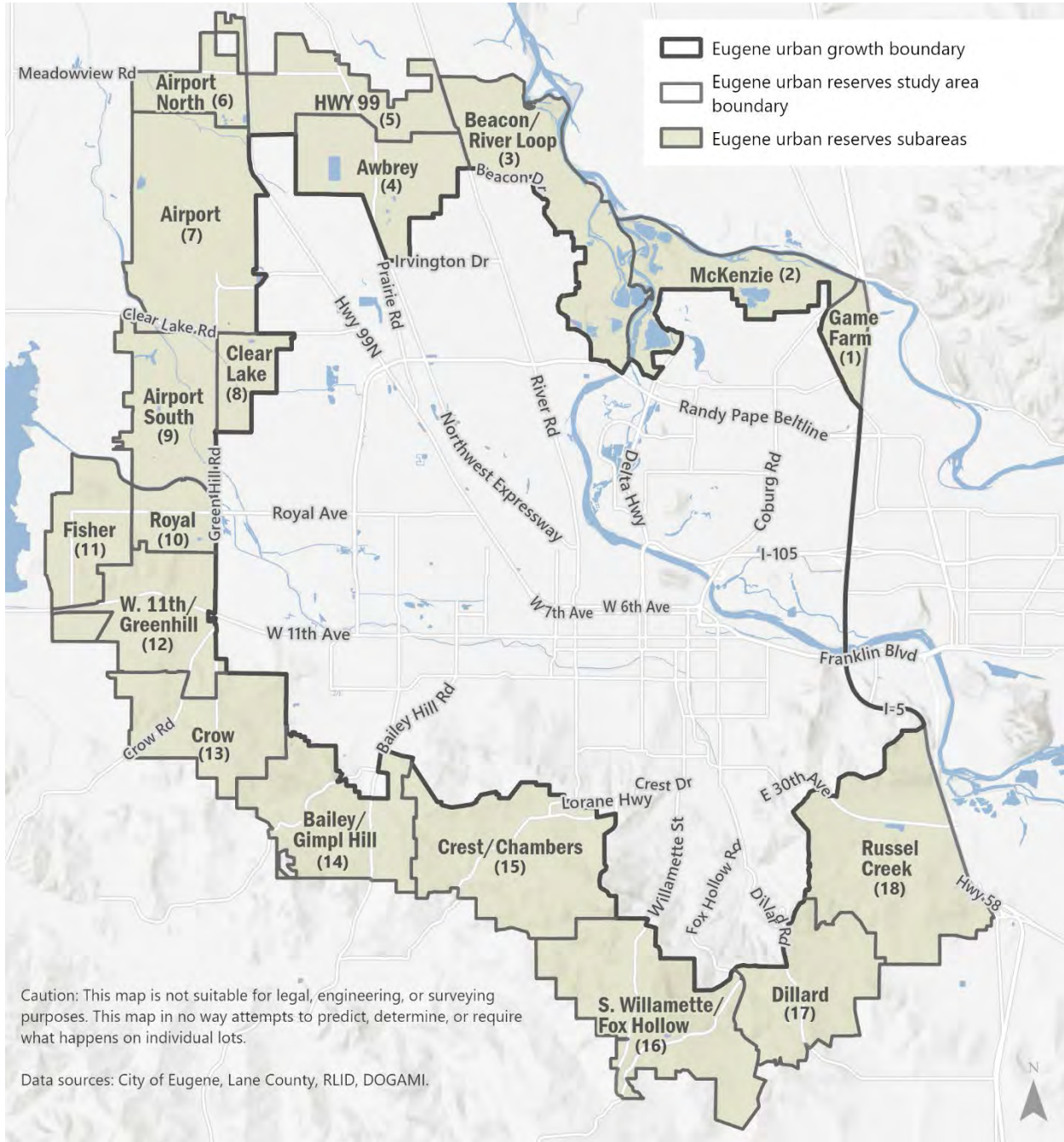
These subarea reports evaluate developable lands to determine which are most suitable or appropriate to include in urban reserves to meet the City's future needs for residential and employment land. In so doing, the subarea reports also consider the presence and possible role of "undevelopable" lands (identified in section II.B.) as such land may be extrinsically part of, or needed for inclusion of, suitable land.

The 18 **Suitability Analysis Subarea Reports** attached to this Study as Findings Appendix 2a, are presented in counter-clockwise order starting with the Game Farm subarea at the northeastern-most portion of the study area, as follows and as shown on Map 6 Urban Reserves Subareas:²⁶

1. Game Farm
2. McKenzie
3. Beacon/River Loop
4. Awbrey
5. Highway 99
6. Airport North
7. Airport
8. Clear Lake
9. Airport South
10. Royal
11. Fisher
12. West 11th/Greenhill
13. Crow
14. Bailey/Gimpl Hill
15. Crest/Chambers
16. South Willamette/Fox Hollow
17. Dillard
18. Russel Creek

²⁶ The subarea reports are named colloquially based on a distinguishing roadway or landmark for ease of reference. The reports are included as attachments and not in the body of the study because they are very large and for ease of readability need to be produced as separate documents.

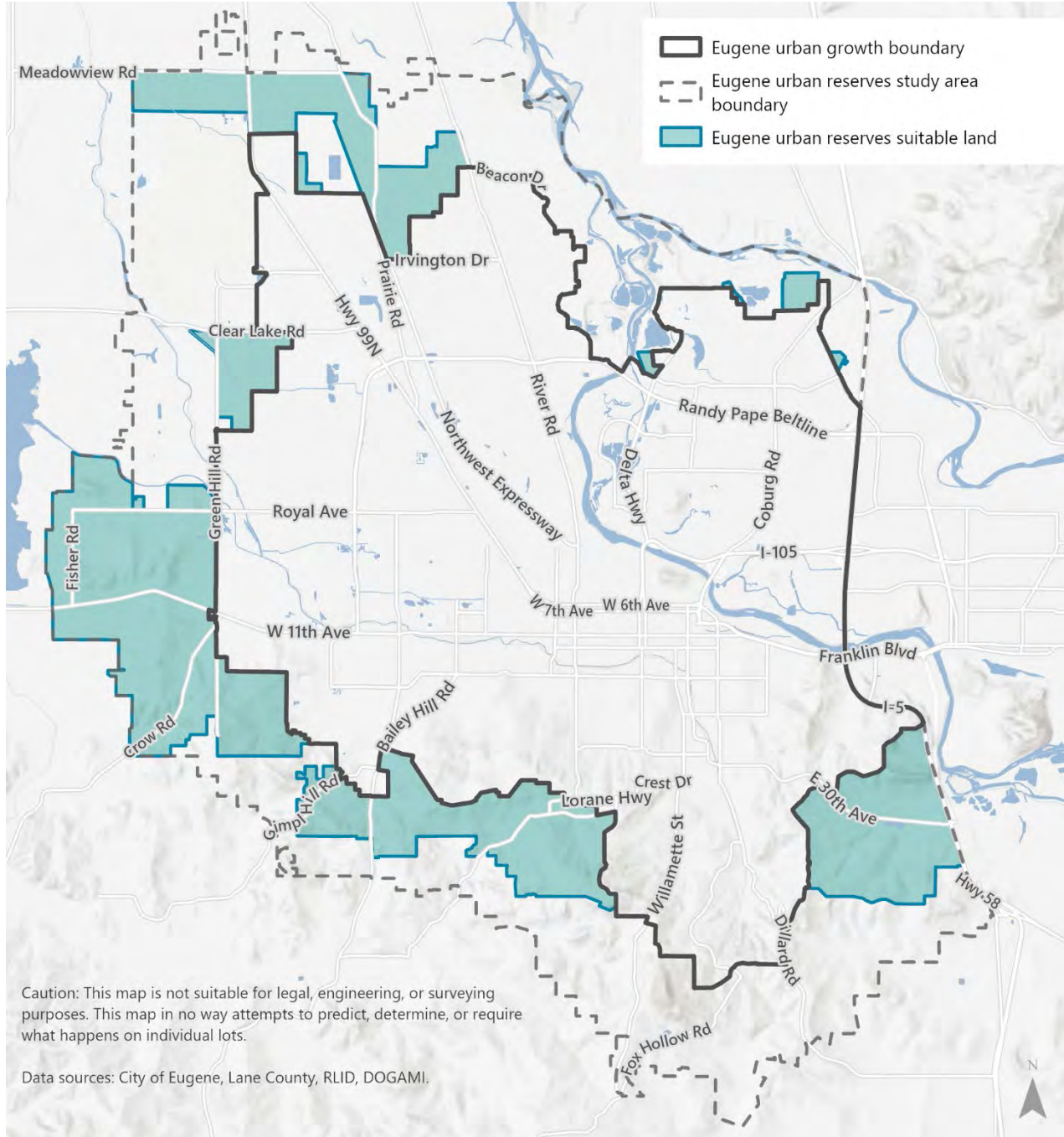
Map 6: Urban Reserves Subareas



Suitability Results Summary

When compiled, the Suitability Analysis Subarea Reports identify 11,158 acres of land that would be suitable for urban reserves. This is illustrated in blue in **Map 7 Urban Reserves Suitable Land**.²⁷

Map 7: Urban Reserves Suitable Land



²⁷ The land within the urban reserves study area boundary that is not shaded (15,892 acres) was found to be unsuitable.

III. Determination of Urban Reserve Land

State law requires that, when a city and county adopt urban reserves, the urban reserves include a supply of suitable developable land that is reasonably expected to accommodate at least 10 years and no more than 30 years of the city's anticipated growth beyond the 20-year timeframe used to establish the urban growth boundary. Eugene's Land Need and Land Supply Models estimated the amount of land that would be needed in urban reserves for the City to have an adequate supply of developable land to meet its growth needs within this timeframe.

The elected officials of the City of Eugene and Lane County directed that this urban reserves study be conducted with the goal of identifying urban reserve lands that will accommodate the City's future growth for as close to 30 years as possible, while avoiding the inclusion of third priority lots with predominant class 1 land (the most productive farmland soil) and any third priority lots with predominant class 2 land that is adjacent to it.²⁸ The City and County's directive is consistent with the State's priorities, as set out in rules for identifying urban reserve land adopted by the Oregon Department of Land Conservation and Development (DLCD).

DLCD's administrative rules, at OAR 660-021-0030(3) dictate the process for identifying which "suitable" land identified in Section II must be included within an urban reserve. The rules do so by setting out a "priority order" system that is based on the land use designations the County has assigned to the land in the urban reserves study area. The urban reserves are generally established by including suitable land in a priority order until the urban reserves include enough land to meet the City's identified needs. The priority order makes the land with the best soils for farming and forest production the last priority for inclusion in urban reserves.²⁹ By requiring the assembly of land for urban reserves according to this priority, the rules ensure that, to the extent highly valued farm or forest lands are included in urban reserves, there are no reasonable alternatives to doing so. The following analysis applies DLCD's priority system to identify the land to be included in the Eugene urban reserves. This technical analysis is documented in the Eugene Urban Reserves Technical Memo and accompanying Eugene Urban Reserves Land Need Model.

A. First Priority Lands

1. First priority land is land found suitable for urban reserves that is:

²⁸ See section III.C.2 for an explanation of the third priority land classification system. In the case of third priority lots with predominant class 1 and class 2 land, all are designated for agricultural use.

²⁹ At OAR 660-021-0030(4), DLCD's rules make some exceptions to the general priority order by stating that lower priority land may be included in urban reserves if "future urban services could not reasonably be provided to the higher priority area due to topographical or other physical constraints." The rules also state that lower priority land may be included in urban reserves if "maximum efficiency of land uses within a proposed urban reserve requires inclusion of lower priority lands in order to include or to provide services to higher priority lands."

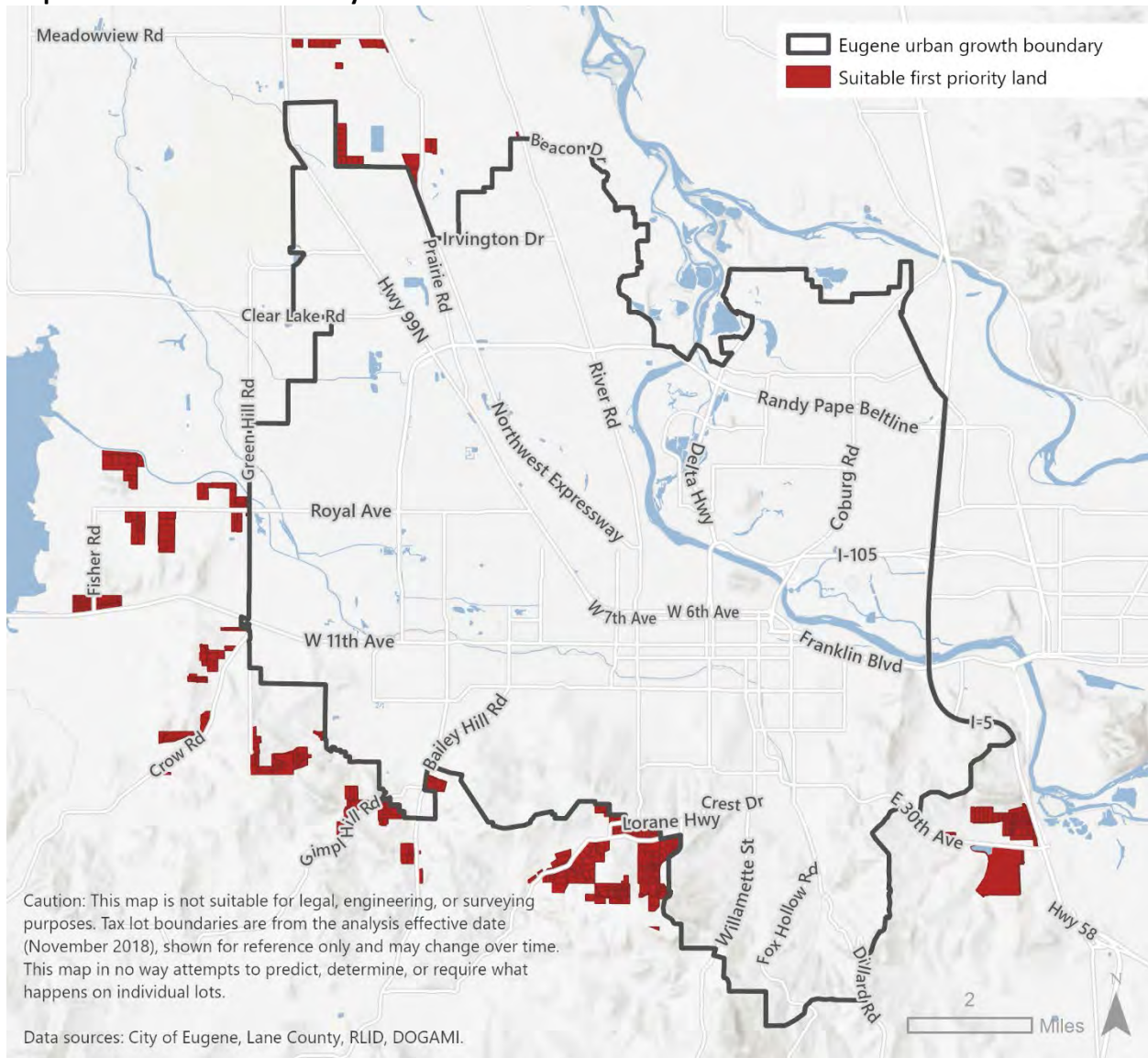
- Identified in Lane County's Rural Comprehensive Plan or the Metro Plan as an exception area;
- Identified in Lane County's Rural Comprehensive Plan or the Metro Plan as nonresource land; or
- Resource land completely surrounded by exception areas, unless such resource land is a high-value crop area as defined in Statewide Planning Goal 8 or prime or unique agricultural lands as defined by the US Department of Agriculture.

First priority lands were identified by their plan designation in the urban reserves geospatial land supply model. In the Metro Plan, first priority lands include the following plan designations: Government and Education, Rural Industrial, Rural Commercial, Rural Residential. In Lane County's Rural Comprehensive Plan, first priority lands include the following plan designations: Commercial, Industrial, Nonresource and Residential. There are no resource lands completely surrounded by exception areas.

The process for identification and classification of lands in order to calculate acreage and capacity by priority land classifications for determination of urban reserves, as required per OAR 660-0214-0030, is fully described in the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

Map 8, All Suitable First Priority Land, shows the distribution of this first priority land.

Map 8: All Suitable First Priority Land



2. Land identified under A. 1 that cannot accommodate future development because, due to topographical or other physical constraints, it could not reasonably be provided with future urban services.

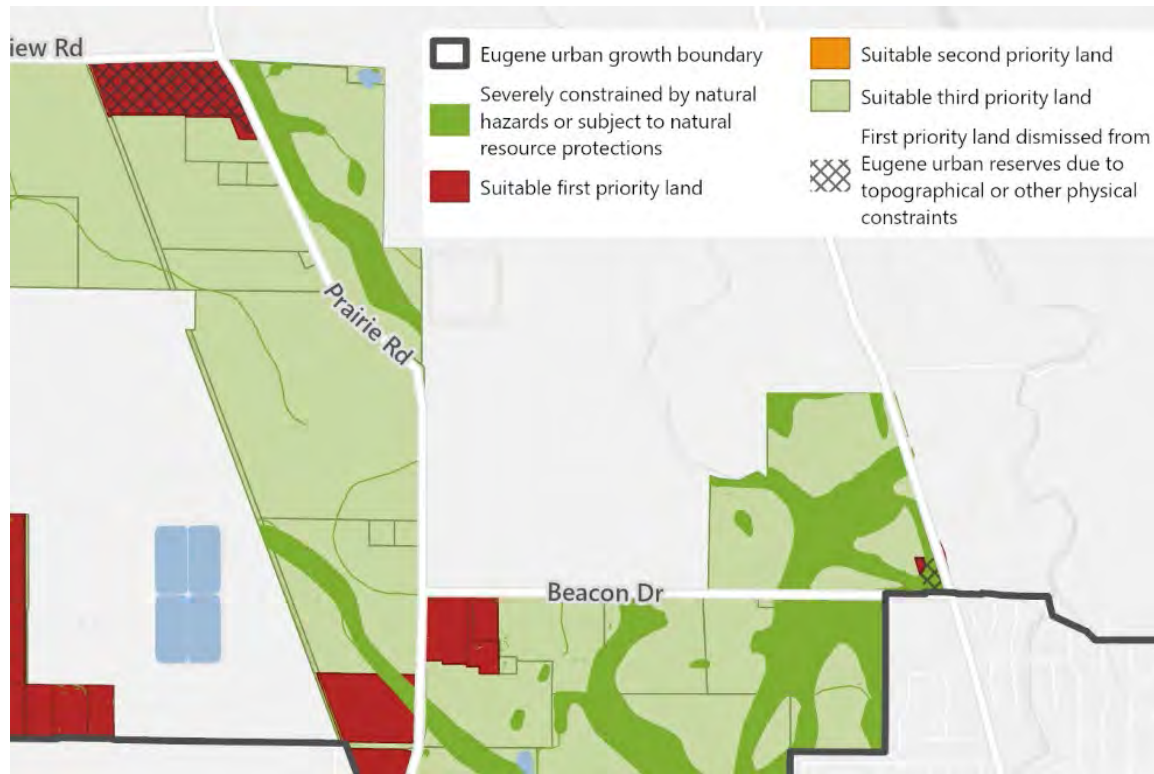
There is a total of 39 acres of suitable first priority land to which urban services could not reasonably be provided due to topographical or physical constraints. This land is in two different areas and is shown on **Map 9 First Priority Land Dismissed from Eugene Urban Reserves Consideration Due to Topographical or Other Physical Constraints.**

- I. *Six lots on the northern edge of the study area south of Meadowview Road between Prairie Road and the Union Pacific railroad corridor. Map 9 shows this first priority land (i. on map with cross-hatched overlay) surrounded by “suitable*

third priority land.” As explained later in this Section III, this suitable third priority land is high-value farm land (with predominant class 1 or predominant class 2 soil) that will not be included in urban reserves, making this first priority land an island. This physical separation from other urbanizable land creates significant physical constraints. These small rural residential parcels are isolated on the farthest edge of the urban reserves study area and would be very difficult to serve if included, due to their physical separation and distance from other land selected for urban reserves. Future urban services could not reasonably be provided due to this land’s nature as non-contiguous, distant islands of partially vacant rural residential lots not adjacent to or nearby the UGB, per OAR 660-021-0030(3)(a), creating a significant physical constraint to efficient serviceability of these lands.

- II. *One tax lot at the northwest corner of Beacon and River Roads.* As shown on Map 9, this tax lot contains extensive mapped flood hazard areas (II. on map with cross-hatched overlay). As with the land in (I) above, it is also surrounded by “suitable third priority land” that is high-value farm land (with predominant class 1 or predominant class 2 soil) that will not be included in urban reserves, making this first priority land an island, and not necessary for the extension of services along the adjacent right of way to the surrounding land. In addition, once this tax lot becomes an island, no longer surrounded by other urban reserve land, the extensive natural hazard areas create significant physical constraints that changes the ability of future urban services to reasonably be provided to this land.

Map 9: First Priority Land Dismissed from Eugene Urban Reserves Consideration Due to Topographical or Other Physical Constraints



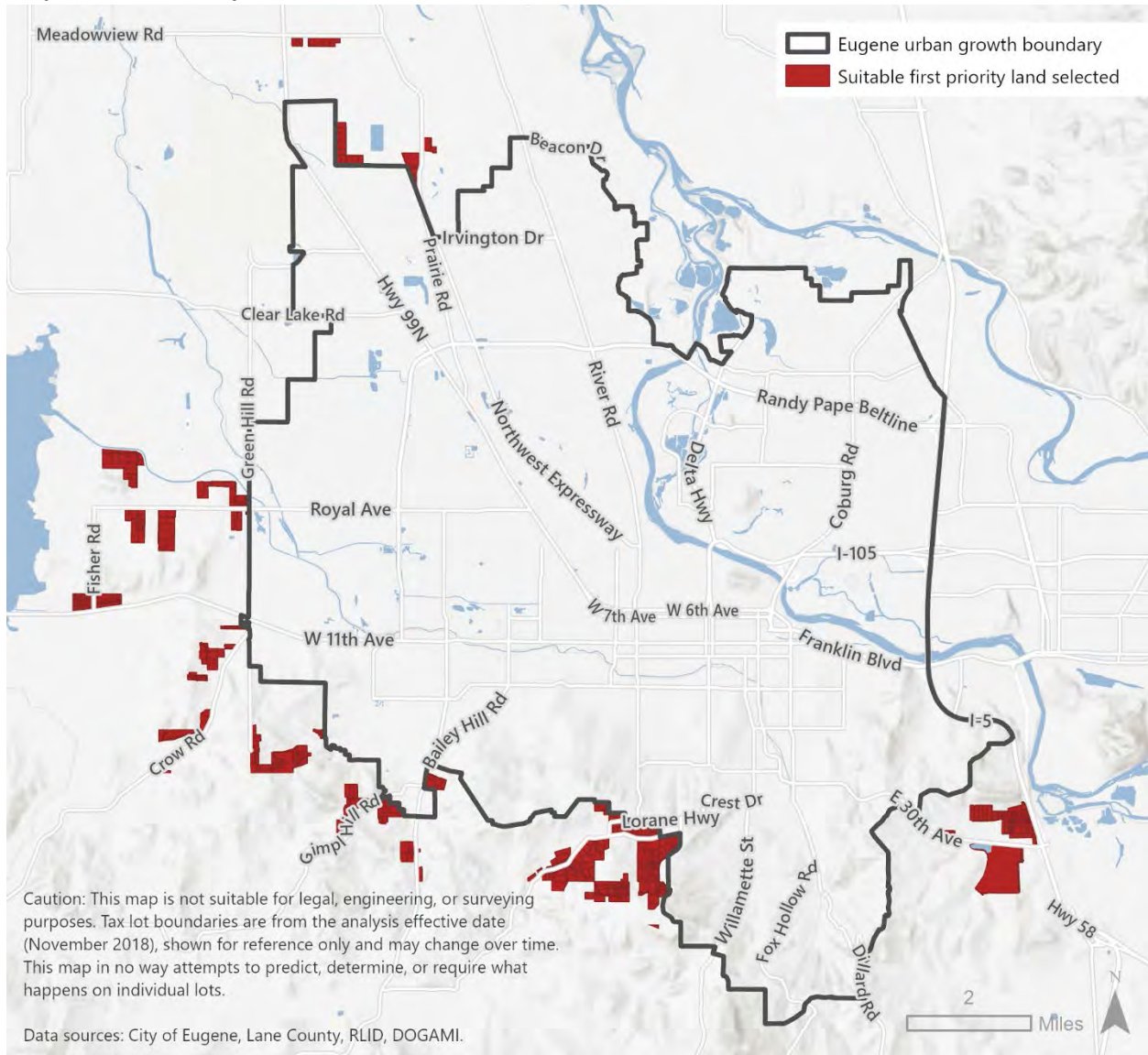
- 3. Second or third priority land that, for maximum efficiency of land uses within the urban reserves, is required in order to include or to provide services to first priority land.**

Maximum efficiency of land uses within the urban reserves does not require that any lower priority land be included in Eugene urban reserves in order to include or provide services to first priority urban reserve land.

- 4. Land to be included in the Eugene urban reserves.**

The land to be included in urban reserves as a result of this first priority analysis is shown on **Map 10 First Priority Land to be Included in Urban Reserves**.

Map 10: First Priority Land to Be Included in Urban Reserves



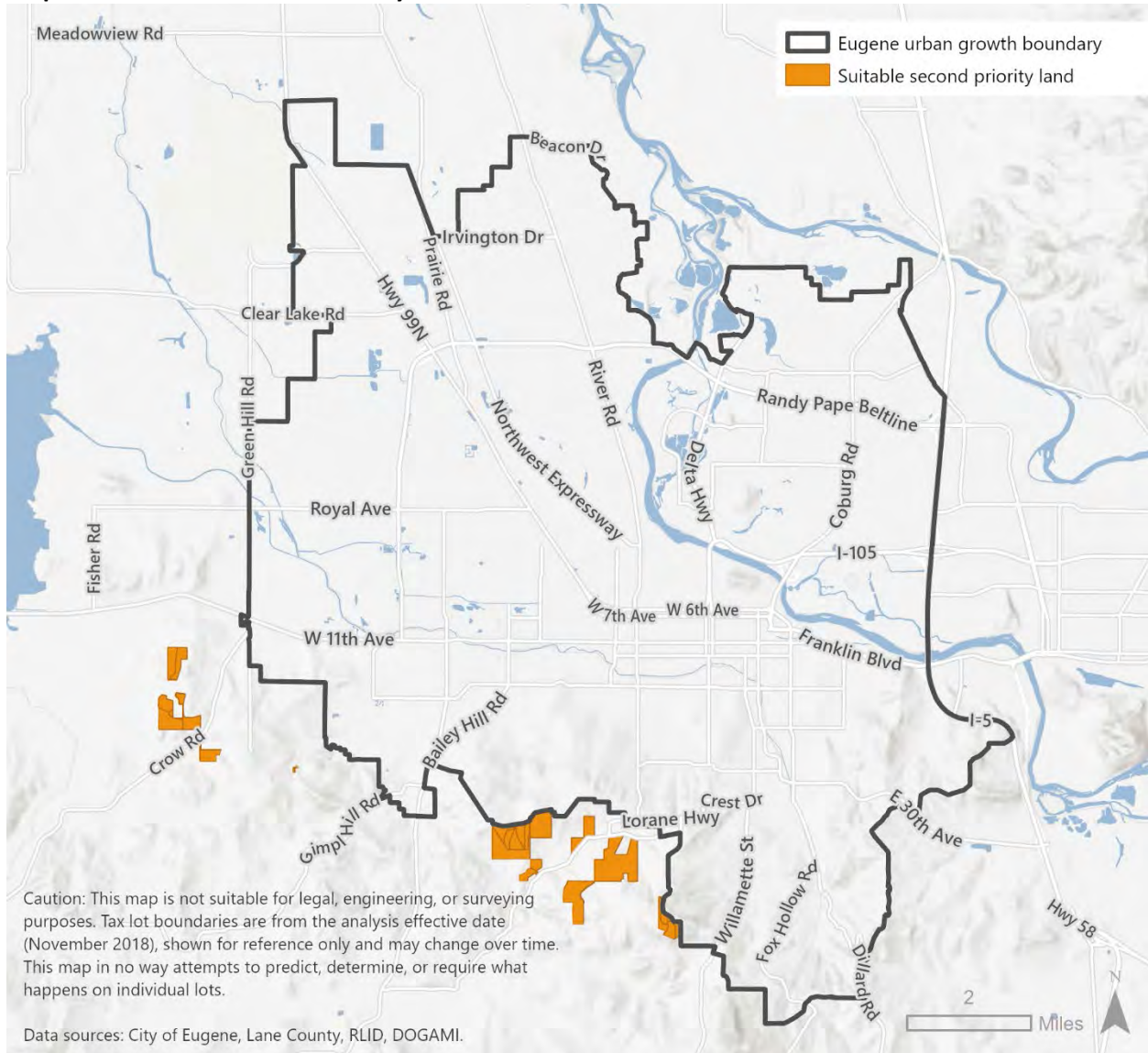
As noted above, the City and County intend to establish urban reserves that are adequate to accommodate the City's future growth for as close to 30 years as possible, while avoiding the inclusion of third priority lots with predominant class 1 land or third priority lots with predominant class 2 land that is adjacent to it, as described later in this section. The City's Land Need Model and Land Supply Model, described in the Eugene Urban Reserves Technical Memo (Findings Appendix 4) show that this urban reserve will meet the estimate of land needed for 27-years of growth, which is approximately 5,922 developable acres. The land to be included in urban reserves as a result of this first priority analysis will provide 785 acres of developable land. Therefore, the land included under the First Priority analysis is inadequate to meet the estimated need.

B. Second Priority Lands

1. Second priority land is land found suitable for urban reserves that is designated in the Lane County Rural Comprehensive Plan as marginal land pursuant to former ORS 197.247 (1991 edition).

Map 11, All Suitable Second Priority Land, shows the distribution of this second priority land.

Map 11: All Suitable Second Priority Land



- 2. Land identified under B. 1 that cannot accommodate future development because, due to topographical or other physical constraints, it could not reasonably be provided with future urban services.**

All of the developable second priority land that would be suitable for urban reserves could reasonably be provided with future urban services.

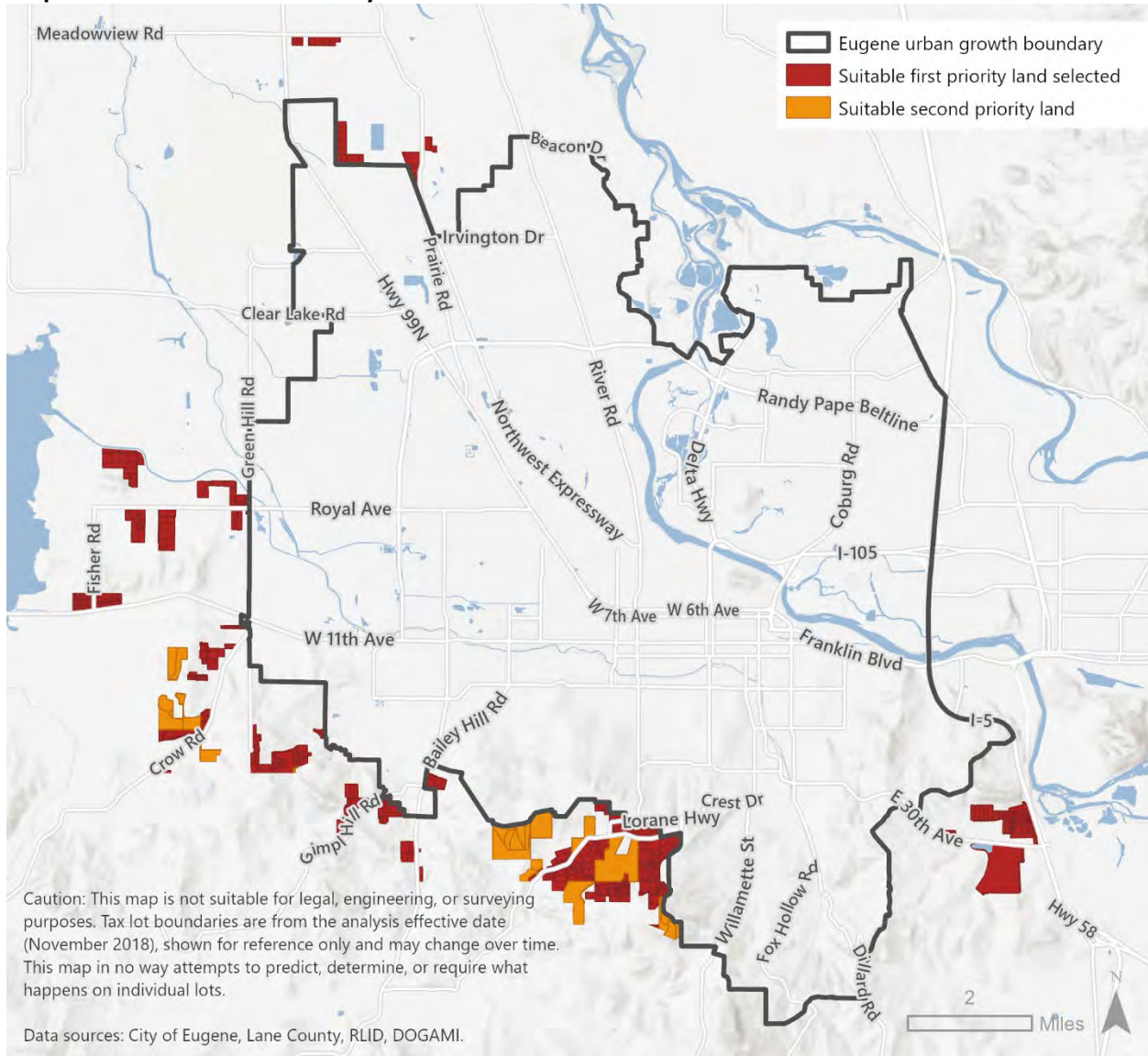
- 3. Third priority land that, for maximum efficiency of land uses within the urban reserves, is required in order to include or to provide services to second priority land.**

Maximum efficiency of land uses within the urban reserves does not require that any third priority land be included in Eugene urban reserves in order to include or provide services to second priority urban reserve land.

- 4. Land to be included in urban reserves.**

The land to be included in urban reserves as a result of this second priority analysis is shown on **Map 12**, a cumulative map showing all of the first and second priority land to be Included in Urban Reserves.

Map 12: First and Second Priority Land to Be Included in Urban Reserves



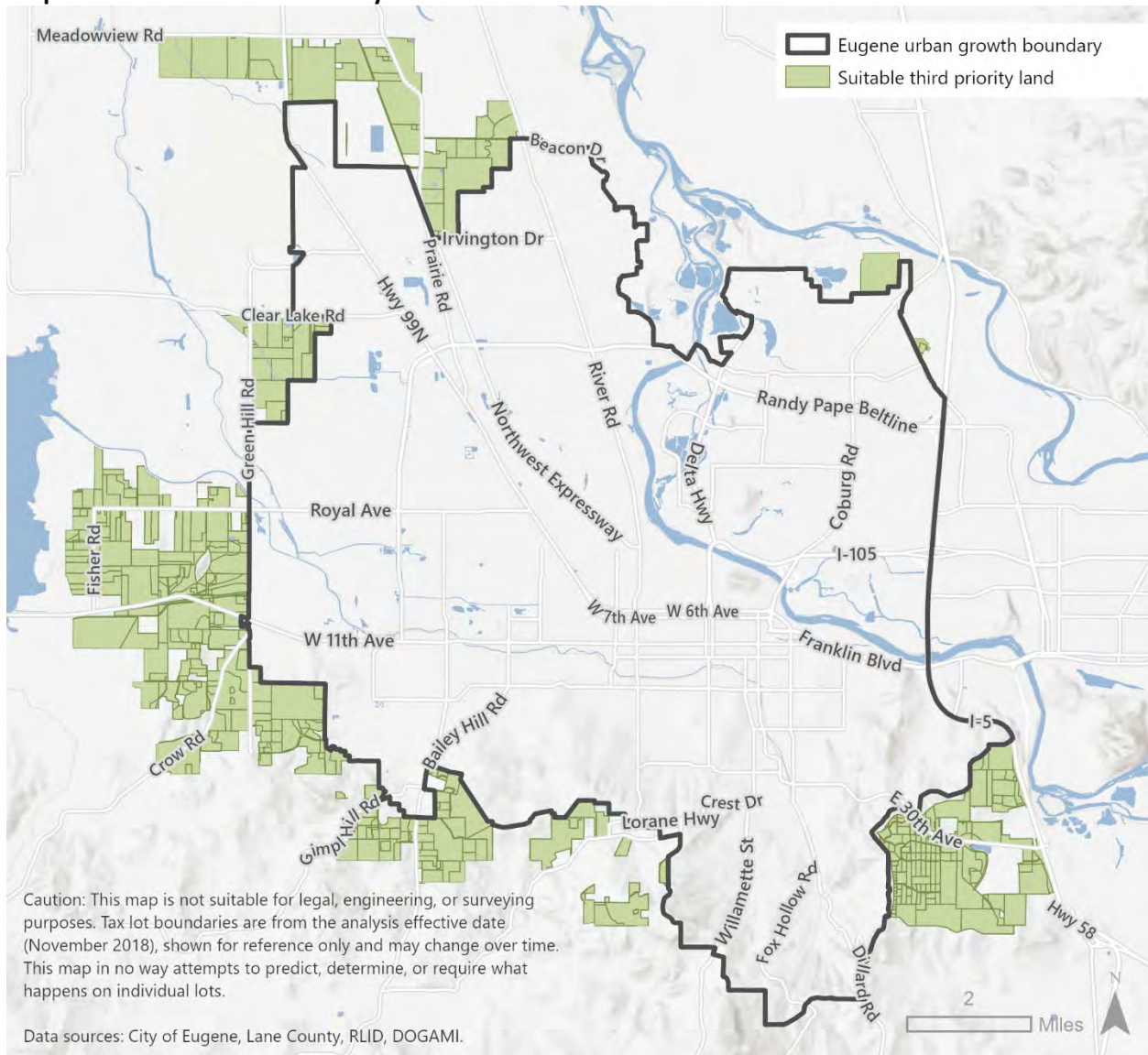
As noted above, the City and County intend to establish urban reserves that are adequate to accommodate the City's future growth for as close to 30 years as possible, while avoiding the inclusion of third priority lots with predominant class 1 land or third priority lots with predominant class 2 land that are adjacent to it. The City's Land Need Model and Land Supply Model described in the Eugene Urban Reserves Technical Memo (Findings Appendix 4) show that this urban reserve will meet the estimate of land needed for 27-years of growth, which is approximately 5,922 developable acres. As previously described, the land to be included in urban reserves as a result of the first priority analysis will provide 785 acres of developable land. The land to be included in urban reserves as a result of this second priority analysis will provide 407 additional acres of developable land, for a total of 1,192 acres of first and second priority developable land. Therefore, the land included under the first priority and second priority analyses is inadequate to meet the estimated need.

C. Third Priority Lands

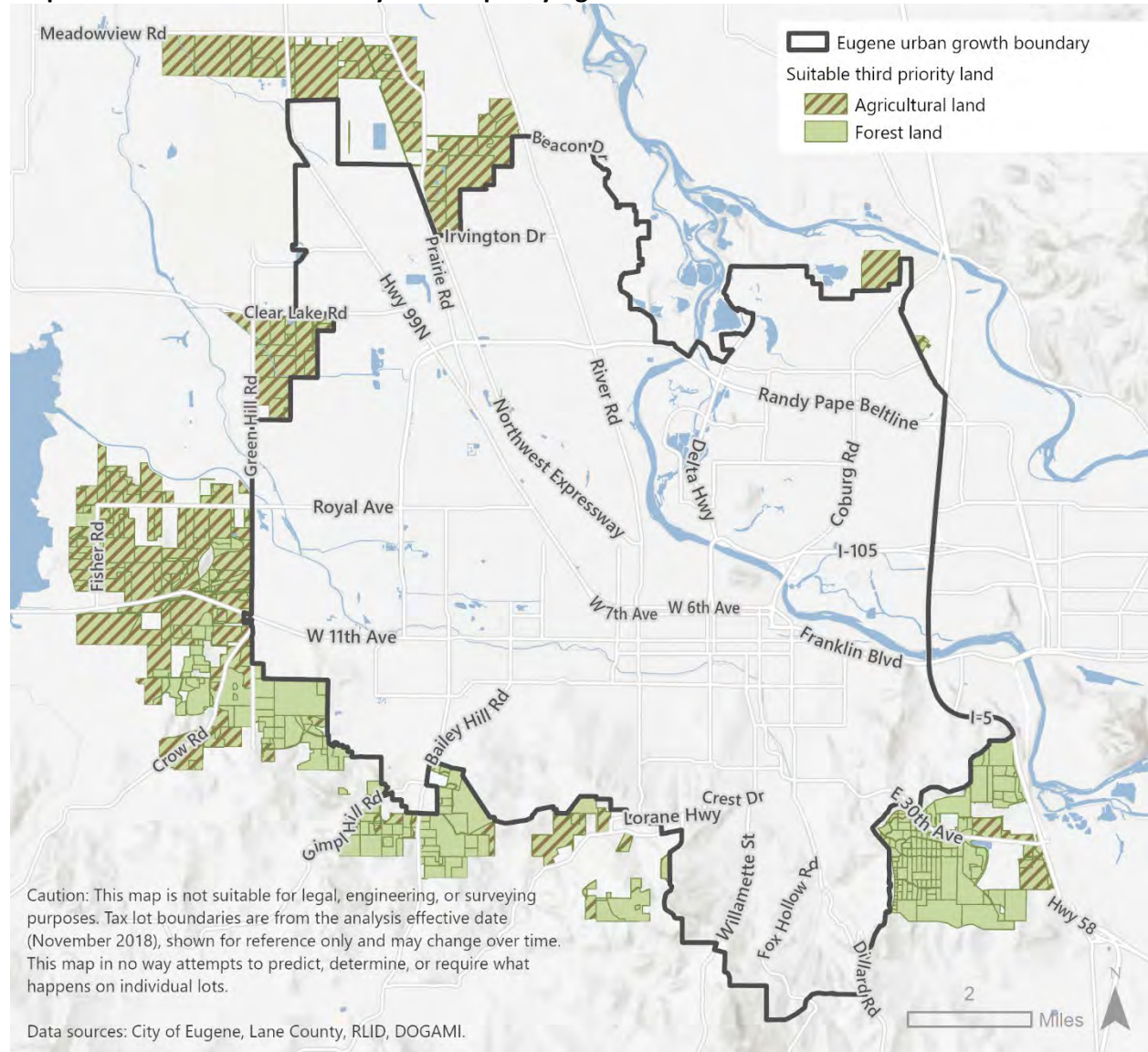
1. Third priority land is land found suitable for urban reserves that is designated in the Lane County Rural Comprehensive Plan or the Metro Plan for agriculture or forestry, or both.

Map 13, All Suitable Third Priority Land, shows the distribution of all third priority land; **Map 14, All Suitable Third Priority Land—Split by Agricultural and Forest Land**, identifies whether the third priority land is designated for agriculture or forestry.

Map 13: All Suitable Third Priority Land



Map 14: All Suitable Third Priority Land—Split by Agricultural and Forest Land



2. Priority is given to third priority lands based on the capability classification system (agricultural land) or cubic foot site class (forest land).

OAR 660-021-0030(3)(c) states that, among third priority land, “higher priority shall be given to land of lower capability as measured by the capability classification system [for agricultural land] or by cubic foot site class [for forest land].” This ensures that suitable farm and forest land with the least productive soils are considered first for inclusion in Eugene urban reserves.

To address this prioritization requirement, this Study identifies the predominant land capability class or forest productivity class of each suitable third priority property. Predominant class is the largest share, by area, of all farm or forest classes present within the lot. The land capability and forest productivity classifications are defined by the US

Department of Agriculture and the Oregon Department of Forestry. All lots in the study area with suitable third priority land have a predominant land class identified with an “X” on the table below. “None” indicates there are no suitable lots with this predominant land class:

Table 1, Land Classification of Suitable Third Priority Lots within the Urban Reserves Study Area

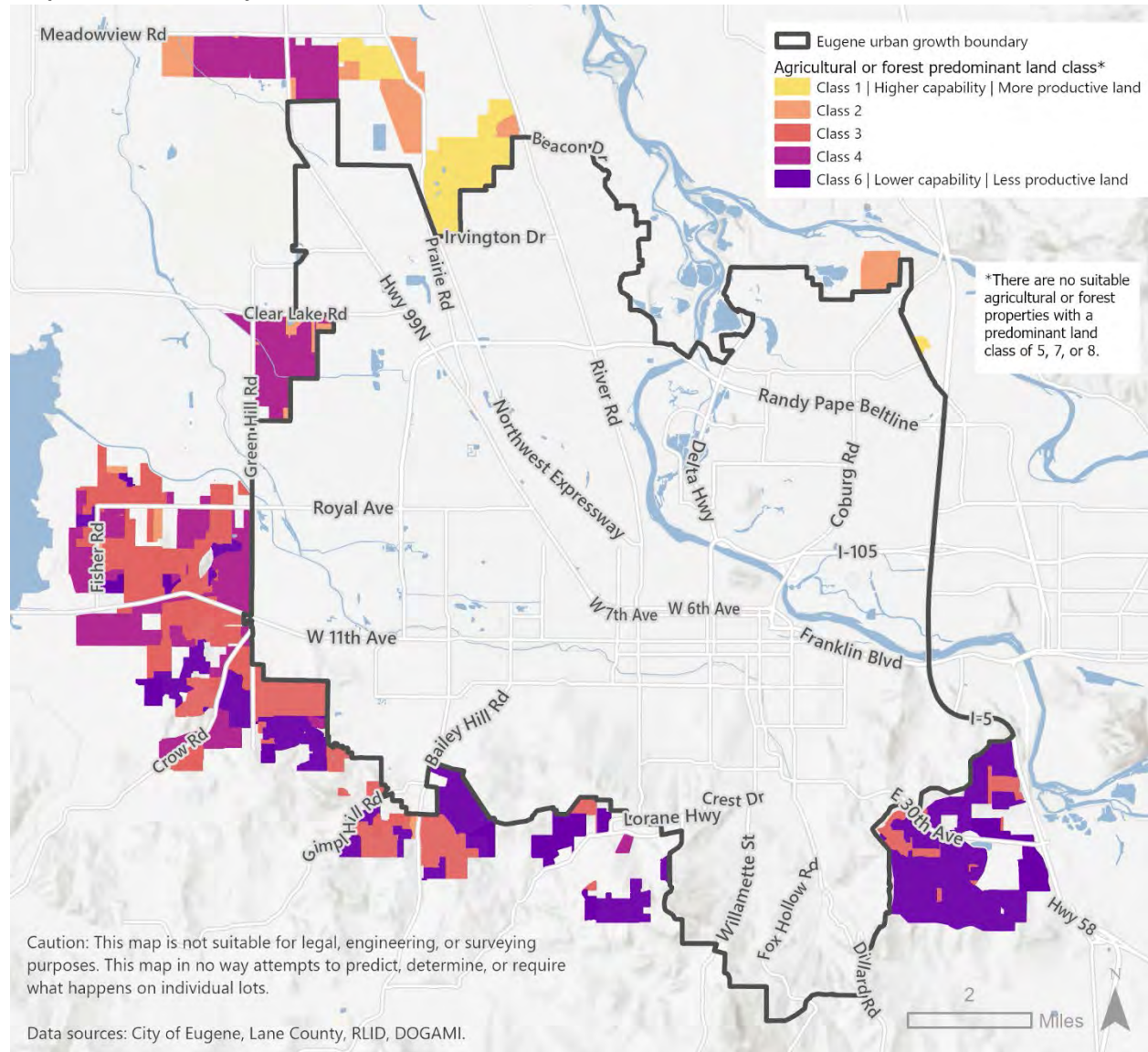
	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8
Ag Land	X	X	X	X	<i>none</i>	X	<i>none</i>	<i>none</i>
Forest Land	<i>none</i>	<i>none</i>	X	<i>none</i>	<i>none</i>	X	The forest productivity scale does not have a class 7	The forest productivity scale does not have a class 8

While Class 1 agricultural land is not the same thing as Class 1 forest land, in both cases, Class 1 land is the highest capability/most productive land and Class 6 land is the lowest capability/least productive land in the study area. This allows for the predominant agricultural land capability and forest productivity classes to be combined into one dataset and to be referred to collectively as *land class*.³⁰

Map 15, Third Priority Land Classification, shows the distribution of the predominant land class of all the suitable third priority land within the urban reserves study area.

³⁰Complete information about third priority land classification can be found in the *Eugene Urban Reserves Technical Memo* (Findings Appendix 4).

Map 15: Third Priority Land Classification

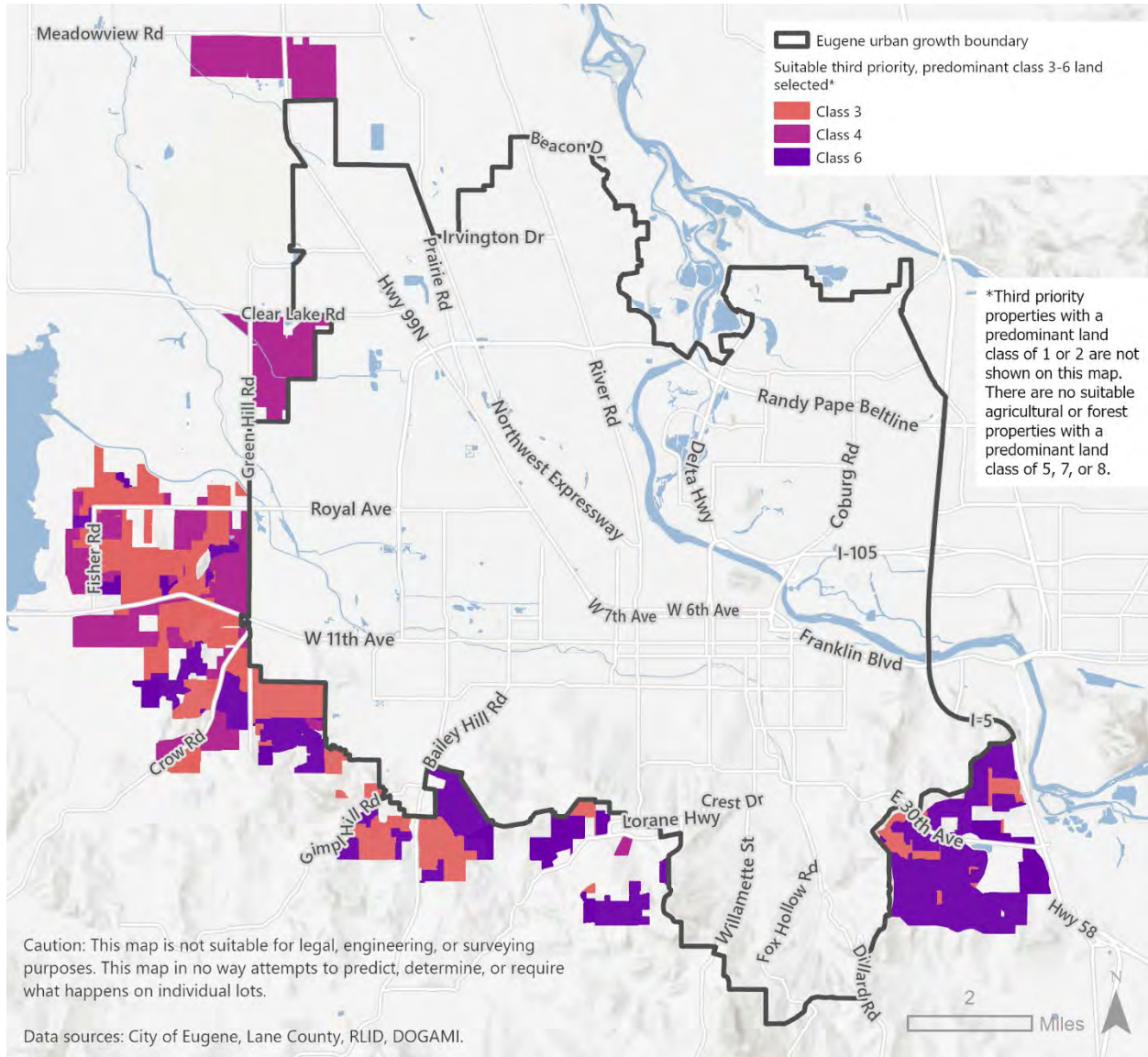


3. Land to be included in the Eugene urban reserves:

As noted above, the City and County intend to establish urban reserves that are adequate to accommodate the City’s future growth for as close to 30 years as possible, while avoiding the inclusion of third priority lots with predominant class 1 land or third priority lots with predominant class 2 land that are adjacent to predominant class 1 land. The first and second priority lands already identified for urban reserves in sections III.A and III.B, above, include 1,192 developable acres. All of the third priority lots that have predominant class 6, 4 or 3 land, combined, include 4,331 acres of developable land. Even with the inclusion of all the third priority lots with predominant class 6, 4 or 3 land in the Eugene urban reserves, the urban reserves would include a total of only 5,523 developable acres. This total is still inadequate to meet the estimate of land

needed for 27-years of growth, which is approximately 5,922 developable acres, as described in the Eugene Urban Reserves Technical Memo (Findings Appendix 4). Therefore, all of the third priority lots with the least productive land (predominant class 6, 4, and 3 land), must be included in Eugene urban reserves. The distribution of this land is illustrated in **Map 16, Third priority, Class 3-6 Land to be Included in Urban Reserves**

Map 16: Third priority, Class 3-6 Land to be Included in Urban Reserves

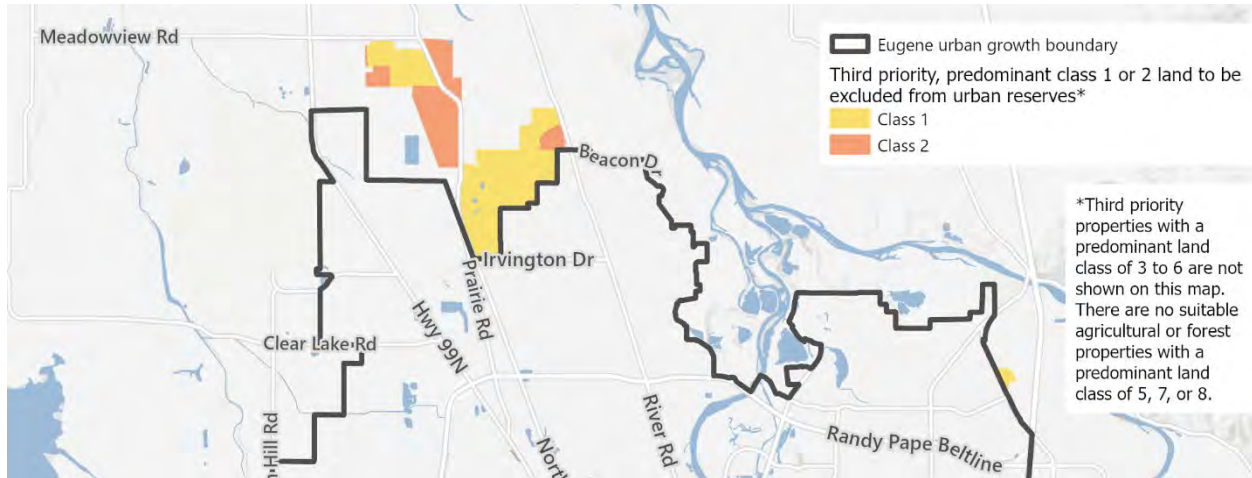


Even if it means that the Eugene urban reserves will fall short of a full 30-year supply of developable land, the City and County do not wish to include third priority lots with predominant class 1 land. Further, the jurisdictions wish to also preserve for agricultural³¹

³¹ All of the third priority land with predominant class 1 land and adjacent third priority land with predominant class 2 land are designated for agriculture, not forest land.

use any third priority lots with predominant class 2 land that are adjacent to the above-referenced areas with predominant class 1 land. This will allow for larger contiguous areas to be farmed. The following **Map 17, Third Priority, Class 1 and Adjacent Class 2 Land to be Excluded from Urban Reserves** shows the areas with this category of land that will not be included in the Eugene urban reserve.³²

Map 17: Third Priority, Class 1 and Adjacent Class 2 Land to be Excluded from Urban Reserves



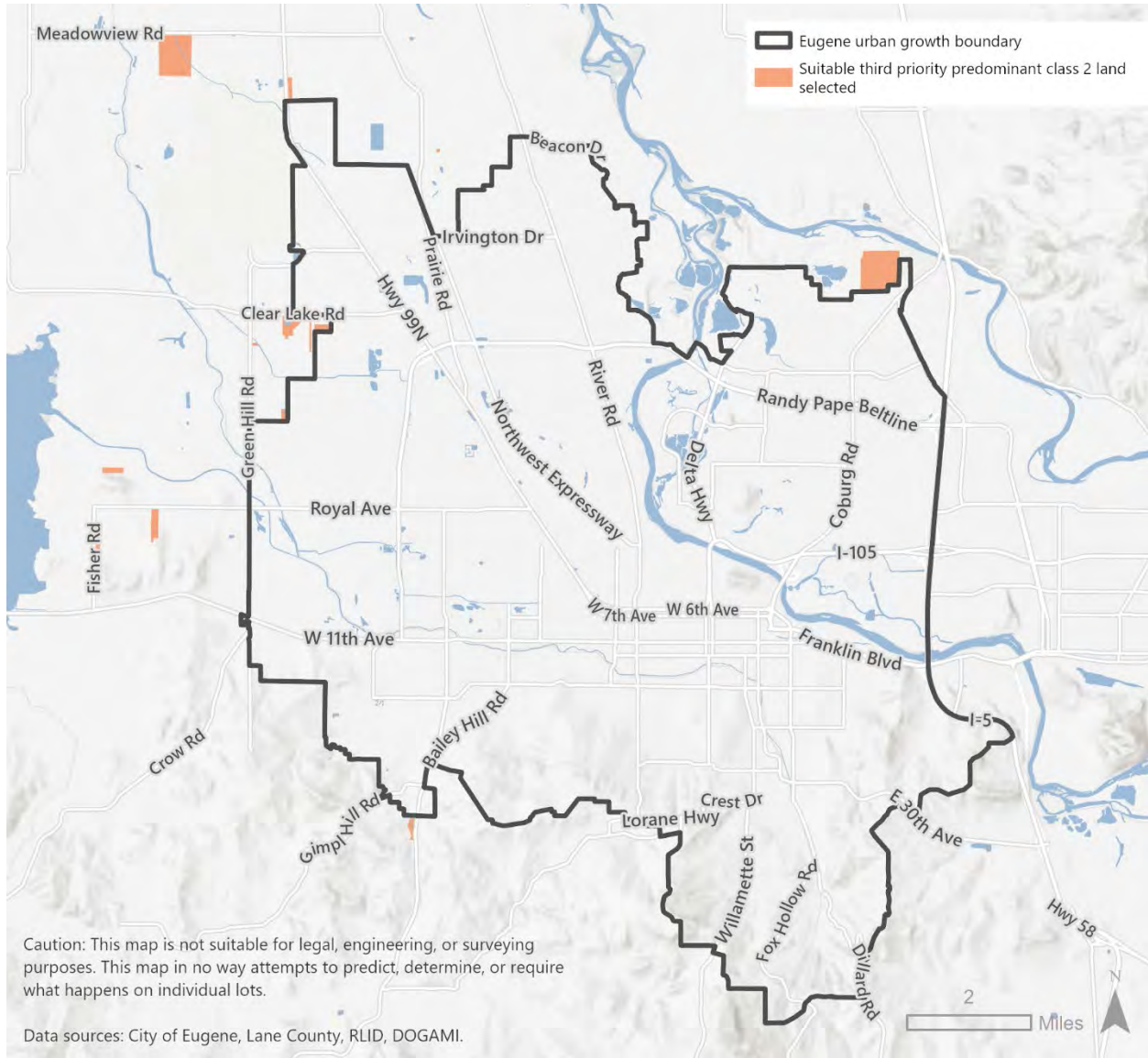
The remaining analysis pertains to the suitable third priority, class 2 land that is *not* adjacent to land with predominant class 1 land. As noted, the City and County seek to include as much of this land as possible, within state's 30-year cap.

The suitable third priority lots with predominant class 2 land that are not adjacent to lots with predominant class 1 land include 289 developable acres. When combined with the land already identified for inclusion in urban reserves in the analysis above, inclusion of all of this land would result in 5,813 acres of developable land in the Eugene urban reserves, still 109 acres short of the acreage needed to reach the estimate of land needed for 27-years of growth, which is less than the 30-year maximum urban reserve imposed by DLCD's rules. For this reason, all suitable third priority lots with predominant class 2 land that are not adjacent to third priority lots with predominant class 1 land are to be included in the Eugene urban reserves.

Map 18, Third priority, Class 2 Land to be Included in Urban Reserves shows the third priority predominant class 2 land that will be included in Eugene urban reserves.

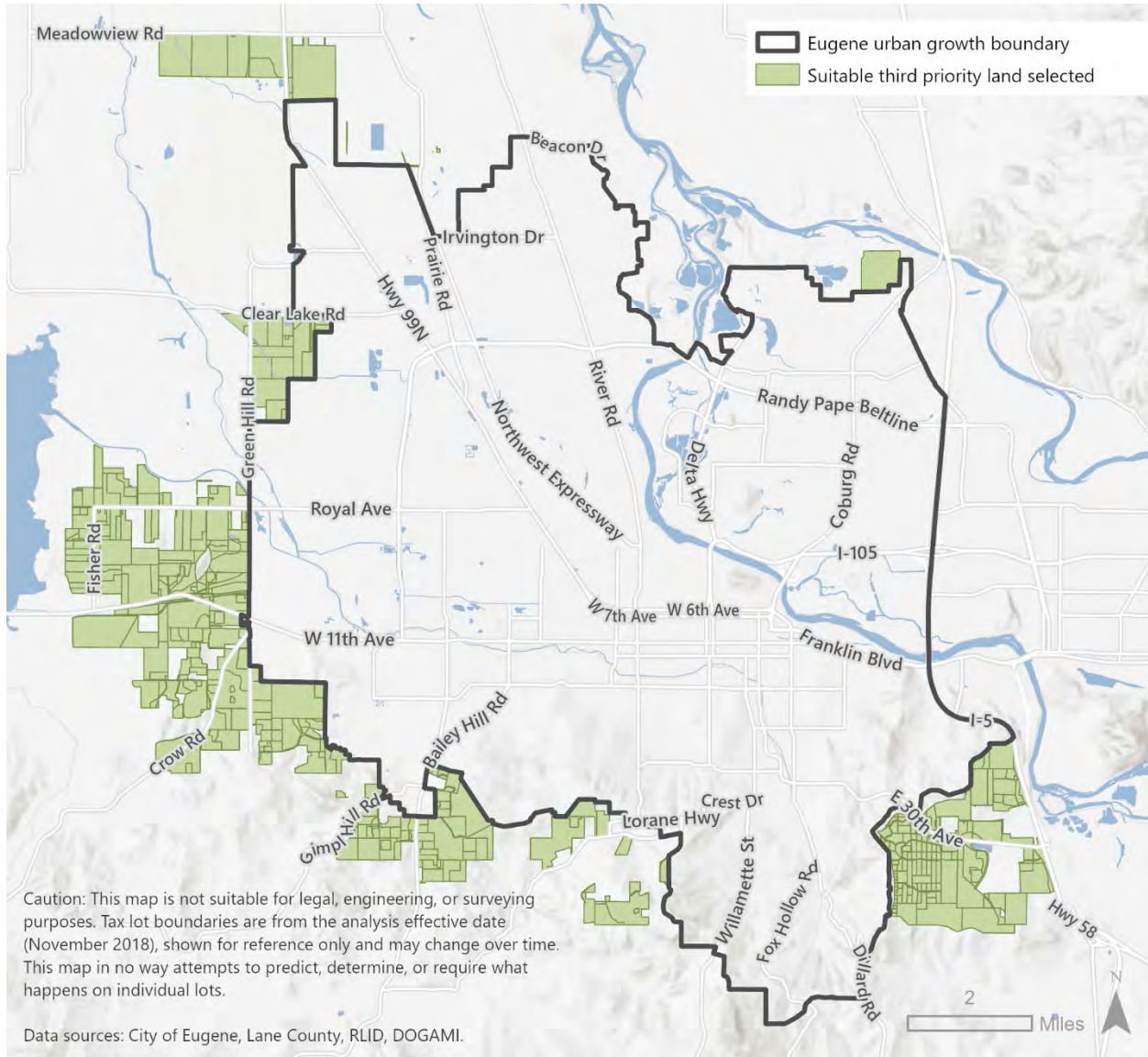
³² Having determined that the City and County will not include third priority predominant class 1 land in urban reserves, the third priority predominant class 2 land is the last category of land to be considered for inclusion in the Eugene urban reserves. Neither state law nor DLCD's rules specify a bases for choosing which third priority class 2 land should be included in the urban reserves. The rationale expressed by the City and County is consistent with the State's general policy to place a high value on the preservation of the most productive soils for farm or forest uses.

Map 18: Third Priority Predominant Class 2 Land to be Included in Urban Reserves



In total, all of the suitable third priority land selected for Eugene urban reserves designation includes 4,620 acres of developable land and is shown on **Map 19**.

Map 19: All Suitable Third Priority Land to be Included in Urban Reserves



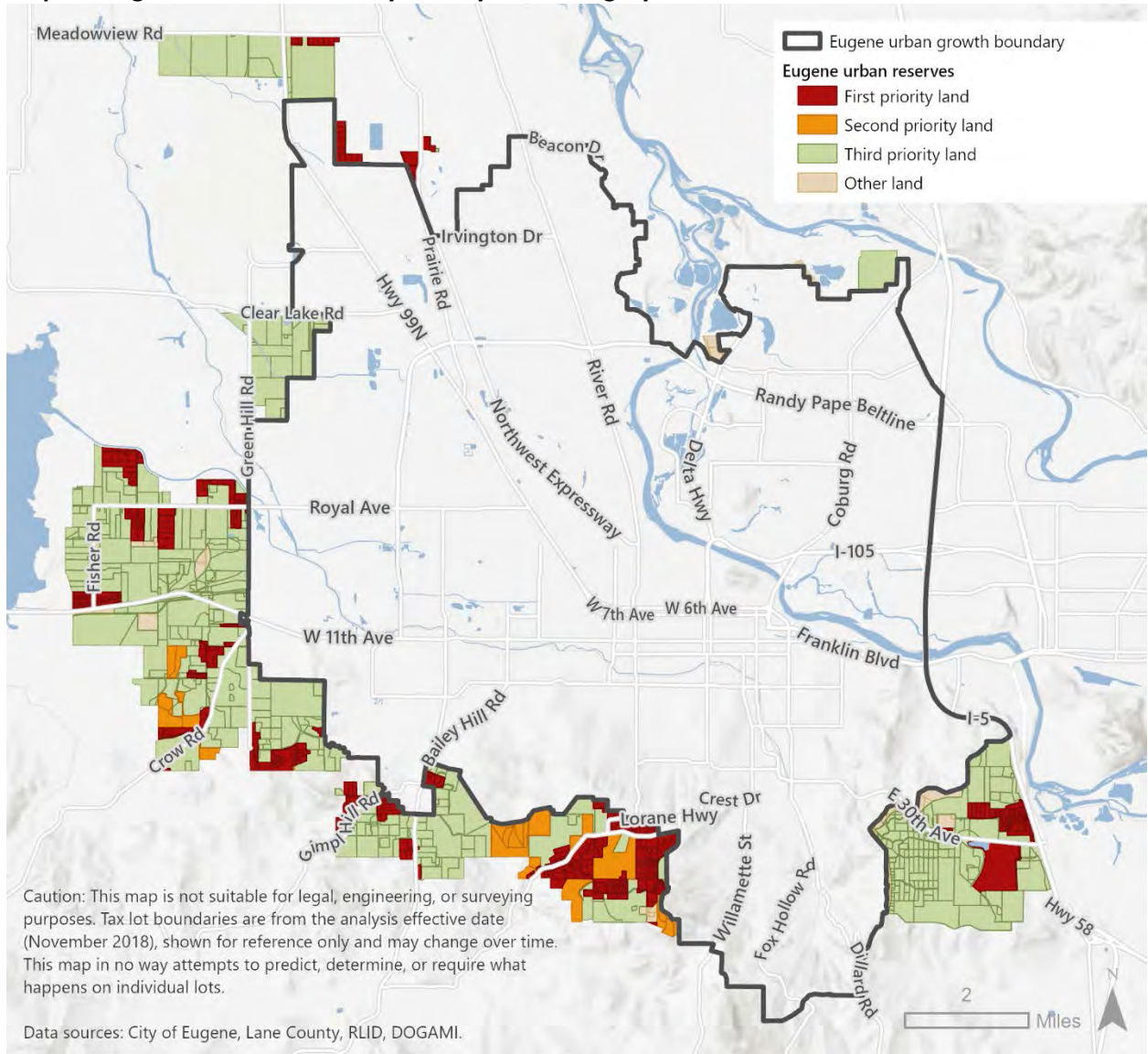
IV. Conclusion -- Land Selected for Urban Reserves

The Eugene City Council and Lane County Board of Commissioners provided direction to retain the study area's highest value farm land as rural land, while designating as much urbanizable land to meet growth needs as possible. This study, with those parameters, ultimately identifies an urban

reserve area that includes 10,015 acres of land, with 5,901 developable acres.³³ This is just 21 acres different, or less than 1 percent, from the estimated land need for 27-years of growth (5,922 developable acres). These urban reserves are expected to provide the City with approximately a 27-year supply of developable land, covering a planning period of 2032-2059.

Map 20 shows the land designated as Eugene urban reserves by priority land category.

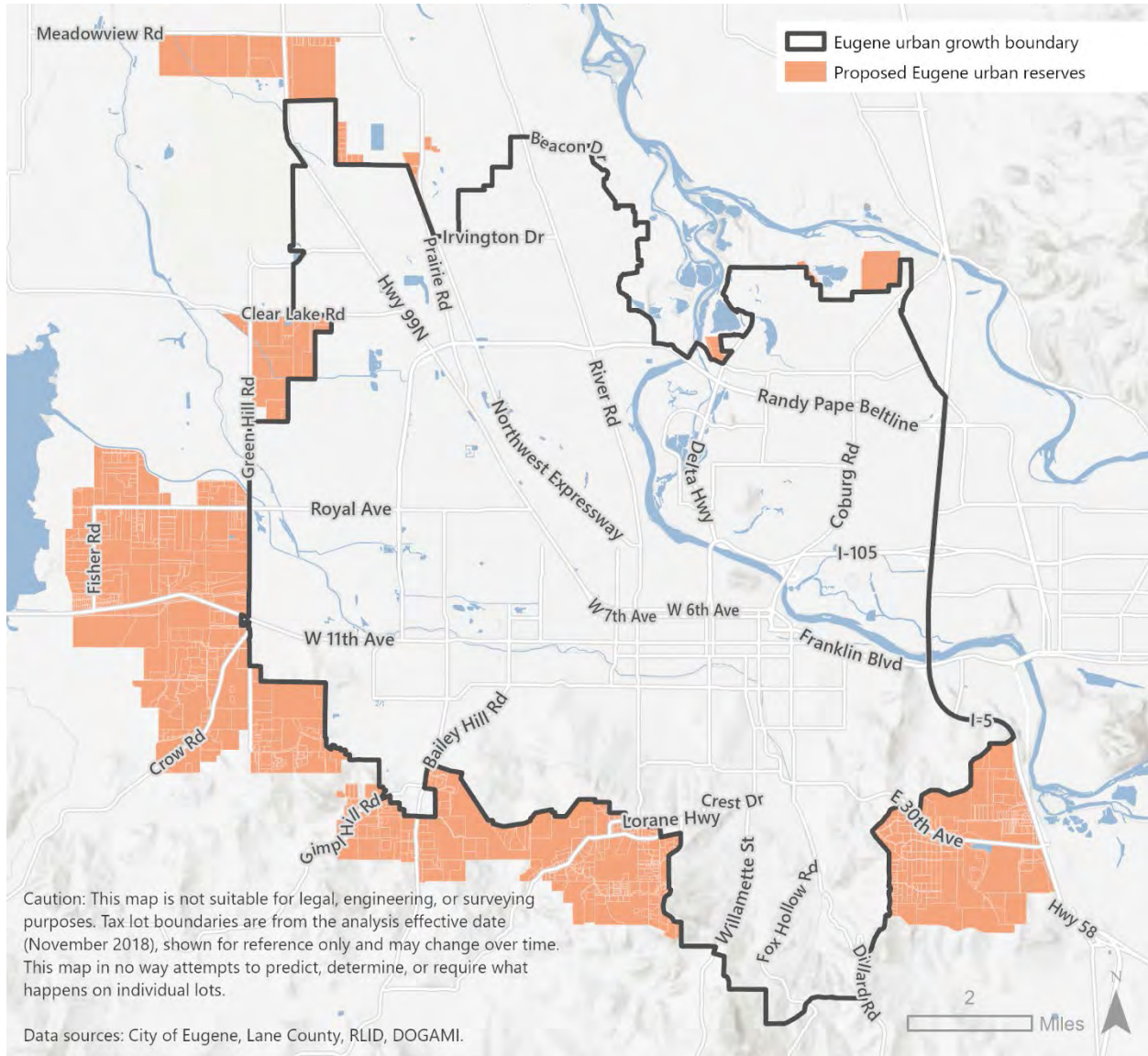
Map 20: Eugene Urban Reserves by Priority Land Category



³³ The urban reserves study area includes some land that does not fall within any of the State’s priority categories for designating urban reserves. These are lands with a variety of other Metro Plan or Rural Comprehensive Plan designations, beyond what is allowed to be considered as first, second or third priority land. Though arguably not required, this land was considered throughout this Study and 88 developable acres of this “other” land is, by the standards described in this Study, suitable for inclusion in urban reserves and on balance a favorable fit based on the Goal 14 locational factors. It is shown on Map 20. “Other” land is further described in the Eugene Urban Reserves Technical Memo (Findings Appendix 4).

Map 21 shows the final Eugene urban reserves map. Upon adoption, the shapefile of the data shown on the map will be included as part of the Metro Plan and Lane County Rural Comprehensive Plan.

Map 21: Eugene Urban Reserves



V. Attachments

Attached to this report are the Eugene Urban Reserves Suitability Analysis Subarea Reports, (Findings Appendix 2a):

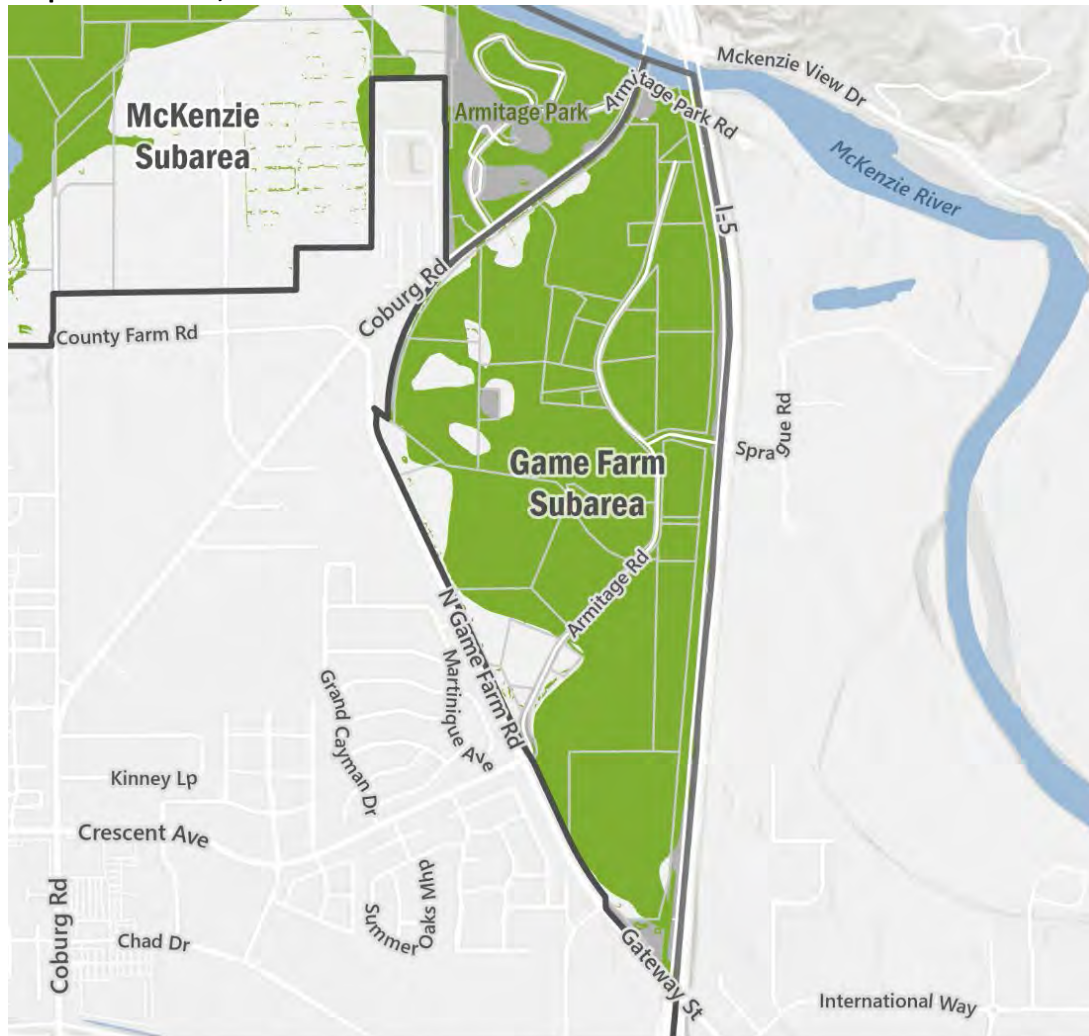
1. Game Farm
2. McKenzie
3. Beacon/River Loop
4. Awbrey
5. Highway 99
6. Airport North
7. Airport
8. Clear Lake
9. Airport South
10. Royal
11. Fisher
12. West 11th/Greenhill
13. Crow
14. Bailey/Gimpl Hill
15. Crest/Chambers
16. South Willamette/Fox Hollow
17. Dillard
18. Russel Creek

1. Suitability Analysis – Game Farm

I. Background

- A. Location:** The land in the Game Farm subarea is located to the northeast of Eugene adjacent to the UGB. It is bordered by I-5 to the east, North Game Farm Road to the south and west, and Coburg Road and the McKenzie River to the north. See **Map 1.1 Location**, below, and **Maps 1.2-1.8** for additional information relevant to the subarea analysis.

Map 1.1 Location, Game Farm Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied



0.3 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

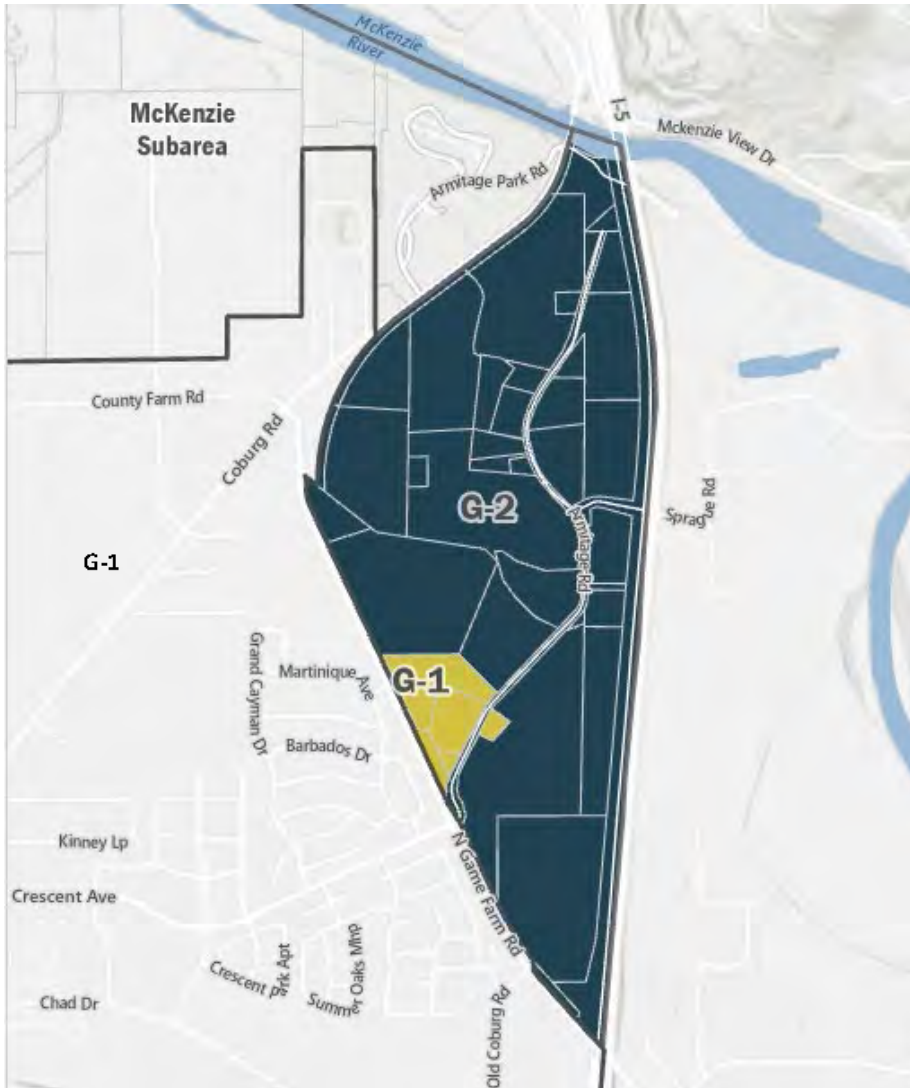
Data sources: City of Eugene, Lane County, RLID, DOGAMI.

- B. Existing Land Uses:** The land in the subarea is flat and primarily used for agriculture with some rural residential development on agricultural-designated land. Of the 363 acres of land in the subarea, only 31 acres have potential for future residential or employment development, due primarily to the area’s location adjacent to the McKenzie River, resulting in extensive flood hazard areas. There are active orchards, wholesale and retail nursery operations, row crops and other agricultural operations, as well as a dog daycare business and scattered residential uses. The Armitage House is an Oregon Historic Site on the property of Johnson Farms, located on Armitage Road.
- C. Barriers to Development:** Ninety-one percent of land in the subarea is categorized as “undevelopable” land. Almost all of this is FEMA-mapped flood hazard area (floodplain), which extends throughout the subarea. There are Goal 5 wetlands located on the western edge of the subarea. The “occupied” land includes a portion of the 57-acre Armitage Park along the McKenzie River that is owned by Lane County. The land in the subarea is flat, as shown on **Map 1.7 Contours and Hillshade**. Only two percent of the land in the subarea contains prohibitively steep slopes, and there are small areas of landslide hazard.
- D. Surrounding Land Uses:** The McKenzie River and its riparian area in Armitage Park are along the northern edge of land in the subarea. Interstate 5 borders land in the subarea to the east; land to the southeast, across Interstate 5, is located within the City of Springfield Urban Growth Boundary, while land to the northeast is in the County and primarily agricultural. West of land in the subarea, adjacent land is a mix of residential neighborhoods inside the city limits, and church property outside of the city limits but inside the UGB.
- E. Organization of this Analysis:** After an initial review, it became clear that while most of the land in the subarea is very similar, for some parts of the Goal 14 Locational Factor analysis, the land in the Game Farm subarea needed to be considered and evaluated in terms of two different areas due to substantial differences between the characteristics of the land in the subarea. Therefore, the land was split into **G-1** (six lots at the corner of Game Farm and Armitage Roads) and **G-2**, the remainder of the land in the subarea. These different areas are shown in **Map 1.2 Organization of Analysis** and described following.

Land in **G-1** includes 10 developable acres of land. It is located at North Game Farm Road and Armitage Road, across from the intersection with Crescent Avenue and the Crescent Meadows and Hawthorne Estates subdivisions. There are three existing residences on partially vacant lots. The land is relatively unconstrained by flood hazards, with access to two roadways, transit and neighborhood parks.

Land in **G-2** includes 22 developable acres of land and comprises the rest of land in the subarea, which shares similar characteristics. It is primarily comprised of mapped flood hazard areas (100-year floodplain) and used for agricultural activities, including row crops and nursery operations. The developable land that is not within the 100-year floodplain has development constraints because it is scattered throughout G-2, and small in size. This floodplain area expands in the new (preliminary) FIRM maps shown on the following page.

Map 1.2 Organization of Analysis, Game Farm Subarea



II. Identify land that would be suitable for urban reserves¹

A. Locational Factor 1: Efficient accommodation of identified land needs

To what extent is there ...

- 1. *Developable land adjacent to or nearby (within .25 mile) of the UGB?*** All 31 of the acres classified as developable on land in the subarea (both in G-1 and G-2) have a portion of their lot² within .25 miles of the UGB, as shown on **Map 1.4, Development Potential**. The land in G-1 has the benefit of being immediately across Game Farm Road from Crescent Park, a city-owned neighborhood park and a Lane Transit District bus stop. Land that is within .25 miles of the UGB is likely to accommodate the identified land needs more efficiently than land that is further away from the UGB because of street, utility and neighborhood connections to already urbanized land.
- 2. *Partially vacant developable land (that could be developed for the identified land needs)?*** Of the 31 developable acres of land in the Game Farm subarea, 21 acres are located on lots classified as partially vacant and 11 acres are on lots classified as undeveloped, in both G-1 and G-2, as shown on **Map 1.4, Development Potential**. The low amount and scattered nature of developable land makes efficient urbanization difficult, particularly on land in G-2.
- 3. *Developable land that is identified in the capacity analysis³ as potentially able to be urbanized with a mix of residential housing? How does this translate into potential dwelling units (per the capacity analysis)?*** According to the residential capacity analysis shown on **Map 1.5 Residential Capacity Analysis**, the land in the subarea has capacity for 236 dwelling units, or an average capacity of 7.5 dwelling units (du) per developable acre, which, for context, is relatively high compared to 4.8 du/developable acre for the entire study area. While the subarea's proximity to the UGB, relative ease of serviceability, and flat topography are all assets, urbanization of most of the land in this subarea (land in G-2) would be fragmented and inefficient due to the extent and pattern of the floodplain and the low amount of land considered developable. The land in G-1 includes 10 contiguous developable acres at the intersection of North Game Farm and Armitage Roads; such land could efficiently accommodate a mix of residential housing.

¹ Please refer to Section II C of the Eugene Urban Reserve Study (Findings Appendix 2) for background on how the City is identifying land in the study area that would be "suitable" for urban reserves, the explanation of the prompts used for the Goal 14 Locational Factors, and specific terminology.

² In the urban reserves study area, 'lots' are used for analysis purposes. See the Eugene Urban Reserves Technical Memo, Eugene Urban Reserves Technical Analysis Memo (Findings Appendix 4) , for complete information.

³ For information on how residential development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Analysis Memo (Findings Appendix 4). Factors such as lot size, slope, and elevation impact average residential density, based on actual development patterns within the UGB.

- 4. Developable land that is identified in the capacity analysis⁴ as potentially able to be urbanized with industrial land need? How does this translate into potential industrial sites (per the capacity analysis)?** There is one lot with 6-acres of development capacity along North Game Farm Road identified in the capacity analysis as suitable for urbanization with industrial land, as shown on **Map 1.6, Potential Industrial Capacity**. However, this lot includes wetlands along North Game Farm Road, and the developable area is within the 100-year floodplain in the updated (preliminary) 2020 FEMA flood hazard maps, impacting the site’s potential ability to efficiently accommodate identified land needs.
- 5. Topography, steep slopes or other “undevelopable”⁵ lands that would make efficient urbanization difficult?** Ninety-one percent of land in the subarea is categorized as “undevelopable” land. Almost all of this is FEMA-mapped flood hazard area (floodplain), which extends throughout land in the subarea. There are Goal 5 wetlands located on the western edge of the land in the subarea. The “occupied” land includes a portion of the 57-acre Armitage Park along the McKenzie River that is owned by Lane County. The land in the subarea is flat, as shown on **Map 1.7, Contours and Hillshade**. Only two percent of the land in the subarea contains prohibitively steep slopes, and there are small areas of landslide hazard. Urbanization of the pockets of developable land around the flood zone would make efficient urbanization difficult, especially where these hazard areas impede connectivity to existing roadways and existing development. “Undevelopable” land is also present in G-1, but it is less of an issue related to efficient urbanization, as there is developable land with street connections on two sides.

Conclusion: *The land in G-1, relating to whether it could efficiently accommodate identified land needs, has both positive and negative characteristics: The positive characteristics of the land in G-1 includes its frontage on two streets that are connected to the adjacent street system, adjacency to the city limits and other neighborhoods, and limited flood plain. Due to its parcelization (six relatively small lots) and low development capacity (10 developable acres with projected residential capacity of 68 dwelling units), the land in G-1 is mixed in its ability to efficiently accommodate identified land needs.*

The extent and distribution of the floodplain, and the small, scattered areas of developable land in G-2 make it not able to efficiently accommodate identified land needs.

⁴ For information on how industrial capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo (Findings Appendix 4).

⁵ As described in section II B of the Eugene Urban Reserve Study (Findings Appendix 2), land was assigned no development capacity if it falls within one of the these “undevelopable” categories: severely constrained by natural hazards or is designated or zoned to protect natural resources; or not vacant or partially vacant (i.e. the land is already occupied). However, areas identified as sand and gravel resources are not identified as land that is “undevelopable” in this urban reserves’ analysis. Urban reserves planning is very long-term planning; an intention to use an area for sand and gravel extraction could change and Goal 5 protections could be removed by the time the land is brought into the UGB.

Efficient accommodation of identified land needs:	Positive	Mixed	Negative
Land in G-1			
Land in G-2			

B. Locational Factor 2: Orderly and economic provision of public facilities and services⁶

The information below addresses the feasibility of serving the developable land in the Game Farm subarea with public facilities and services in an orderly and economical way. It considers the capacity of the current system to serve the area and the extent of new infrastructure that would be needed to serve the area if urbanized. It includes an analysis of **wastewater, water, transportation, transit, stormwater, and fire/emergency services** and, to a lesser extent, it includes the provision of **electricity, schools and parks.**⁷

Before the narrative description is a table showing the **generalized serviceability** of the subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff, and a **generalized cost estimate** to address the economics of serving the subject area with public facilities and services. It reflects preliminary high-level estimates for the major components of the individual systems. Cost information is provided on a \$ to \$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$\$) denoting the greatest cost. The scale used to evaluate each type of service is tailored to address the fact that some services are more expensive to provide than others. For example, a \$ for wastewater does not equate to the same dollar amount as a \$ for transportation. Cost estimates do not include future maintenance costs.

Game Farm Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Moderate	Easy	Easy-Moderate	Easy-Moderate	Easy-Moderate	Easy
Generalized cost estimate	\$\$\$	-\$\$\$\$	-\$\$\$\$	\$\$	\$\$	\$

- 1. Wastewater:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. This is due to the fact that existing downstream wastewater system appears to have adequate capacity to serve the subarea, but the area may require a lift station or small pump station.
- 2. Water:** The subarea is assigned an “easy” serviceability rating and the generalized cost estimate for improvements is \$-\$\$\$\$. This is because the subarea is expected to need pipeline connections to existing infrastructure, but no reservoirs or pump stations.

⁶The definition of “public facilities and services,” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines, is: “[p]rojects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.”

⁷ The summarized information used in this section is based on the results of the Eugene Urban Reserves Serviceability Analysis Report (Findings Appendix 3). In providing information for that report, service providers considered the serviceability of the subareas in their entirety; they generally did not differentiate between areas within a subarea.

- 3. Fire Protection:** The subarea is assigned an “easy-moderate” serviceability rating and the generalized cost estimate for improvements is \$-\$\$\$\$. Eugene-Springfield Fire and Emergency Services indicated that given the proximity to the nearest City fire stations and existing street network, there are only minor response time and service delay concerns, so a new station is not needed.
- 4. Transportation:** The subarea is assigned an “easy-moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$. Coburg Road and North Game Farm Road would not likely need major upgrades for expansion. Any additional streets in this area would likely be driven by development needs and relatively easy to construct.
- 5. Transit:** The subarea is assigned an “easy-moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$. The flat topography makes this area easy to access. It may be challenging to create efficient service within the subarea given the relative isolation and need to deviate from existing routes, but there are currently bus routes immediately to the west on Crescent Avenue. and along North Game Farm Road on the southern edge of the subarea.
- 6. Stormwater:** The subarea is assigned an “easy” serviceability rating and the generalized cost estimate for improvements is \$. The soils in the subarea are likely suitable for infiltration, and the flat topography and adjacency to the UGB makes the subarea easy to access and extend services to.
- 7. Other (Parks, Schools, Electric):** A small portion (approximately 5 acres) of Armitage Park extends into the northern edge of the subarea. Crescent Park is across North Game Farm Road from land in G-1. EWEB provides electric service to urbanized areas on the west side of I-5. The subarea is in the Eugene School District 4J.
- 8. *Is there undeveloped land within the UGB that would be helped in its development/serviceability if this area were included in urban reserves, or is there undeveloped land within the UGB that would negatively impact the orderly and economic provision of public facilities and services?*** There is land within the UGB that is developed but outside of city limits across North Game Farm Road from the subarea that may present challenges to providing cost-efficient service delivery to this subarea.

Conclusion: *While service providers analyzed the land in the subarea as a whole, in looking at the different characteristics of the land in G-1 and G-2, there are some differences in the provision of public facilities and services that stand out.*

The 10 acres of developable land in G-1 at the intersection of North Game Farm and Armitage Roads are able to be served in an orderly and economic manner, based on their flat topography, connection to roadways, and location adjacent to existing infrastructure within the city limits.

Throughout the rest of the land in the subarea, in G-2, It would be more challenging to serve the small areas of land with development potential outside of the flood zone in an orderly and economically feasible way. While the subarea is flat, the approximately 22 developable acres are spread out throughout the subarea, farther from existing utilities and not clustered together. The developable land directly adjacent to North Game Farm Road and Coburg Road would be easier to

service, but their size and distribution would make the orderly and economic provision of public facilities and services to these lands a challenge. Therefore, the rating is “mixed.”

Orderly and economic provision of public facilities and services:	Positive	Mixed	Negative
Land in G-1			
Land in G-2			

C. Locational Factor 3: Comparative environmental, energy, economic and social consequences

1. Environmental consequences:

a. *Presence of natural resources: To what extent would urbanization of this area negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources?* Armitage Park is on the northern edge of land in the subarea adjacent to the McKenzie River and its riparian area. Wetlands identified on the National Wetlands Inventory are located on the west side of land in the subarea in G-2; they are adjacent to FEMA-mapped flood hazard areas. Both wetlands and flood hazard areas are categorized as “undevelopable”, so urbanization is not assumed on either. However, adjacent development could cause negative environmental consequences, such as an increase in impervious surfaces (e.g., roofs and pavement) thereby increasing stormwater runoff and potential pollutants in waterways, although the City’s stormwater regulations would mitigate these consequences. Due to the small size, clustering and location of the land in G-1, its urbanization would not negatively impact natural resources.

b. *Presence of hazard areas (steep slope, landslides, floodplain): To what extent would urbanization of this area increase the potential risk of natural hazards, such as landslides, wildfire or flooding?* The McKenzie River and its floodplain is the predominant feature on the land in the Game Farm subarea. Eighty-four percent of the land in the subarea is made up of lands severely constrained by natural hazards or subject to natural resource protections; most of which is floodplain. The developable land in G-2 is interspersed with the proliferation of FEMA-mapped flood hazard areas; if urbanized, the flood risks to future residents could increase during a flood event. The river will continue to meander over time, creating unpredictable changes in the flood hazard areas; this is shown in the changes between FEMA’s adopted floodplain maps and the updated (preliminary) flood hazard map from February 2020, as much of the land that was previously outside of the flood plain is now included in it. While flooding is still a risk on the land in G-1, it is less so because the developable land is clustered, there is street access on two sides, and the flood maps in this area have not changed.

c. *Presence of nearby public open space: To what extent would nearby public open space benefit future residents of the area?* Armitage Park is on the northern edge of land in the subarea along the McKenzie River; future residents would benefit from proximity to this

open space. Crescent Park and Striker Field Park, both city-owned parkland, are across Game Farm Road from land in G-1 and would be an easy walk for future residents.

Conclusion: Land in **G-1** includes 10 developable acres clustered at the corner of N. Game Farm and Armitage Roads. Urbanization of the land in G-1 would have mixed environmental consequences due to its connection to roadways, and the location of the undevelopable land (floodplain) on the north side of the land in G-1 so that development can be sited away from it.

Urbanization of land in **G-2** would have significant environmental consequences due to the significant presence of flood hazard areas and wetlands. There would be negative (high) environmental consequences, primarily due to flood risk, if the areas of developable land surrounded by flood plain were to urbanize.

Environmental Consequences:	Positive (Low)	Mixed (Medium)	Negative (High)
Land in G-1			
Land in G-2			

2. Energy Consequences (priority for lower energy usage):

- a. **To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt)?** The land in G-2 is poorly suited to co-locate a variety of housing types, jobs and services, given the low amount and inefficient distribution of land considered developable due to the extent of flood hazard areas. Future urbanization of the 10-acres of developable land in G-1 which is adjacent to existing urbanization within the UGB, has the potential to provide a mix of housing or small-scale commercial development.
- b. **To what extent is the area easily accessible to other services or uses (e.g., neighborhood commercial, parks, schools)?** The land in this subarea, particularly the land in G-1, is within close proximity to parks and commercial services. Armitage Park is on the northern edge of land in the subarea; Crescent Park and Striker Field Park are a half mile or less walk from the land in G-1. Crescent Village, with a variety of restaurants and commercial businesses, is also a half mile walk from the land in G-1. Public schools and a major commercial area are both approximately 2 miles away. Having these services in close proximity to the developable land in G-1, and accessible by neighborhood streets, reduces the energy impacts of urbanization by reducing vehicle trips and carbon emissions.
- c. **To what extent is the area adjacent to or nearby the UGB? (see Locational Factor 1, A.2)** As already noted, the land in the Game Farm subarea is adjacent to the UGB and all 31 acres of land considered developable are adjacent to or nearby (within .25 mile) the UGB, as shown on **Map 1.4, Development Potential**. This would contribute to lower energy usage in transportation.

- d. To what extent is there good multi-modal transportation access to this area? To what extent is the area easily accessible to job centers and downtown?** As noted above, the land in this subarea has good transportation access to both downtown Eugene and nearby neighborhood streets. Coburg Road, (which is adjacent to land in G-2 on the north edge of the subarea) has sidewalks and bike lanes and provides the main connection to downtown Eugene. Transit service is available near the southern portion of land in the subarea, benefitting primarily the developable land in G-1. Immediately adjacent to land in the subarea is North Game Farm Road, which has sidewalks and bike lanes and provides direct access from land in G-1 and G-2 to the Gateway commercial center across the interstate in Springfield.
- e. To what extent does future urbanization directly or indirectly generate energy or climate burdens (e.g. loss of open space, loss of growing lands, increased traffic, increased carbon emissions)?** Future urbanization of the developable land in the Game Farm subarea would directly and indirectly generate energy and climate burdens due primarily to the loss of growing lands. To a lesser degree, increased traffic, and increased carbon emissions from gas-powered vehicles and new development would also create energy burdens. All of the land in the subarea is designated agricultural, so urbanization would cause a loss of 31 acres of farmland. The location of the land in G-1 near transit and commercial and employment uses mitigates its energy consequences. The presence of flood hazard areas in G-2 would not allow for efficient urbanization of identified land needs (Locational Factor 1), so energy and climate consequences of development in these areas would be negative (high).

Conclusion: *Urbanization of the land in G-1 would have mixed energy consequences. The 10 developable acres adjacent to the UGB has good transportation access and connectivity to services. While its small size cannot accommodate a range of walkable uses (to reduce energy impacts from transportation) its proximity to uses in both Eugene and Springfield offsets this. However, it is designated agricultural land, so if it urbanizes it will create indirect energy burdens due to the loss of farmland.*

Urbanization of the land in G-2 would have negative energy consequences due to the extent and presence of flood hazard areas not allowing for efficient urbanization of identified land needs, as documented in Locational Factor 1, as well as the loss of growing lands; therefore energy consequences of urbanization on the land in G-2 would be negative (high).

Energy Consequences:	Positive	Mixed	Negative
Land in G-1			
Land in G-2			

3. Economic consequences:

- a. In general, how much economic activity would urbanization of this area bring? Ex: Additional construction opportunities?** The land in the Game Farm subarea contains only 31 acres of land classified as developable: 10 acres of contiguous land in G-1, and 22 acres of land scattered throughout land in G-2. Based on generalized capacity assumptions, this land could accommodate 236 residential dwelling units. The clustered developable land in G-1 has opportunity for bringing some economic activity to the subarea with construction jobs or small-scale commercial development, as the land is adjacent to the UGB and existing services. Given the presence of extensive flood hazard areas, the land in G-2 is not able to efficiently accommodate identified land needs, limiting construction opportunities and economic activity from urbanization. Neither the land in G-1 or G-2 is well suited for urbanization with industrial uses, as described in Locational Factor 1, which further limits the anticipated economic benefits of future urbanization.
- b. Is the area appropriate for future urbanization with a variety of identified uses (not just LDR), to support connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a):** As previously discussed, the land in G-2 is poorly suited to co-locate a variety of housing types, jobs and services, given the low amount and inefficient distribution of land classified as developable due to the extent of flood hazard areas. Future urbanization of the 10-acres of developable land in G-1, which is adjacent to the UGB, has the potential to provide a mix of housing or small-scale commercial development nearby existing neighborhoods.
- c. Are there concerns about future urbanization causing a loss of economic activity for existing and nearby uses? (also see Locational Factor 4)** Given that existing uses are primarily agricultural in both G-1 and G-2 there is a concern that future urbanization could cause a loss of economic activity for local farms on land in this subarea. Potential impacts are minimized, though, due to only 31 acres being considered developable.
- d. How cost-efficient is service provision in this area? (also see Locational Factor 2)** As noted in Locational Factor 2, the 10-acres of developable land in **G-1** at the intersection of North Game Farm and Armitage Roads are able to be served in an orderly and economic manner, based on its flat topography, location adjacent to existing infrastructure within the city limits, and limited floodplain. Throughout the rest of land in the subarea, in **G-2**, It would be more challenging to serve the 22-acres of land with development potential outside of the flood zone in an orderly and economically feasible way, as they are spread throughout the land in G-2, away from existing utilities.

Conclusion: Urbanization of the land in **G-1**, the contiguous 10-acre developable area at the intersection of North Game Farm and Armitage Roads, would bring mixed economic consequences, due to its small size and limited development potential, as described above.

Urbanizing the developable land in G-2 would have negative economic consequences, as it would displace farmland and it is too diffuse and interspersed between flood hazard areas to bring positive economic consequences to the area.

Economic Consequences:	Positive	Mixed	Negative
Land in G-1			
Land in G-2			

4. Social Consequences: ⁸

a. Will urbanization negatively impact current residents? If the 10 acres of land considered developable in G-1 urbanized, impacts to current residents would be minimal, as it is on the edge of the subarea adjacent to existing development. However, if the remaining developable land in G-2 urbanized, some increased traffic noise and potential nuisance complaints regarding nearby agricultural operations could negatively impact current residents.

b. How would urbanization worsen or improve service delivery to residents in this area (e.g. adequate fire response times, access to water, parks)? (also see Locational Factor 2) Urbanization would improve service delivery to residents in this area. Lane Fire Authority and the Eugene-Springfield Fire Department already coordinate services near land in this subarea within the UGB due to the patchwork of city limits, so urbanization of land in this subarea may lead to service delivery improvements and benefit residents both inside and outside the UGB. Urbanization would also provide an opportunity for residents to access EWEB water service and City of Eugene wastewater service.

c. Will urbanization exacerbate the impacts of potential natural hazards, such as flooding, fire, and landslides? (also see Locational Factor 3, Environmental Consequences C.2.a) As already noted, urbanization of land in the subarea could exacerbate the impacts of flooding due to the extensive presence of flood hazard areas. Eighty-four percent of land in the subarea is made up of lands severely constrained by natural hazards or subject to natural resource protections; most of which is floodplain. The river will continue to meander over time, creating unpredictable conditions. These flood hazard areas would make efficient urbanization difficult on developable land in most of the subarea (including all of G-2), and urbanization could exacerbate the impacts of flooding. The land in G-1 is also adjacent to floodplain but it is a contiguous developable area adjacent to the city limits, so would be less likely to be negatively impacted.

⁸ The definition of “social consequences” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines is: “[t]he tangible and intangible effects upon people and their relationships with the community in which they live resulting from a particular action or decision.”

- d. How might urbanization in this area impact vulnerable populations⁹ and underserved groups currently living in the subarea? Could one segment of the population be impacted more than another (e.g. low-income households)?** There are relatively few private residences within land in the subarea. On land in G-2, there could be negative impacts to farm workers if smaller farms and agricultural businesses were displaced as urbanization occurs. However, the remaining retail agricultural operations on land in the subarea also could benefit from the increased economic activity of urbanization. There are no commercial agricultural operations in G-1 so displacement there would not be an issue.
- e. Will urbanization in this area allow for connected, integrated neighborhoods? (also see Locational Factor 3, Energy and Economic consequences)** As already noted, even the 10-acres of land considered developable on land in G-1 is too small for urbanization as a complete neighborhood, however a mix of housing or small-scale commercial development could be appropriate there. The land in G-2 is poorly suited to co-locate a variety of housing types, jobs and services, given the low amount and inefficient distribution of land considered developable due to the extent of flood hazard areas.

Conclusion: *Urbanization of the land in G-1, the clustered 10-acre area adjacent to North Game Farm Road, would primarily have positive social consequences, as it is located near city neighborhoods and services; it is designated as agricultural land but not being farmed; service delivery would likely improve; and negative impacts from hazard areas would be limited.*

Urbanization of land in G-2 would have mixed social consequences; there is the potential for some farmland and farmworker displacement, but it would be limited in scope due to the small amount of developable land.

Social Consequences:	Positive	Mixed	Negative
Land in G-1			
Land in G-2			

Locational Factor 3 Conclusion:

For the land in **G-1**, the analysis under Locational Factor 3 shows that urbanization would have mixed Environmental, Energy and Economic consequences and positive Social consequences.

For the land in **G-2**, the analysis under Locational Factor 3 shows that urbanization would have negative Environmental, Energy and Economic consequences and mixed Social consequences.

⁹ Vulnerable populations are defined as populations that identify as a non-white race or ethnicity, younger or older populations, populations with a disability, and/or single-headed households. Data is from Livability Lane, 2013 Equity and Opportunity Assessment, Social and Demographic Characteristics Map. The extent to which vulnerable populations and underserved groups currently live in the subarea is speculative.

D. Locational Factor 4: Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

1. **How will urbanization impact agricultural and forest activities on farm and forest designated land within the subarea?** Except for Armitage Park, which is designated parks and open space, all of the land in the subarea is designated agriculture in the Metro Plan, as shown on **Map 1.8, Plan Designations**. Commercial farming is plentiful on land in G-2, including wholesale and retail nursery operations. Urbanization risks displacement of these farm and farm-related businesses, although most of them benefit from being classified as “undevelopable” due to the presence of flood hazard areas. Increased congestion on roadways from urbanization may negatively impact the agricultural activities on land in G-2. Urbanization could also lead to odor, safety and other complaints from neighbors which could negatively impact the agricultural activities on land in G-2. However, this would be mitigated by the limited amount of developable land in the subarea. Nearby agricultural operations could also benefit from the increased business that urbanization could bring, as there are retail plant nurseries/farm stores in G-2 that serve nearby residents. Their location in the flood zone assumes they would not be displaced by urbanization, and they could benefit from increased customers in the area. The land in G-1 appears to not be commercially farmed, but its urbanization could impact farm activities in G-2.

2. **Is urbanization compatible with existing agricultural and forest uses on farm and forest designated land nearby (outside of the subarea)?** Urbanization appears to be compatible with existing agricultural uses on Agriculture-designated land outside of land in the subarea. There is land in the McKenzie subarea that is designated for agriculture and currently being farmed, but it is across Coburg Road and separated by other development northwest of land in the subarea, limiting potential conflicts of urbanization.

Conclusion: Urbanization on land in the subarea would have mixed impacts to farm operations within the subarea. All of the land in the subarea except for Armitage Park is designated for agricultural use. No land in **G-1** is being actively farmed, but urbanization of that area could be incompatible with surrounding farming activities on land in **G-2**. Future urbanization of the developable land in **G-2** could be incompatible with surrounding farm activities and could also displace some farm uses. However, the low amount of developable land in both **G-1 and G-2** (31 acres) mitigates the negative effects of urbanization to some degree, and increased residents could also benefit agricultural retail operations.

Compatibility with nearby agriculture and forest activities	Positive	Mixed	Negative
Land in G-1			
Land in G-2			

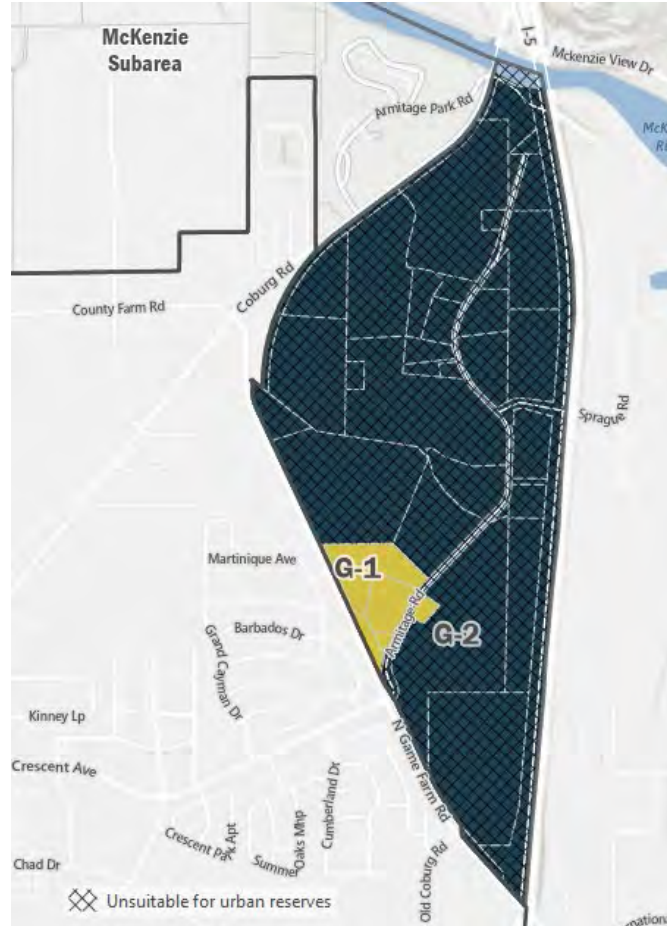
III. Conclusion

Considering and balancing all of the Goal 14 Locational Factors as analyzed above, there are some positive and some negative aspects of future urbanization of land in the Game Farm subarea, summarized as follows.

The land in **G-1** includes 10 developable acres. It is adjacent to the UGB and city limits at the corner of North Game Farm Road and Armitage Road. There are three existing residences on partially vacant lots. It is relatively unconstrained by flood hazard land with access to two roadways, transit and neighborhood parks. In evaluating the land in G-1, the conclusion of Locational Factor 2 and 3d (social) were “positive” in their findings, and the conclusion on Locational Factor 1, 3a (environmental consequences), 3b (energy consequences), 3c (economic consequences) and Locational Factor 4 were all “mixed” in their findings. This is due to a variety of factors including the land’s connection to the adjacent street system, adjacency to the city limits and other neighborhoods, flat topography and limited flood plain. Due also to its parcelization (six relatively small lots) and low development capacity (10 developable acres with projected residential capacity of 68 dwelling units), the land in G-1 was found to be mixed in its ability to efficiently accommodate identified land needs.

Based on these characteristics, the land in G-1 will be able to be served by public facilities and services in an orderly and economic manner. Urbanization of the land in G-1 would primarily have positive social consequences, as it is located near city neighborhoods and services, service delivery would likely improve, and negative impacts from hazard areas would be limited. Urbanization of the land in G-1 would have mixed environmental, energy and economic consequences due to its low development capacity, proximity to city limits, nearby floodplain, and agricultural land designation. While no land in G-1 is being actively farmed, its urbanization could be incompatible with the surrounding farming activities on land in G-2, to a moderate degree. Therefore, based on these factors and the complete analysis described more fully in this report, when balanced and considered together, the consequences with respect to the land in G-1 result in a determination that this land is suitable for urban reserves designation.

The land in **G-2** includes 22 developable acres throughout the remainder of the subarea. The land in G-2 is primarily comprised of mapped flood hazard areas (100-year floodplain) and used for agricultural activities, including row crops and nursery operations. The developable land that is not



within the 100-year floodplain has development constraints because it is scattered throughout G-2. In evaluating the land in G-2 the conclusion of Locational Factor 2, 3d (social consequences) and 4 were “mixed” in their findings, and the conclusion of Locational Factor 1, 3a (environmental consequences), 3b (energy consequences), and 3c (economic consequences) were all “negative” in their findings. The extent and distribution of the floodplain, and the small scattered areas of developable land in G-2 makes it not able to efficiently accommodate identified land needs. It would also be challenging to provide public facilities and services to the small areas of land with development potential outside of the flood zone in an orderly and economically feasible way. Urbanization of land in G-2 would have mixed social consequences, as there is the potential for some farmland and farmworker displacement, but it would be limited in scope due to the small amount of developable land. Urbanization would have negative environmental, energy and economic consequences on the land in G-1 due primarily to the extent of flood hazard land and distribution of developable land. Lastly, future urbanization of the developable land in G-2 would be moderately incompatible with farm activities on agriculture-designated land; this would be mitigated only by the low amount of developable land. Therefore, based on these factors and the complete analysis described more fully in this report, when balanced and considered together, the consequences with respect to the land in G-2 result in a determination that this land is not suitable for urban reserves designation at this time.

Please see the summary tables on the following page, and **Map 1.3 Suitability Results**.

Summary
Game Farm Subarea

Suitable for Urban Reserves Designation

Land in G-1

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs:			
2.	Orderly and economic provision of public facilities and services:			
3. (a)	Environmental Consequences:			
(b)	Energy Consequences:			
(c)	Economic Consequences:			
(d)	Social Consequences:			
4.	Compatibility with nearby ag and forest activities			





Not Suitable for Urban Reserves Designation

Land in G-2

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs:			
2.	Orderly and economic provision of public facilities and services:			
3. (a)	Environmental Consequences:			
(b)	Energy Consequences:			
(c)	Economic Consequences:			
(d)	Social Consequences:			
4.	Compatibility with nearby ag and forest activities			

Map 1.3 Suitability Results, Game Farm Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Eugene urban reserves suitable land
-  Tax lots



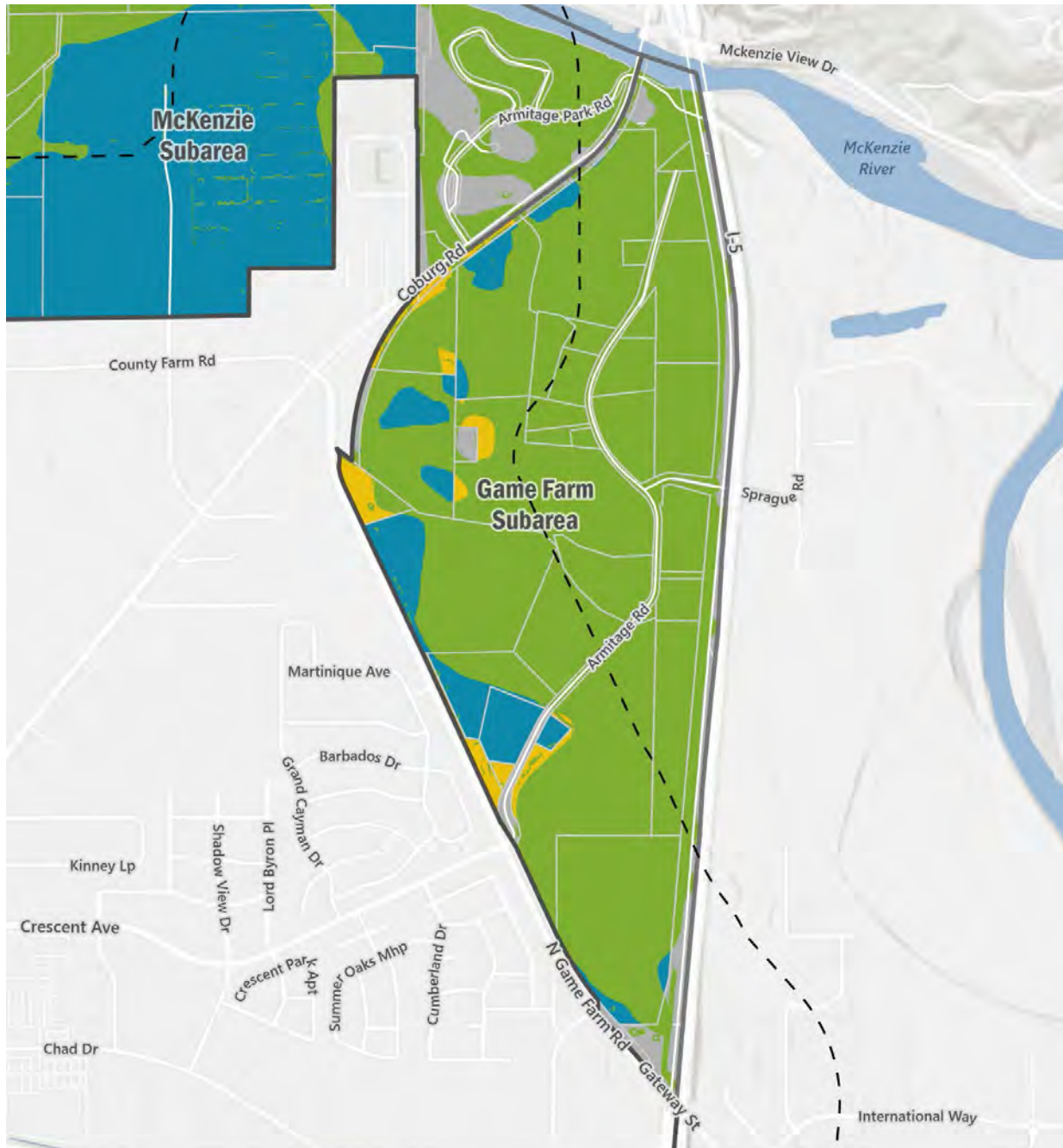
0.2 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 1.4 Development Potential, Game Farm Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Quarter mile from Eugene UGB
- Tax lots

- Developable**
 - Partially Vacant
 - Undeveloped
- Undevelopable**
 - Severely constrained by natural hazards or subject to natural resource protections
 - Occupied

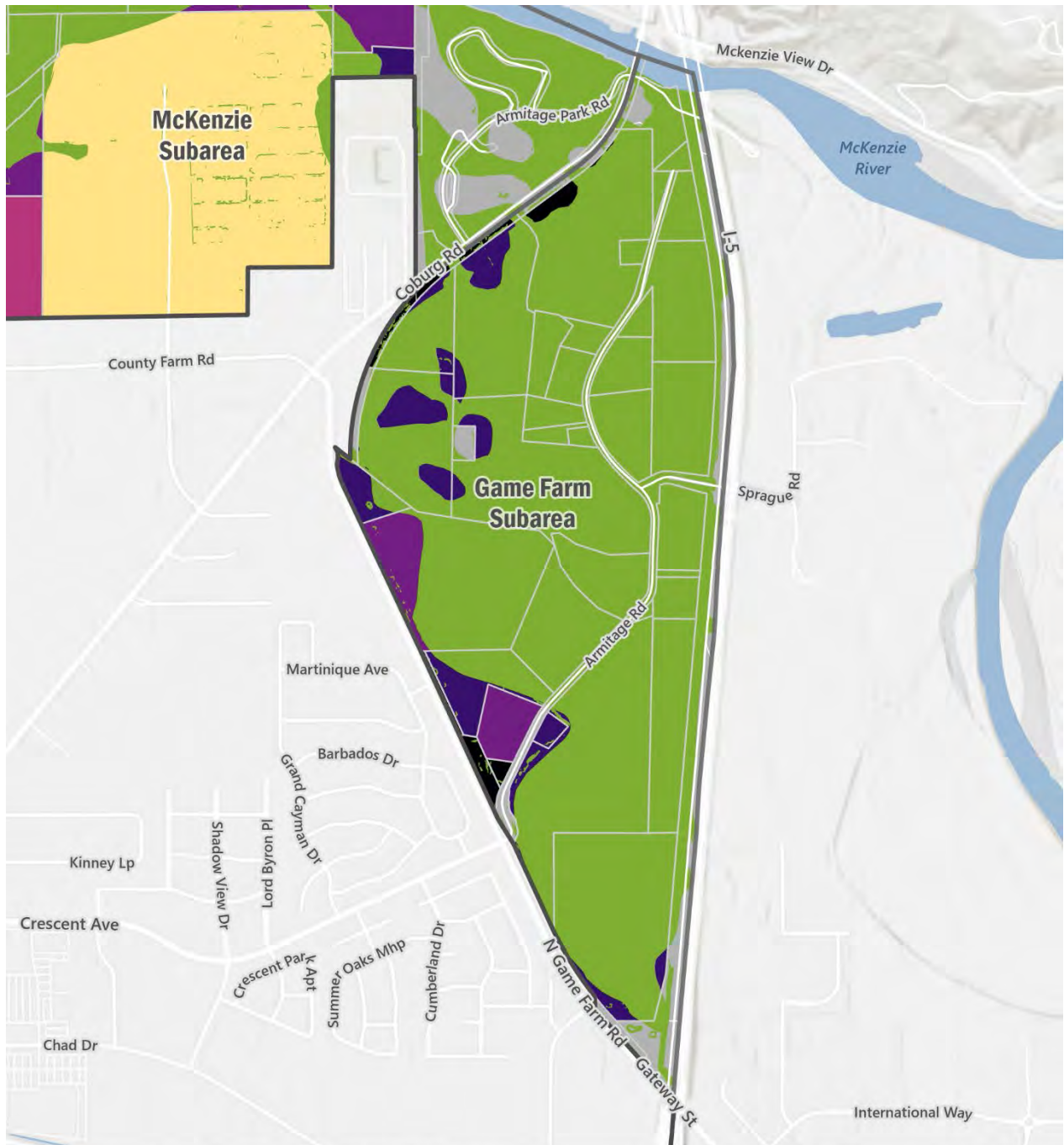


0.2 Miles

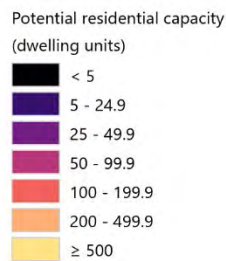
Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 1.5 Potential Residential Capacity, Game Farm Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied



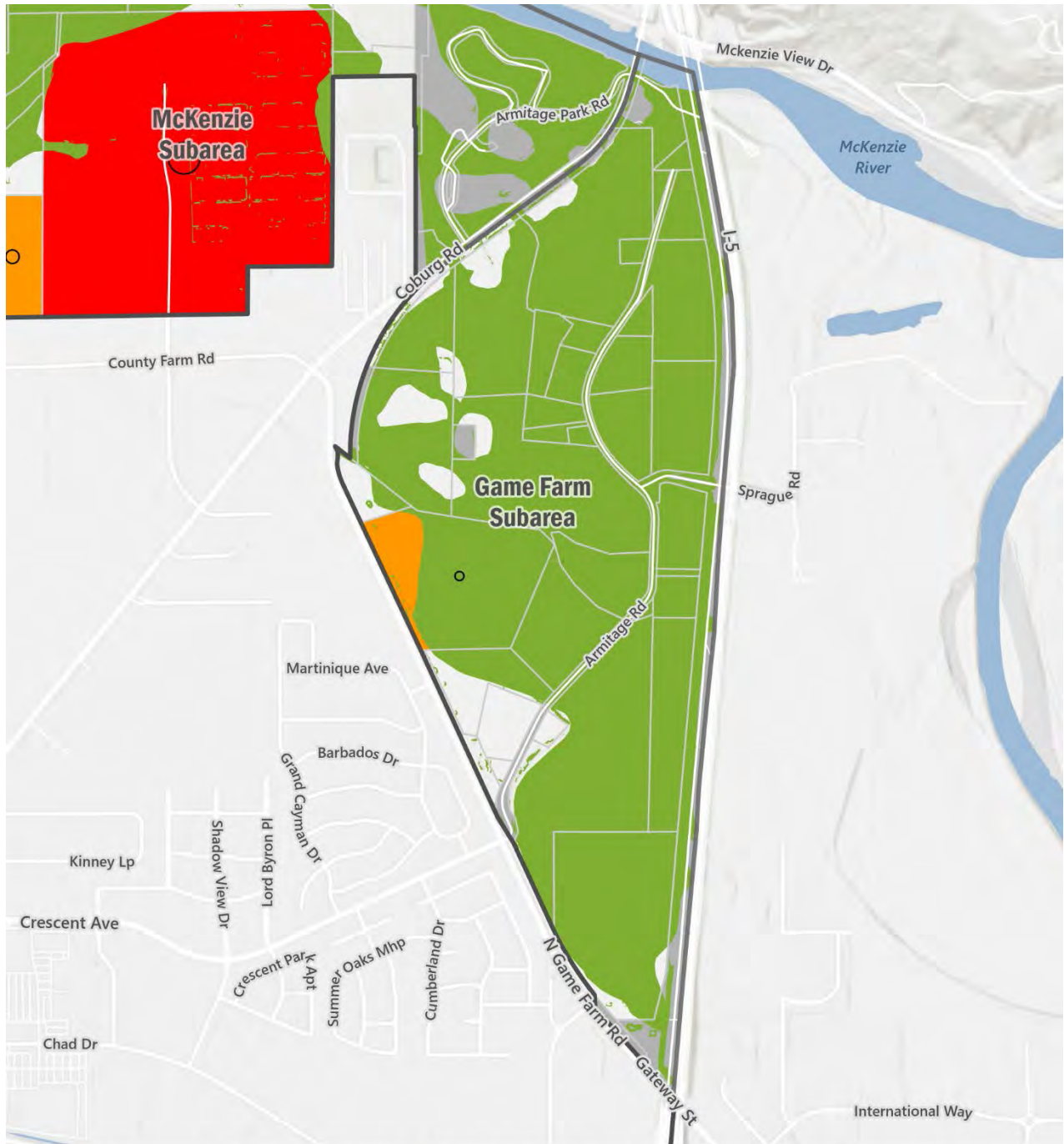
0.2 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

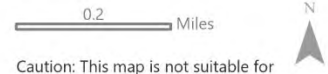
Map 1.6 Potential Industrial Capacity, Game Farm Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied
- Freight Route Access Points

- Tax lots meeting industrial criteria
 Developable acres per tax lot
- 5 - 9 ac
 - 10 - 19 ac
 - 20 - 49 ac
 - 50 - 74 ac
 - 75+ ac

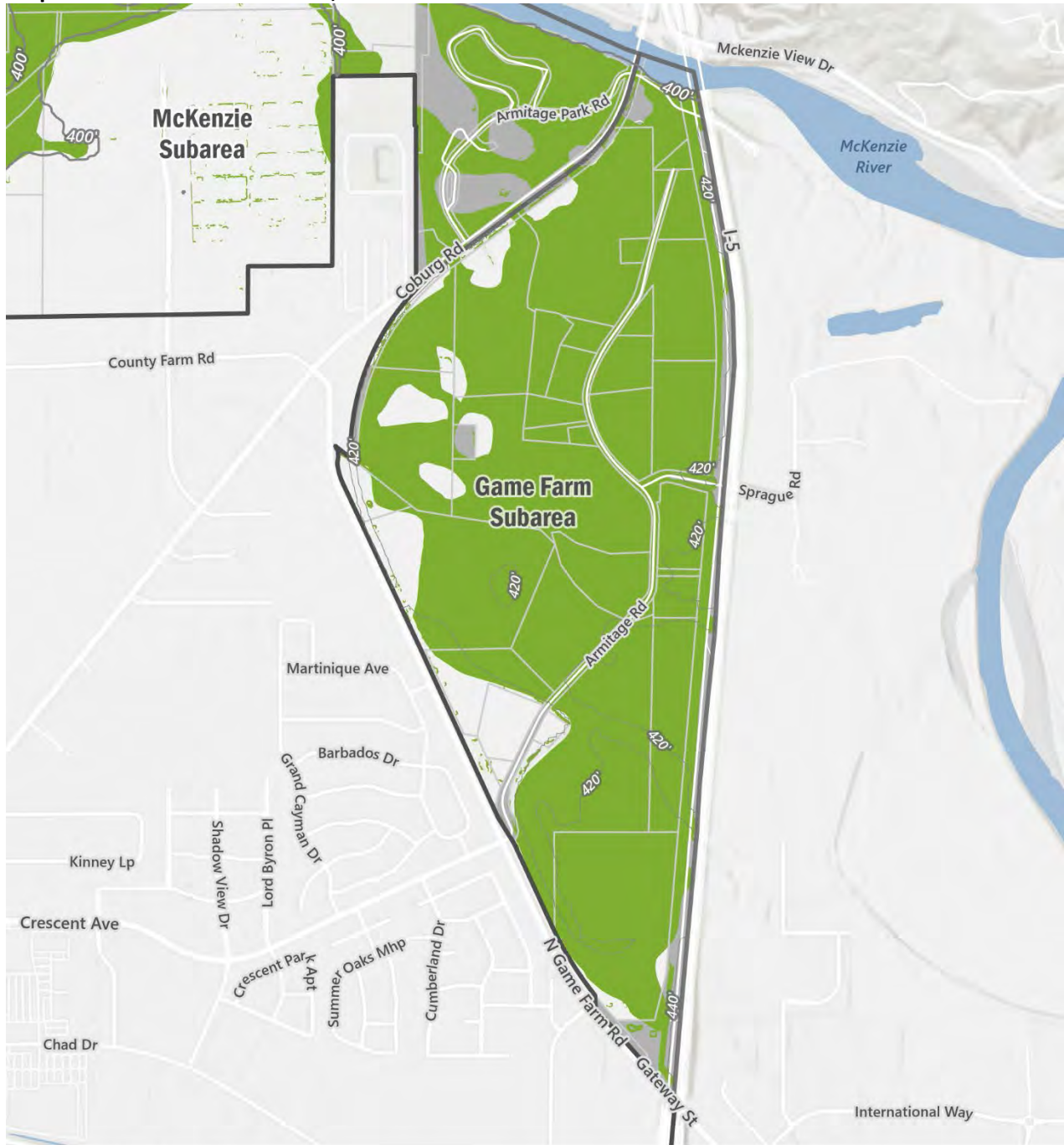
- Tax lots meeting industrial criteria
 Driving distance to a freight route
- 1 mile
 - 1.5 miles
 - 2 miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 1.7 Contours and Hillshade, Game Farm Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied



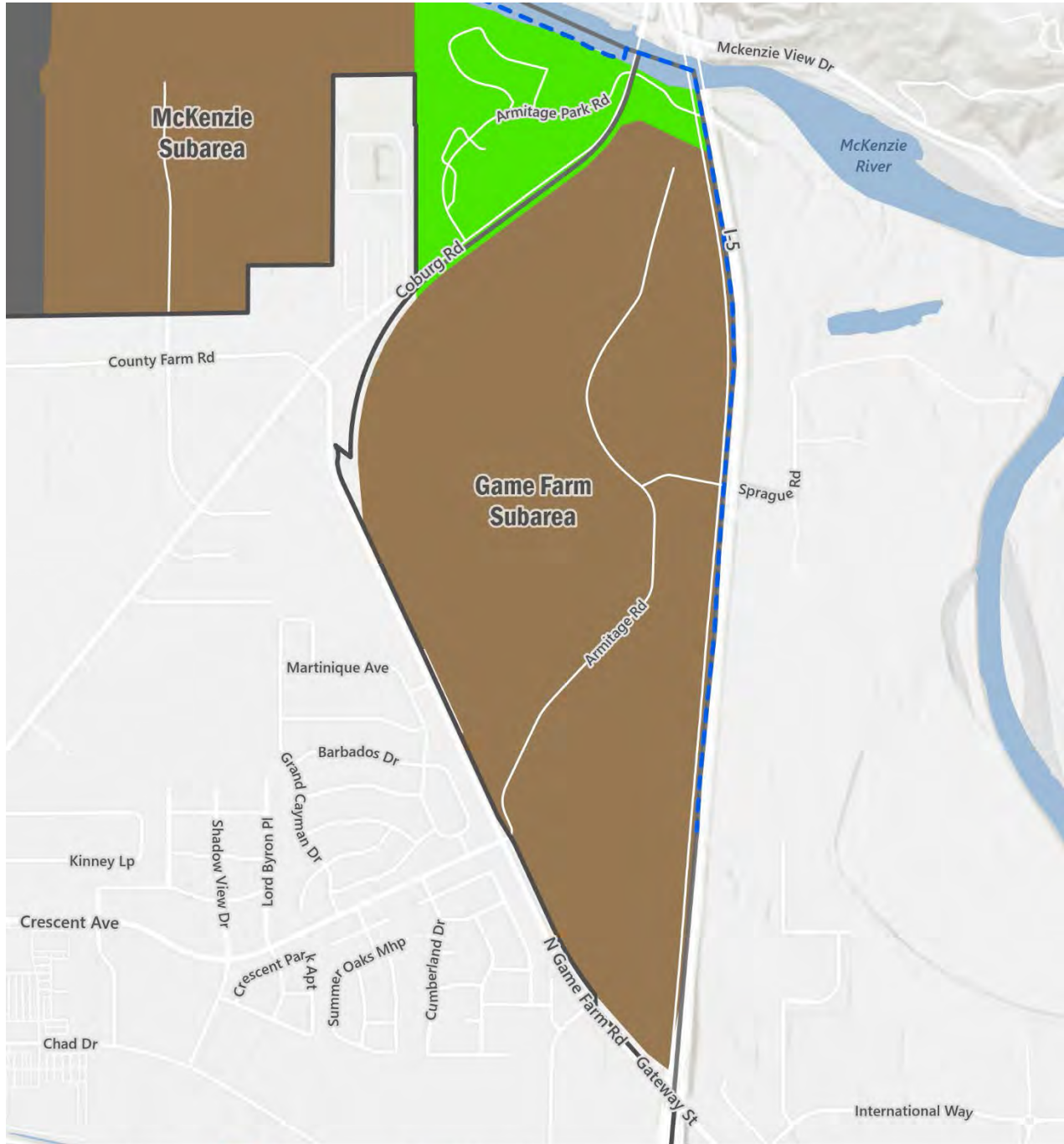
0.2 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 1.8 Plan Designations, Game Farm Subarea



- Metro plan boundary
- Eugene UGB
- Eugene urban reserves subarea boundaries
- Rural comprehensive plan designation**
- Agriculture
- Airport
- Commercial
- Forest

- Industrial
- Marginal
- Natural resource: mineral
- Natural resource: wildlife
- Non resource
- Parks
- Public facility
- Residential

- Metro plan designation**
- Agriculture
- Airport reserve
- Forest land
- Government & education
- Natural resource
- Parks and open space
- Rural commercial
- Rural residential
- Sand and gravel



0.2 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

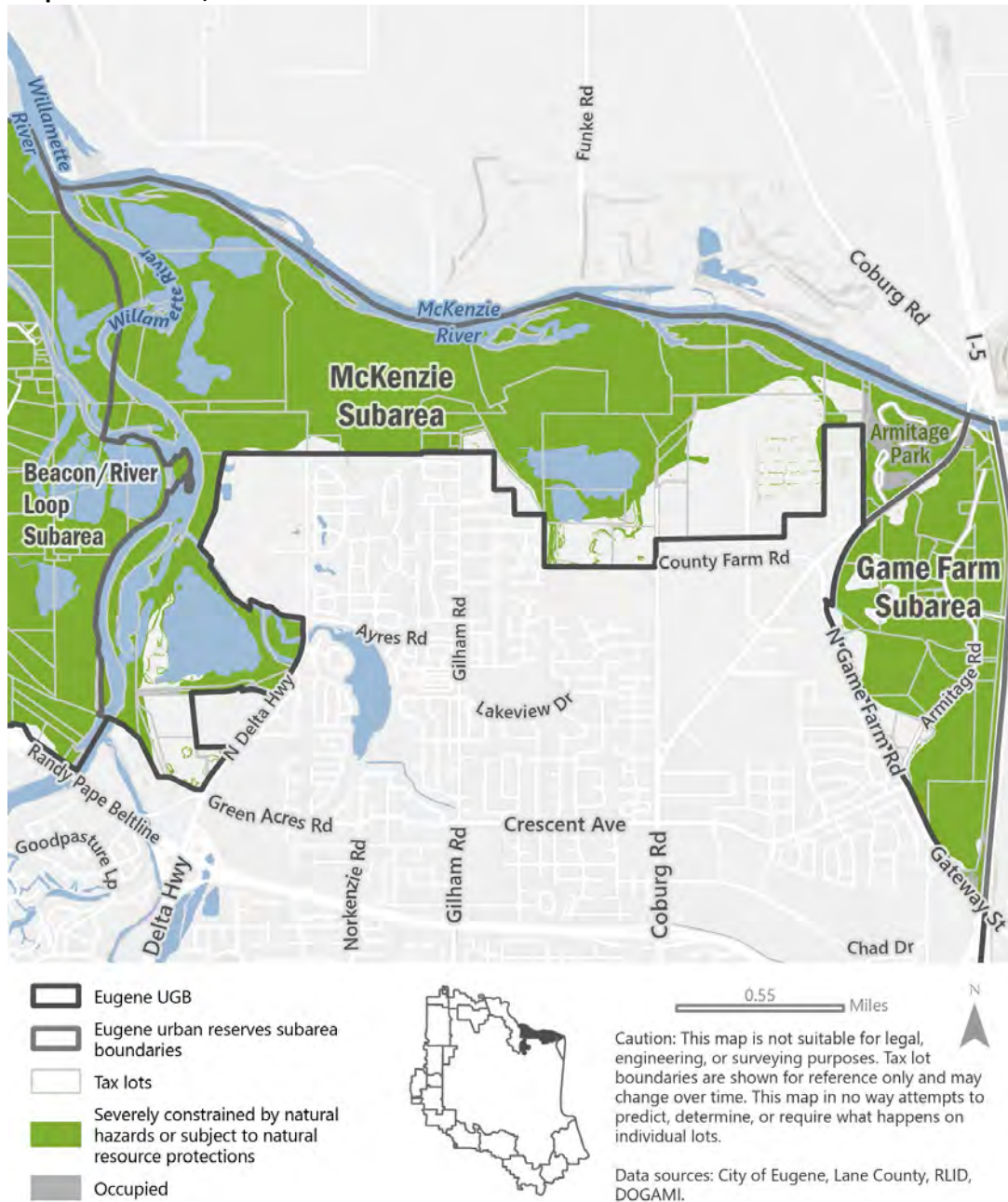
Data sources: City of Eugene, Lane County, RLID, DOGAMI.

2. Suitability Analysis – McKenzie

I. Background

- A. **Location:** The land in the McKenzie subarea is located to the north of Eugene adjacent to the UGB, and generally includes land east of the Willamette River, south of the McKenzie River, and west of Coburg Road. See **Map 2.1 Location**, below, and **Maps 2.2-2.8** for additional information relevant to the subarea analysis.

Map 2.1 Location, McKenzie Subarea



- B. Existing Land Uses:** The land in the subarea is flat and primarily used for sand and gravel operations. The largest lot with development capacity, at over 100 developable acres, is a church-owned property north of County Farm Road that is partially within the UGB; its use outside of the UGB is split between agriculture and Camp Harlow summer camp. The other large, non-sand and gravel property in the study area is Lane County’s Armitage Park, which includes a campground, boat ramp and dog park and is located along Coburg Road at the McKenzie River. Of the 1,385 acres of land in the subarea, only 245 acres have potential for future residential or employment development, due primarily to the area’s location adjacent to the McKenzie and Willamette Rivers, resulting in extensive flood hazard areas.
- C. Barriers to Development:** The vast majority (82 percent) of the land in the subarea is categorized as undevelopable land, shown as gray and green on the maps. Most of the land identified in green (severely constrained by natural hazards or subject to natural resource protections) is Federal Emergency Management Agency (FEMA) Special Flood Hazard Areas (floodway and 100-year floodplain). The land shown in green also includes Lane County Goal 5 wetlands, Lane County Goal 5 riparian corridors, and land with a natural resource plan designation, as well as high risk landslide areas and prohibitively steep slopes (on the edges of gravel ponds). Lane County’s Armitage Park is shown in gray as occupied land in the northeast corner of the land in the subarea (it also includes some floodplain in green). The other notable barrier to development is active gravel mining operations present on land in the subarea as noted below.
- D. Surrounding Land Uses:** The McKenzie and Willamette Rivers border the land in the subarea to the north and west. The UGB abuts the land in the subarea to the south and most, but not all, of the adjacent land within the UGB is also within the Eugene city limits. Adjacent uses (from east to west) include a manufactured home park, an events center, hospice house, First Baptist Church, residential neighborhoods, Lane County offices and Delta Oaks shopping center. The area between County Farm Road and Coburg Road is less urbanized except for a large church. This creates, to an extent, some isolation of the subarea from existing development, however this may change as land within the UGB continues to be annexed and urbanized.

Organization of this Analysis: After an initial review, it became clear that within the McKenzie subarea, there is land that shares distinct attributes relevant for Goal 14 Locational Factor analysis, therefore they have been subdivided further. In general, the land in the subarea identified as M-1 through M-4 are lots along the edge of the UGB with differing characteristics. M-5 includes the remainder of the land in the subarea which shares similar characteristics. These different areas are described below and shown on **Map 2.2 Organization of Analysis**.

M-1 (land in southwest edge of subarea, adjacent to UGB)— Includes 26 developable acres of land across four lots. These lots are under one ownership, are predominantly partially vacant, and the property is used for gravel mining administrative operations and storage. Land in M-1 is located north of Beltline, adjacent to North Delta Highway and the Lane County Land Management Division Public Works yard and offices, across from Delta Oaks Shopping Center.

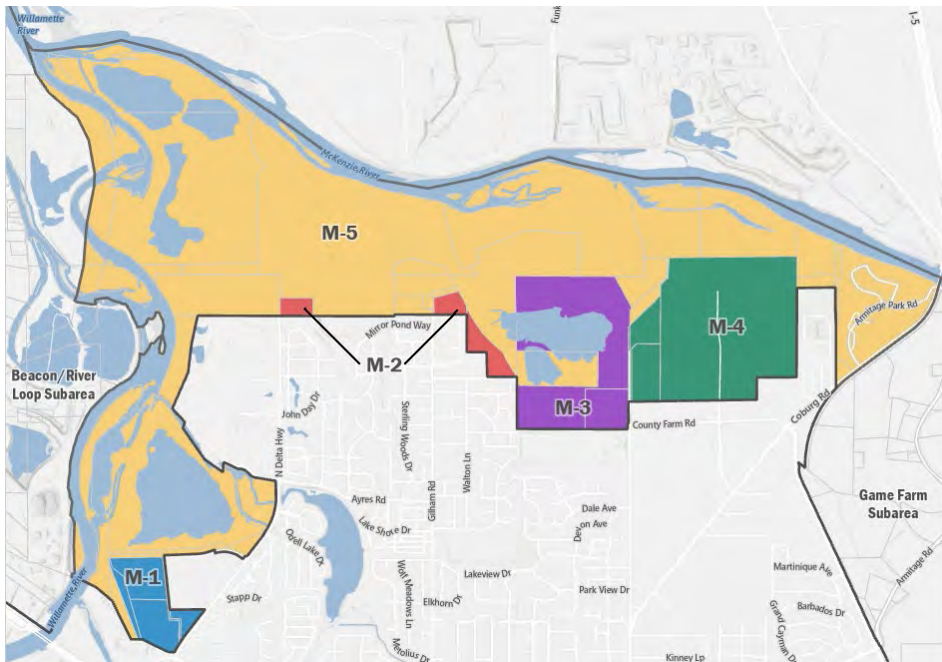
M-2 (land in two small areas adjacent to UGB)— Includes 15 developable acres of land. There are two undeveloped lots and one partially vacant lot split by the UGB with neighborhood street connections.

M-3 (land adjacent to UGB with flood hazard areas)—Includes 33 developable acres; the land is used for gravel mining access and operations.

M-4 (land in northeast edge of subarea, adjacent to UGB)—Includes 118 developable acres. The UGB bisects these lots; the acreage is only for the area outside of the UGB. The largest lot includes 103 developable acres outside of the UGB owned by the adjacent church; it is primarily in farm use with summer camp facilities on its northern edge. Uses on two smaller lots include farming and gravel mining offices on the northern edge.

M-5 (land in remainder of subarea)— This is the bulk of the land in the subarea adjacent to the Willamette and McKenzie Rivers. It includes 54 developable acres of land scattered between flood hazard areas. The primary use of the land in M-5 is active gravel mining. The land in M-5 is highly constrained; it includes a predominance of flood hazard areas (including floodway and 100-year floodplain), Goal 5 adopted riparian areas and wetlands and Lane County’s Armitage Park.

Map 2.2 Organization of Analysis, McKenzie Subarea



II. Identify land that would be suitable for urban reserves¹

A. Locational Factor 1: Efficient accommodation of identified land needs

To what extent is there ...

- 1. *Developable land adjacent to or nearby (within .25 mile) of the UGB?*** The land in the McKenzie subarea includes 1,385 acres, of which 245 acres are classified as developable and all of which are located within lots² that have a portion of their boundary within .25 miles of the UGB, in areas M-1 through M-5, as shown on **Map 2.4 Development Potential**. Land that is within .25 miles of the UGB is likely to accommodate the identified land needs more efficiently than land that is further away from the UGB because of street, utility and neighborhood connections to already urbanized land.
- 2. *Partially vacant developable land (that could be developed for the identified land needs)?*** The land in the subarea contains 245 developable acres: 65 percent, or 159 acres, are located on lots classified as partially vacant, and the remaining 86 acres are located on lots classified as undeveloped. The land in M-1 is predominantly partially vacant; most of the partially vacant developable land is in M-4. The distribution of these lots is shown on **Map 2.4 Development Potential**.
- 3. *Developable land that is identified in the capacity analysis³ as potentially able to be urbanized with a mix of residential housing? How does this translate into potential dwelling units (per the capacity analysis)?*** According to the residential capacity analysis shown on **Map 2.5 Residential Capacity Analysis**, the land in the subarea has capacity for 2,047 dwelling units (du), or an average capacity of 8.3 dwelling units per developable acre, which is significantly higher than 4.8 du/developable acre for the entire study area. As noted above, most of the land with development capacity is in M-1 through M-4. The land in the subarea's proximity to the UGB and ease of serviceability (discussed next, in Locational Factor 2) make the developable land in M-1 and M-4 appropriate for a mix of residential housing. These areas are close to Delta Highway and Delta Oaks Shopping Center (M-1) or contain large lots connected by ownership to land within the UGB near Coburg Road (M-4). One lot in M-4 alone has capacity for over 500 dwelling units, as illustrated in **Map 2.5 Potential Residential Capacity**. The smaller lots of M-2 are at the far edge of neighborhoods residential housing and would be able to accommodate significantly fewer dwelling units. Land in M-3 is less able to efficiently accommodate a mix of (or any) residential housing due to the presence of active gravel mining operations on the

¹ Please refer to Section II C of the Eugene Urban Reserve Study (Findings Appendix 2), for background on how the City is identifying land in the study area that would be "suitable" for urban reserves, the explanation of the prompts used for the Goal 14 Locational Factors, and specific terminology.

² In the urban reserves study area, 'lots' are used for analysis purposes. See the Urban Reserves Technical Memo (Findings Appendix 4), for complete information.

³ For information on how residential development capacity was estimated for the Eugene urban reserves, see the Urban Reserves Technical Memo (Findings Appendix 4). Factors such as lot size, slope, and elevation impact average residential density, based on actual development patterns within the UGB.

property to the north, and the flood hazard areas present. Land in M-5 includes twenty two percent of the developable land, but it is separated from the rest, scattered between flood hazard areas.

- 4. Developable land that is identified in the capacity analysis⁴ as potentially able to be urbanized with industrial land need? How does this translate into potential industrial sites (per the capacity analysis)?** There are 194 developable acres identified in the capacity analysis as potentially suitable for urbanization with industrial land need, as shown on **Map 2.6 Potential Industrial Capacity**. The identified land in M-1, located adjacent to North Delta Highway and the Lane County Public Works yard, is the most suitable for future industrial uses, due to transportation connections, compatibility with adjacent uses, and size (15 acres). The identified land in M-4 is large and close to Coburg Road. The remaining lots in M-3 and M-5 identified as potentially suitable for industrial uses are not appropriate, given the surrounding residential uses, local street connections and environmental consequences due to presence of flood hazard areas and proximity to the Willamette and McKenzie Rivers.
- 5. Topography, steep slopes or other “undevelopable”⁵ lands that would make efficient urbanization difficult?** The land in the McKenzie subarea is largely flat, as shown on **Map 2.7, Contours and Hillshade**. Seventy nine percent of the land is identified as severely constrained by natural hazards or subject to natural resource protections and shown in green on the maps. Most of this “undevelopable” land is Federal Emergency Management Agency (FEMA) Special Flood Hazard Areas (floodway and 100-year floodplain). It also includes Lane County Goal 5 wetlands, Lane County Goal 5 riparian corridors (along the McKenzie and Willamette Rivers), and land with a natural resource plan designation, as well as high risk landslide areas and prohibitively steep slopes (on the edges of gravel ponds). The rivers will continue to meander over time, creating potentially unpredictable changes. The amount and distribution of “undevelopable” lands would make efficient urbanization difficult in most of the subarea (including all of M-5 and M-3). Only M-1, M-2 and M-4 contain developable land adjacent to the UGB not impacted by these “undevelopable” lands.

Conclusion: *As discussed above, only a portion of the land in the McKenzie subarea can efficiently accommodate identified land needs, including land in **M-1, M-2 and M-4**. These areas have a high average development capacity and are in close proximity to existing urbanization. Land in **M-1 and M-4** is suitable for a range of housing types, as well as potential industrial development. The land in **M-2** could be developed as a small addition to the existing neighborhood, but due to its size and*

⁴ For information on how industrial capacity was estimated for the Eugene urban reserves, see the Urban Reserves Technical Memo (Findings Appendix 4).

⁵ As described in section II B of the Eugene Urban Reserve Study (Findings Appendix 2), land was assigned no development capacity if it falls within one of the these “undevelopable” categories: severely constrained by natural hazards or is designated or zoned to protect natural resources; or not vacant or partially vacant (i.e. the land is already occupied) However, areas identified as sand and gravel resources are not identified as land that is “undevelopable” in this urban reserves analysis. Urban reserves planning is very long-term planning; an intention to use an area for sand and gravel extraction could change and Goal 5 protections could be removed by the time the land is brought into the UGB.

location, its ability to efficiently accommodate identified land needs is mixed. The land in M-3 is too constrained by floodplain to efficiently be urbanized, even if the active gravel mining operation were to end. The land in M-5 is almost fully made up of riparian areas, wetlands and floodplain, and could not efficiently accommodate identified land needs.

Efficient accommodation of identified land needs:	Positive	Mixed	Negative
Land in M-1			
Land in M-2			
Land in M-3			
Land in M-4			
Land in M-5			

B. Locational Factor 2: Orderly and economic provision of public facilities and services⁶

The information below addresses the feasibility of serving the land in the McKenzie subarea with public facilities and services in an orderly and economical way. It considers the capacity of the current system to serve the area and the extent of new infrastructure that would be needed to serve the area if urbanized. It includes an analysis of **wastewater, water, transportation, transit, stormwater, and fire/emergency services** and also, to a lesser extent, it includes the provision of **electricity, schools and parks.**⁷

Before the narrative description is a table showing the **generalized serviceability** of the subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff, and a **generalized cost estimate** to address the economics of serving the subject area with public facilities and services. It reflects preliminary high-level estimates for the major components of the individual systems. Cost information is provided on a \$ to \$\$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$\$) denoting the greatest cost. The scale used to evaluate each type of service is tailored to address the fact that some services are more expensive to provide than others. For example, a \$ for wastewater does not equate to the same dollar amount as a \$ for transportation. Cost estimates do not include future maintenance costs.

McKenzie Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Moderate	Easy	Easy-Moderate	Easy-Moderate	Easy-Moderate	Easy
Generalized cost estimate	\$\$\$	\$-\$\$\$	\$-\$\$\$	\$\$-\$\$\$	\$\$\$	\$

⁶The definition of “public facilities and services,” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines, is: “[p]rojects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.”

⁷ The summarized information used in this section is based on the results of the Eugene Urban Reserves Serviceability Analysis Report (Findings Appendix 3). In providing information for that report, service providers considered the serviceability of the subareas in their entirety; they generally did not differentiate between areas within a subarea.

1. **Wastewater:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. This subarea will likely require the construction of a pump station, which significantly increases the cost of serving the subarea. However, the existing downstream wastewater system appears to have adequate capacity to serve the additional land in the subarea.
2. **Water:** The subarea is assigned an “easy” serviceability rating and the generalized cost estimate for improvements is \$-\$\$\$\$. Only new pipeline connections to existing infrastructure would be needed to bring water to the subarea.
3. **Fire:** The subarea is assigned an “easy to moderate” serviceability rating and the generalized cost estimate for improvements is \$-\$\$\$\$. Given the current locations of City fire stations and the existing street network, there are minor response time/service delay concerns. Access to this area appears good, but response times would need to be modeled for additional details.
4. **Transportation:** The subarea is assigned an “easy to moderate” serviceability rating and the generalized cost estimate for improvements is \$\$-\$\$\$\$. The developable land borders the UGB and is close to the existing street system. The topography is flat, making for good bicycle and pedestrian connections to neighborhoods within the UGB.
5. **Transit:** The subarea is assigned an “easy to moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. The flat topography makes this subarea easy to access with good potential for future service, however it may be challenging to create efficient service given the relative isolation of developable parcels and need to deviate from existing routes. There are currently bus routes to the southwest edge of the subarea only.
6. **Stormwater:** The subarea is assigned an “easy” serviceability rating and the generalized cost estimate for improvements is \$. This area has relatively flat topography and is adjacent to the UGB, making it potentially easy to access and extend services to. Additionally, the soils in the area are likely suitable for infiltration.
7. **Other (Parks, Schools, Electric):** The 62-acre Armitage Park is located in the subarea on its eastern boundary. The subarea is within the Eugene 4J school district. EWEB provides electric service to the incorporated area south of the subarea.
8. ***Is there undeveloped land within the UGB that would be helped in its development/serviceability if this area were included in urban reserves, or is there undeveloped land within the UGB that would negatively impact the orderly and economic provision of public facilities and services?*** There is undeveloped land within the UGB west of Coburg Road that would potentially benefit in its future development and serviceability if this subarea were included in urban reserves because serving a larger, connected area could reduce costs and create efficiencies.

Conclusion: While service providers analyzed the developable land in the subarea as a whole, in looking at the different characteristics of the land in M-1 through M-5, there are some differences in the provision of public facilities and services that stand out. Due to the McKenzie subarea’s flat terrain and proximity to existing urbanization, water and stormwater service extensions are rated as easy; fire, transportation and transit are rated as easy-moderate, and wastewater is rated as moderate in their ability to orderly and economically provide services to the developable land in the subarea. Therefore, public facilities and services could be provided in an orderly and economic manner to the developable land in **M-1, M-2, and M-4.**

The land in **M-3** is mixed in its ability to be served in an orderly and economic manner as it contains extensive undevelopable land (floodplain and wetlands); even though services could be extended to the edge of the property, orderly and economic service provision would be unlikely based on its inability to efficiently accommodate identified land needs, as found in Locational Factor 1.

The land in **M-5** cannot be served in an orderly and economic manner as the developable land is scattered throughout and negatively impacted by the extent and location of the surrounding land that is severely constrained by natural hazards or subject to natural resource protections.

Orderly and economic provision of public facilities and services:	Positive	Mixed	Negative
Land in M-1			
Land in M-2			
Land in M-3			
Land in M-4			
Land in M-5			

C. Locational Factor 3: Comparative environmental, energy, economic and social consequences

1. Environmental consequences:

- a. Presence of natural resources: To what extent would urbanization of this area negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources?* Urbanization could negatively impact Goal 5 riparian areas and wetlands that are extensive on the land in this subarea, particularly on land in M-5 and M-3. Most of the wetlands appear to be co-located with or adjacent to FEMA-mapped flood hazard areas. There is also land with a natural resource plan designation at the confluence of the Willamette and McKenzie rivers, and the 62-acre Armitage Park along the McKenzie River, both in M-5. These natural resources are all categorized as “undevelopable” land, so urbanization is not assumed on them, however, adjacent development could cause negative environmental consequences, such as an increase in impervious surfaces (e.g., roofs and pavement) thereby increasing stormwater runoff and potential pollutants in waterways, although the City’s stormwater regulations would mitigate these consequences.

- b. Presence of hazard areas (steep slope, landslides, floodplain): To what extent would urbanization of this area increase the potential risk of natural hazards, such as landslides, wildfire or flooding?** The land in the subarea is bordered by two rivers, with extensive flood hazard areas, including almost all of the land in M-5 and over half of the land in M-3. High-risk landslide areas and steep slopes (on the edges of gravel ponds) are also present on land in the subarea. The rivers will continue to meander over time, creating unpredictable changes in the flood hazard areas. Because of potential impacts from the extensive flood hazard areas on the land in M-3 and M-5, urbanization would increase the risk of flooding. Only on land in M-4 would urbanization have minimal risk from hazard areas, due to its size and lack of hazard areas. Urbanization on the land in M-1 and M-2 would moderately increase the risk from hazard areas, as the developable land in M-1 is adjacent to the Willamette River, and the land in M-2 is smaller and there is less room for designing development away from adjacent flood hazard areas. Wildfire risk is low; Armitage Park along Coburg Road on land in M-5 would present the greatest risk. The other significant forested areas are along the Willamette and McKenzie riparian areas on land in M-5.
- c. Presence of nearby public open space: To what extent would nearby public open space benefit future residents of the area?** Lane County’s Armitage Park is publicly accessible parkland on land in M-5. Its use would not change regardless of whether it was included in urban reserves; it will continue to benefit County residents. Striker Field, Gilham, and Creekside are all city-owned parks in the neighborhoods south of the subarea.

Conclusion: Overall, urbanization of the land in this subarea would have significant (negative) environmental consequences on the land in **M-5** and **M-3** due to the predominance of natural hazard and natural resource land in those areas.

The environmental consequences of urbanization of the land in **M-1** and **M-2** are mixed (medium). The Willamette River is adjacent to **M-1** so urbanization would have to meet regulatory requirements for mitigating environmental consequences, and the small size of **M-2** would allow for less flexibility in siting development away from flood hazard areas.

Only the land in **M-4** would have positive (low) environmental consequences due to the size and location of its developable land providing the flexibility to be urbanized in a manner that would not impact nearby natural resources and hazard areas.

Environmental Consequences:	Positive (Low)	Mixed (Medium)	Negative (High)
Land in M-1			
Land in M-2			
Land in M-3			
Land in M-4			
Land in M-5			

2. Energy Consequences (priority for lower energy usage):

- a. *To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt)?*** As noted above (in Locational Factor 1, A.3), most of the land with development capacity is in M-1 through M-4. Due to the predominance of natural hazard and natural resource land surrounding it, the land with development capacity in M-5 would not be able to co-locate a variety of housing types, jobs and services. The land in the subarea's proximity to the UGB and ease of serviceability (discussed in Locational Factor 2) make the developable land in M-1 and M-4 appropriate for a mix of housing types, jobs and services which could be co-located to promote walking and bicycling and reduce vehicle miles traveled. The land in M-1 is located across the road from Delta Oaks Shopping Center and the land in M-4 is predominantly one large lot connected (by ownership) to land within the UGB near Coburg Road. Therefore, the land in both M-1 and M-4 could co-locate a mix of uses. The smaller lots with less development capacity in M-2 have more limited development options. Land in M-3 is less able to efficiently accommodate a mix of (or any) uses due to the nearby active gravel mining and presence of flood hazards.
- b. *To what extent is the area easily accessible to other services or uses (e.g., neighborhood commercial, parks, schools)?*** Land in M-1 is easily accessible to commercial uses, schools and parks (Delta Oaks Shopping Center, Gilham Elementary and Park and Cal Young Middle School). Land in M-4 is less than a mile from Lane County's Armitage Park and the City's Striker Field; it is approximately 1.5 miles from the commercial areas at Crescent Village and Chad Drive. While land in M-2 and M-3 are not as close to services or uses, they connect easily to North Delta Highway, Gilham Road and Coburg Road and other areas within the UGB. Given the relatively flat topography and good street system, walking and bicycling from these areas is likely to be an option, keeping energy consequences low. Only the land in M-5, with its constrained developable land and extensive natural resource and natural hazard areas, would not be easily accessible.
- c. *To what extent is the area adjacent to or nearby the UGB? (see Locational Factor 1, A.2)*** As already noted, the McKenzie subarea includes 245 developable acres with a portion of their lot within .25 miles of the UGB, in areas M-1 through M-5, as shown on **Map 2.4 Development Potential**.
- d. *To what extent is there good multi-modal transportation access to this area? To what extent is the area easily accessible to job centers and downtown?*** As noted above, there is good transportation access to the land in this subarea, particularly to land in M-1 and M-4, but also via neighborhood street connections to M-2 and M-3. North Delta Highway and Coburg Road both provide access to downtown, Eugene's main job center, as well as to the closer commercial centers at Crescent Village and along Chad Drive. Transit service would need to be extended to this subarea, and roadway improvements, including bike lanes and sidewalk improvements would be needed to accommodate all users. There is potential for good local street access from the existing neighborhoods where adjacent to the UGB. As

noted above, only the land in M-5, with its constrained developable land and extensive natural resource and natural hazard areas, would not be easily accessible.

e. To what extent does future urbanization directly or indirectly generate energy or climate burdens (e.g., loss of open space, loss of growing lands, increased traffic, increased carbon emissions)? Future urbanization of the land in M-4 will generate energy and climate burdens due primarily to the loss of growing lands. A portion of the largest (128 acre) lot in M-4 is currently used for agriculture. The other areas with accessible developable land (M-1, M-2 & M-4) will see energy burdens from increased traffic, and increased carbon emissions from gas-powered vehicles from urbanization. The location of M-1 near transit, commercial and employment uses, mitigates its energy consequences. The presence of flood hazard areas in M-5, and M-3 to a lesser extent, would not allow for efficient urbanization of identified land needs (Locational Factor 1), so energy and climate consequences of development in these areas would be negative (high).

Conclusion: *As noted above, land in M-1 will have positive energy consequences due to its size and configuration allowing for a mix of uses, and its location adjacent to the Beltline, existing transit service, as well as residential, commercial and employment uses, thereby mitigating any energy consequences of development.*

Urbanization will have mixed energy consequences for the land in M-2 because it is most likely suited for small-scale residential development on the edge of existing neighborhoods. It is farther from transit and other services, therefore increasing the likelihood of additional carbon emissions from vehicles.

Urbanization will have negative energy consequences for the land in M-3 and M-5 due to the extent and presence of flood hazards areas not allowing for efficient urbanization of identified land needs, as documented in Locational Factor 1; therefore energy and climate consequences of development in these areas would be negative (high).

Urbanization will have mixed energy consequences for the land in M-4 because while it could be developed in an efficient manner, it has a predominance of agricultural land which would be lost with urbanization, creating indirect energy burdens due to the loss of farm land.

Energy Consequences:	Positive	Mixed	Negative
Land in M-1			
Land in M-2			
Land in M-3			
Land in M-4			
Land in M-5			

3. Economic consequences:

- a. *In general, how much economic activity would urbanization of this area bring?*** The land in the McKenzie subarea contains 245 acres of developable land. Based on generalized capacity assumptions, this land could accommodate 2,047 residential dwelling units. That said, it is the developable land in M-1, M-2 and M-4 which has the most opportunity for bringing economic activity to the subarea, as it is adjacent to the UGB and easy to moderate to serve. The land in M-4 would bring significant economic activity, due to its size, while the land in M-1 is optimally sited adjacent to urban uses, with good potential for a range of uses. As discussed previously, the extent of flood hazard areas and natural resources on the land in M-3 and M-5 would make efficient urbanization difficult, therefore no economic activity from urbanization would be anticipated on these lands.
- b. *Is the area appropriate for future urbanization with a variety of identified uses (not just LDR), to support connected, integrated neighborhoods? (also see Energy Consequences, C.2.A)*** As noted previously, almost all the land with development capacity is in M-1 through M-4. M-5, due to the predominance of undevelopable land, would not be able to co-locate a variety of housing types, jobs and services. The land in the subarea's proximity to the UGB and ease of serviceability (discussed in Locational Factor 2) make the developable land in M-1 and M-4 appropriate for a mix of housing types, jobs and services which could be co-located for easy walking and bicycling. The land in M-1 is located across the road from Delta Oaks Shopping Center and the land in M-4, while more isolated, is predominantly one large lot connected (by ownership) to land within the UGB near Coburg Road. Therefore, the land in both M-1 and M-4 could co-locate a mix of uses. The smaller lots with less development capacity in M-2 have more limited development options. Land in M-3 is less able to efficiently accommodate a mix of (or any) uses due to the nearby active gravel mining and presence of flood hazard areas.
- c. *Are there concerns about future urbanization causing a loss of economic activity for existing and nearby uses? (also see Locational Factor 3, Energy Consequences C.2.a)*** If land in M-4 came into the UGB and redeveloped, it would displace a summer camp and farmland. There is a home site on land in M-2. Developable land in M-1 and M-3 (and some in M-4) is currently being used for gravel mining-related use (including what appears to be truck and material storage, and administrative buildings); those uses would presumably change if the land were redeveloped within the UGB (since gravel operations are not permitted). Much of the land in M-3 and M-5 is still being used for active gravel mining – redevelopment around its edge could put pressure how it is used. Other adjacent uses are primarily residential, church uses and commercial/industrial; there is little concern about future urbanization causing a loss of economic activity for these nearby uses.
- d. *How cost-efficient is service provision in this area? (also see Locational Factor 2)*** As noted in Locational Factor 2, due primarily to the flat terrain and proximity to existing urban services, service provision to the developable land in M-1, M-2, M-3 and M-4 could be

provided in an orderly and economic manner. Only the land in M-5 cannot be served in an orderly and economic manner as the developable land is negatively impacted by the surrounding land that is severely constrained by natural hazards or subject to natural resource protections.

Conclusion: *Urbanization will have positive economic consequences for the land in M-1. The land in M-1 is optimally sited adjacent to urban uses, with good potential for a range of uses.*

Urbanization will have mixed economic consequences for the land in M-2 as it is small, at 15 developable acres, and at the edge of a residential neighborhood, limiting its development opportunities.

Urbanization will have negative economic consequences for the land in M-3 as the extent of flood hazard areas and natural resources on the land in M-3 would make efficient urbanization difficult. In addition, much of the land in M-3 is still being used for active gravel mining and urbanization would be incompatible with this use.

Urbanization will have positive economic consequences for the land in M-4, which is adjacent to the UGB. If urbanized it would bring significant economic activity, due to its size, location and ease of serviceability. It would be appropriate for co-locating a mix of uses.

Urbanization will have negative economic consequences for the land in M-5, as the extent of flood hazard areas and natural resources on the land in M-5 would make efficient urbanization difficult. In addition, much of the land in M-5 is still being used for active gravel mining and urbanization would be incompatible with this use.

Economic Consequences:	Positive	Mixed	Negative
Land in M-1			
Land in M-2			
Land in M-3			
Land in M-4			
Land in M-5			

4. Social Consequences: ⁸

- a. Will urbanization negatively impact current residents?** There appears to be only three home sites within the McKenzie subarea, all on land in M-5. One residence is in the floodplain near Mirror Pond Way inside the UGB, while the other two are adjacent to the McKenzie River and Armitage Park in the northeast corner of the subarea. Their lots range in size from 1 to 11 acres. There does not appear to be any other permanent residents in the subarea: there is an outbuilding on land in M-2 connected to a residence within the UGB and summer camp facilities on land in M-4 that house seasonal staff. There are gravel-

⁸ The definition of “social consequences” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines is: “[t]he tangible and intangible effects upon people and their relationships with the community in which they live resulting from a particular action or decision.”

mining related structures and offices on land in M-1 and M-4, but not residential facilities. Therefore, due to the low presence of residents in the subarea, combined with the low amount of developable land, urbanization would not impact current residents in any significant manner. If the subarea were to urbanize, increased traffic could negatively impact current residents located south of the subarea within the UGB. However, improvements to the roadway system and additional neighborhood-serving uses could also benefit existing nearby residents.

- b. How would urbanization worsen or improve service delivery to residents in this area (e.g. adequate fire response times, access to water, parks)? (also see Locational Factor 2)** As noted previously, due to the land in the McKenzie subarea's flat terrain and proximity to existing urbanization, water, and stormwater service extensions are rated as easy; fire, transportation and transit are rated as easy-moderate, and wastewater is rated as moderate in its ability to orderly and economically provide services to the developable land in the subarea. Therefore, public facilities and services could be provided in an orderly and economic manner to the land in M-1, M-2, M-3 and M-4. Only the land in M-5 cannot be served in an orderly and economic manner as the developable land is negatively impacted by the surrounding undevelopable land that is severely constrained by natural hazards or subject to natural resource protections. It is assumed that neighborhood parks would be developed as neighborhoods urbanize if needed to meet service standards.
- c. Will urbanization exacerbate the impacts of potential natural hazards, such as flooding, fire, and landslides? (also see Locational Factor 3, Environmental Consequences C.1.b)** The extensive flood hazard areas would make efficient urbanization difficult in most of the land in the subarea (including all of M-5 and M-3), and urbanization in these areas could exacerbate the impacts of flooding. Only land in M-1, M-2 and M-4 contain developable land adjacent to the UGB that would be less likely to exacerbate the impacts of flooding.
- d. How might urbanization in this area impact vulnerable populations⁹ and underserved groups currently living in the subarea? Could one segment of the population be impacted more than another (e.g., low-income households)?** There appears to be only three large residences on land in M-5, therefore one can draw the conclusion that urbanization would not impact vulnerable populations or underserved groups currently living in the subarea.
- e. Will urbanization in this area allow for connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a)** As noted several times previously, the land in the subarea's proximity to the UGB and ease of serviceability (discussed in Locational Factor 2) make the developable land in M-1 and M-4 appropriate for a mix of housing types, jobs and services which could be co-located to allow for connected, integrated neighborhoods. In M-2, the smaller lots with less development capacity have more limited

⁹ Vulnerable populations are defined as populations that identify as a non-white race or ethnicity, younger or older populations, populations with a disability, and/or single-headed households. Data is from Livability Lane, 2013 Equity and Opportunity Assessment, Social and Demographic Characteristics Map. The extent to which vulnerable populations and underserved groups currently live in the subarea is speculative.

development options. Land in M-3 is less able to efficiently accommodate a mix of (or any) uses due to the presence nearby gravel mining and flood hazard areas. The land in M-5, due to the predominance of undevelopable land, would not be able to co-locate a variety of housing types, jobs and services.

Conclusion: *As there are only three residences in the McKenzie subarea, social consequences of urbanization on current residents within the subarea are minimal, if any, and the conclusions below focus on the social consequences of urbanization on future or surrounding residents.*

Urbanization will have positive social consequences for the land in M-1. As noted above, the land in M-1's proximity to the UGB and ease of serviceability make the developable land in M-1 appropriate for a mix of housing types, jobs and services which could be co-located to allow for connected, integrated neighborhoods and benefit future residents.

Urbanization will have mixed social consequences for the land in M-2. As there are only 15 developable acres in M-2, development opportunities are limited, but it is adjacent to City services and additional housing opportunities could be provided relatively easily.

Urbanization will have negative social consequences for the land in M-3. Flood hazard areas on the land in M-3 would make efficient urbanization difficult, and urbanization could exacerbate the impacts of flooding. Land in M-3 is unable to efficiently accommodate urban-levels of development due to the presence of flood hazard areas and the adjacent active gravel mining operation. Currently this land serves as a buffer between mining operations and neighborhoods; if this land were urbanized with residential uses prior to the completion of the mining operations, there could be noise, environmental and traffic impacts from that adjacent use.

Urbanization will have positive social consequences for the land in M-4, which contains developable land adjacent to the UGB. Its proximity to the UGB and ease of serviceability makes the developable land in M-4 appropriate for a mix of housing types, jobs and services which could be co-located to allow for connected, integrated neighborhoods benefitting future residents.

Urbanization will have negative social consequences for the land in M-5. The land in M-5 cannot be served in an orderly and economic manner as its scattered and diffuse developable land is surrounded by extensive flood hazard and natural resource lands. These "undevelopable" lands in M-5, including up to the edge of the UGB, would make efficient urbanization difficult, and urbanization could exacerbate the impacts of flooding. In addition, there are active gravel mining operations on much of the land in M-5, which if still in operation, would cause negative social consequences for any future residents.

Social Consequences:	Positive	Mixed	Negative
Land in M-1			
Land in M-2			
Land in M-3			
Land in M-4			
Land in M-5			

Locational Factor 3 Conclusion:

For the land in **M-1**, the analysis under Locational Factor 3 shows that urbanization would have mixed Environmental consequences and positive Energy, Economic and Social consequences.

For the land in **M-2**, the analysis under Locational Factor 3 shows that urbanization would have mixed Environmental, Energy, Economic and Social consequences.

For the land in **M-3**, the analysis under Locational Factor 3 shows that urbanization would have negative Environmental, Energy, Economic and Social consequences.

For the land in **M-4**, the analysis under Locational Factor 3 shows that urbanization would have mixed Energy consequences and positive Environmental, Economic and Social consequences.

For the land in **M-5**, the analysis under Locational Factor 3 shows that urbanization would have negative Environmental, Energy, Economic and Social consequences.

D. Locational Factor 4: Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

1. ***How will urbanization impact agricultural and forest activities on farm and forest designated land within the subarea?*** As shown on **Map 2.8, Comprehensive Plan Designation**, there is land designated for agriculture within the subarea in M-4 and M-5. Besides Armitage Park (designated parks and open space) the remainder of the land in the subarea is designated for sand and gravel operations. One large farm-designated lot in M-4 appears to be farmed commercially and also contains a summer camp. Urbanization on this land in M-4 would displace current agricultural practices; urbanization on adjacent parcels would impact these operations to some degree, however as this lot is shared with a summer camp, and adjacent to the UGB with residences, an event center, and hospice house, impacts of adjacent urbanization would be minimal. Land in M-5 that is designated for agriculture does not appear to be farmed commercially or otherwise.

2. ***Is urbanization compatible with existing agricultural and forest uses on farm and forest designated land nearby (outside of the subarea)?*** Future urbanization appears to be compatible with existing agricultural uses on farm designated land outside of the land in the subarea. As shown on **Map 2.8, Comprehensive Plan Designation**, land in the adjacent Game Farm subarea is designated agriculture with active commercial farming, but it is across Coburg Road from the

eastern edge of the subarea, limiting potential conflicts from urbanization. The McKenzie River and Willamette River provide natural buffer from any farmland to the north and west.

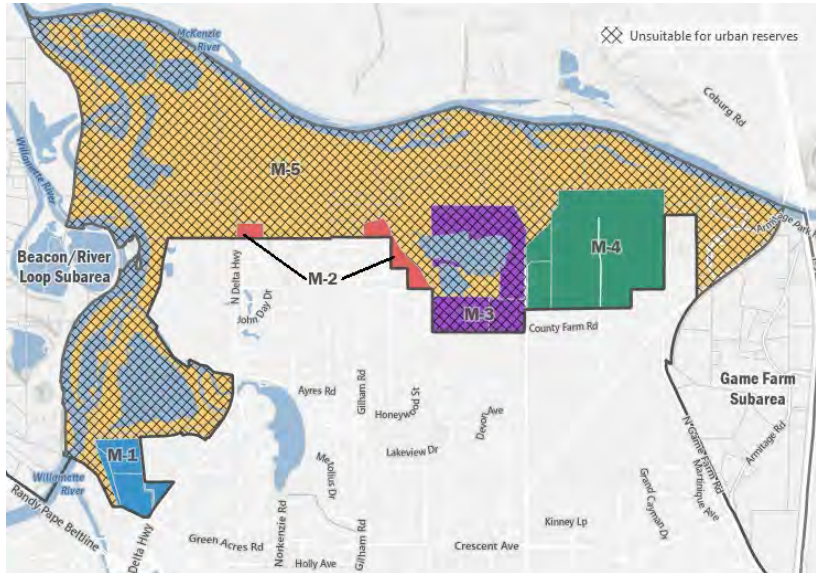
Conclusion: *There is one large lot on land in M-4 that appears to be farmed commercially on agricultural-designated land. Urbanization on this land would displace these operations, however, as this lot is shared with a summer camp, and adjacent to residences and other urban uses, adjacent urbanization would only minimally impact it. There is no forest-designated land within the subarea. The surrounding farm operations on agricultural-designated land are across Coburg Road from the eastern edge of the subarea and due to this roadway separation urbanization on land in the subarea would only minimally impact these farm operations. Overall, future urbanization would be compatible with the agricultural activities occurring on land designated for agriculture both in the subarea and nearby, except on land in **M-4**, where the impacts would be mixed due to the agricultural activities there.*

Compatibility with nearby agriculture and forest activities	Positive	Mixed	Negative
Land in M-1			
Land in M-2			
Land in M-3			
Land in M-4			
Land in M-5			

III. Conclusion

Considering and balancing all of the Goal 14 locational factors as analyzed above, there are some positive and some negative aspects of future urbanization of the McKenzie subarea as a whole, which is why the analysis was described as laid out in this report and summarized as follows:

Land in **M-1** Includes 26 developable acres located in the southwest edge of subarea, adjacent to North Delta Highway in the UGB. These four lots in one ownership are predominantly partially vacant, and the property is used for gravel mining administrative operations and storage. In evaluating the land in **M-1**, the conclusion of Locational Factors 1, 2 and 4 were “positive” in their findings; Locational Factor 3b (Energy Consequences), 3c (Economic Consequences) and 3d (Social Consequences) were also “positive” in their findings. Only Locational Factor 3a (Environmental Consequences) was found to be “mixed” (or medium). In summary, the land in **M-1** includes: a high average development capacity; easy serviceability; proximity to existing urbanization and transportation connections; and land appropriate for a range of uses, including a variety of housing types or potential industrial development. Due to these factors, developable land could efficiently accommodate identified land needs and public facilities and services could be provided in an orderly and economic manner. The Willamette River is adjacent to land in **M-1** so urbanization would have to meet regulatory requirements for mitigating environmental consequences. Urbanizing this land will not impact farm and forest operations, therefore, it is found to be compatible with these practices outside of the UGB. Based on these factors and the complete analysis described in this report, when balanced and considered together, the consequences with respect to the land in **M-1** result in a determination that the land is suitable for urban reserves designation.



Land in **M-2** Includes 15 developable acres. It is adjacent to the UGB and includes two undeveloped lots and one partially vacant lot split by the UGB with neighborhood street connections. In evaluating the land in **M-2**, the conclusion of Locational Factors 2 and 4 were “positive” in their findings and Locational Factors 1 and 3 were “mixed” in their findings. In summary, the

land in **M-2** could be developed as a small addition to the existing neighborhood, but due to its size and location, its ability to efficiently accommodate identified land needs is mixed. Due to its location adjacent to services and flat topography, public facilities and services could be provided in an orderly and economic manner to the developable land in **M-2**. Also, primarily due to its size and location, urbanization will have mixed/medium environmental, energy, economic and social consequences for the land in **M-2**. Urbanizing this land will not impact farm and forest operations, therefore, it is found to be compatible with these practices outside of the UGB. Based on these factors and the complete analysis described in this report, when balanced and considered together, the consequences with respect to the land in **M-2** result in a determination that the land is suitable for urban reserves designation.

Land in **M-3** includes 33 developable acres. It is adjacent to UGB with flood hazard areas. It is used for gravel mining access and operations. Land in **M-3** is characterized active gravel mining operations and risks from flooding. In evaluating the land in **M-3**, the conclusion of Locational Factors 1 and 3 were rated as “negative” in their findings, Locational Factor 2 was rated as “mixed” and Locational Factor 4 was rated as “positive” in its findings. In summary, the land in **M-3** is too constrained by floodplain, shown in the most recent FEMA maps, to efficiently be urbanized, even if the active gravel mining operation were to end. The land in **M-3** is mixed in its ability to be served in an orderly and economic manner as it contains extensive undevelopable land (floodplain and wetlands); even though services could be extended to the edge of the property, orderly and economic service provision would be unlikely based on its inability to efficiently accommodate identified land needs. Also, primarily due to the extent of flood hazard land and active gravel mining operations, urbanization will have negative environmental, energy, economic and social consequences for the land in **M-3**. Urbanizing this land will not impact farm and forest operations, therefore, it is found to be compatible with these practices outside of the UGB. Based on these factors and the complete analysis described in this report, when balanced and considered together, the consequences with respect to the land in **M-3** result in a determination that the land is not suitable for urban reserves designation at this time.

Land in **M-4** includes 118 developable acres. It is located on the northeast edge of subarea and the UGB bisects these lots. The largest lot is owned by the adjacent church; it is primarily in farm use with summer camp facilities on its northern edge. Uses on two smaller lots include farming and gravel mining offices. In evaluating the land in **M-4**, the conclusion of Locational Factors 1, and 2 were “positive” in their findings; Locational Factor 3a (Environmental Consequences), 3c (Economic Consequences) and 3d (Social Consequences) were also “positive” in their findings; Locational Factor 3b (Energy Consequences) and Locational Factor 4 were “mixed” in their findings. In summary, Land in **M-4** is suitable for a range of housing types, jobs, and services as well as potential industrial development due to its size, location, flat topography and minimal natural resource land and flood hazard risk. Due to its location adjacent to existing services and flat topography, public facilities and services could be provided in an orderly and economic manner. Also due to these factors, and minimal current residents, urbanization will have positive environmental, economic and social consequences for the land in **M-4**. Due to the presence of farmland in **M-4**, energy consequences of urbanization are mixed (due to the loss of farmland), and urbanization would be mixed in its compatibility with farm and forest practices on agricultural and forest-designated land outside of the UGB. Based on these factors and the complete analysis described in this report, when balanced and considered together, the consequences with respect to the land in **M-4** result in a determination that the land is suitable for urban reserves designation.

Land in **M-5** includes 54 developable acres scattered between flood hazard and natural resource land. It is the bulk of the land in the subarea and located between the Willamette and McKenzie Rivers and the UGB. The primary use of the land in **M-5** is active gravel mining. The land in **M-5** is highly constrained; it includes a predominance of flood hazard areas (including floodway and 100-year floodplain), Goal 5 adopted riparian areas and wetlands and Lane County’s Armitage Park. In evaluating the land in **M-5**, the conclusion of Locational Factors 1, 2 and 3 were rated as “negative” in their findings, only Locational Factor 4 was rated as “positive” in its findings. In summary, the land in **M-5** is almost fully made up of riparian areas, wetlands and floodplain, and could not efficiently accommodate identified land needs. The land in **M-5** cannot be served in an orderly and economic manner as the developable land is scattered throughout and negatively impacted by the extent and location of the surrounding land that is severely constrained by natural hazards or subject to natural resource protections. For these same reasons, the environmental, energy, economic and social consequences of urbanization were all found to be negative. Urbanizing the scattered developable land will not impact farm and forest operations, as it is primarily sand and gravel designation. Based on these factors and the complete analysis described in this report, when balanced and considered together, the consequences with respect to the land in **M-5** result in a determination that the land is not suitable for urban reserves designation at this time.

Please see the summary tables on the following pages, and **Map 2.3 Suitability Results**

Summary

McKenzie Subarea

Suitable for Urban Reserves Designation

Land in M-1

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Land in M-2

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Land in M-4

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Not Suitable for Urban Reserves Designation

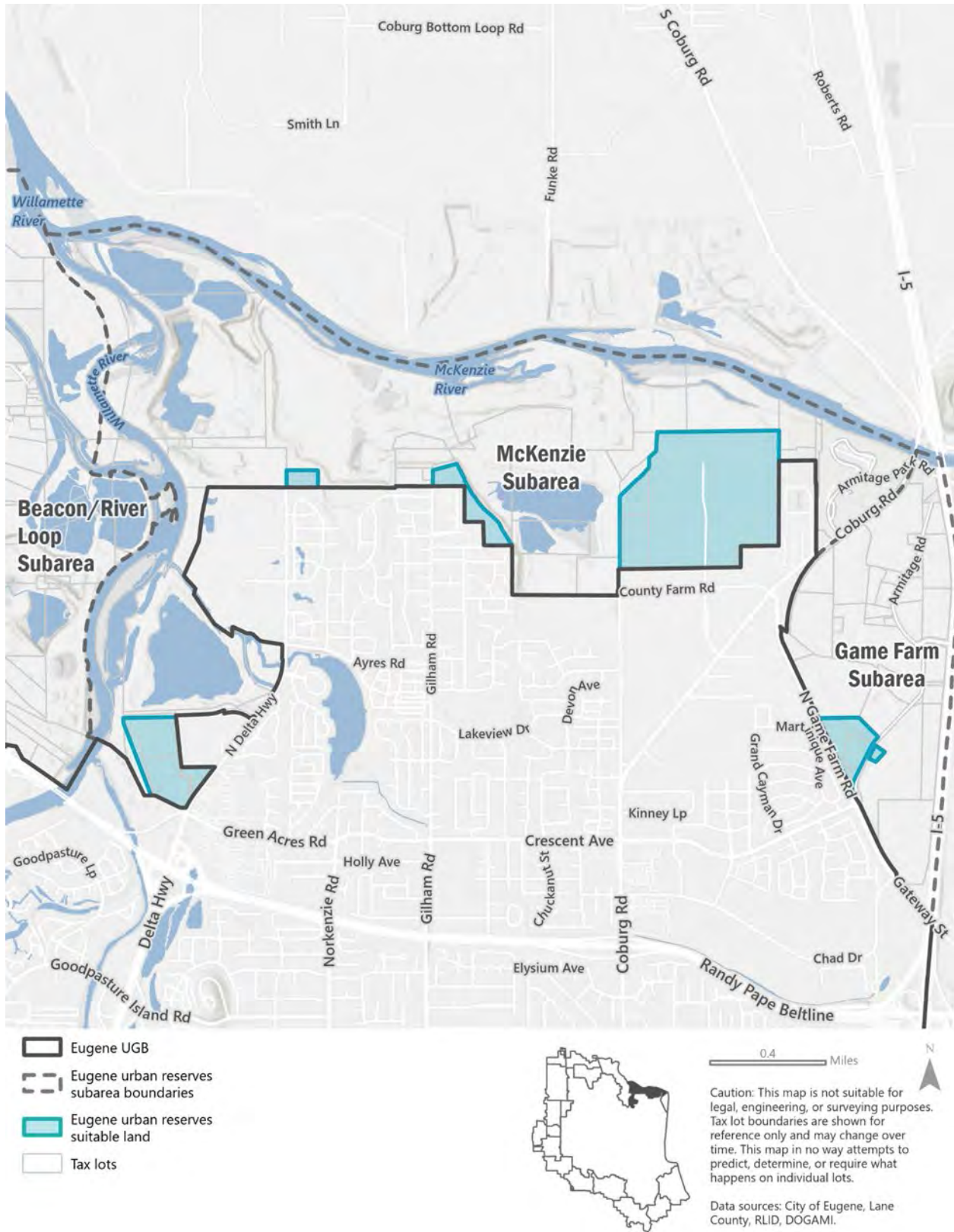
Land in M-3

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

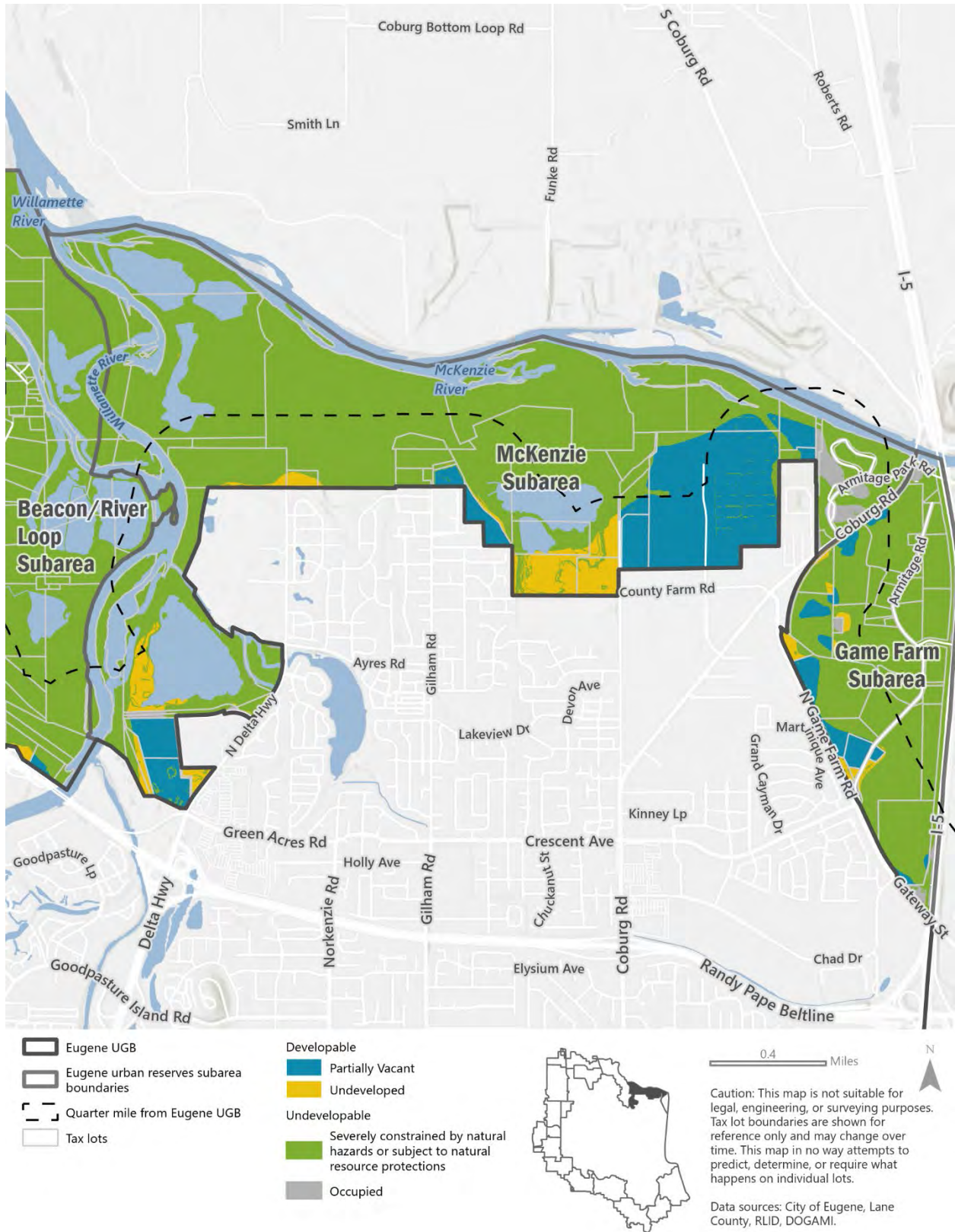
Land in M-5

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequence			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

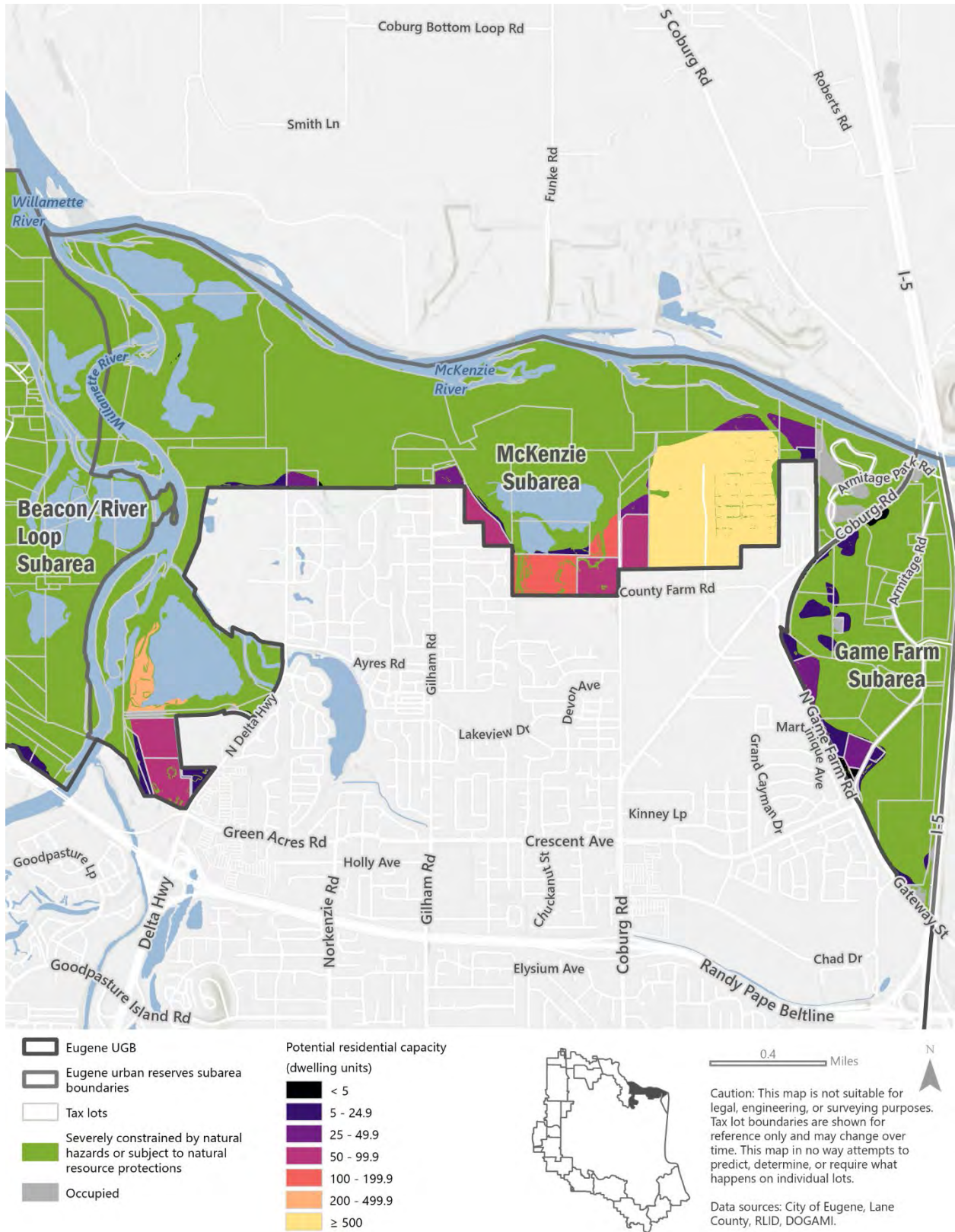
Map 2.3 Suitability Results, McKenzie Subarea



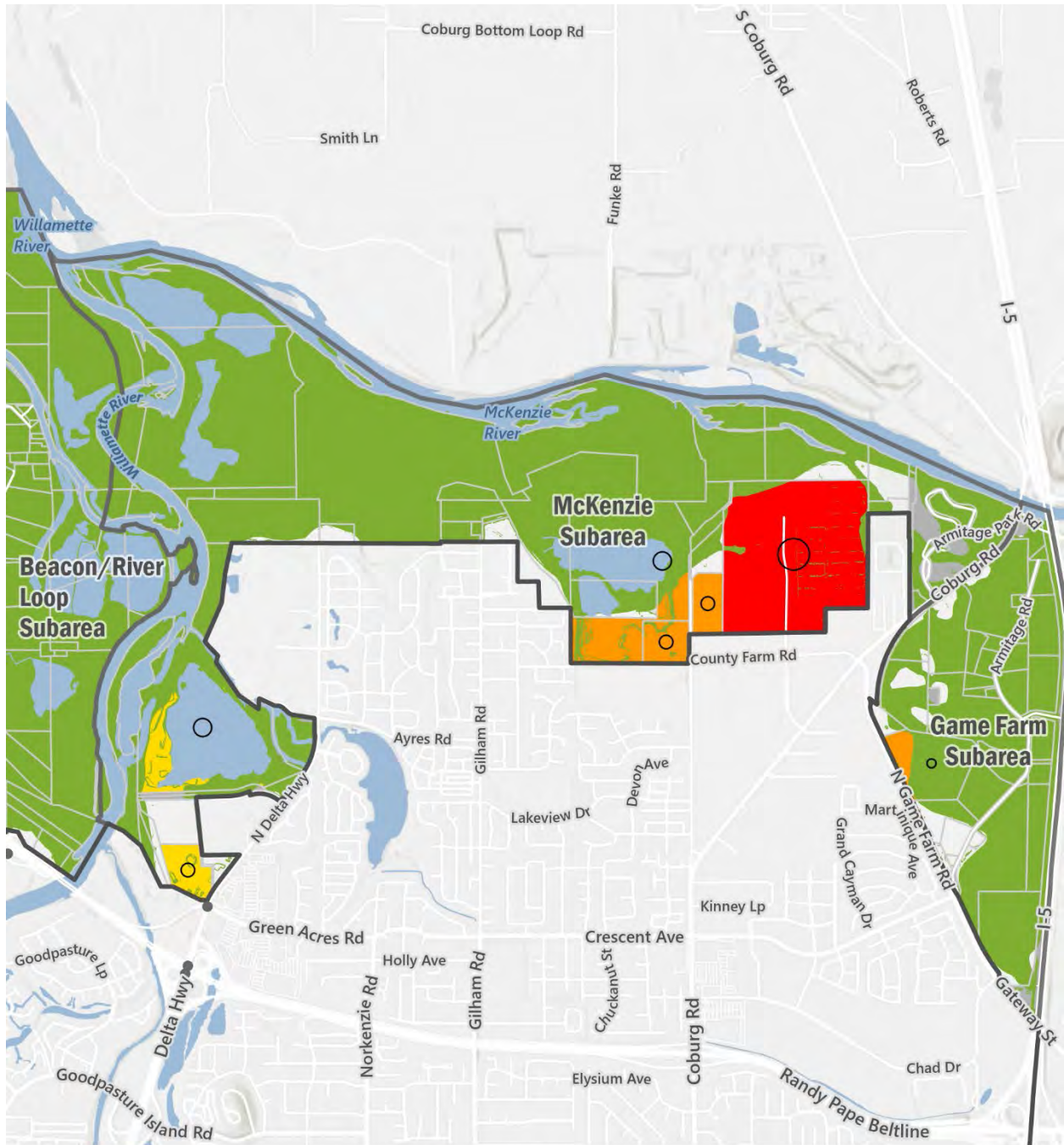
Map 2.4 Development Potential, McKenzie Subarea



Map 2.5 Potential Residential Capacity, McKenzie Subarea



Map 2.6 Potential Industrial Capacity, McKenzie Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied
- Freight Route Access Points

- Tax lots meeting industrial criteria
 Developable acres per tax lot
- 5 - 9 ac
 - 10 - 19 ac
 - 20 - 49 ac
 - 50 - 74 ac
 - 75+ ac

- Tax lots meeting industrial criteria
 Driving distance to a freight route
- 1 mile
 - 1.5 miles
 - 2 miles



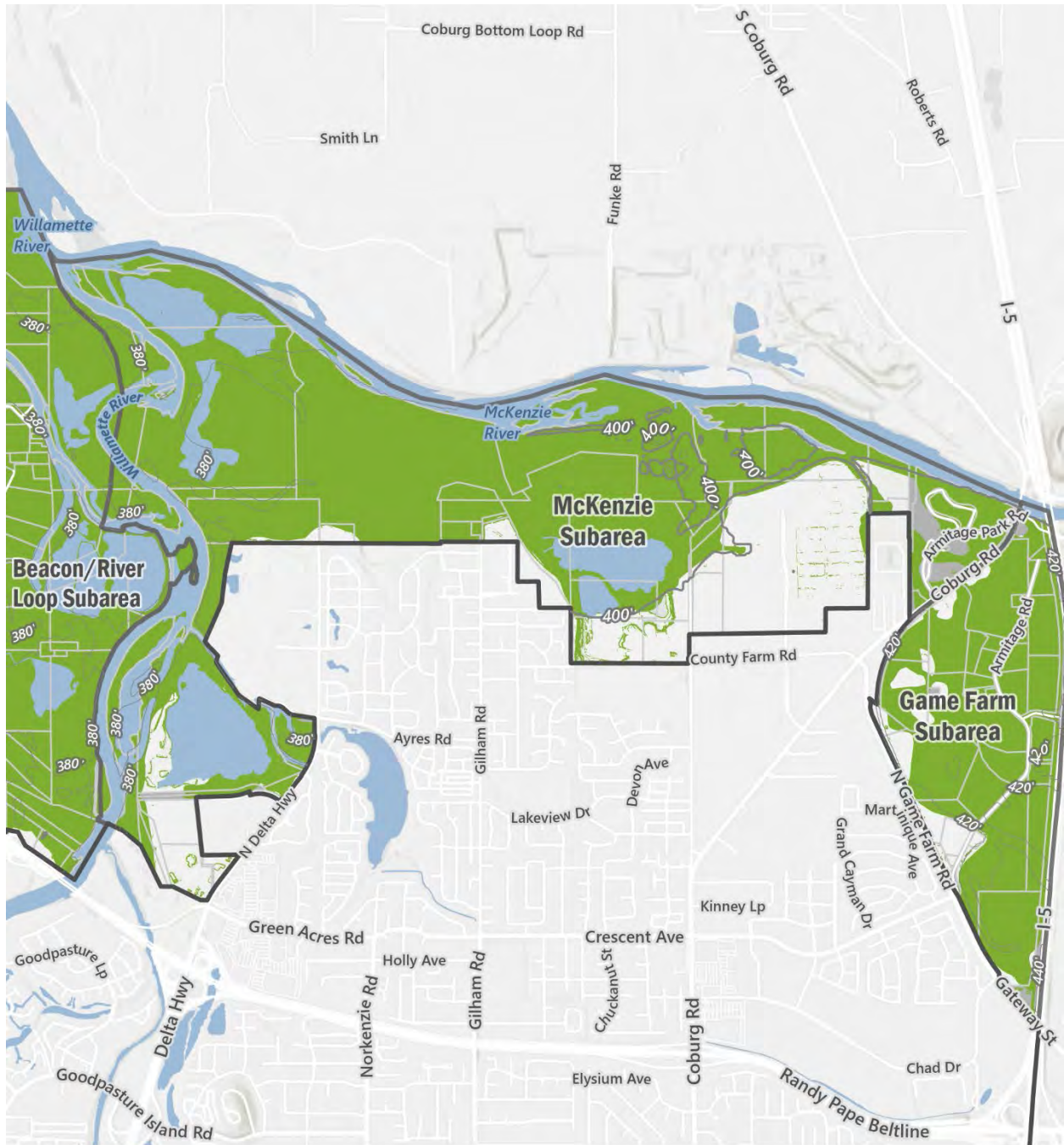
0.4 Miles








Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 2.7 Contours and Hillshade, McKenzie Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Tax lots
-  Severely constrained by natural hazards or subject to natural resource protections
-  Occupied



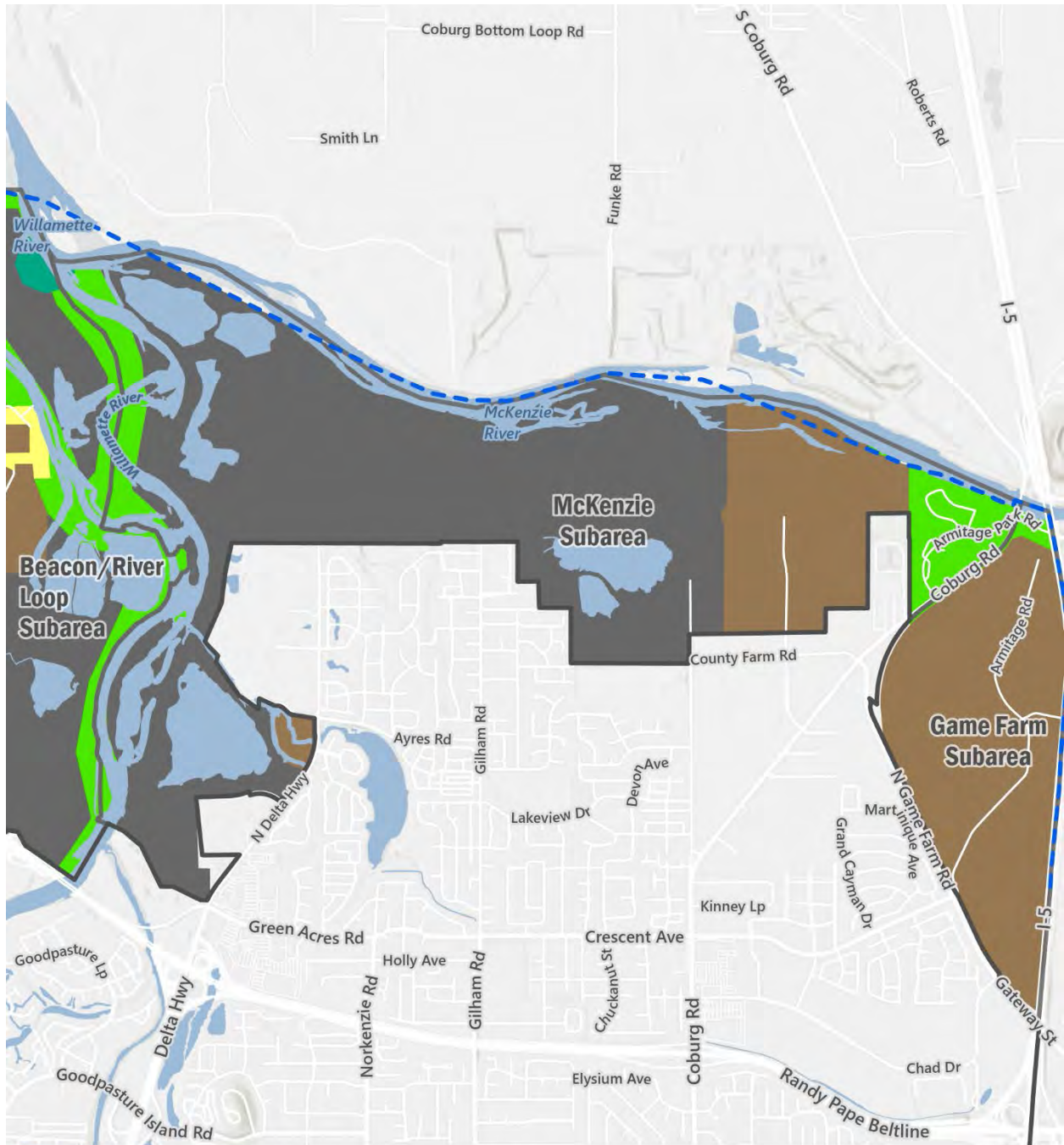
0.4 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 2.8 Comprehensive Plan Designation, McKenzie Subarea



- | | |
|---|----------------------------|
| Metro plan boundary | Industrial |
| Eugene UGB | Marginal |
| Eugene urban reserves subarea boundaries | Natural resource: mineral |
| Rural comprehensive plan designation | Natural resource: wildlife |
| Agriculture | Non resource |
| Airport | Parks |
| Commercial | Public facility |
| Forest | Residential |

- | |
|-------------------------------|
| Metro plan designation |
| Agriculture |
| Airport reserve |
| Forest land |
| Government & education |
| Natural resource |
| Parks and open space |
| Rural commercial |
| Rural industrial |
| Rural residential |
| Sand and gravel |



0.4 Miles

Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

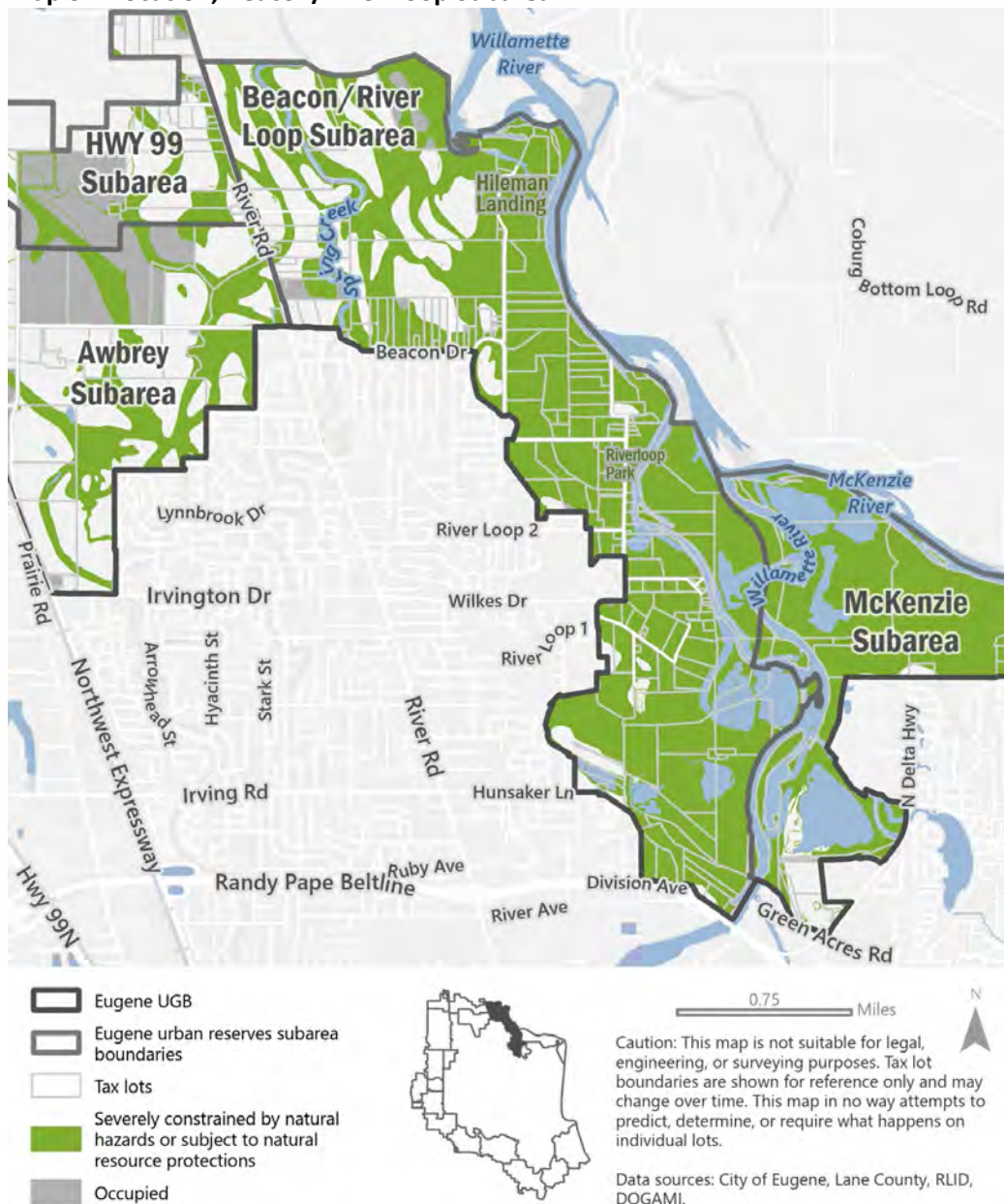
Data sources: City of Eugene, Lane County, RLID, DOGAMI.

3. Suitability Analysis – Beacon/River Loop

I. Background

- A. Location:** The land in the Beacon/River Loop subarea is located to the north of Eugene, adjacent to the UGB, and includes land to the west of the Willamette River and to the east of River Road. To the west is land in the Highway 99 and Awbrey subareas. To the east, across the Willamette River, is land in the McKenzie Subarea. See **Map 3.1 Location**, below and **Maps 3.2-3.8** for additional information relevant to the subarea analysis.

Map 3.1 Location, Beacon/River Loop Subarea



- B. Existing Land Uses:** Of the 2,702 acres of land in the subarea, only 332 acres have potential for future residential or employment development. This is primarily due to the land in the subarea's location adjacent to the Willamette River, which includes extensive side channels and ponds, the confluence of the McKenzie River, and extensive floodplain. The land in the subarea is flat; it is primarily used for active agriculture including nurseries and food-producing farms and orchards. There is also land in and around the Willamette River designated and used for gravel mining. Rural residential development is located along River Loop 1, Chapman Drive, and Beacon Drive, and also sprinkled throughout the subarea on land designated for agriculture and rural residential. There are a number of existing commercial uses throughout land in the subarea. There is also public parkland in several places along the river: Lane County's 53-acre Hileman Landing Park and 1.5-acre Whiteley Landing Park, the City of Eugene's 6-acre River Loop Park, Oregon Park and Recreation District's 60-acre Beacon Landing, and two other public properties totaling approximately 19 acres. On the north edge of land in the subarea is a portion of the McKenzie River Trust's Green Island property.
- C. Barriers to Development:** The vast majority (84 percent) of land in this subarea is categorized as undevelopable land. Most of the land identified in green on the maps (severely constrained by natural hazards or subject to natural resource protections) is Federal Emergency Management Agency (FEMA) Special Flood Hazard Areas (floodway and 100-year floodplain). This floodplain is concentrated near the Willamette River but is also spread throughout land in the subarea. Both the Willamette River and Spring Creek, which runs north through land in the subarea, are adopted Lane County Goal 5 riparian corridors. There are also Goal 5 wetlands, steep slopes, and high-risk landslide areas coterminous with the flood hazard areas. Occupied land, identified as gray on the maps, is primarily composed of public parkland along the Willamette River. Within the UGB, the abutting Santa Clara and River Road neighborhoods contain an unusual patchwork of City and unincorporated land. This patchwork of City limits has created a fragmented system of services for police, fire, recreation, library and transportation which could hinder the ability of the land in the Beacon/River Loop to efficiently develop.
- D. Surrounding Land Uses:** The Willamette River and its associated uses, including natural resources, conservation, farming, recreation and gravel mining, is the dominant presence along the eastern edge of land in the subarea. Adjacent land in the McKenzie subarea also contains significant flood plain and gravel mining operations, concentrated along the Willamette and McKenzie rivers to the east. Land to the north of the subarea is predominantly used for agriculture, with Junction City approximately 5 miles north. The Santa Clara neighborhood is located along most of the subarea's western edge. River Road is the primary transportation corridor, and it also provides a border between the northern part of the subarea and the rural land in the Awbrey and Highway 99 subareas to the west. Within the UGB, adjacent land is developed as residential neighborhoods with scattered commercial uses. There is a complete network of neighborhood streets within the UGB, and potential for connections if land in this subarea were to be urbanized, however, as noted above, the Santa Clara neighborhood is composed of a patchwork of land both inside and outside of the city limits.
- E. Organization of this Analysis:** After an initial review, it became clear that for some parts of the Goal 14 Locational Factor analysis, the land in the Beacon/River Loop subarea needed to be considered and evaluated in terms of different areas due to substantial differences between the

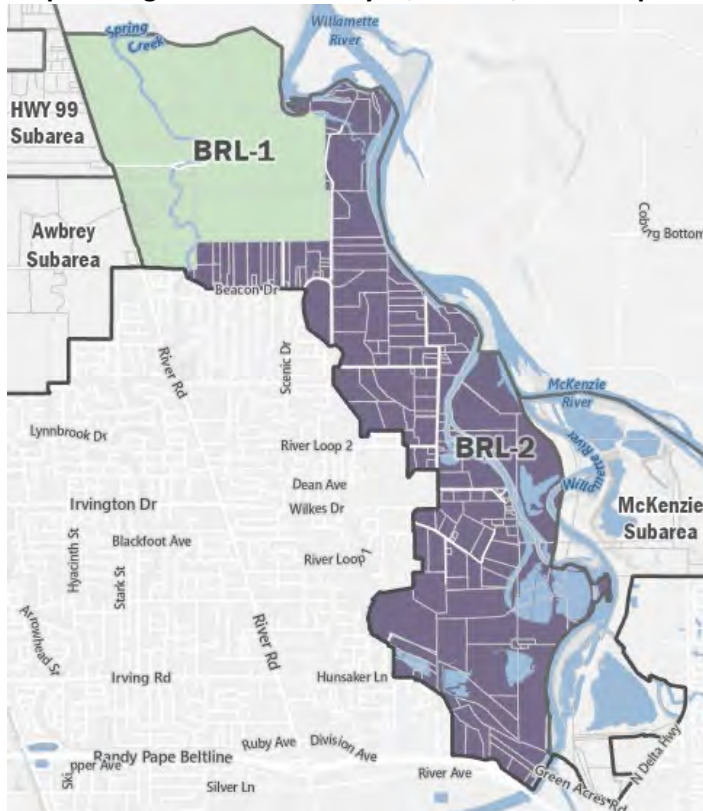
characteristics of the subarea. In summary, the portion of the subarea identified as BRL-1 is located in the northern portion of the UGB and abuts River Road to the west and Spring Creek to the east. BRL-2 encompasses the remainder of the subarea which is severely encumbered by natural hazards and natural resources.

BRL-1 (Land to the north/adjacent to River Road) – Includes the northern portion of the subarea and contains land adjacent to River Road, west of Hileman Lane. It includes 270 developable acres of land. Land in BRL-1 is characterized by large, active agricultural operations and ribbons of floodplain. It includes orchards, farms producing food crops, nursery operations and forested riparian areas along the Willamette River and Spring Creek. BRL-1 also contains a few lots of rural residential designated land on the corner of River Road and Beacon Drive adjacent to the UGB with a filbert orchard and residences.

BRL-2 (Land to the east, adjacent to the UGB & Willamette River) –BRL-2 includes only 62 developable acres but is the bulk of the land in the subarea, located between the Willamette River and the UGB. Land in BRL-2 is characterized by a predominance of flood hazard areas (including floodway and 100-year floodplain) and Goal 5 adopted riparian areas and wetlands. The primary use within BRL-2 is small-scale food-production farming. It also includes scattered rural residential development, a variety of small-scale commercial uses, parkland, and active gravel mining operations.

These different areas are shown on **Map 3.2 Organization of Analysis** below.

Map 3.2 Organization of Analysis, Beacon/River Loop Subarea



II. Identify land that would be suitable for urban reserves¹

A. Locational Factor 1: Efficient accommodation of identified land needs

To what extent is there ...

1. ***Developable land adjacent to or nearby (within .25 mile) of the UGB?*** The land in the Beacon/River Loop subarea includes 2,081 acres of which only 120 are classified as developable and located within lots² that have a portion of their boundary within .25 miles of the UGB, as shown on **Map 3.4 Development Potential**. There is limited developable land adjacent to or nearby (within .25 mile) the UGB due to the extent of land with natural hazards and natural resources, particularly floodplain. BRL-2 is almost entirely comprised of natural resource and natural hazard land. Most of the developable land nearby the UGB (within .25 mile) is scattered and diffuse; it is primarily in BRL-2, with a small area along Beacon Drive in BRL-1. Land that is within .25 miles of the UGB is likely to more efficiently accommodate the identified land needs than land that is further away from the UGB because of street, utility and neighborhood connections to already urbanized land. However, the majority of land in the abutting neighborhoods within the UGB is outside of city limits (unannexed) and without City services.
2. ***Partially vacant developable land (that could be developed for the identified land needs)?*** The land in the Beacon/River Loop subarea contains 332 developable acres, of which 302 acres are located on lots classified as partially vacant and 31 acres are on lots classified as undeveloped. Most of this land is located in BRL-1. The relatively low amount of undeveloped and partially vacant developable land, along with its fragmented distribution throughout both BRL-1 and BRL-2 due to the extent and pattern of the natural resource and natural hazard lands make efficient urbanization of this subarea more difficult.
3. ***Developable land that is identified in the capacity analysis³ as potentially able to be urbanized with a mix of residential housing? How does this translate into potential dwelling units (per the capacity analysis)?*** According to the residential capacity analysis shown on **Map 3.5 Residential Capacity Analysis**, the land in the subarea has capacity for 2,768 dwelling units or 8.3 dwelling units (du) per developable acre, which is significantly higher than 4.8 du/developable acre for the entire study area. While the proximity of the land in BRL-1 to River Road and its ease of serviceability (discussed next, in Locational Factor 2) make it potentially appropriate for a mix of residential housing, urbanization would be fragmented and inefficient due to the extent and pattern of the floodplain and the low amount of scattered developable

¹ Please refer to Section II C of the Eugene Urban Reserve Study for background on how the City identifying land in the study area that would be “suitable” for urban reserves, the explanation of the prompts used for the Goal 14 Locational Factors, and specific terminology.

² In the urban reserves study area, ‘lots’ are used for analysis purposes. See the Eugene Urban Reserves Technical Memo, Eugene Urban Reserves Technical Analysis Memo (Findings Appendix 4) , for complete information.

³ For information on how residential development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Analysis Memo (Findings Appendix 4). Factors such as lot size, slope, and elevation impact average residential density, based on actual development patterns within the UGB.

land. Land in BRL-2 has even more constraints, as already noted. Additionally, the very limited amount of developable land in the southern portion of BRL-2 is less able to efficiently accommodate a mix of (or any) residential housing due to the presence of active gravel mining operations.

4. ***Developable land that is identified in the capacity⁴ analysis as potentially able to be urbanized with industrial land need? How does this translate into potential industrial sites (per the capacity analysis)?*** There are three lots, all located within BRL-2, that are identified in the capacity analysis as potentially able to be urbanized with industrial land, as shown on **Map 3.6 Potential Industrial Capacity**. These lots all contain less than ten acres of developable land and a significant amount of each lot contains FEMA-mapped floodplain. These lots are also adjacent to existing residential neighborhoods within the UGB, making industrial use unlikely. There are no lots in BRL-1 that are identified as potentially able to be urbanized with industrial land.

5. ***Topography, steep slopes or other “undevelopable”⁵ lands that would make efficient urbanization difficult?*** “Undevelopable” lands are shown as gray and green on all the analysis maps. The land in the Beacon/River Loop subarea is largely flat, with no tax lots with predominant slope classification greater than 10 percent, as shown on **Map 3.7, Contours and Hillshade**. A vast majority (84 percent) of the land in the subarea is categorized as “undevelopable” due primarily to the predominance of flood hazard areas, or floodplain. This floodplain is concentrated near the Willamette River on land in BRL-2 but is also spread throughout the subarea on land in BRL-1. There are also Goal 5 riparian areas, wetlands, steep slopes, and high-risk landslide areas coterminous with the flood hazard areas. Occupied land, identified as gray on the maps, is primarily composed of public parkland along the Willamette River. It would be very difficult to develop around these flood hazard areas in an efficient manner, especially where the “undevelopable” land impedes connectivity to existing roadways, such as along River Road in BRL-1 and Beacon Drive, in BRL-2.

Conclusion: *While the proximity of the land in **BRL-1** to River Road and its general ease of serviceability (discussed next, in Locational Factor 2) make it potentially appropriate for a mix of residential housing, urbanization would be fragmented and inefficient due to the extent and pattern of the floodplain and the low amount of scattered developable land. There are no lots in **BRL-1** that are identified as potentially able to be urbanized with industrial land. Therefore, land in **BRL-1** is mixed in its ability to efficiently accommodate identified land needs.*

⁴ For information on how industrial capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo (Findings Appendix 4)

⁵ As described in section II B of the Eugene Urban Reserve Study (Findings Appendix 2), land was assigned no development capacity if it falls within one of the these “undevelopable” categories: severely constrained by natural hazards or is designated or zoned to protect natural resources; or not vacant or partially vacant (i.e. the land is already occupied). However, areas identified as sand and gravel resources are not identified as land that is “undevelopable” in this urban reserves analysis. Urban reserves planning is very long-term planning; an intention to use an area for sand and gravel extraction could change and Goal 5 protections could be removed by the time the land is brought into the UGB.

The land in BRL-2 is almost entirely constrained by floodplain which hinders its ability to be efficiently urbanized with residential or industrial uses. Therefore, its ability to efficiently accommodate identified land needs is negative.

Efficient accommodation of identified land needs:	Positive	Mixed	Negative
Land in BRL-1			
Land in BRL-2			

B. Locational Factor 2: Orderly and economic provision of public facilities and services⁶

The information below addresses the feasibility of serving the developable land in the Beacon/River Loop subarea with public facilities and services in an orderly and economical way. It considers the capacity of the current system to serve the area and the extent of new infrastructure that would be needed to serve the area if urbanized. It includes an analysis of **wastewater, water, transportation, transit, stormwater, and fire/emergency services** and also, to a lesser extent, it includes the provision of **electricity, schools and parks.**⁷

Before the narrative description is a table showing the **generalized serviceability** of the subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff, and a **generalized cost estimate** to address the economics of serving the subject area with public facilities and services. It reflects preliminary high-level estimates for the major components of the individual systems. Cost information is provided on a \$ to \$\$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$\$) denoting the greatest cost. The scale used to evaluate each type of service is tailored to address the fact that some services are more expensive to provide than others. For example, a \$ for wastewater does not equate to the same dollar amount as a \$ for transportation. Cost estimates do not include future maintenance costs.

Beacon/River Loop Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Difficult	Moderate	Easy-Moderate	Easy-Moderate	Easy-Moderate	Easy-Moderate
Generalized cost estimate	\$\$\$\$\$	\$	\$\$	\$	\$\$	\$

1. **Wastewater:** The subarea is assigned a “difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. This is due to the need for a new pump station, lack of

⁶The definition of “public facilities and services,” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines, is: “[p]rojects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.”

⁷ The summarized information used in this section is based on the results of the Eugene Urban Reserves Serviceability Analysis Report (Findings Appendix 3). In providing information for that report, service providers considered the serviceability of the subareas in their entirety; they generally did not differentiate between areas within a subarea.

capacity in the downstream system, and impacts to the existing Spring Creek pump station. Constructing the infrastructure required to serve this area would be costly because it would disrupt both the existing roadway and the downstream pipes.

2. **Water:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$. This is because distribution facilities are adjacent to these areas. Ownership of these facilities is predominately by Santa Clara Water District and improvements to portions of the infrastructure would need to be made to facilitate delivery to these areas. Extension of water service to the River Loop area shown is problematic because it does not provide an opportunity to have a looped distribution system which results in poor water quality and lower reliability to customers on a single feed system.
3. **Fire:** The subarea is assigned an “easy to moderate” serviceability rating and the generalized cost estimate for improvements is \$-\$\$\$\$. Eugene-Springfield Fire and Emergency Services indicated that given the proximity to the nearest City fire stations and existing street network, it appears response times to this subarea would be acceptable.
4. **Transportation:** The subarea is assigned an “easy to moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$. This is due to the existing street network, potential for new connections, need for multimodal improvements, and existing transit service along River Road.
5. **Transit:** The subarea is assigned an “easy to moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. This is due to the existing street network, potential for new connections, need for multimodal improvements, and existing transit service along River Road.
6. **Stormwater:** The subarea is assigned an “easy to moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$. The flat topography and potential downstream capacity constraints make extending a more traditional piped stormwater service into the area moderately challenging.
7. **Other (Parks, Schools, Electric):** This area contains several parks along the Willamette River. There is public parkland in several places along the river: Lane County’s 53-acre Hileman Landing Park and 1.5-acre Whiteley Landing Park, the City of Eugene’s 6-acre River Loop Park, Oregon Park and Recreation District’s 60-acre Beacon Landing, and two other public properties totaling approximately 19 acres. On the north edge of the subarea is a portion of the McKenzie River Trust’s Green Island property. There are multiple nearby parks within the UGB, including Wendover Park, Terra Linda Park, Lone Oak Park, and the Santa Clara Community Park. The majority of the area in BRL-2 is served by the Eugene 4J School District, while the northern portion is in the Junction City school district. EWEB provides electrical service to the eastern portion of this area, and Emerald People’s Utility District (EPUD) provides service to the area north of Beacon Drive.

8. ***Is there undeveloped land within the UGB that would be helped in its development/serviceability if this area were included in urban reserves, or is there undeveloped land within the UGB that would negatively impact the orderly and economic provision of public facilities and services?*** Within the UGB, there is a minor amount of undeveloped and partially vacant land adjacent to BRL-2. Such land would potentially benefit in its future development and serviceability if this subarea were included in urban reserves. Adjacent to BRL-2, there is land within the UGB that is developed but outside of city limits served by a variety of utility and emergency service providers, which may present challenges to cost-efficient service delivery if this subarea were urbanized.

Conclusion: Based on input from service providers, the land in the Beacon/River Loop subarea is considered easy to moderately easy to serve with all public facilities and services, except for wastewater, which would be difficult to provide to the area. The land in the subarea benefits from its flat topography and adjacency to the UGB, which makes extending services relatively easy. However, land in **BRL-2** is almost completely encompassed by natural resource and natural hazard land and the small amount of developable land is restricted by natural resource and natural hazard land that parallels roadways. While there is slightly more developable land in **BRL-1**, tendrils of natural resource and natural hazard land hinder its ability to be served efficiently. This creates significant difficulties for efficiently accommodating identified land needs, as noted in Locational Factor 1, and also for extending services to the developable land in an orderly and economic manner. Additionally, land in both **BRL-1** and **BRL-2** abut land inside the UGB that is outside of city limits and are reliant on this land urbanizing first. Therefore, the rating is “mixed” as land in the Beacon/River Loop subarea could be provided with public facilities and services in only a moderately orderly and economic manner.

Orderly and economic provision of public facilities and services:	Positive	Mixed	Negative
Land in BRL-1			
Land in BRL-2			

C. Locational Factor 3: Comparative environmental, energy, economic and social consequences

1. Environmental Consequences:

- a. *Presence of natural resources: To what extent would urbanization of this area negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources?*** Urbanization could negatively impact Goal 5 riparian areas and wetlands that are extensive in this subarea and provide habitat for many species, particularly on land in BRL-2. Most of the wetlands appear to be co-located with or adjacent to FEMA-mapped flood hazard areas. Urbanization on developable land in BRL-1 could negatively impact Spring Creek, which is a Lane County Goal 5 riparian corridor. Because of the extent and pattern of natural resources in BRL-1 and BRL-2, development could have negative impacts on water temperature, runoff, wildlife habitat and open space connectivity.

b. Presence of hazard areas (steep slope, landslides, floodplain): To what extent would urbanization of this area increase the potential risk of natural hazards, such as landslides, wildfire or flooding? FEMA-mapped flood hazard areas are categorized as “undevelopable” land, so urbanization is not assumed on them. However, nearby urbanization makes flood control more challenging, especially where flood hazard areas are adjacent to existing development. The proliferation of FEMA-mapped flood hazard areas on land in BRL-1 and BRL-2 could negatively impact future residents during a flood event. Urbanization of this subarea would increase the amount of impervious surface, which could increase the likelihood and impact of flooding. However, if urbanized, development would be subject to the city’s stormwater standards, which is intended to minimize runoff and mitigate impacts. Flood hazard land almost entirely encompasses BRL-2, and in BRL-1 flood hazard areas are laced throughout the subarea in a way that severely limits future development patterns from impacting them. There is a very small amount (5% of land in the subarea) of land with steep slopes and high-risk landslide areas.

c. Presence of nearby public open space: To what extent would nearby public open space benefit future residents of the area? Publicly accessible open space exists on land in this subarea near and along the Willamette River including Lane County’s 53-acre Hileman Landing Park and 1.5-acre Whiteley Landing Park, the City of Eugene’s 6-acre River Loop Park, Oregon Park and Recreation District’s 60-acre Beacon Landing, and two other public properties totaling approximately 19 acres. On the north edge of land in the subarea is a portion of the McKenzie River Trust’s Green Island property. There are multiple nearby parks within the UGB, including Wendover Park, Terra Linda Park, Lone Oak Park, and the future Santa Clara Community Park. Future residents would benefit from this open space.

Conclusion: Overall, there would be negative (high) environmental consequences due to the large presence of land mapped as natural hazard and natural resources if land in this subarea were to urbanize.

The environmental consequences of urbanizing the land in **BRL-1** are negative. While the land in **BRL-1** is less constrained by natural hazards and natural resources than land in BRL-2, there are extensive ribbons of natural resource and natural hazard land which bifurcate the area and urbanization would be very difficult to achieve without causing significant environmental consequences.

Urbanization of the land in **BRL-2** would have negative (high) environmental consequences due to the predominance of natural hazard and natural resource land. There would be negative environmental consequences, primarily due to flood risk, if the small areas of developable land surrounded by flood plain were to urbanize.

Environmental Consequences:	Positive (low)	Mixed (medium)	Negative (high)
Land in BRL-1			
Land in BRL-2			

2. Energy Consequences (priority for lower energy usage):

- a. To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt)?** Land in BRL-1 and BRL-2 is not well-suited to co-locate a variety of housing types, jobs, and services in order to provide a 20-minute neighborhood (where homes, jobs and services can be reached on foot within 20 minutes thereby limiting the need for vehicle trips and having positive energy impacts), due to the low amount and inefficient distribution of developable land caused by the extent of natural resource and natural hazard lands. BRL-1 contains the majority of developable land in the subarea and as shown on **Map 3.5 Potential Residential Capacity**, there is a mix of larger lots to the north with high potential residential capacity (>500 dwelling units per lot). While BRL-1 has higher residential capacity, it is more isolated, and both the meandering floodplain, Goal 5 riparian corridor and existing development limit its potential urbanization with a variety of uses. Land in BRL-2 is poorly suited to co-locate a variety of housing types, jobs and services, given the very small amount and inefficient distribution of land considered developable due to the extent of flood hazard areas and natural resource land.
- b. To what extent is the area easily accessible to other services or uses (e.g., neighborhood commercial, parks, schools)?** Due to the land in the subarea's proximity to the UGB, parks, schools and neighborhood commercial services are within relatively close proximity. Located especially close to land in BRL-2 within the UGB are Awbrey Park Elementary School and Madison Middle School. As mentioned previously, there are multiple parks both within land in the subarea and nearby within the UGB, including Wendover Park, Terra Linda Park, Lone Oak Park, and the Santa Clara Community Park. Within the land in the subarea there is Lane County's 53-acre Hileman Landing Park and 1.5-acre Whiteley Landing Park, the City of Eugene's 6-acre River Loop Park, Oregon Park and Recreation District's 60-acre Beacon Landing, and two other public properties totaling approximately 19 acres. On the north edge of the land in the subarea is a portion of the McKenzie River Trust's Green Island property. Within BRL-2 there are some farm stands but relatively little other neighborhood commercial uses. Land in BRL-2 is accessible to a variety of commercial uses within the UGB located near River Road. Having these services in close proximity and accessible by neighborhood streets reduces the negative energy impacts of this subarea by reducing vehicle travel. The majority of land in BRL-1 appears to be farmed for food production and nursery stock; there are some farm stands, but little other neighborhood commercial uses. Across from land in BRL-1, there is a private school on River Road. Land in BRL-1 is significantly farther from services and neighborhood commercial uses than land in BRL-2, but it does have direct access to River Road. Given the relatively flat topography and street system, walking and bicycling from BRL-2 may be an option, keeping energy consequences low.
- c. To what extent is the area adjacent to or nearby the UGB? (see Locational Factor 1, A.2))** As already noted, the land in the Beacon/River Loop subarea is adjacent to the UGB the land in the subarea that is adjacent to the UGB has limited development capacity, as shown on **Map 3.4 Development Potential**.

- d. To what extent is there good multi-modal transportation access to this area? To what extent is the area easily accessible to job centers and downtown?** As noted above, there is good transportation access to land in this subarea, particularly to land in BRL-1 via River Road, but also via neighborhood street connections to land in BRL-2. River Road provides the main connection to downtown Eugene; within the UGB River Road has sidewalks, bike lanes, and transit service. Beyond River Road, the land in BRL-1 is constrained by ribbons of floodplain and Spring Creek, which would limit the ability to construct an efficient roadway system. In land in BRL-2, there is potential for good local street access from the existing neighborhoods adjacent to the UGB, but these local streets and neighborhood collectors would need to be improved with sidewalks and bike lanes to allow for multi-modal transportation. The south portion of land in BRL-2 is adjacent to Randy Papé Beltline but the gravel mining operation and extensive FEMA-mapped floodplain prohibit access from the rest of the subarea.
- e. To what extent does future urbanization directly or indirectly generate energy or climate burdens (e.g., loss of open space, loss of growing lands, increased traffic, increased carbon emissions)?** Future urbanization of land in BRL-1 and BRL-2 would directly and indirectly generate energy and climate burdens due primarily to the significant loss of growing lands, increased vehicle traffic, and increased carbon emissions. As noted, there is good transportation access to employment in downtown Eugene, but if future residents rely on single occupancy vehicles to commute to job centers, increased emissions will have a negative impact. The presence of flood hazard areas on land in BRL-2 would not allow for efficient urbanization of identified land needs (Locational Factor 1), so energy and climate consequences of development in these areas would be negative (high).

Conclusion: As described above, there are negative (high) energy consequences to urbanizing the developable land in **BRL-1**. While the flat topography and access to River Road aid in some of the land’s potential for co-locating a variety of housing, jobs, and services, limiting the need for vehicle trips, the land is also constrained significantly by ribbons of floodplain and Goal 5 resources, which would limit the construction of an efficient road system for both vehicle and multi-modal travel. Additionally, there would be a significant loss of food production farms if land in **BRL-1** were to urbanize. Therefore, there would be negative energy and climate impacts if this land were to urbanize.

While **BRL-2** is adjacent to the UGB and in proximity to existing neighborhood centers, urbanization will overall have negative energy consequences for the land in **BRL-2** due to the extent and presence of floodplain areas not allowing for efficient urbanization of identified land needs, as documented in Locational Factor 1. Additionally, land in **BRL-2** has a predominance of agricultural land which would be lost with urbanization, creating indirect energy burdens due to the loss of farmland. Therefore, energy and climate consequences of development in this area would be negative (high).

Energy Consequences:	Positive	Mixed	Negative
Land in BRL-1			
Land in BRL-2			

3. Economic Consequences:

- a. ***In general, how much economic activity would urbanization of this area bring? (Ex: Additional construction opportunities)?*** The land in Beacon/River Loop subarea contains 332 acres of developable land. Based on generalized capacity assumptions, this land could accommodate 2,768 residential dwelling units. The developable land in BRL-1 has the most opportunity for bringing economic activity due to the size of lots and the amount of developable land, but the ribbons of floodplain and Goal 5 riparian corridor would result in an inefficient development pattern, making it less suitable for economic activity. While land in BRL-2 is adjacent to the UGB and easy to moderate to serve, due to the presence of extensive flood hazard areas, it has very little developable land (62 acres), and is not likely to efficiently accommodate identified land needs (see Locational Factor 1), so the likelihood of urbanization and associated economic activity is low. The land in this subarea is not well suited for urbanization for industrial uses, as described above, which further limits the anticipated economic benefits of future urbanization.
- b. ***Is the area appropriate for future urbanization with a variety of identified uses (not just LDR), to support connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a)*** In BRL-1 there is a mix of larger lots to the north with high potential residential capacity (>500 dwelling units per lot), however, this land is also more isolated, and both the floodplain, a Goal 5 riparian corridor limit its potential urbanization. Land in BRL-2 has a low likelihood of developing as a complete neighborhood because of the extensive flood hazard area and the fragmented nature and minor amount of developable lands.
- c. ***Are there concerns about future urbanization causing a loss of economic activity for existing and nearby uses? (also see Locational Factor 4)*** Given that existing uses both within BRL-1 and BRL-2 are primarily agriculture, specifically nurseries, orchards and food producing farms, there is significant concern about future urbanization causing a loss of economic activity for local farms in this subarea. Loss of existing farms and nurseries in this subarea would have a negative impact on Eugene’s food supply system as well as the networks and resource-sharing that local farms in and near this subarea currently benefit from. Urbanization on land in BRL-1 could put development pressure on adjacent farms and nurseries with developable land. Land in the southern portion of BRL-2 is being used for active gravel mining and redevelopment around its edge could put pressure on how it is used.
- d. ***How cost-efficient is service provision in this area? (also see Locational Factor 2)*** As noted in Locational Factor 2, due primarily to the flat terrain and proximity to existing urban services, land in the Beacon/River Loop subarea is considered moderate for efficient provision of public services.

Conclusion: *The land in BRL-1 contains some large, flat lots, with high residential capacity, adjacency to River Road, with moderate costs to extend services. However, the development potential of the land is constrained by significant natural hazards and natural resources. Future urbanization could cause a loss of economic activity for local farms in this subarea. Therefore, the economic consequences of urbanization are mixed.*

Urbanization will have negative economic consequences for the land in BRL-2 as it contains little developable land that would be able to efficiently accommodate identified land needs due to the extent of natural resource and natural hazard lands. Additionally, there could be negative economic impacts on existing farm-related businesses which rely on nearby agricultural lands and may be at risk of displacement.

Economic Consequences:	Positive	Mixed	Negative
Land in BRL-1			
Land in BRL-2			

4. Social Consequences: ⁸

- a. Will urbanization negatively impact current residents?** There appear to be few residences located within land in BRL-1 and scattered rural residential development on land in BRL-2. The residential development on land in BRL-2 is on undevelopable land that is constrained by natural resource and natural hazard land. Rural residences appear to be mostly located on land within BRL-2 with only a few located on land in BRL-1 along River Road. While urbanization may negatively impact some existing residents on land in BRL-1 and BRL-2 due to increased noise, traffic, and impacts to their viewshed, urbanization could also have positive social consequences by providing additional development opportunities for landowners and access to more services and neighborhood commercial uses, especially towards the northern portion of land in BRL-1. Improvements to the roadway system and improved delivery of public services could also benefit existing nearby residents, but these improvements would be difficult due to the amount of undevelopable land. However, residents of small farms on agricultural lands both in BRL-1 and BRL-2 would be highly impacted by urbanization as it could lead to displacement of their farms and could also lead to odor, safety and other complaints from neighbors which could negatively impact the existing agricultural practices.

- b. How would urbanization worsen or improve service delivery to residents in this area (e.g. adequate fire response times, access to water, parks)? (also see Locational Factor 2)** As noted in Locational Factor 2, it appears that emergency response times to land in this subarea would be acceptable, given its proximity to City fire stations and the existing street network. Lane Fire Authority, Santa Clara Rural Fire Protection District, and Eugene-

⁸ The definition of “social consequences” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines is: “[t]he tangible and intangible effects upon people and their relationships with the community in which they live resulting from a particular action or decision.”

Springfield Fire Department already coordinate services near this subarea within the UGB due to the patchwork of city limits, so urbanization of this subarea may lead to service delivery improvements and benefit residents both inside and outside the UGB. Urbanization would provide an opportunity for residents to access EWEB water service and City of Eugene wastewater service. As mentioned previously, existing residents on land in BRL-1 and BRL-2 already benefit from several parks and natural areas within and near to the subarea. Additional neighborhood parks may be needed if the area urbanizes, in accordance with the City's service standards, which would benefit all residents.

- c. Will urbanization exacerbate the impacts of potential natural hazards, such as flooding, fire, and landslides? (also see Locational Factor 3, Environmental Consequences C.1.b)** Eighty percent of land in the subarea is considered undevelopable due to natural resource and natural hazard land throughout land in BRL-1 and on almost all of land in BRL-2. The natural hazard land includes FEMA mapped flood hazard areas and small pockets of steep slopes and high-risk landslide areas. As already noted, urbanization of the adjacent developable land in BRL-1 and BRL-2 could exacerbate the impacts of flooding. There are no identified wildfire hazards in the subarea.
- d. How might urbanization in this area impact vulnerable populations⁹ and underserved groups currently living in the subarea? Could one segment of the population be impacted more than another (e.g., low-income households)?** There could be negative impacts to vulnerable populations and underserved communities like low-income households in both land in BRL-1 and BRL-2 if smaller farms, related businesses, and residences were displaced as urbanization occurs. However, the remaining agriculture in and near this subarea could benefit from the increased economic activity attributed to urbanization. The land within BRL-2 that is identified as suitable for urbanization with industrial uses, as shown on the Potential Industrial Capacity map, are located adjacent to existing residential development and could disproportionately burden vulnerable and underserved groups if they were to develop with industrial uses.
- e. Will urbanization in this area allow for connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a)** Future residents would benefit from access to parks and open space, which increases the social benefits of urbanization in this subarea. However, as already noted, there is low likelihood of complete neighborhoods developing in this subarea because of the extensive natural hazard and natural resource lands in BRL-2 and the fragmented and dispersed nature of the developable lands in BRL-1.

⁹ Vulnerable populations are defined as populations that identify as a non-white race or ethnicity, younger or older populations, populations with a disability, and/or single-headed households. Data is from Livability Lane, 2013 Equity and Opportunity Assessment, Social and Demographic Characteristics Map. The extent to which vulnerable populations and underserved groups currently live in the subarea is speculative.

Conclusion: *As described more fully above, urbanization of land in **BRL-1** would have negative social consequences. The land in **BRL-1** contains existing businesses which are reliant on the nearby agricultural operations which could be at risk of displacement if the subarea urbanizes. In addition to being at risk of displacement, some of these businesses also provide local produce to the community. The ribbons of natural hazard and natural resource land, which are primarily flood hazard areas, limit the potential for connected, integrated neighborhoods and increase the risk of flooding.*

*The land in **BRL-2** contains small farms that, in addition to being at risk of displacement, also provide local produce to the community and would be highly impacted by urbanization. Additionally, land in **BRL-2** is unlikely to efficiently accommodate urban-levels of development due to the presence of natural hazard and natural resource areas, and urbanization could exacerbate the impacts of flooding. Therefore, the urbanization of land in **BRL-2** would result in negative social consequences.*

Social Consequences:	Positive	Mixed	Negative
Land in BRL-1			
Land in BRL-2			

Locational Factor 3 Conclusion:

For the land in **BRL-1**, the analysis under Locational Factor 3 shows that urbanization would have negative Environmental, Energy and Social consequences, and mixed Economic consequences.

For the land in **BRL-2**, the analysis under Locational Factor 3 shows that urbanization would have negative Environmental, Energy, Economic and Social consequences.

D. Locational Factor 4: Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

1. How will urbanization impact agricultural and forest activities on farm and forest designated land within the subarea? All of the land in BRL-1 is agriculturally designated and the majority of land in BRL-2 is agriculturally designated, as shown on **Map 3.8 Comprehensive Plan Designation**. There are no forest designated lands in the subarea. Throughout the land in the subarea, urbanization may cause noise, odor and safety conflicts which may impact the plentiful agricultural activities in the area. Within land in BRL-1, there is plant nurseries/garden supply store, and a large farm retail operation. On land in BRL-2 there is a plant nursery as well as numerous farm stands that serve nearby residents. If the existing businesses aren't displaced by urbanization, they could benefit from increased customers. A buffer (even across a main roadway) between residential development and active farm practices, would help with compatibility. On land in BRL-2, there are numerous small-scale food producing farms, nurseries, and orchards operating near the Willamette River which could be at risk of displacement if the subarea urbanizes.

2. Is urbanization compatible with existing agricultural and forest uses on farm and forest designated land nearby (outside of the subarea)? Outside of land in the subarea, there are active farming operations north and west of land in BRL-1 that range in size. Future urbanization on land in BRL-1 appears to be incompatible with the agricultural uses in the surrounding area which may be displaced or potentially conflict with future uses. Nearby farms that do not sell their products onsite would not benefit from increased customers and would be negatively impacted if land in BRL-1 urbanized. Those farms, especially north of land in BRL-2, currently benefit from the buffer that the Beacon/River Loop subarea provides between them and urbanization within Eugene’s UGB; if land within the subarea were to urbanize or change use, farms north of the subarea would potentially lose that buffer and compatibility issues would likely increase.

Conclusion: *All of the land in **BRL-1** is designated for agriculture, except at the corner of Beacon and River Road. It contains large filbert orchards, a wholesale nursery, and active food-producing farmland with retail along River Road. Land in **BRL-1** also borders similar agricultural operations to the north and west. Future urbanization of the developable land in **BRL-1** would be incompatible with surrounding farm activities and could displace farm uses.*

*The land in **BRL-2** is a mix of designations and contains very little developable land. Land designated for agriculture contains plant nurseries and quite a few small active farms that provide food to the community. Urbanization of the developable land along Beacon Drive in **BRL-2** could have negative impacts to nearby agricultural activities as it serves as a buffer between active farm operations in BRL-1 and residential uses. Urbanization of land in **BRL-2** is not compatible with nearby agricultural uses because of the risk of losing those businesses that currently serve the community.*

Compatibility with nearby agriculture and forest activities	Positive	Mixed	Negative
Land in BRL-1			
Land in BRL-2			

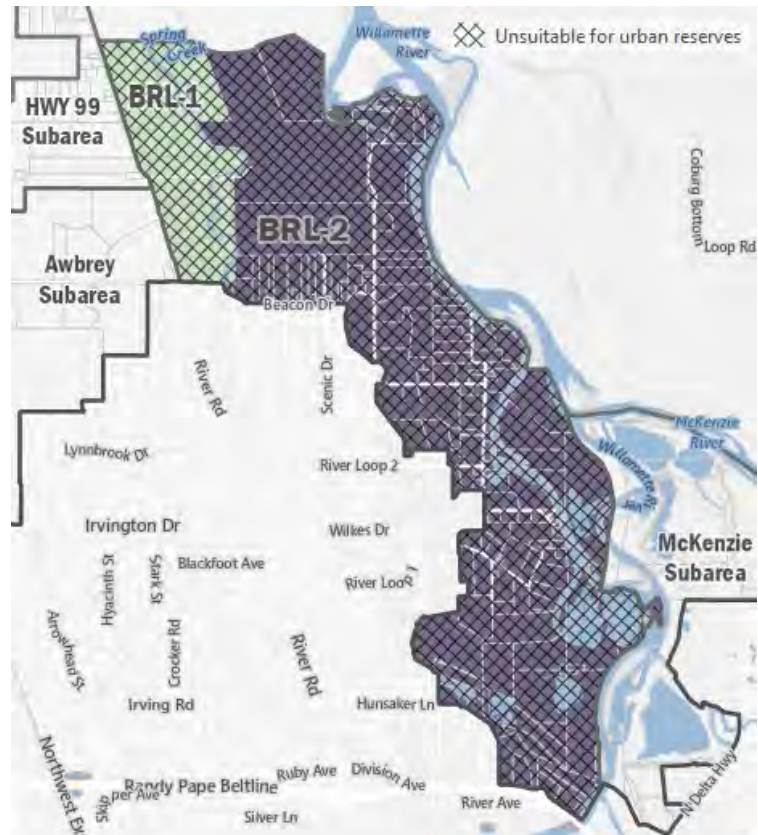
III. Conclusion

Considering and balancing the Goal 14 Locational Factors as analyzed above, there would be some positive and some negative aspects of future urbanization of the Beacon/River Loop subarea, as detailed in the above analysis, summarized below and shown in the summary tables on the following pages:

The land in **BRL-1** includes the northern portion of the subarea adjacent to River Road, east to Hileman Lane; it contains 270 developable acres. It is generally flat, with capacity for future urbanization. The Locational Factor conclusions were “mixed” and “negative” in their findings: Locational Factors 1, 2, and 3(c) were mixed and Locational Factors 3(a), 3(b), 3(d), and 4 were negative. The developable land is constrained by ribbons of natural resource and natural hazard land, which includes Spring Creek, a Goal 5 riparian corridor. Land in BRL-1 is designated and mainly used for agriculture. Future urbanization of the developable land in BRL-1 would be incompatible with surrounding farm activities and could displace farm uses which provide local produce to the community. This land also serves as a buffer between residential development occurring inside the UGB and agricultural activities located outside of the UGB. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in BRL-1 result in a determination that it is not suitable for urban reserves designation at this time.

The land in **BRL-2** was analyzed in the same manner. It contains 62 developable acres and is characterized by active agricultural uses, gravel mining operations and lack of development capacity due to the extensive floodplain throughout most of the subarea. In evaluating the land in **BRL-2**, the Locational Factor conclusions were mostly “negative” in their findings: only Locational Factor 2 was mixed and Locational Factors 1, 3(a), 3(b), 3(c), 3(d), and 4 were negative. The land in BRL-2 is severely constrained by natural resource and natural hazard land which significantly limits future development opportunities. Additionally, land in BRL-2 serves as a buffer between residential development occurring inside the UGB and agricultural activities located to the north outside of the UGB. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in BRL-2 result in a determination that it is not suitable for urban reserves designation at this time.

Please see the summary tables on the following pages, and **Map 3.3 Suitability Results**.



Summary
Beacon/River Loop Subarea
Not Suitable for Urban Reserves Designation

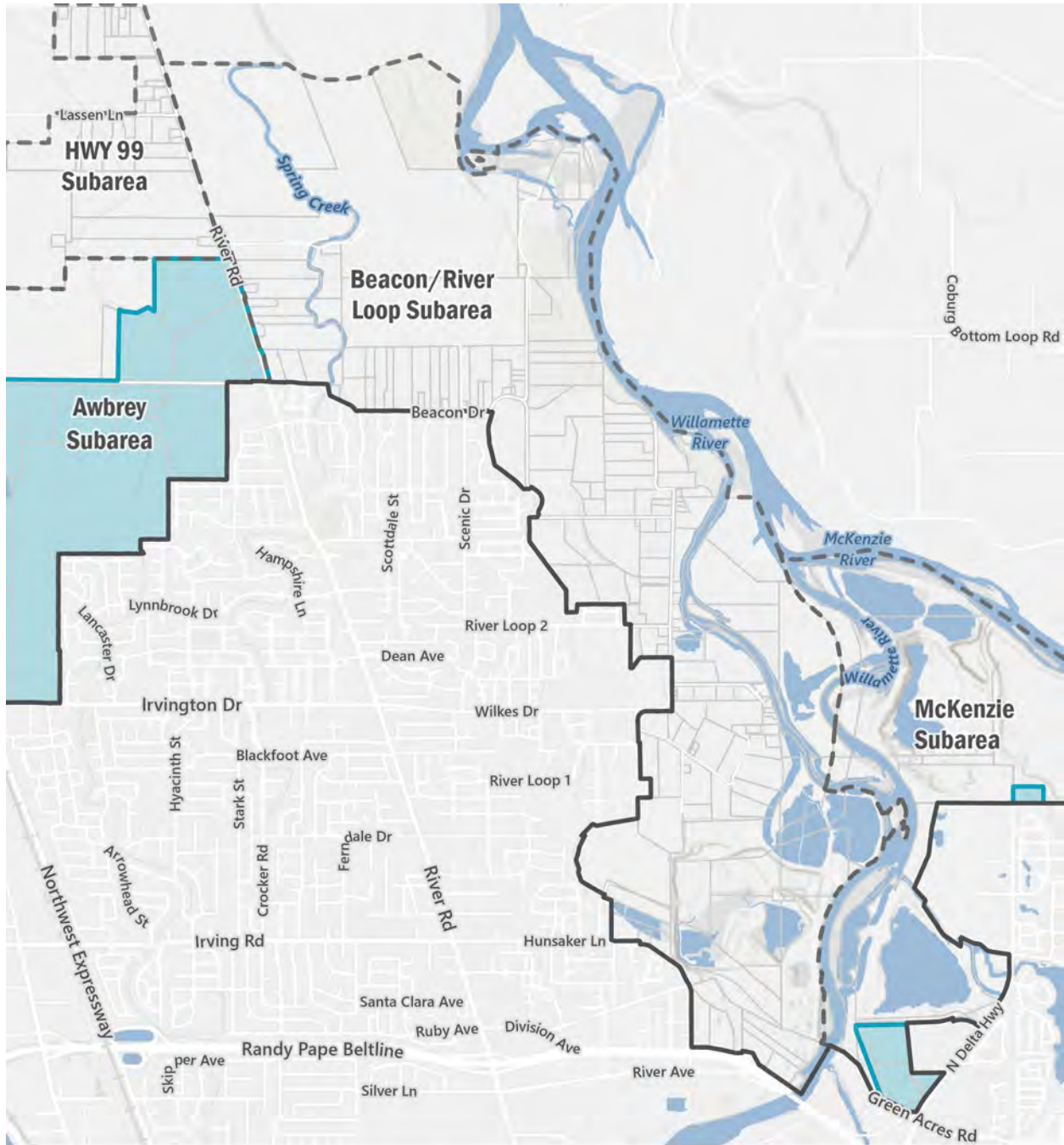
Land in BRL-1





	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Land in BRL-2

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Map 3.3 Suitability Results, Beacon/River Loop Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Eugene urban reserves suitable land
-  Tax lots



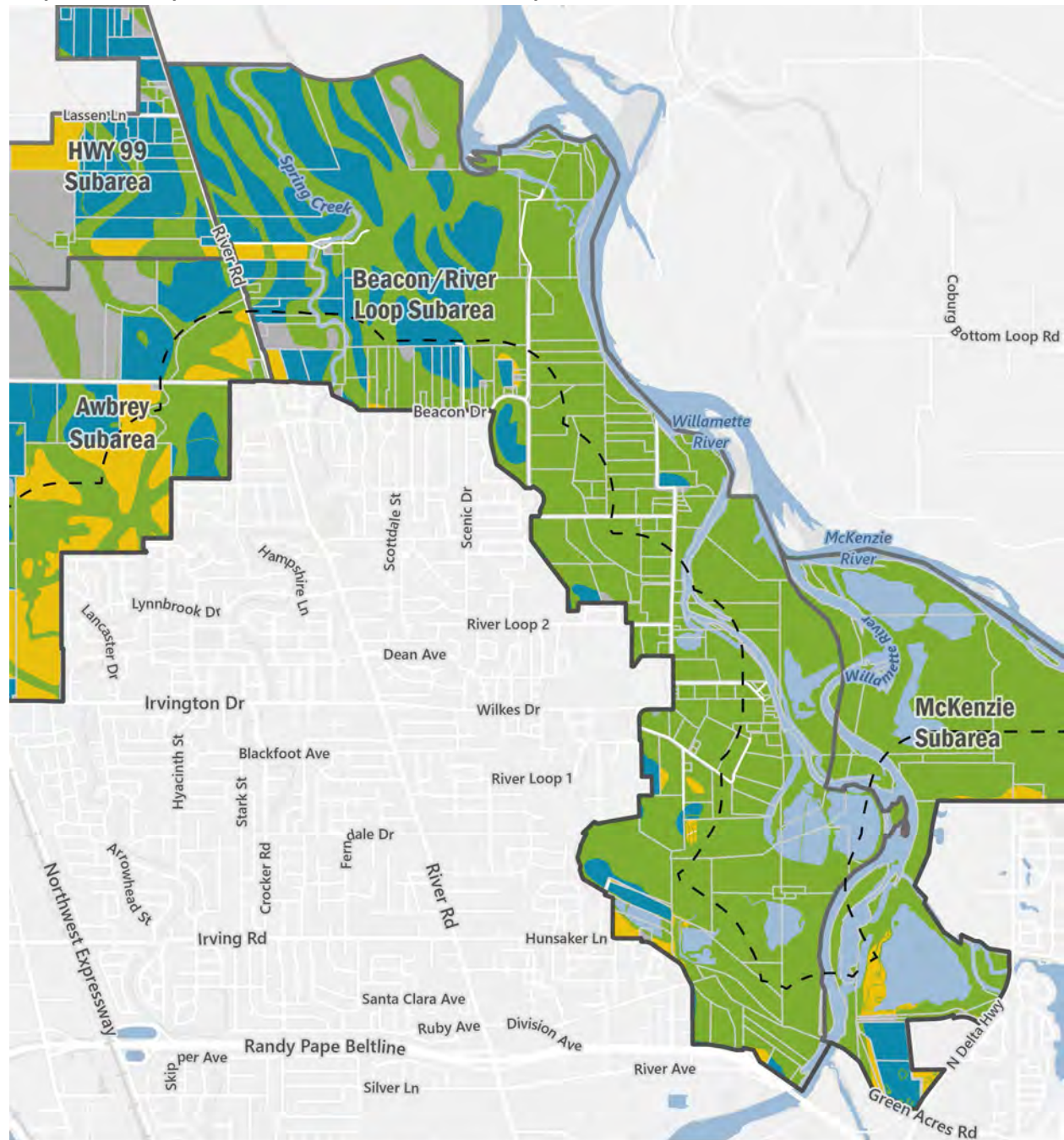
0.5 Miles



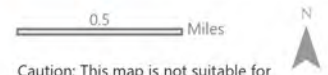
Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 3.4 Development Potential, Beacon/River Loop Subarea



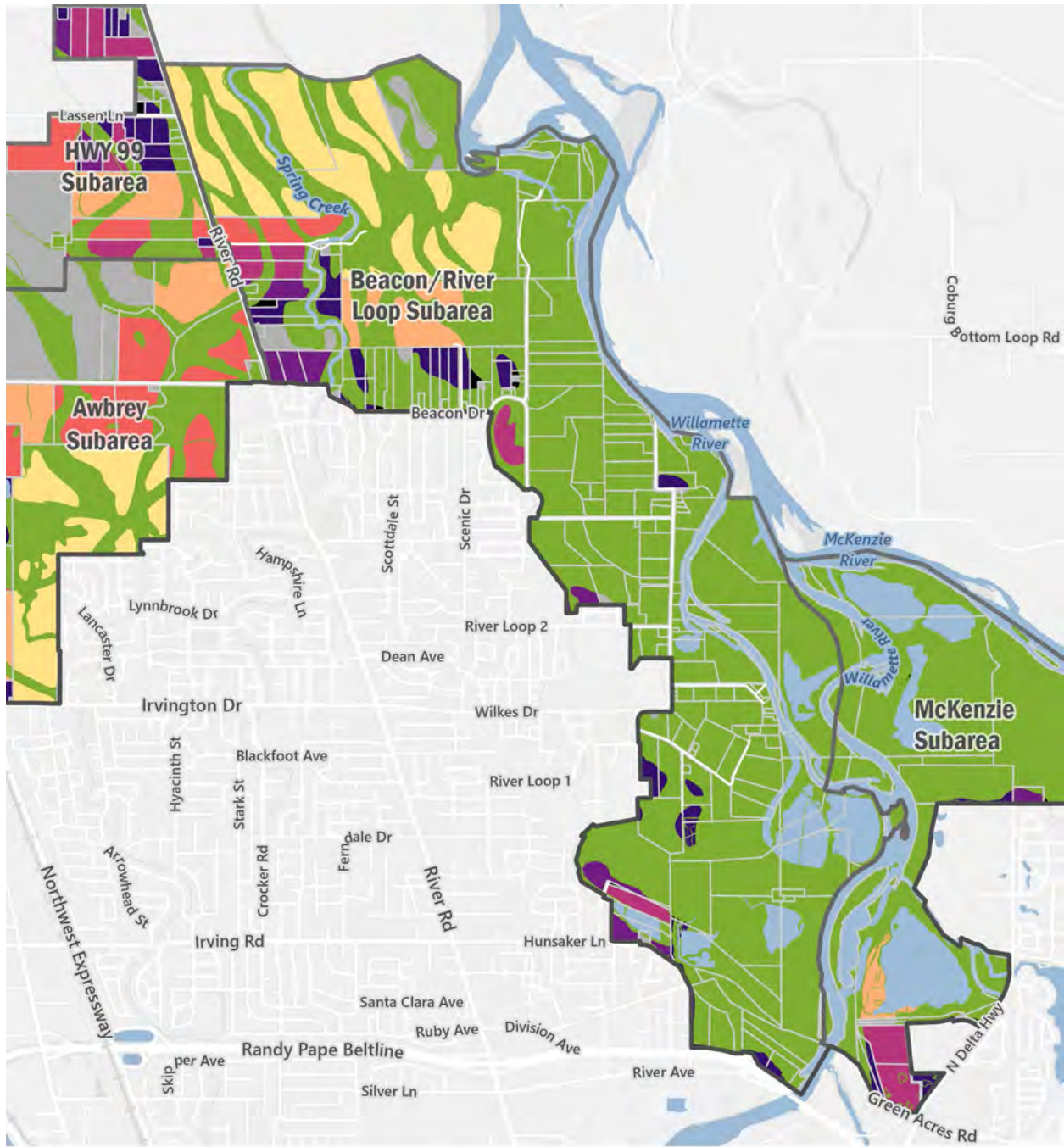
- Eugene UGB
 - Eugene urban reserves subarea boundaries
 - Quarter mile from Eugene UGB
 - Tax lots
- Developable**
 - Partially Vacant
 - Undeveloped
 - Undevelopable**
 - Severely constrained by natural hazards or subject to natural resource protections
 - Occupied



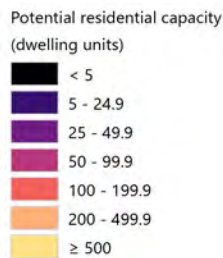
Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 3.5 Potential Residential Capacity, Beacon/River Loop Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied



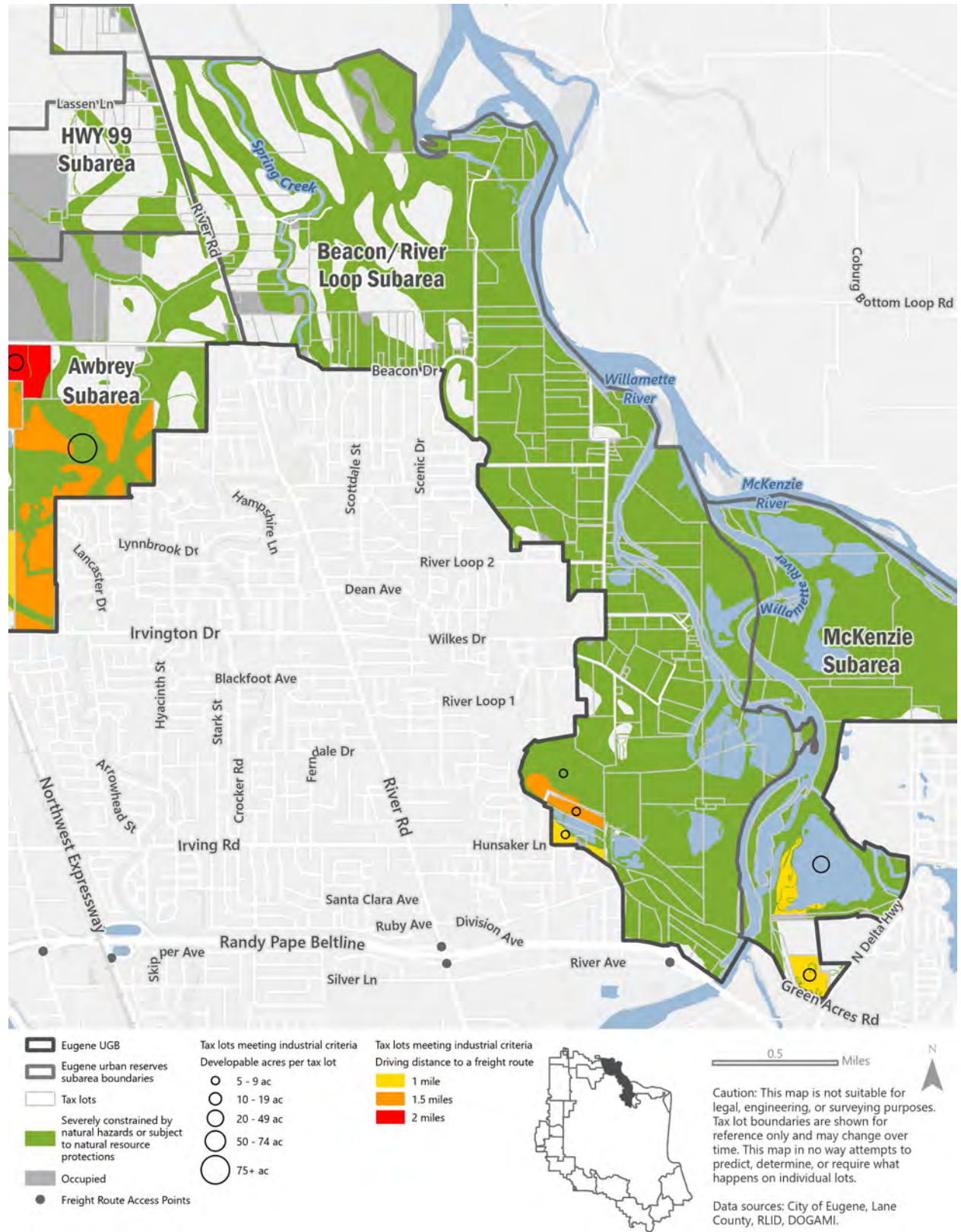
0.5 Miles



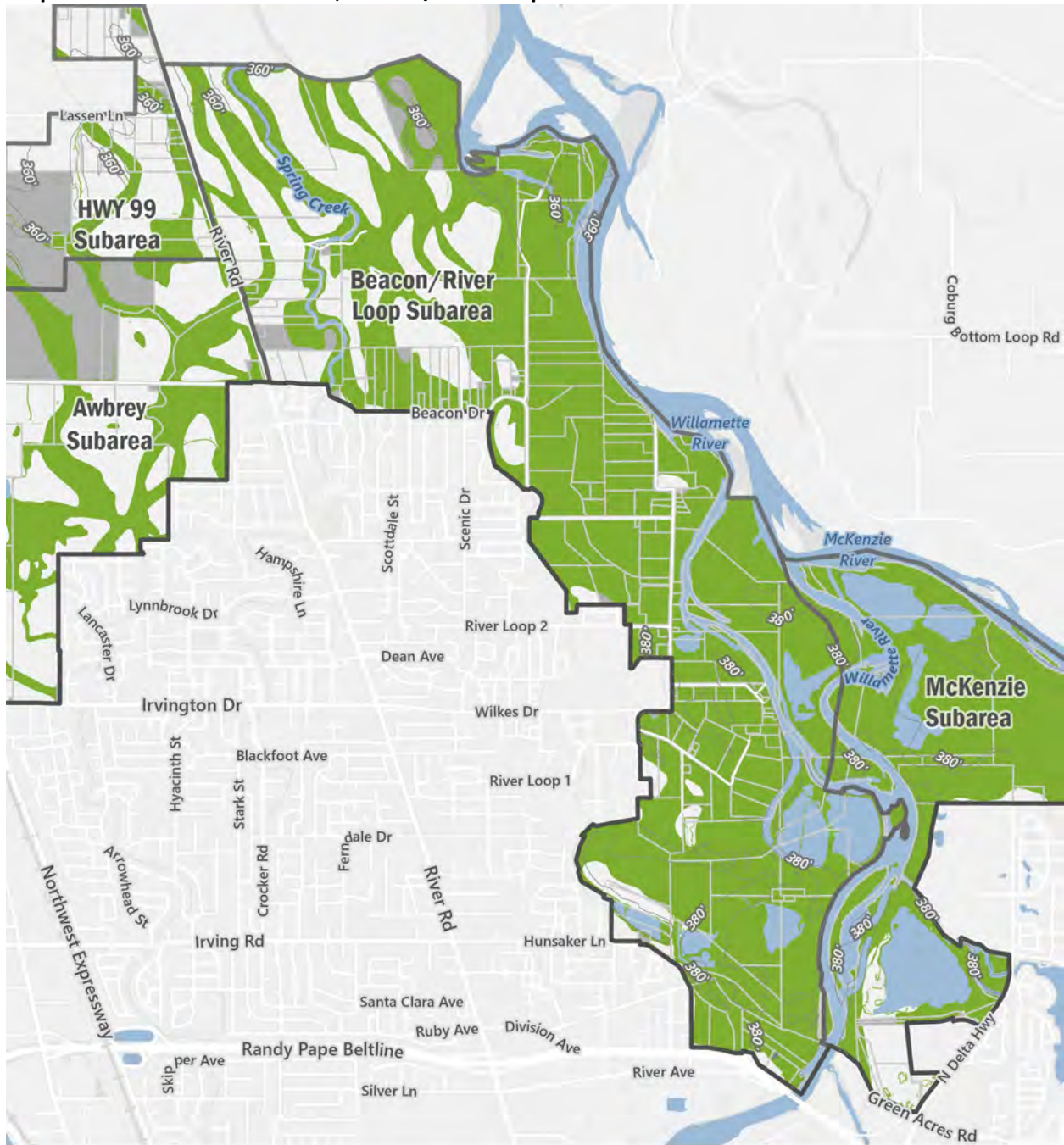
Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.






Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 3.6 Potential Industrial Capacity, Beacon/River Loop Subarea



Map 3.7 Contours and Hillshade, Beacon/River Loop Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Tax lots
-  Severely constrained by natural hazards or subject to natural resource protections
-  Occupied



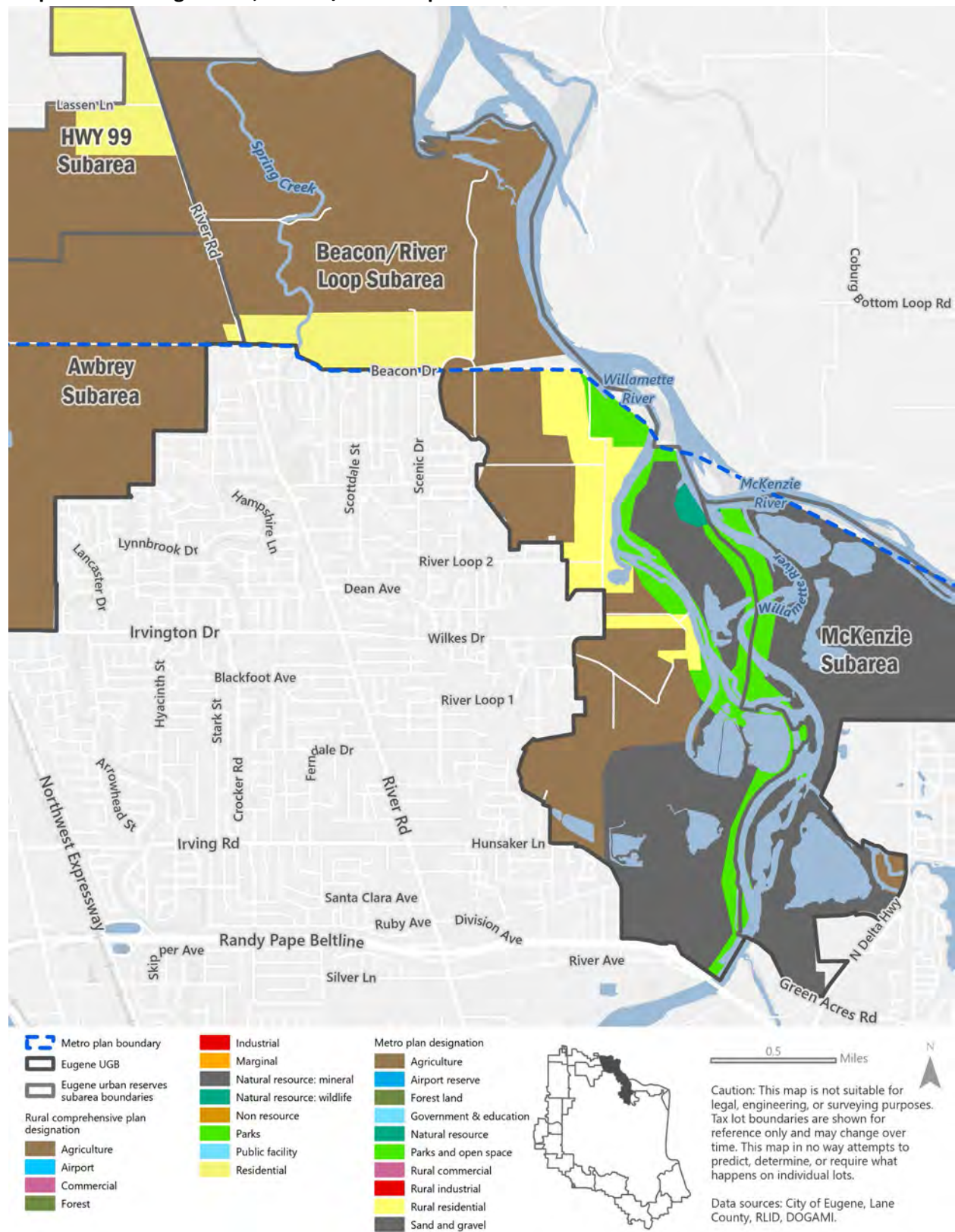
0.5 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 3.8 Plan Designations, Beacon/River Loop Subarea

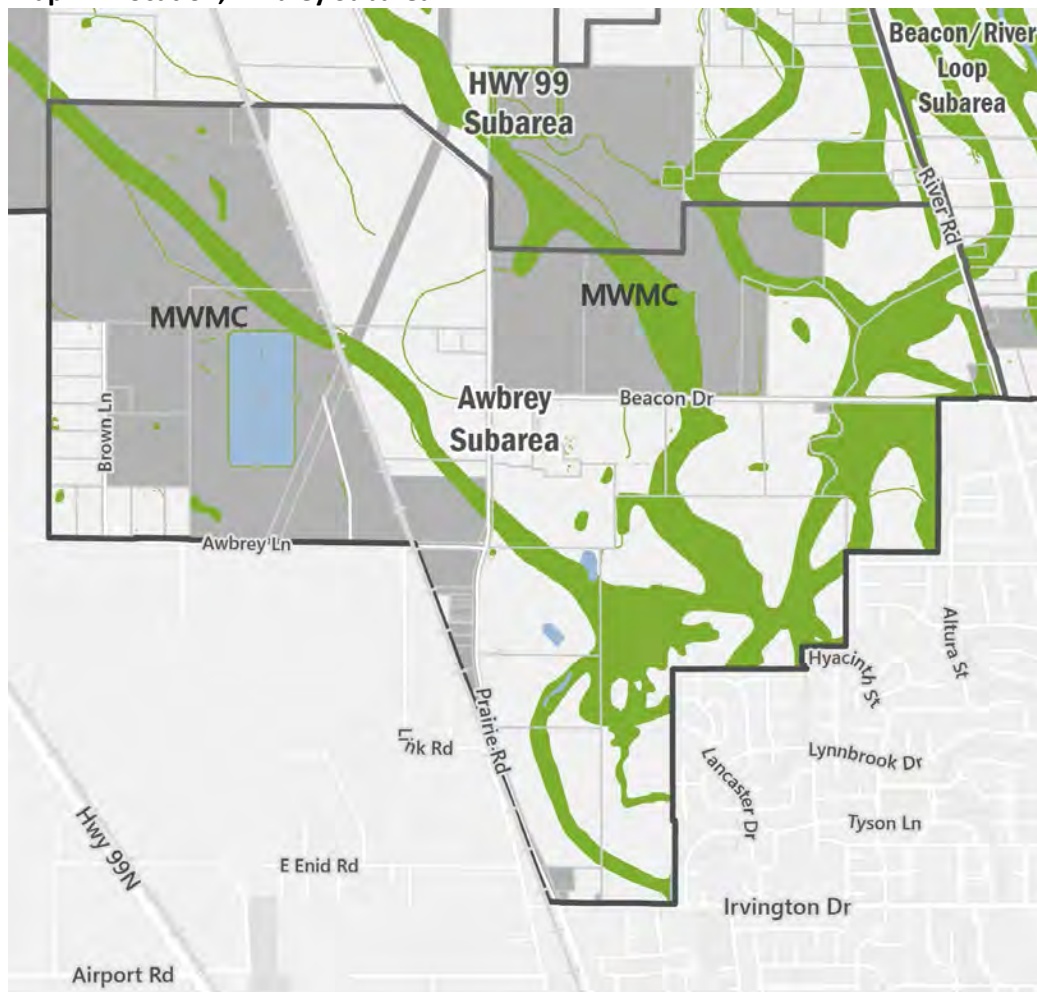


4. Suitability Analysis – Awbrey

I. Background

- A. **Location:** The land in the Awbrey subarea is located to the north of Eugene and is adjacent to the UGB, and generally includes land around Prairie Road, the Union Pacific railroad corridor and Beacon Drive, east of River Road. North of it is the Highway 99 subarea and east is the Beacon/River Loop subarea. See **Map 4.1 Location**, below, and **Maps 4.2-4.8** for additional information relevant to the subarea analysis.

Map 4.1 Location, Awbrey Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied



0.4 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

- B. Existing Land Uses:** Of the 1,430 acres of land in the subarea, only 524 have potential for future residential or employment development. The remaining land in the subarea has no residential or employment development capacity (shown in gray and green on the maps). The gray land includes Bonneville Power Administration (BPA) power line easements, land for utilities, a railroad corridor, and most significantly 486 acres of land owned by Metropolitan Wastewater Management Commission (MWMC) for wastewater dispersal, biosolids pre-treatment and a biocycle farm (where biosolids are used to fertilize stands of poplar trees). There are a number of existing commercial and industrial uses along Prairie Road, including autobody shops, scrap yards, and the Oregon Horse Center. Most of the developable land is designated agricultural (478 acres); some is actively used for commercial farming, such as orchards and nursery operations, and other land is used for less intensive uses such as hay and grass farming and pastureland. There are also a variety of mixed residential and small-scale industrial/commercial uses at the southwest corner of the subarea, north of Awbrey Lane, and along Prairie Road.
- C. Barriers to Development:** As noted above, more than half (63 percent) of land in the subarea is categorized as “undevelopable” land, either because it is severely constrained by natural hazards or subject to natural resource protections, or because it is occupied. The 486 acres of land used by MWMC for biosolids management in two locations in the subarea could be a significant barrier to urbanizing with residential use immediately surrounding it, due to odor and other conflicts of use. In addition to the lands occupied by BPA, MWMC, and the railroad much of the subarea is characterized by the presence of Federal Emergency Management Agency (FEMA) floodway and Special Flood Hazard Areas (100-year flood plain). These tendrils of floodplains are shown in green on all maps. Also, in green are Lane County Goal 5 adopted wetlands (from the National Wetlands Inventory) and limited amounts of prohibitively steep slopes and high-risk shallow landslide areas along stream channels.
- D. Surrounding Land Uses:** All but the northern boundary of the land in the subarea is adjacent to the UGB. The land abutting the UGB to the southeast is developed with residential neighborhoods that include six different dead-ends at the edge of the UGB to the adjacent undeveloped and partially vacant properties within the subarea. This land also includes the main stem of Flat Creek, which continues into the subarea. The area inside the UGB, west of Prairie Road and south of Awbrey Lane is part of the city industrial corridor. It is zoned a mix of Heavy and Light-Medium Industrial and includes a patchwork of industrial, undeveloped and agricultural uses. Land to the north (in the Highway 99 subarea) is primarily agricultural, with some occupied land owned by MWMC. The land to the east, across River Road, is active farmland within the Beacon/River Loop subarea.
- E. Organization of this Analysis:** After an initial review, it became clear that within the Awbrey subarea, there are different areas that include land that shares attributes relevant for Goal 14 Locational Factor analysis, therefore they have been subdivided further, as follows:

AW-1 includes 34 developable acres. It is located on the western edge of the subarea immediately north of Awbrey Lane and adjacent to the industrial corridor inside the UGB and the MWMC biosolids management facility (in AW-2). The land in AW-1 is made up of small lots that are mostly developed with residential dwellings, with one industrial property, but the use does not match the designations; it is more mixed.

AW-2 includes no developable acres. It is made up of the two different areas owned and managed by MWMC for wastewater dispersal, biosolids pre-treatment and a biocycle poplar farm. The land in AW-2 shares these similar attributes and it is classified as occupied with no development capacity. It is being evaluated to determine whether it is suitable for urban reserves in order to assist with orderly and economic service provision or efficient urbanization of the developable land surrounding it.

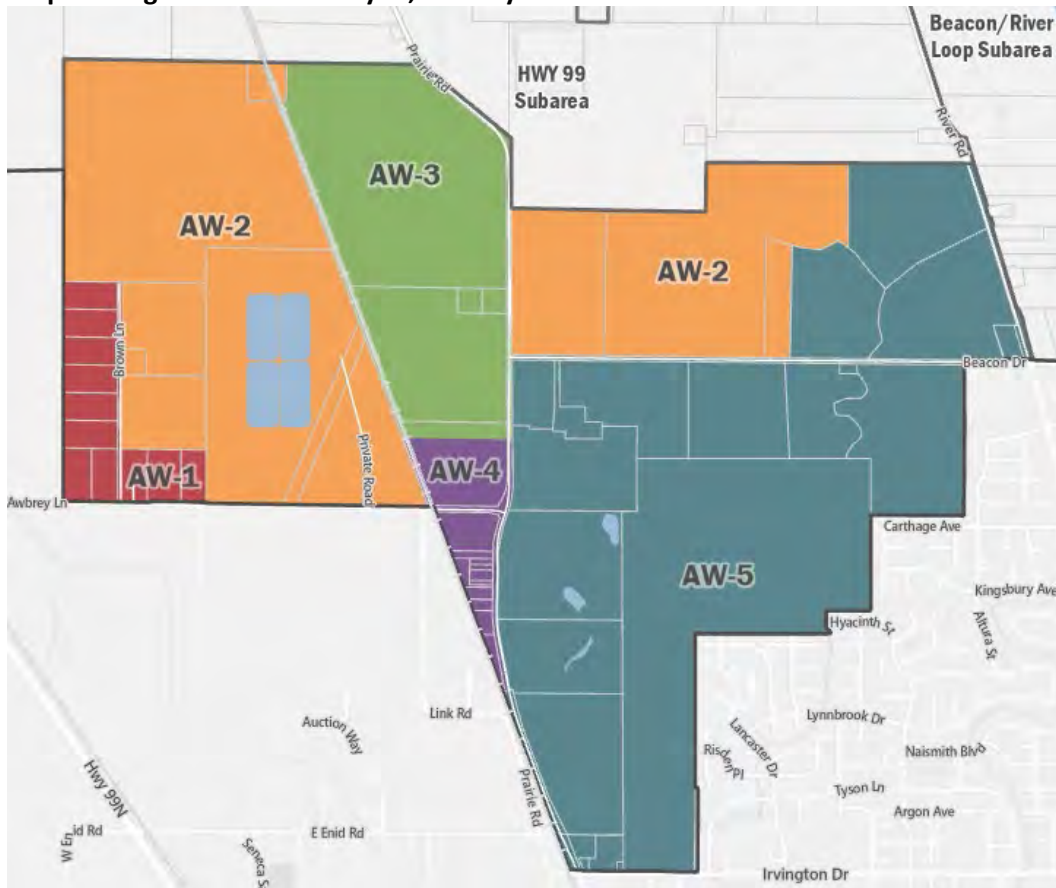
AW-3 includes 166 developable acres. It is located north of Awbrey Lane in between the railroad and Prairie Lane. The land in AW-3 is all designated agricultural and appears to be used for grass farming. The land in AW-3 is made up of large lot sizes with access to transportation corridors. The western portion is adjacent to the UGB and the Union Pacific railroad. All of the land is adjacent to MWMC facilities.

AW-4 includes one developable acre. It is significantly different in that it includes mostly rural residential and industrial land that is fully developed and therefore occupied and is located in between the railroad corridor and Prairie Road adjacent to the UGB. The land in AW-4 is grouped together for analysis purposes because of the large amount of land that is occupied and its small lot sizes with low capacity.

AW-5 includes 323 developable acres. It is located at the southeastern edge of the subarea between Prairie Road and River Road, immediately adjacent to the UGB. The land is almost all agricultural with a small amount of industrial and residential land. The land in AW-5 is located in close proximity to residential development in the UGB as well as to active farming along the River Road corridor. It is also encumbered by tendrils of floodplain.

These differing circumstances enable the land in the Awbrey subarea to be analyzed in terms of the five areas shown in **Map 4.2 Organization of Analysis**.

Map 4.2 Organization of Analysis, Awbrey Subarea



II. Identify land that would be suitable for urban reserves¹

A. Locational Factor 1: Efficient accommodation of identified land needs

To what extent is there ...

1. **Developable land adjacent to or nearby (within .25 mile) of the UGB?** The land in the Awbrey subarea includes 1,430 acres, of which 366 are classified as developable (partially vacant or undeveloped) and located within lots² that have a portion of their boundary within .25 miles of the UGB, as shown on **Map 4.4 Development Potential**. This is equivalent to approximately 70 percent of the developable acres within the subarea. Most of the capacity for residential or employment development nearby the UGB (within .25 mile) is on land in AW-5 that connects to neighborhoods within the UGB, however land in AW-1 and AW-4 is also adjacent to existing development in the UGB, and has residential capacity, albeit less. Land that is within .25 miles of

¹ Please refer to Section II C of this Study for background on how the City is identifying land in the study area that would be “suitable,” the explanation of the prompts used for the Goal 14 Locational Factors, and specific terminology.

² In the urban reserves study area, ‘lots’ are used for analysis purposes. See the Eugene Urban Reserves Technical Memo, Eugene Urban Reserves Technical Analysis Memo (Findings Appendix 4), for complete information.

the UGB is likely to more efficiently accommodate the identified land needs than land that is further away from the UGB because of street, utility and neighborhood connections to already urbanized land. While some of the land in AW-2 is located nearby the UGB, it has no development capacity.

2. ***Partially vacant developable land (that could be developed for the identified land needs)?*** The subarea contains 1,430 acres, of which 524 are classified as developable: 357 acres on lots classified as partially vacant, and 167 acres on lots classified as undeveloped. The distribution of these lots is shown on the **Map 4.4 Development Potential**. All of the developable land in the subarea is within land in AW-1, AW-3, AW-4, and AW-5. There is no development capacity on the land in AW-2.
3. ***Developable land that is identified in the capacity analysis³ as potentially able to be urbanized with a mix of residential housing? How does this translate into potential dwelling units (per the capacity analysis)?*** Only 37 percent of the land in the Awbrey subarea is identified as having capacity for residential or employment development. All of the developable land in the subarea is within land in AW-1, AW-3, AW-4, and AW-5. There is no development capacity on the land in AW-2. This developable land has capacity for 4,387 dwelling units, or an average residential density of 8.4 dwelling units per developable acre (compared to 4.8 du/developable acre for the entire study area). As shown on **Map 4.5 Potential Residential Capacity**, there is a mix of larger undeveloped lots with high capacity (500-1013 dwelling units per lot) and relatively high capacity (100-499.9 dwelling units per lot) on land in AW-3 and AW-5. Land in AW-1 and AW-4 includes smaller lots and lower development capacity located adjacent to industrial and wastewater uses; these constraints make urbanization with a mix of residential housing less likely. Land in AW-3 and AW-5 includes larger lots well connected to key transportation corridors and the UGB; this could make it potentially appropriate for a mix of residential housing types and neighborhood-serving commercial uses, however, the extent of MWMC land in AW-2 presents significant challenges for residential development due to potential conflicts of use.
4. ***Developable land that is identified in the capacity analysis⁴ as potentially able to be urbanized with industrial land need? How does this translate into potential industrial sites (per the capacity analysis)?*** As shown on **Map 4.6 Potential Industrial Capacity**, there is industrial capacity on only land in AW-3 and AW-5. The land in AW-3 ranges from 20-49 developable acres to 75+ developable acres. Given the proximity of these parcels to existing job centers and key transportation corridors, land in AW-3 can efficiently accommodate identified industrial land need. The land in AW-5 ranges from 5-9 developable acres to 75+ developable acres. Although the land in AW-5 is in close proximity to existing job centers and key corridors, some of it is also immediately adjacent to existing residential development within the UGB which would present challenges for locating industrial development there due to potential conflicts of use. The land

³ For information on how residential development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Analysis Memo (Findings Appendix 4). Factors such as lot size, slope, and elevation impact average residential density, based on actual development patterns within the UGB.

⁴ For information on how industrial capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo (Findings Appendix 4).

in AW-1, AW-2, and AW-4 do not have industrial capacity and cannot efficiently accommodate identified industrial land need.

5. ***Topography, steep slopes or other “undevelopable”⁵ lands that would make efficient urbanization difficult?*** “Undevelopable” lands are shown as gray and green on all of the analysis maps. As shown primarily on **Map 4.4 Development Potential**, the presence of land that is “undevelopable” because it is severely constrained by natural hazards or subject to natural resource protections (shown in green), such as floodplains and wetlands throughout land in AW-2, AW-3, and AW-5 would make efficient urbanization difficult on parcels with these features and others that are impacted by the features. On the other hand, the “undevelopable” lands classified as occupied on land in AW-3, AW-4 and AW-5 (which includes the BPA easement, railroad property, fully occupied land, water utility land, rights of way, etc.) are needed in order to efficiently serve adjacent developable land, due to their location adjacent to the UGB and interspersed with developable land potentially suitable for future homes and jobs. The majority of floodplain in this subarea is located on land in AW-5 and could impede efficient urbanization, although development capacity is still high overall. Only land in AW-1 contains very little undevelopable land. Only the occupied land owned by MWMC in AW-2 appears to not be needed for efficient urbanization, as it is not needed for access to urbanizable land, or for providing services to this land, especially if portions of the adjacent Highway 99 subarea are not suitable for urban reserves.

Conclusion: As described above, the ability of the land in **AW-1** to efficiently accommodate identified land needs is mixed. The negative attributes of land in AW-1 are low residential development capacity and lack of industrial capacity, and constrained location between the industrial corridor and the MWMC biosolids management facility. The positive attributes of land in AW-1 are proximity to the UGB, access to transportation corridors (Awbrey Lane), flat topography and lack of floodplain or other natural hazards.

*The land in **AW-2** has a negative rating due to the fact that it has no development capacity because it is occupied by MWMC wastewater facilities. Additionally, based on its location, it would not aid in the efficient accommodation of identified land needs because it is not needed to access adjacent developable land.*

*As described above, the ability of the land in **AW-3** to efficiently accommodate identified land needs is mixed. The positive attributes of the land in AW-3 are high development capacity, industrial capacity, access to transportation corridors (Prairie Road and the railroad), limited presence of natural hazards and flat topography. Negative attributes include its location between the MWMC biosolids facilities, an active railroad corridor and industrial uses on the land in AW-4; these constraints would present challenges to residential development due to potential conflicts of use.*

⁵ As described in section II B of the Eugene Urban Reserve Study (Findings Appendix 2), land was assigned no development capacity if it falls within one of the these “undevelopable” categories: severely constrained by natural hazards or is designated or zoned to protect natural resources; or not vacant or partially vacant (i.e. the land is already occupied).

*As described above, the ability of the land in **AW-4** to efficiently accommodate identified land needs is mixed. The negative attributes of land in AW-4 are low development capacity due to small lot size and existing development, and lack of residential and industrial capacity. Although the majority of the land in AW-4 is occupied, its location would aid in the efficient accommodation of identified land needs and is needed to access adjacent developable land. The positive attributes of land in AW-4 are proximity to the UGB, access to transportation corridors (Awbrey Lane, Prairie Road, and the railroad), limited presence of natural hazards and flat topography.*

*As described above, the ability of the land in **AW-5** to efficiently accommodate identified land needs is mixed. The negative attributes of land in AW-5 are the extensive floodplain running through the land and its location between the MWMC biosolids facilities and residential development inside the UGB; this creates potential compatibility issues for either use. The positive attributes of land in AW-5 are high residential development capacity, industrial capacity, proximity to the UGB, access to transportation corridors (Prairie Road, Beacon Road and River Road), and flat topography.*

Efficient accommodation of identified land needs:	Positive	Mixed	Negative
Land in AW-1			
Land in AW-2			
Land in AW-3			
Land in AW-4			
Land in AW-5			

B. Locational Factor 2: Orderly and economic provision of public facilities and services⁶

The information below addresses the feasibility of serving the developable land in the Awbrey subarea with public facilities and services in an orderly and economical way. It considers the capacity of the current system to serve the area and the extent of new infrastructure that would be needed to serve the area if urbanized. It includes an analysis of **wastewater, water, transportation, transit, stormwater, and fire/emergency services** and also, to a lesser extent, it includes the provision of **electricity, schools and parks.**⁷

Before the narrative description is a table showing the **generalized serviceability** of the subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff, and a **generalized cost estimate** to address the economics of serving the subject area with public facilities and services. It reflects preliminary high-level estimates for the major components of the individual

⁶The definition of “public facilities and services,” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines, is: “[p]rojects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.”

⁷ The summarized information used in this section is based on the results of the Eugene Urban Reserves Serviceability Analysis Report (Findings Appendix 3). In providing information for that report, service providers considered the serviceability of the subareas in their entirety; they generally did not differentiate between areas within a subarea.

systems. Cost information is provided on a \$ to \$\$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$\$) denoting the greatest cost. The scale used to evaluate each type of service is tailored to address the fact that some services are more expensive to provide than others. For example, a \$ for wastewater does not equate to the same dollar amount as a \$ for transportation. Cost estimates do not include future maintenance costs.

Awbrey Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Easy	Easy	Easy-Moderate	Easy	Moderate	Easy-Moderate
Generalized cost estimate	\$	\$	\$-\$\$\$	\$	\$\$	\$\$

1. **Wastewater:** The subarea is assigned an “easy” serviceability rating and the generalized cost estimate for improvements is \$. This is because the area can be served after the construction of two new pump stations, which are planned for in the City’s Wastewater Master Plan and the regional Public Facilities and Services Plan (2001). Because these pump stations are already included in the adopted plans, extending services in this area would not result in any additional costs to the City.
2. **Water:** The subarea is assigned an “easy” serviceability rating and the generalized cost estimate for improvements is \$. This is because distribution and transmission systems are close by and would not have to be extended far to provide service. In preparing the cost estimate, EWEB assumed that permits to bore under the storm drainage channel on Awbrey Lane would be attainable.
3. **Fire:** The subarea is assigned an “easy-moderate” serviceability rating and the generalized cost estimate for improvements is \$-\$\$\$. Given the current locations of city fire stations and the existing street network, there are response time and service delay concerns and a new fire station may be needed.
4. **Transportation:** The subarea is assigned an “easy” serviceability rating and the generalized cost estimate for improvements is \$. This is because there are little to no traffic congestion concerns in this area, although there would be localized conditions to address such as reliance on unimproved roadways, the heavy mix of truck traffic and a lack of connectivity.
5. **Transit:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$. This is because there are no existing routes in the immediate vicinity. The nearest route is to Junction City along Highway 99 and a deviation to serve the Awbrey area is unlikely until there is significant additional development in the subarea at high enough densities.
6. **Stormwater:** The subarea is assigned an “easy-moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$. This is because the subarea is close to existing systems, which makes extending service easy as long as the system capacity either exists or can be increased. The majority of the subarea falls within the Junction City Water Control District

and stormwater and flood control requirements in the Eugene code at 9.6791(3)(c) would need to be extended into this area.

7. **Other (Parks, Schools, Electric):** There is no parkland or school land within the Awbrey subarea. The subarea is within the Junction City School District. EWEB provides electric service to the incorporated area south of the subarea.
8. **Is there undeveloped land within the UGB that would be helped in its development/serviceability if this area were included in urban reserves, or is there undeveloped land within the UGB that would negatively impact the orderly and economic provision of public facilities and services?** There are some undeveloped lands within the UGB south of Awbrey Lane that could be helped in development/serviceability if land in AW-1 was included in Urban Reserves.

Conclusion: As described above, input from service providers indicates that the land in the Awbrey subarea (AW-1 through 5) can be served in an orderly and economic manner primarily due to its flat topography and proximity to the UGB, especially where the city limits and its existing public facilities and services are coterminous with the UGB, aiding in the ease of service connections.

Orderly and economic provision of public facilities and services:	Positive	Mixed	Negative
Land in AW-1			
Land in AW-2			
Land in AW-3			
Land in AW-4			
Land in AW-5			

C. Locational Factor 3: Comparative environmental, energy, economic and social consequences

1. Environmental consequences:

- a. **Presence of natural resources: To what extent would urbanization of this area negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources?** There is no public parkland in the subarea. There could be negative environmental consequences of urbanization on Goal 5 wetlands that are present throughout the subarea, on land in AW-1, AW-3, AW-4, and AW-5. Wetlands and the waterway Flat Creek are most predominant on land in AW-5. Future development will increase impervious surfaces such as roofs and pavement and may increase stormwater runoff and potential pollutants in wetlands and waterways (such as Flat Creek on land in AW-5), although city regulations would mitigate these impacts. As the land in AW-2 is occupied, it will not be urbanized and therefore there are no environmental consequences from urbanization.

- b. Presence of hazard areas (steep slope, landslides, floodplain): To what extent would urbanization of this area increase the potential risk of natural hazards, such as landslides, wildfire or flooding?** Overall, less than 1 percent the subarea has slopes equal to or in excess of 30 percent. There are small amounts of high-risk landslide areas and steep slopes throughout the subarea along stream channels. The most predominant natural hazards are the flood hazard areas, or floodplain, located on land in AW-2, AW-3, AW-4 and AW-5. The majority of floodplain in this subarea is located on land in AW-5. As hazard areas are “undevelopable” with no development capacity assumed on them, the potential risk due to urbanization is minimized, although adjacent urbanization could still increase flood risks. Smaller lots with more undevelopable land are at greater risk, such as the land in AW-5 at the corner of Beacon and River Road, where most of the lot is covered by flood plain.
- c. Presence of nearby public open space: To what extent would nearby public open space benefit future residents of the area?** There is no public open space (parkland) in the subarea. The City’s Filbert Meadows Park and Awbrey Park are both within a half mile of the subarea, within the UGB. This public parkland is only a short walk away from developable land in AW-5, lowering vehicle miles traveled and providing positive energy impacts

Conclusion: *No public open space would be negatively impacted nor benefit future residents of the area from urbanization of any portion of the subarea. Regarding impacts to riparian areas and wetlands and risk from flooding present in the subarea:*

*The land in **AW-1** is not encumbered by hazards, although it does contain a very small amount of Goal 5 wetlands. Therefore, the environmental consequences of urbanizing the land in AW-1 are positive (low).*

*The land in **AW-2** has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. As such, there would be no environmental consequences of including this land in urban reserves.*

*The land in **AW-3** contains a moderate amount of Goal 5 wetlands and floodplain, especially to the south. Therefore, the environmental consequences of urbanizing the land in AW-3 are mixed (medium).*

*The land in **AW-4** has only a corner of one lot encumbered by floodplain. Therefore, the environmental consequences of urbanizing the land in AW-4 are positive.*

*The land in **AW-5** contains a significant amount of floodplain and wetlands which would be negatively impacted by urban development and potentially increasing the risk of flooding. Flat Creek also runs through AW-5. Focusing urbanization on less sensitive areas in AW-5 would mitigate negative environmental consequences. Therefore, the environmental consequences of urbanizing the land in AW-5 are mixed.*

Environmental Consequences:	Positive (Low)	Mixed (Medium)	Negative (High)	No Consequences
Land in AW-1				
Land in AW-2				
Land in AW-3				
Land in AW-4				
Land in AW-5				

2. Energy Consequences (priority for lower energy usage):

a. To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt)? All of the developable land in the subarea is within land in AW-1, AW-3, AW-4, and AW-5, to a varying degree. This developable land has capacity for 4,387 dwelling units, or an average residential density of 8.36 dwelling units per developable acre (compared to 4.8 du/developable acre for the entire study area). As shown on **Map 4.5 Potential Residential Capacity**, there is a mix of larger undeveloped lots with high capacity (500-1013 dwelling units per lot) and relatively high capacity (100-499.9 dwelling units per lot) on land in AW-3 and AW-5, and primarily smaller partially vacant lots with enough developable land for less than 50 dwelling units per lot on land in AW-1 and AW-4. Since land in AW-1 and AW-4 have smaller lots and lower development capacity they could not co-locate a variety of housing types, jobs and services to lower vehicle miles traveled. The subarea’s proximity to existing job centers and key transportation corridors makes land in AW-3 and AW-5 potentially appropriate for a mix of residential housing types and neighborhood-serving commercial uses. The flat land in AW-3 and AW-5 includes larger lots well connected to key transportation corridors and the UGB; this could make it potentially appropriate for a mix of residential housing types and neighborhood-serving commercial uses, however, the extent of MWMC land on land in AW-2 presents challenges for residential development due to potential conflicts of use. The land in AW-2 is completely occupied and has no development capacity, resulting in no urbanization with a variety of identified uses.

b. To what extent is the area easily accessible to other services or uses (e.g., neighborhood commercial, parks, schools)? Due to its location, all of the land in the subarea (on land in Aw-1, AW-2, AW-3, AW-4, and AW-5) is relatively accessible to services and uses in the UGB. However, there are relatively few neighborhood-serving commercial uses in the subarea itself. There is a private school along River Road on land in AW-5. Nearby, Awbrey Park Elementary School is southeast of the subarea inside the UGB. These uses allow for local trips for some services, keeping energy usage low. The City’s Filbert Meadows Park and Awbrey Park are both within a half mile of the subarea, within the UGB. This public parkland is only a short walk away from developable land in AW-5, lowering vehicle miles traveled and providing positive energy impacts. Land in AW-3 contains no neighborhood services, however it is accessible via Prairie Road and Beacon Drive.

- c. To what extent is the area adjacent to or nearby the UGB? (see Locational Factor 1, A.2)** The Awbrey subarea includes 1,430 acres, of which 366 are classified as developable (partially vacant or undeveloped) and located within lots that have a portion of their boundary within .25 miles of the UGB, as shown on **Map 4.4 Development Potential**. This is equivalent to approximately 70 percent of the developable acres within the subarea. Most of the capacity for residential or employment development nearby the UGB (within .25 mile) is on land in AW-5 that connects to neighborhoods within the UGB, however land in AW-1 and AW-4 is also adjacent to existing development in the UGB, and has residential capacity, albeit less. Developable land adjacent or nearby the UGB is more efficient to serve, to provide access to and connect to neighborhoods in the UGB. Although some of it is located nearby the UGB, the land in AW-2 has no development capacity. The subarea's location adjacent to the UGB potentially has positive energy benefits, as its proximity to existing and future neighborhoods would allow for lower vehicle miles traveled than areas farther from the UGB.
- d. To what extent is there good multi-modal transportation access to this area? To what extent is the area easily accessible to job centers and downtown?** As noted above, there is good transportation access to this subarea, to land in AW-1, AW-2, AW-3, AW-4, and AW-5. Prairie Road, Highway 99 and River Road provide access to downtown, Eugene's main job center. However, transit service would need to be extended to this subarea, and roadway improvements, including bike lanes and sidewalk improvements would be needed to accommodate all users. There is potential for good local street access from the existing neighborhood adjacent to the UGB to land in AW-5 because there are already street stub-outs. The flat topography in the subarea makes for easy biking and walking, with infrastructure improvements. However, the land in AW-5 is encumbered by floodplain and wetlands, which would limit the construction of an efficient road system for multi-modal travel.
- e. To what extent does future urbanization directly or indirectly generate energy or climate burdens (e.g. loss of open space, loss of growing lands, increased traffic, increased carbon emissions)?** Future urbanization of the land in AW-3 and AW-5 will directly and indirectly generate moderate energy and climate burdens due to the loss of agricultural lands. Future urbanization of the land in AW-1, AW-3, AW-4, and AW-5 will directly and indirectly generate moderate energy and climate burdens due to increased vehicle traffic and increased carbon emissions. The land in AW-2 is completely occupied and has no development capacity, resulting in no potential for future urbanization.

Conclusion: *As described above, there are mixed (medium) energy consequences to urbanizing the developable land in AW-1. It is flat partially vacant land already used for housing and industry with roadway access to major transportation corridors and downtown. However, the smaller lots adjacent to industrial and wastewater facilities limit the future types of uses; it would not be likely to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt).*

The land in AW-2 has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. As such, there would be no energy consequences of including this land in urban reserves.

*As described above, there are mixed energy consequences to urbanizing the developable land in **AW-3**. The land in AW-3 includes larger lots well connected to key transportation corridors and the UGB; this could make it potentially appropriate for a mix of residential housing types and neighborhood-serving commercial uses, limiting the need for vehicle trips. However, the extent and use of MWMC land in AW-2 presents challenges for residential development due to potential conflicts of use. In addition, all the land in **AW-3** is agricultural; it's urbanization would generate energy burdens due to the significant loss of growing lands.*

*As described above, there are mixed energy consequences to urbanizing the developable land in **AW-4**. The flat topography and access to major transportation corridors have good potential for locating industrial use; residential development is less likely due to adjacent uses.*

*As described above, there are mixed energy consequences to urbanizing the developable land in **AW-5**. The flat topography and access to major transportation corridors have good potential for co-locating a variety of housing, jobs, and services, limiting the need for vehicle trips. However, the land is encumbered primarily by ribbons of floodplain which would limit the construction of an efficient road system for both vehicle and multi-modal travel, and the adjacent MWMC land may make residential uses less likely. As the land in AW-5 is primarily agricultural, it's urbanization would generate energy burdens due to the significant loss of growing lands.*

Energy Consequences:	Positive	Mixed	Negative	No Consequences
Land in AW-1				
Land in AW-2				
Land in AW-3				
Land in AW-4				
Land in AW-5				

3. Economic consequences:

a. In general, how much economic activity would urbanization of this area bring? Ex: Additional construction opportunities? The land in the Awbrey subarea contains 524 acres of developable land. Based on generalized capacity assumptions, this land could accommodate 4,387 new residential dwelling units. Urbanization of new housing and infrastructure would bring construction activity that would benefit the local economy and the local tax base would increase. There is also capacity for industrial development on land in AW-3 and AW-5, however industrial development is more likely on land in AW-3 given its distance from existing residential urbanization and proximity to existing industrial development and the Union Pacific railroad line. The land in AW-5 is near existing residential development within the UGB. The ribbons of floodplain most prominent on land in AW-5 would result in an inefficient development pattern, lowering the economic activity. The land in AW-1, AW-3, AW-4, and AW-5 along the railroad, Prairie Road, and Awbrey Lane also has positive economic consequences due to its good transportation access to job centers in Eugene and Springfield. Land in AW-1 and AW-4 has no industrial development capacity.

The land in AW-2 is completely occupied and has no development capacity, resulting in no economic consequences.

- b. Is the area appropriate for future urbanization with a variety of identified uses (not just LDR), to support connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a):** As noted above, all of the developable land in the subarea is within land in AW-1, AW-3, AW-4, and AW-5. This developable land has capacity for 4,387 dwelling units, or an average residential density of 8.36 dwelling units per developable acre (compared to 4.8 du/developable acre for the entire study area). As shown on **Map 4.5 Potential Residential Capacity**, there is a mix of larger undeveloped lots with high capacity (500-1013 dwelling units per lot) on land in AW-3 and AW-5, relatively high capacity (100-499.9 dwelling units per lot) on land in AW-3 and AW-5, and smaller partially vacant lots with enough developable land for less than 50 dwelling units per lot on land in AW-1, AW-3, AW-4, and AW-5. Land in AW-1 and AW-4 has smaller lots and lower development capacity. The subarea's proximity to existing job centers and key transportation corridors makes it potentially appropriate for a mix of residential housing types and neighborhood-serving commercial uses, land in AW-1, AW-3, AW-4, and AW-5. The flat land in AW-1, AW-3, AW-4, and AW-5 is walkable and has good potential as a 20-minute neighborhood (where homes, jobs and services can be reached on foot within 20 minutes), limiting the need for vehicle trips and having positive energy impacts. The land in AW-1, AW-3, AW-4, and AW-5 could support future urbanization with a variety of identified uses which support connected, integrated neighborhoods, providing positive economic consequences. The land in AW-2 is completely occupied and has no development capacity, resulting in no potential or future urbanization with a variety of identified uses.
- c. Are there concerns about future urbanization causing a loss of economic activity for existing and nearby uses? (also see Locational Factor 4)** There are a few neighborhood-serving commercial uses in the subarea or nearby, inside the UGB. Within the land in AW-5, there is a large indoor equestrian facility and stable, as well as other commercial and nursery uses on the land in AW-4 and light industrial uses on the land in AW-1. These uses would benefit from additional residents, development opportunity and access to urban services. The land in AW-2 is occupied by MPMC. The land in AW-3 contains no neighborhood services, however it is in proximity to other services and is accessible by Prairie Road and Beacon Drive. The land in AW-2 would have neutral impacts as it has no capacity for residential or industrial development uses.
- d. How cost-efficient is service provision in this area? (also see Locational Factor 2)** As already noted, the relative low cost of servicing the subarea makes the likelihood of efficient urbanization and its associated economic benefits likely.

Conclusion: The land in **AW-1** contains smaller lots and lower residential capacity. The land in AW-1 has no industrial development capacity. However, there is a low cost to extend services. Therefore, the likelihood of efficient urbanization and its associated economic benefits are mixed.

*The land in **AW-2** has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. As such, there would be no economic consequences of including this land in urban reserves.*

*The land in **AW-3** contains larger lots, high residential capacity, industrial capacity, no active agricultural activities and there is a low cost to extend services. Therefore, the likelihood of efficient urbanization and its associated economic benefits are positive.*

*The land in **AW-4** contains smaller lots and lower residential capacity. The land in AW-4 has no industrial development capacity. However, there is a low cost to extend services. Urbanization may cause a loss of economic activity for some of these businesses if displaced. Therefore, the likelihood of efficient urbanization and its associated economic benefits are mixed.*

*The land in **AW-5** contains larger lots, high residential capacity, industrial capacity, and there is a low cost to extend services. However, it is constrained by significant floodplain and potential loss of economic activity on active farmland. Therefore, the likelihood of efficient urbanization and its associated economic benefits are mixed.*

Economic Consequences:	Positive	Mixed	Negative	No Consequences
Land in AW-1				
Land in AW-2				
Land in AW-3				
Land in AW-4				
Lane in AW-5				

4. Social Consequences: ⁸

- a. Will urbanization negatively impact current residents?** While urbanization may negatively impact some existing residents on land in AW-1, AW-3, AW-4 and AW-5 due to increased noise, traffic, and impacts to their viewshed, urbanization could also have positive social consequences by providing additional development opportunities for landowners and access to more services and neighborhood commercial uses. Improvements to the roadway system and additional neighborhood-serving commercial uses could also benefit existing and nearby residents. However, residents of small farms on agricultural lands in AW-3 and AW-5 would be highly impacted by urbanization. Land in AW-2 is not occupied by existing residents. All of the land in the subarea, may be negatively impacted by the odor and noise of the MWMC biosolids facilities, which may make the land adjacent to these lands in AW-2 in the subarea unsuitable for residential development.

⁸ The definition of “social consequences” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines is: “[t]he tangible and intangible effects upon people and their relationships with the community in which they live resulting from a particular action or decision.”

- b. How would urbanization worsen or improve service delivery to residents in this area (e.g. adequate fire response times, access to water, parks)? (also see Locational Factor 2)** As noted in the serviceability analysis, the land in the subarea (AW-1, AW-2, AW-3, AW-4, and AW-5) is currently served by Lane Fire Authority. According to Eugene-Springfield Fire Department staff, given the current locations of the city fire stations and existing street network, a new fire station may be needed to serve the subarea if it is fully urbanized. City water and wastewater services would be extended to residents in the subarea. It is assumed that neighborhood parks would be developed as neighborhoods urbanize to meet the City's service standards.
- c. Will urbanization exacerbate the impacts of potential natural hazards, such as flooding, fire, and landslides? (also see Locational Factor 3, Environmental Consequences C.1.b)** As already noted, urbanization of the land in the subarea could exacerbate the impacts of flooding due to the presence of flood hazard areas that exist on land in AW-1, AW-2, AW-3, AW-4, and AW-5, but are most prominent on land in AW-5. There are no identified landslide hazards on land in AW-1, AW-3, AW-4, and AW-5. The small amount of identified landslide hazard areas are located on land in AW-2, however land in AW-2 is completely occupied and has no development capacity, resulting in no potential or future urbanization.
- d. How might urbanization in this area impact vulnerable populations⁹ and underserved groups currently living in the subarea? Could one segment of the population be impacted more than another (e.g. low-income households)?** The potential displacement of some existing rural businesses on land in AW-1, AW-4 and AW-5 if urbanization occurs, could negatively impact vulnerable and underserved groups. Due to its proximity directly adjacent to a MWMC biosolids facility, land in AW-5 may not be suitable for residential or for connected neighborhoods. This is due to the potential future odor and noise from poplar tree felling that could result from the MWMC biosolids facilities. However, the two lands occupied by MWMC on land in AW-2 west of the railroad and north of Beacon Drive is currently vacant. The land in AW-1, AW-3, and AW-5 is also located near land occupied by MWMC. While future industrial uses on land in AW-3 and AW-5 would be compatible in this subarea because of the nearby industrial corridor, it would continue the mostly industrial pattern (such as the existing MWMC development) in this area. For example, there could be negative impacts to vulnerable populations such as older residents and low-income households due to the potential of increased concentrated industrial development along an industrial corridor. The land in AW-2 is completely occupied and has no development capacity, resulting in no social consequences.
- d. Will urbanization in this area allow for connected, integrated neighborhoods? (also see Locational Factor 3, C 2 a):** As noted above, all of the developable land in the subarea is

⁹ Vulnerable populations are defined as populations that identify as a non-white race or ethnicity, younger or older populations, populations with a disability, and/or single-headed households. (from Livability Lane, 2013 Equity and Opportunity Assessment, Social and Demographic Characteristics Map.) The extent to which vulnerable populations and underserved groups currently live in the subarea is speculative.

within land in AW-1, AW-3, AW-4, and AW-5. This developable land has capacity for 4,387 dwelling units, or an average residential density of 8.36 dwelling units per developable acre (compared to 4.8 du/developable acre for the entire study area). As shown on **Map 4.5 Potential Residential Capacity**, there is a mix of larger undeveloped lots with high capacity (500-1013 dwelling units per lot) on land in AW-3 and AW-5, relatively high capacity (100-499.9 dwelling units per lot) on land in AW-3 and AW-5, and smaller partially vacant lots with enough developable land for less than 50 dwelling units per lot on land in AW-1, AW-3, AW-4, and AW-5. Land in AW-1 and AW-4 has smaller lots and lower development capacity. The subarea's proximity to existing job centers and key transportation corridors makes it potentially appropriate for a mix of residential housing types and neighborhood-serving commercial uses, land in AW-1, AW-3, AW-4, and AW-5. The flat land in AW-1, AW-3, AW-4, and AW-5 is walkable and has good potential as a 20-minute neighborhood (where homes, jobs and services can be reached on foot within 20 minutes), limiting the need for vehicle trips and having positive energy impacts. The land in AW-1, AW-3, AW-4, and AW-5 could support future urbanization with a variety of identified uses which support connected, integrated neighborhoods, providing positive economic consequences. The land in AW-2 is completely occupied and has no development capacity, resulting in no social consequences.

Conclusion: *Urbanization of land in **AW-1** would have mixed social consequences. Service delivery would improve with urbanization, but there could be both positive and negative social consequences. For example, there could be negative impacts to vulnerable populations such as older residents and low-income households due to the potential of increased concentrated industrial development along an industrial corridor. However, access to services such as utilities and the development of parks and greenspace could benefit existing residents and businesses. Due to its proximity adjacent to the MWMC biosolids facility, land in AW-1 may not be suitable for connected, integrated neighborhoods.*

*The land in **AW-2** has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. As such, there would be no social consequences of including this land in urban reserves.*

*Urbanization of land in **AW-3** would have mixed social consequences. Service delivery would improve with urbanization, but there could be both positive and negative social consequences. For example, there could be negative impacts to vulnerable populations such as older residents and low-income households due to the potential of increased concentrated industrial development along an industrial corridor. However, access to services such as utilities and the development of parks and greenspace could benefit existing residents and businesses. Due to its proximity between MWMC biosolids/wastewater facilities, land in AW-3 may not be suitable for residential neighborhoods.*

*Urbanization of land in **AW-4** would have mixed social consequences. Service delivery would improve with urbanization, but there could be both positive and negative social consequences. For example, there could be negative impacts to vulnerable populations such as older residents and low-income households due to the potential of increased concentrated industrial development along an industrial corridor and potential displacement. However, access to services such as utilities and the development of parks and greenspace could benefit existing residents and businesses.*

*The land in **AW-5** contains some existing businesses and residences, however, due to its proximity adjacent to a MWMC biosolids facility and nearby other large scale, industrial and commercial activities, the land in AW-5 may not be suitable for residential development or for connected neighborhoods. Therefore, the urbanization of land in AW-5 would result in mixed social consequences.*

Social Consequences:	Positive	Mixed	Negative	No Consequences
Land in AW-1				
Land in AW-2				
Land in AW-3				
Land in AW-4				
Land in AW-5				

Locational Factor 3 Conclusion:

For the land in **AW-1**, the analysis under Locational Factor 3 shows that urbanization would have mixed Energy, Economic and Social consequences and positive Environmental consequences.

For the land in **AW-2** has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. As such, for Locational Factor 3, there would be no Environmental, Energy, Economic or Social consequences of including this land in urban reserves.

For the land in **AW-3**, the analysis under Locational Factor 3 shows that urbanization would have mixed Environmental, Energy and Social consequences and positive Economic consequences.

For the land in **AW-4**, the analysis under Locational Factor 3 shows that urbanization would have mixed Economic and Economic consequences and positive Environmental, Energy consequences.

For the land in **AW-5**, the analysis under Locational Factor 3 shows that urbanization would have mixed Environmental, Energy, Economic and Economic consequences.

D. Locational Factor 4: Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

1. How will urbanization impact agricultural and forest activities on farm and forest designated land within the subarea? All of the land in AW-2 and AW-3 and most of the land in AW-5 is designated agricultural, as shown on **Map 4.8 Comprehensive Plan Designation**. There are no forest designated lands in the subarea. The land in AW-1 and AW-4 are not designated agricultural or forest. There are feed crops and grass farms on land in AW-3 and poplar tree harvesting on land in AW-2. The feed crop, grass seed, and poplar harvesting farms are relatively low intensity uses; urbanization may impact them with increased traffic, to some degree. In addition to feed crops and grass farms, land in AW-5 also contains orchards, a retail nursery, and the Oregon Horse Center and its adjacent fields, agricultural- related uses that could be negatively impacted by urbanization. Urbanization of land in AW-5 is not compatible with nearby agricultural uses because of the risk of losing those businesses that currently serve

surrounding agricultural land. Therefore, urbanization of land in AW-5 would be incompatible with agricultural activities on farm and forest designated land within the subarea.

- 2. Is urbanization compatible with existing agricultural and forest uses on farm and forest designated land nearby (outside of the subarea)?** Existing surrounding uses outside of the UGB are primarily agricultural. There are active food-producing farms north of land in AW-2, land in AW-3 and land in AW-5 (in the Highway 99 subarea) and east of land in AW-5 (in the Beacon River Loop subarea) that would be less compatible with urbanization due to increased traffic and potential for odor, safety and other complaints from neighbors which could negatively impact the agricultural activities. There are no forest activities outside of the subarea.

Conclusion: *Due to the lack of active agricultural uses and small scale existing residential and industrial development, it appears that urbanization in the land in **AW-1** would be compatible with surrounding agricultural activities on farm designated lands outside of the UGB.*

*The land in **AW-2** is used for wastewater biosolid pre-treatment, poplar tree harvesting, wastewater dispersal and it is occupied by MWMC. The land has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. As such, urbanization of the land in AW-2 has no consequences on the surrounding agricultural activities on farm designated lands outside of the UGB.*

*The land in **AW-3** contains grass farms and pastureland. These are relatively low intensity uses and urbanization may impact them with increased traffic, although access to Prairie Road mitigates this to some degree. The land in AW-3 is also near agricultural uses to the north, so it appears urbanization in AW-3 could also impact surrounding agricultural activities on farm designated lands outside of the subarea. Therefore, urbanization of land in AW-3 would have mixed compatibility.*

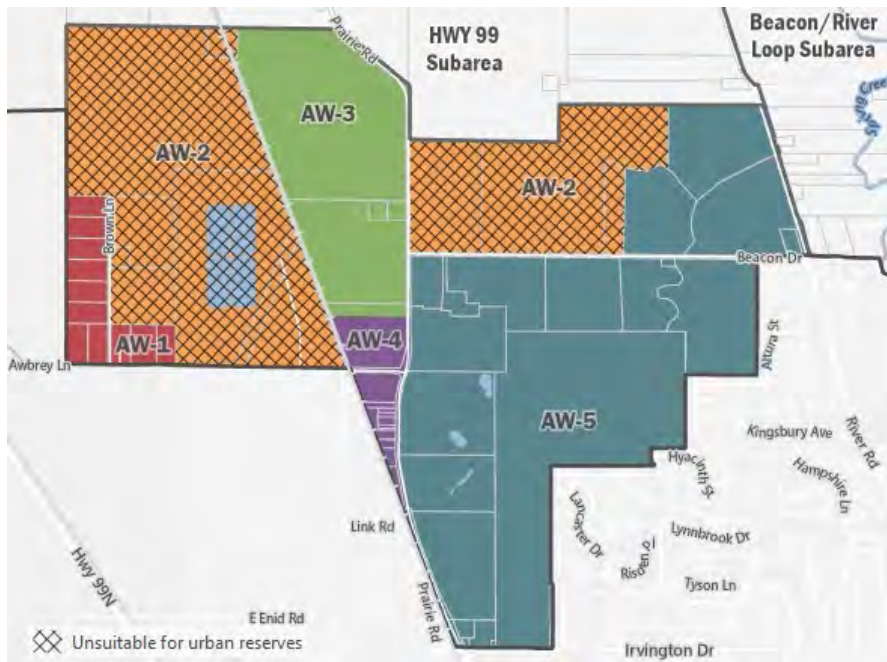
*Due to the lack of active agricultural uses and existence of residential and commercial development, it appears that urbanization of land in **AW-4** would be compatible with surrounding agricultural activities on farm designated lands outside of the UGB.*

*The land in **AW-5** contains grass farms, pastureland, a retail nursery, orchards, and the Oregon Horse Center and its adjacent pasture fields, which are agricultural-related uses that could be negatively impacted by urbanization. Urbanization of land in AW-5 is incompatible with nearby agricultural uses because of the risk of losing those businesses that currently serve surrounding agricultural land. There are also active farm uses outside of the subarea along River Road, north of land in AW-5, which could be impacted by urbanization. Therefore, urbanization of land in AW-5 would not be compatible with agricultural activities on farm designated land outside of the UGB.*

Compatibility with nearby agriculture and forest activities	Positive	Mixed	Negative	No Consequences
Land in AW-1				
Land in AW-2				
Land in AW-3				
Land in AW-4				
Land in AW-5				

III. Conclusion

Considering and balancing the Goal 14 Locational Factors as analyzed above, there would be some positive and some negative aspects of future urbanization of land in the Awbrey subarea, as detailed in the above analysis and shown in the summary tables on the following pages:



Land in **AW-1** includes 34 developable acres. It is located on the western edge of the subarea immediately north of Awbrey Lane and adjacent to the industrial corridor inside the UGB and the MWMC biosolids management facility. In evaluating the land in **AW-1**, the conclusion of Locational Factors 2, 3(a) and 4 were “positive” in their findings; and Locational Factors 1, 3(b), 3(c) and 3(d) were rated as “mixed.” The negative attributes are that the land

has low residential development capacity and lack of industrial capacity and is constrained between the industrial corridor and the MWMC biosolids management facility. The positive attributes are that the land in **AW-1** is located adjacent to the UGB and suitable land in the Highway 99 subarea, has access to transportation corridors (Awbrey Lane), flat topography and lack of floodplain or other natural hazards. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in **AW-1** result in a determination that land in **AW-1** is suitable for future urbanization and should be considered for urban reserves designation. This land will be moved forward for urban reserves consideration.

The land in **AW-2** is used for wastewater biosolid pre-treatment, poplar tree harvesting and wastewater dispersal and it is occupied by MWMC. The land has no capacity for residential or employment

development and would remain in current use whether inside or outside the UGB. In evaluating the land in **AW-2**, the conclusion of Locational Factor 2 was “positive”; Locational Factor 1 was “negative”; and Locational Factors 3(a), 3(b), 3(c), 3(d) and 4 were “no consequences” in their findings. This is because the land in AW-2 has no capacity for future jobs or homes, and due to its location and use it is not now needed to aid in the efficient urbanization or the orderly and economic provision of public facilities and services of the surrounding developable land. Its remaining out of urban reserves will not affect the developable land nearby and it will not affect how the land will be used. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in **AW-2** result in a determination that it is not suitable for future urbanization and should not be considered for urban reserves designation at this time.

Land in **AW-3** includes 166 developable acres. It is located north of Awbrey Lane in between the railroad corridor and Prairie Lane. In evaluating the land in **AW-3**, the conclusion of Locational Factors 2 and 3(c) were rated as “positive”; and Locational Factors 1, 3(a), 3(b), 3(d) and 4 were “mixed” in their findings. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in **AW-3** result in a determination that land in **AW-3** is suitable for future urbanization and should be considered for urban reserves designation. This land will be moved forward for urban reserves consideration.

Land in **AW-4** includes 1 developable acre. It is located in between the railroad corridor and Prairie Road adjacent to the UGB. In evaluating the land in **AW-4**, the conclusion of Locational Factors 2, 3(a), 3(b) and 4 were “positive” in their findings; Locational Factors 1, 3(c) and 3(d) were rated as “mixed”. The positive attributes of the land in **AW-3** are high development capacity, industrial capacity, access to transportation corridors (Prairie Road and the railroad), limited presence of natural hazards and flat topography. Negative attributes include its location between the MWMC biosolids facilities, an active railroad corridor and industrial uses on the land in AW-4; these constraints would present challenges to residential development due to potential conflicts of use. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in **AW-4** result in a determination that land in **AW-4** is suitable for future urbanization and should be considered for urban reserves designation. This land will be moved forward for urban reserves consideration.

Land in **AW-5** includes 323 developable acres. It is located at the southeastern edge of the subarea between Prairie Road and River Road, immediately adjacent to the UGB. In evaluating the land in **AW-5**, the conclusion of Locational Factor 2 was “positive”; Locational Factors 1, 3(a), 3(b), 3(c) and 3(d) were rated as “mixed”; and Locational Factor 4 was rated as “negative” in their findings. The negative attributes of land in **AW-5** are the extensive floodplain running through the land and its location between the MWMC biosolids facilities and residential development inside the UGB; this creates potential compatibility issues for either use. The positive attributes of land in **AW-5** are high residential development capacity, industrial capacity, proximity to the UGB, access to transportation corridors (Prairie Road, Beacon Road and River Road), and flat topography. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in **AW-5** result in a determination that land in **AW-5** is suitable for future urbanization and should be considered for urban reserves designation. This land will be moved forward for urban reserves consideration.

Please see the summary tables on the following pages, and **Map 4.3 Suitability Results**.

Summary

Awbrey Subarea

Area Suitable for Urban Reserves Designation

Land in AW-1

	Goal 14 Locational Factors	Positive	Mixed	Negative	No Consequences
1.	Efficient accommodation of identified land needs				
2.	Orderly and economic provision of public facilities and services				
3. (a)	Environmental Consequences				
(b)	Energy Consequences				
(c)	Economic Consequences				
(d)	Social Consequences				
4.	Compatibility with nearby ag and forest activities				

Land in AW-3

	Goal 14 Locational Factors	Positive	Mixed	Negative	No Consequences
1.	Efficient accommodation of identified land needs				
2.	Orderly and economic provision of public facilities and services				
3. (a)	Environmental Consequences				
(b)	Energy Consequences				
(c)	Economic Consequences				
(d)	Social Consequences				
4.	Compatibility with nearby ag and forest activities				

Land in AW-4

	Goal 14 Locational Factors	Positive	Mixed	Negative	No Consequences
1.	Efficient accommodation of identified land needs				
2.	Orderly and economic provision of public facilities and services				
3. (a)	Environmental Consequences				
(b)	Energy Consequences				
(c)	Economic Consequences				
(d)	Social Consequences				
4.	Compatibility with nearby ag and forest activities				

Land in AW-5

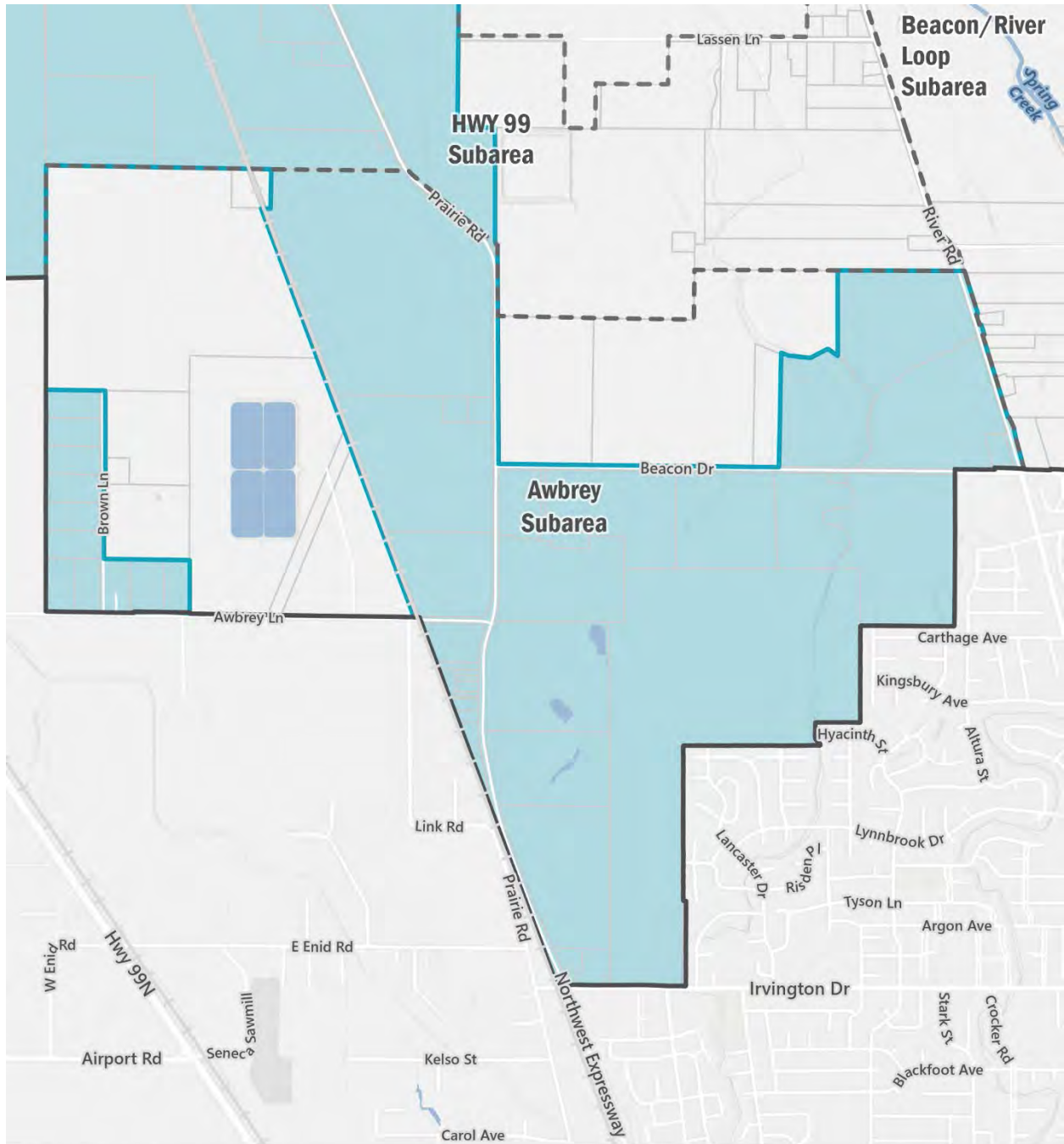
	Goal 14 Locational Factors	Positive	Mixed	Negative	No Consequences
1.	Efficient accommodation of identified land needs				
2.	Orderly and economic provision of public facilities and services				
3. (a)	Environmental Consequences				
(b)	Energy Consequences				
(c)	Economic Consequences				
(d)	Social Consequences				
4.	Compatibility with nearby ag and forest activities				





Area Not Suitable for Urban Reserves Designation

Land in AW-2

	Goal 14 Locational Factors	Positive	Mixed	Negative	No Consequences
1.	Efficient accommodation of identified land needs				
2.	Orderly and economic provision of public facilities and services				
3. (a)	Environmental Consequences				
(b)	Energy Consequences				
(c)	Economic Consequences				
(d)	Social Consequences				
4.	Compatibility with nearby ag and forest activities				

Map 4.3 Suitability Results



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Eugene urban reserves suitable land
-  Tax lots



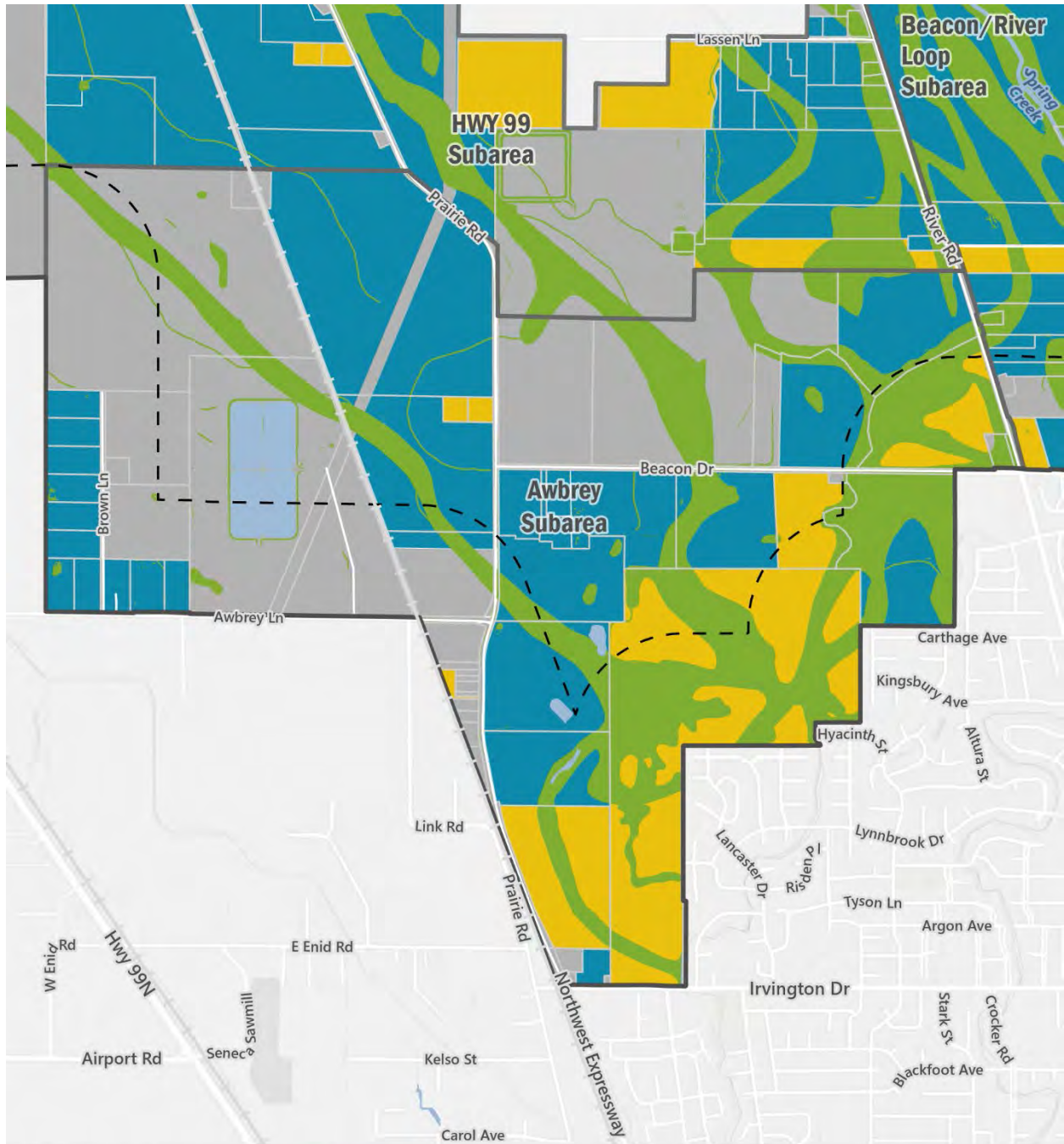
0.3 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 4.4 Development Potential, Awbrey Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Quarter mile from Eugene UGB
- Tax lots

- Developable**
 - Partially Vacant
 - Undeveloped
- Undevelopable**
 - Severely constrained by natural hazards or subject to natural resource protections
 - Occupied



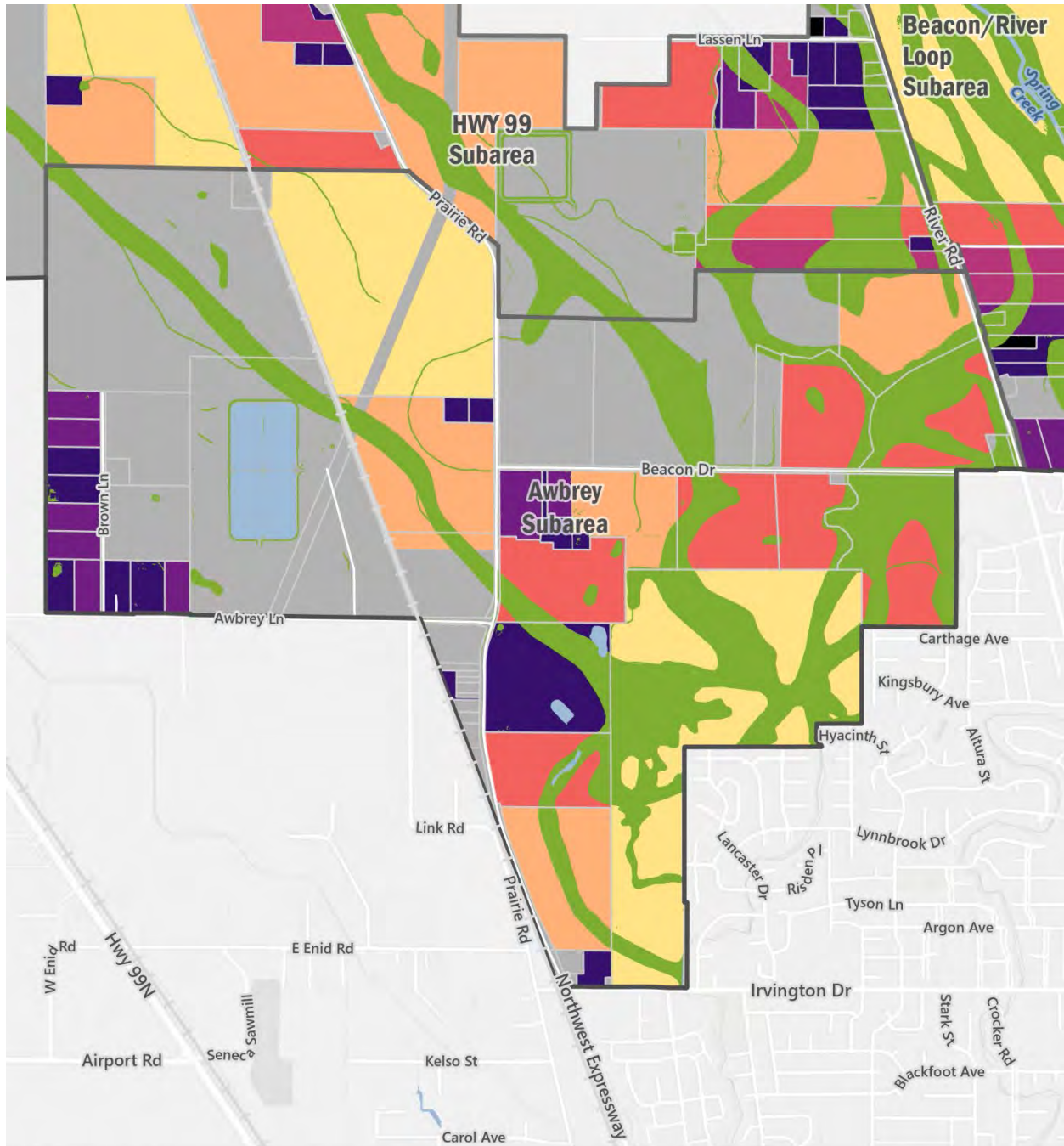
0.3 Miles



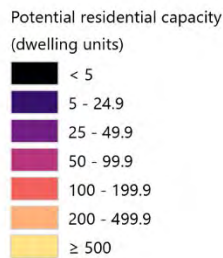
Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 4.5 Potential Residential Capacity, Awbrey Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied



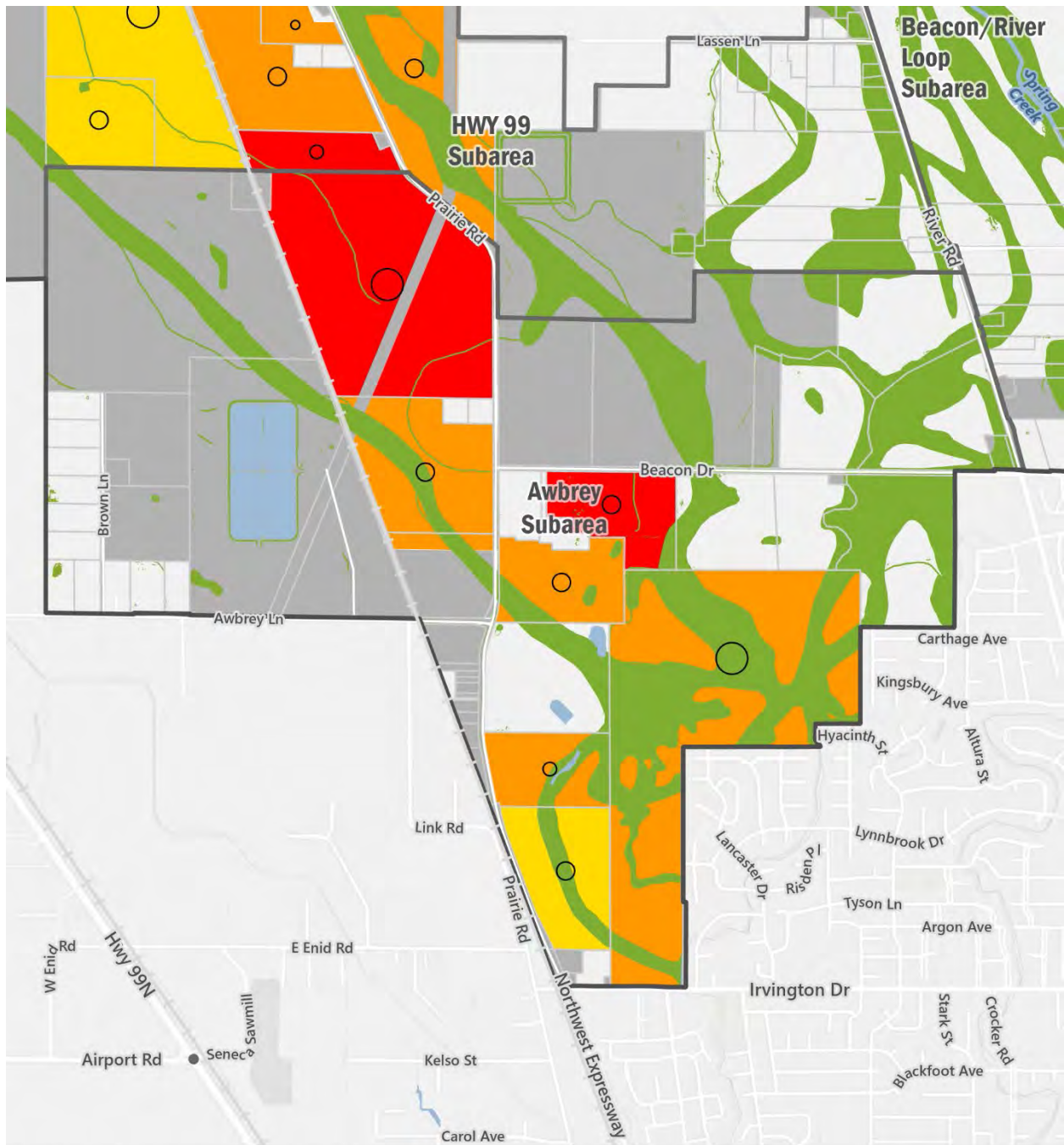
0.3 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 4.6 Potential Industrial Capacity, Awbrey Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied
- Freight Route Access Points

- Tax lots meeting industrial criteria
 Developable acres per tax lot
- 5 - 9 ac
 - 10 - 19 ac
 - 20 - 49 ac
 - 50 - 74 ac
 - 75+ ac

- Tax lots meeting industrial criteria
 Driving distance to a freight route
- 1 mile
 - 1.5 miles
 - 2 miles



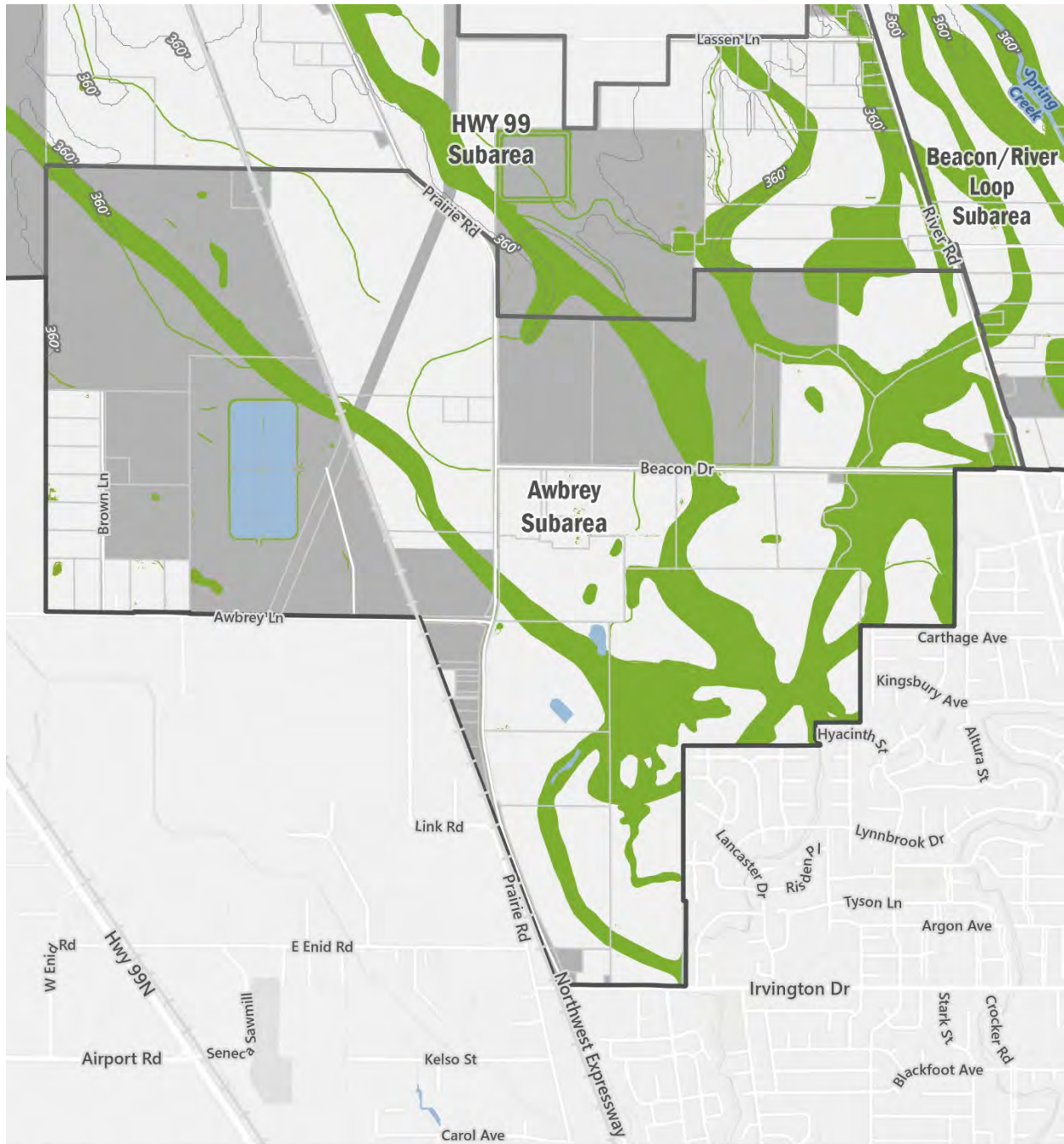
0.3 Miles








Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 4.7 Contours and Hillshade, Awbrey Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Tax lots
-  Severely constrained by natural hazards or subject to natural resource protections
-  Occupied



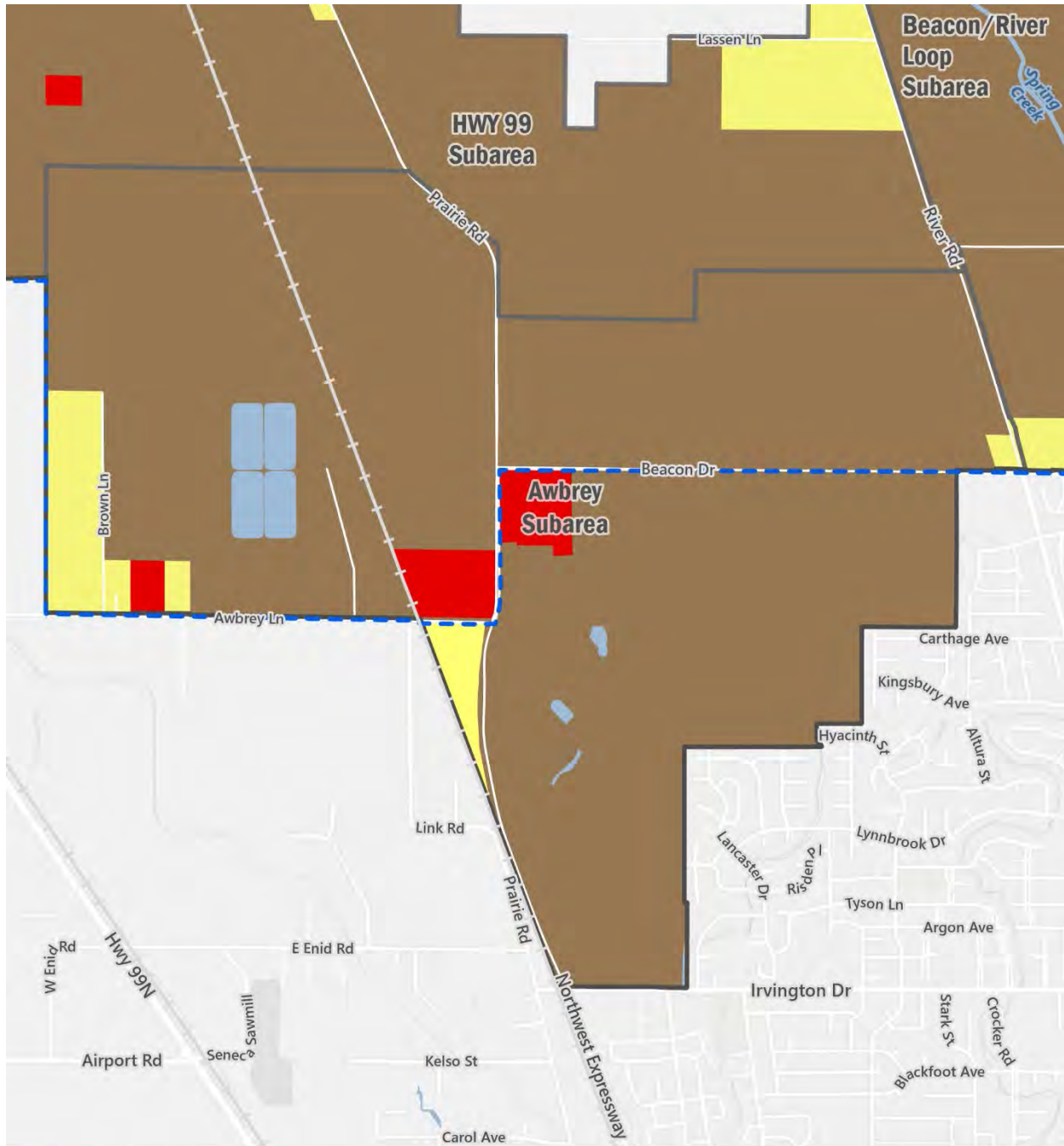
0.3 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 4.8 Plan Designations, Awbrey Subarea



- | | | |
|---|----------------------------|------------------------|
| Metro plan boundary | Industrial | Agriculture |
| Eugene UGB | Marginal | Airport reserve |
| Eugene urban reserves subarea boundaries | Natural resource: mineral | Forest land |
| Rural comprehensive plan designation | Natural resource: wildlife | Government & education |
| Agriculture | Non resource | Natural resource |
| Airport | Parks | Parks and open space |
| Commercial | Public facility | Rural commercial |
| Forest | Residential | Rural residential |
| | | Sand and gravel |



0.3 Miles

Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

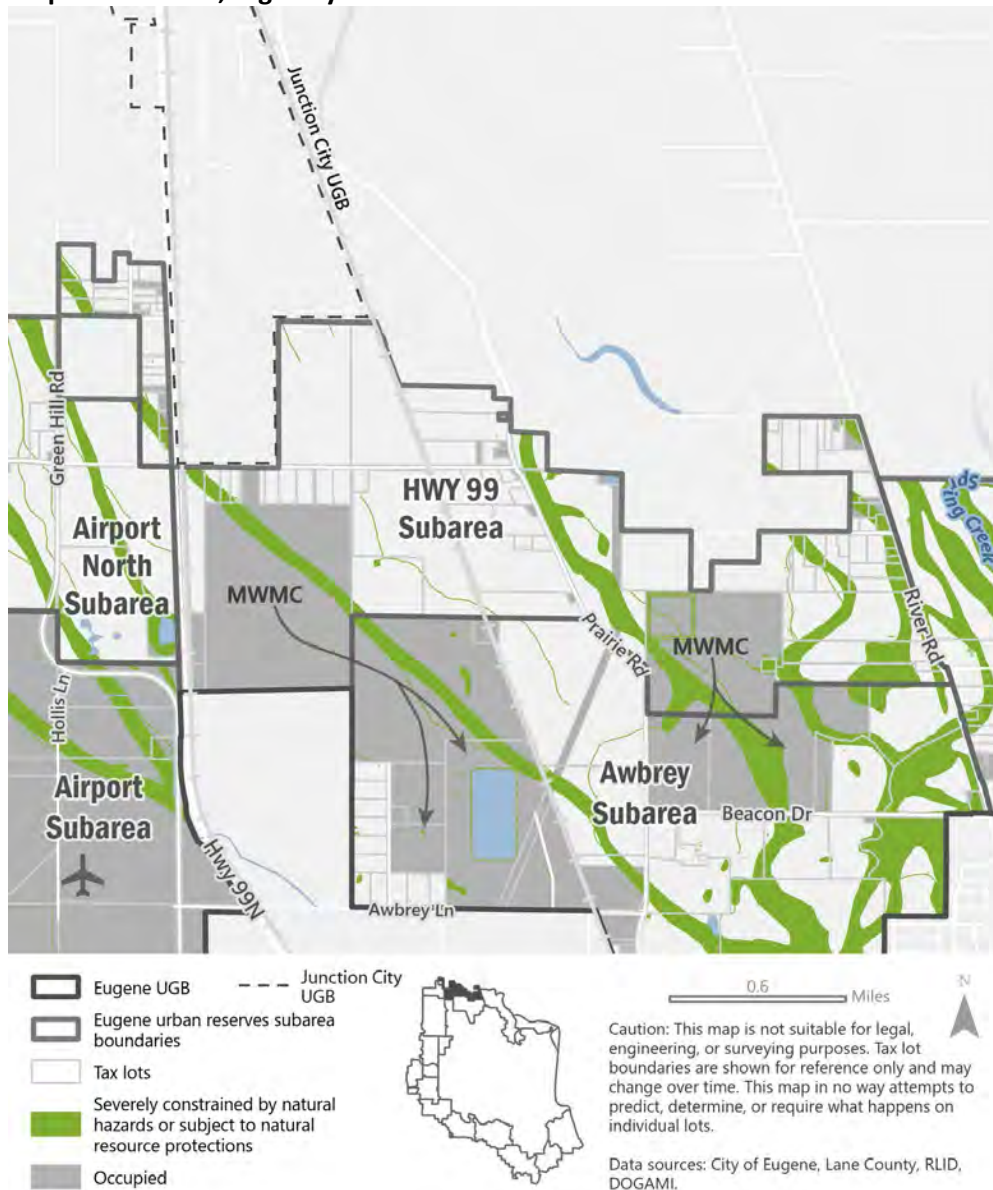
Data sources: City of Eugene, Lane County, RLID, DOGAMI.

5. Suitability Analysis – Highway 99

I. Background

- A. Location:** Land in the Highway 99 subarea is located to the north of Eugene and extends from west of Highway 99 on its northern edge to River Road to the east. It includes land on both sides of Prairie Road. The land in the subarea also surrounds the Junction City UGB on three sides where adjacent to Highway 99. See **Map 5.1 Location**, below, and **Maps 5.2-5.8** for additional information relevant to the subarea analysis.

Map 5.1 Location, Highway 99 Subarea



- B. Existing Land Uses:** There are a mix of land uses on land in the subarea, including agricultural, small scale rural residential, industrial and public. Of the 1,275 acres of land in the subarea, only 669 have potential for future residential or employment development. The land in the subarea is flat, and there are 530 developable acres designated for agriculture and in farm use. Along the River Road corridor there are existing farms on agricultural and rural residential-designated land. There are 606 acres of land in the subarea categorized as “undevelopable.” This includes land that is severely constrained by natural hazards or subject to natural resource protections, such as flood hazard areas and Goal 5 adopted wetlands, and occupied land, which mostly consists of public land owned by the Metropolitan Wastewater Management Commission for their Biocycle Farm (where biosolids are used to fertilize stands of poplar trees) and their Biosolids Management Facility located off Prairie Road (where biosolids generated from the wastewater treatment facility on River Avenue are turned into nutrient rich organic materials). Occupied land also includes a BPA easement, two rail lines, owned by Union Pacific and Portland and Western Railroad, and the Luper Pioneer Cemetery. The area north of Meadowview Road and west of Highway 99 is a mix of rural residential and rural industrial-related businesses.
- C. Barriers to Development:** As noted above, almost half (48 percent) of land in the subarea is categorized as “undevelopable” land, either because it is severely constrained by natural hazards or subject to natural resource protections, or because it is occupied. In addition to not having development capacity, the land owned by Metropolitan Wastewater Management Commission and the two rail lines may not be compatible with adjacent residential development due to operational issues such as noise, smell and barriers to transportation connections. There are areas of mapped Federal Emergency Management Agency (FEMA) Special Flood Hazard Areas (floodplains) throughout the subarea as well as Goal 5 wetlands mapped on the National Wetland Inventory, both shown in green on the maps. The Eugene Airport is located southwest of the subarea and the flight path is over the western portion of the land in the subarea. Airport administrators and the Federal Aviation Administration (FAA)¹ recommend industrial and agricultural-related use in areas immediately north and south of the runways based on the noise and safety concerns from airport operations².
- D. Surrounding Land Uses:** The land in the Highway 99 subarea is adjacent to the Awbrey Subarea to the south which consists of Metropolitan Wastewater Management Commission (MWMC) land as well as areas of agricultural, rural residential, and rural industrial lands. The Eugene Airport is southwest of the subarea. The subarea is adjacent to the Eugene UGB in only the southwestern portion where the MWMC biocycle poplar farm is located. There is very little development adjacent to the Highway 99 subarea outside of the UGB. To the north along Highway 99, the subarea abuts the southern-most portion of the Junction City UGB on three sides. The Junction City UGB extends to Meadowview Road and includes a large manufacturing facility adjacent to Meadowview Road. If the Highway 99 subarea were to urbanize, the Junction City and Eugene UGBs may eventually share a boundary.

¹ “For the protection of people and property on the ground, the FAA has identified an area of land located off each runway end as the Runway Protection Zone (RPZ) ...It is desirable to have all areas within the RPZ cleared and owned by the Airport ...” See the Eugene Airport Master Plan, Section 3.5.3.6, page 3-13.

² See February 12, 2022 letter from Cathryn Stephens, Airport Director, Eugene Airport.

- E. Organization of this Analysis:** After an initial review, it became clear that within the Highway 99 subarea, there are different areas that include land that shares attributes relevant for Goal 14 Locational Factor analysis, therefore they have been subdivided further, as follows:

HWY-1 includes 281 developable acres of land. This land is located south of Meadowview Road and east of Highway 99. The land in HWY-1 is grouped together for analysis purposes because it shares a variety of similar attributes that relate to the Goal 14 locational factor analysis. It includes land owned by MWMC adjacent to Highway 99 used for a biocycle poplar farm that is part of a lot included inside the UGB (the MWMC holdings also extend into the Awbrey subarea). The predominant land types in HWY-1 are large-scale farming operations, including poplar trees, grass, and to a lesser extent hazelnut orchards. Two railroad lines run through the land in Hwy-1, and there are rural residential and manufacturing uses along Prairie Road and Meadowview Road.

HWY-2 includes 220 developable acres. It is located north of Meadowview Road. The land in HWY-2 is located between the Eugene UGB and the Junction City UGB. The predominant land types in HWY-2 are commercial and small-scale industrial, particularly along Highway 99 and the railroad. The western portion of HWY-2 is located within the Eugene Municipal Airport flightpath and contains smaller lots. The eastern portion of HWY-2 contains some grazing land and is predominantly partially vacant or undeveloped.

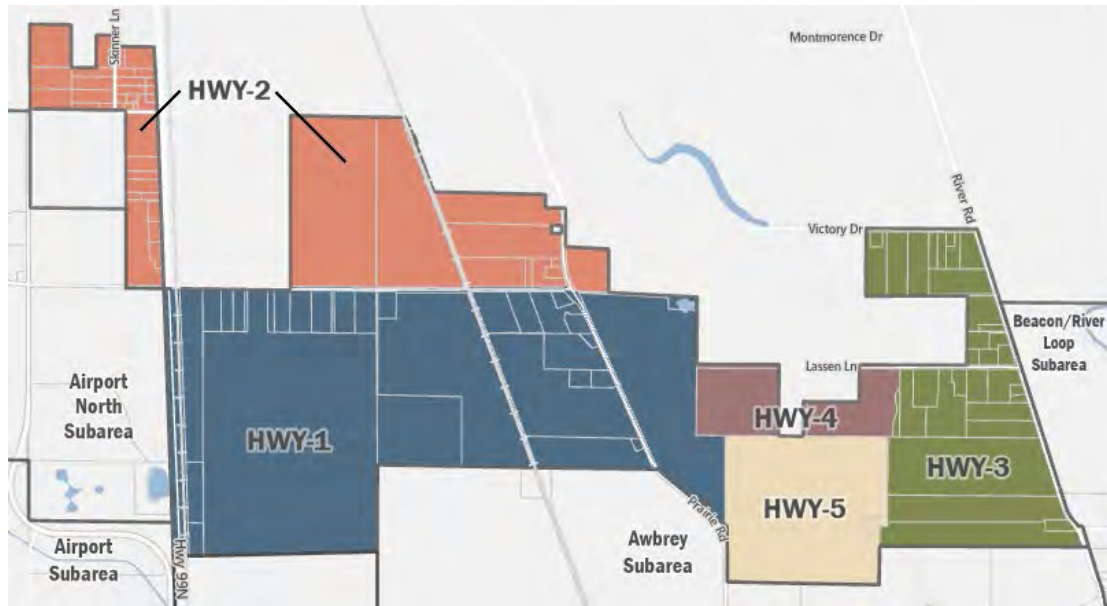
HWY-3 includes 116 developable acres located west of River Road. The land in HWY-3 contains a mix of food-producing farms and rural residences. It is constrained in places by natural resources and natural hazards.

HWY-4 includes 52 developable acres. It is located north of the MWMC land in HWY-5. The land in HWY-4 is made up of a few larger lots of relatively isolated farmland used for grass or hay farming, lacking access to transportation corridors. It is constrained to the east and west by natural hazards, and to the south by land occupied by MWMC.

HWY-5 includes no developable acres. It is significantly different in that it includes only land occupied by MWMC for wastewater detention and dispersal. The land in HWY-5 is classified as occupied and has no development capacity. It is significantly different in use and location from the MWMC occupied land in HWY-1, as is further described in the Goal 14 locational factor analysis to follow.

These differing circumstances enable the land in the Highway 99 subarea to be analyzed in terms of the five areas shown in **Map 5.2 Organization of Analysis**.

Map 5.2 Organization of Analysis, Highway 99 Subarea



II. Identify land that would be suitable for urban reserves³

A. Locational Factor 1: Efficient accommodation of identified land needs

To what extent is there ...

1. **Developable land adjacent to or nearby (within .25 mile) of the UGB?** In total, there are only 27⁴ developable acres located within one lot⁵ that has a portion of its boundary within .25 miles of Eugene’s UGB. This land is located on land in HWY-1. As shown on the **Map 5.4 Development Potential**, the land in the subarea adjacent the UGB is almost entirely classified as occupied (by MWMC) and is assigned no development capacity. Land that is within .25 miles of the UGB is likely to more efficiently accommodate the identified land needs than land that is further away from the UGB because of street, utility and neighborhood connections to already urbanized land. Therefore, this occupied land is important to include in Urban Reserves due to its location adjacent to the UGB even though it does not have development capacity, as it provides a path to connect future services through. Land in the remainder of the subarea in HWY-2, 3, 4, and 5 are not located nearby the UGB.

³ Please refer to Section II C of the Eugene Urban Reserve Study (Findings Appendix 2) for background on how the City is identifying land in the study area that would be “suitable,” the explanation of the prompts used for the Goal 14 Locational Factors, and specific terminology.

⁴ These 27 developable acres are located in a lot just east of the MWMC property that has a small corner within the quarter mile buffer of the UGB.

⁵ In the urban reserves study area, ‘lots’ are used for analysis purposes. See the Eugene Urban Reserves Technical Memo, Eugene Urban Reserves Technical Analysis Memo (Findings Appendix 4), for complete information.

2. ***Partially vacant developable land (that could be developed for the identified land needs)?*** The land in the subarea contains 525 developable acres on lots classified as partially vacant and 145 developable acres on lots classified as undeveloped. The distribution of these tax lots is shown on the **Map 5.4 Development Potential**. Land in HWY-1, 2, 3, and 4 have development capacity. Land in HWY-5 is completely occupied and has no development capacity.
3. ***Developable land that is identified in the capacity analysis⁶ as potentially able to be urbanized with a mix of residential housing? How does this translate into potential dwelling units (per the capacity analysis)?*** According to the residential capacity analysis, the land in the subarea has capacity for 5,590 dwelling units, or an average residential density of 8.4 dwelling units per developable acre (compared to 4.8 units per developable acre for the entire study area). As shown on **Map 5.5 Potential Residential Capacity**, land in HWY-2 has low residential capacity (less than 5 dwelling units per lot) west of Highway 99 due to smaller, partially developed lots, however east of Highway 99 lots are larger with more residential capacity per lot and have more potential to be developed with a mix of residential housing. Additionally, the portion of land in HWY-2 west of Highway 99 is not likely to be urbanized with residential development as Airport administrators and the Federal Aviation Administration (FAA) recommend allowing only industrial and agricultural-related use in areas immediately north and south of the runways based on the noise and safety concerns from airport operations. The land in HWY-4 has relatively high residential capacity (100- 499 dwelling units per lot), however the land is isolated and lacks access to arterials and major transportation corridors, limiting its ability to be urbanized with a mix of residential housing. Ribbons of floodplain along River Road and existing development on smaller lots limit the potential residential capacity of land in HWY-3. Relative proximity to the UGB, greater residential capacity, and access to Highway 99 and Prairie Road makes land in HWY-1 potentially appropriate for a mix of residential housing types and neighborhood-serving commercial uses, with the exception of the MWMC property which is assigned no development capacity, however being adjacent to wastewater uses and two railroad corridors makes residential housing less likely. Although it does not have development capacity, the MWMC land is important to include in Urban Reserves due to its location adjacent to the UGB even though it does not have development capacity, as it provides a path to connect future services through. Land in HWY-5 is entirely made of MWMC property and is assigned no development capacity.
4. ***Developable land that is identified in the capacity analysis⁷ as potentially able to be urbanized with industrial land need? How does this translate into potential industrial sites (per the capacity analysis)?*** As shown on **Map 5.6 Potential Industrial Capacity**, there are 418 developable acres identified in the capacity analysis as potentially suitable for urbanization with industrial land, located primarily within the middle of the subarea along the railroad and Prairie Road. One of the lots, located on land in HWY-1 west of the railroad tracks and south of

⁶ For information on how residential development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Analysis Memo (Findings Appendix 4). Factors such as lot size, slope, and elevation impact average residential density, based on actual development patterns within the UGB.

⁷ For information on how industrial capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo (Findings Appendix 4).

Meadowview Road is the most suitable for future industrial uses, due to its good transportation connections, flat topography and large size. Its proximity to MWMC property and distance from residential makes it suitable for industrial use. There are two lots on land in HWY-2 north of Meadowview Road suitable for industrial uses due to good transportation connections, size and flat topography; however the land in HWY-2 is adjacent to the Junction City UGB which is already served by Junction City municipal services, and farther from service connections within Eugene’s UGB. Therefore, the land in HWY-2 is mixed in its ability to efficiently accommodate identified industrial need. According to the industrial capacity analysis, there is no land with industrial capacity on land in HWY-3 along the River Road corridor or on land in HWY-4 due to their size or lack of transportation connections, and land in HWY-5 is entirely made of MWMC property and is assigned no development capacity.

5. ***Topography, steep slopes or other “undevelopable”⁸ lands that would make efficient urbanization difficult?*** “Undevelopable” lands are shown as gray and green on all of the analysis maps. As shown primarily on **Map 5.4 Development Potential, and Map 5.7 Contours and Hillshade**, the land in the subarea is largely flat, with less than one percent of the subarea sloped 30 percent or higher. The ribbons of FEMA-mapped Flood Hazard Area and Goal 5 wetlands on land in HWY-1 and HWY-3 would impact efficient urbanization, especially where flood areas are along road rights-of-way (e.g., Prairie and River Roads) where any development would by necessity impact those features. The small lot sizes along with ribbons of floodplain make the efficient urbanization of land in HWY-3 even more difficult. The undevelopable land in HWY-1 is occupied by MWMC and is assigned no development capacity, however this occupied land is important to include in Urban Reserves due to its location adjacent to the UGB and access to Meadowview Road. Even though it does not have development capacity, it provides a path to connect future services through. The distance from the UGB makes land in HWY-2 not efficient for urbanization. Although land in HWY-4 does not contain any steep slopes or other “undevelopable” lands, its access is restricted due, in part, to floodplain, wetlands, and the undevelopable occupied MWMC land in HWY-5.

Conclusion: *The ability of the land in HWY-1 to efficiently accommodate identified land needs is mixed. The negative attributes of HWY-1 are little developable land nearby Eugene’s UGB and the proximity of MWMC properties and railroad corridors which makes residential development less likely. However, this occupied land is important to include in Urban Reserves due to its location adjacent to the UGB even though it does not have development capacity, as it provides a path to connect future services through. The positive attributes of HWY-1 are high development capacity, access to Highway 99 and Prairie Road, and flat topography.*

The land in HWY-2 is also mixed in its ability to efficiently accommodate identified land needs, due to the following: Although the capacity analysis shows both residential and significant industrial

⁸ As described in section II B of the Eugene Urban Reserve Study (Findings Appendix 2), land was assigned no development capacity if it falls within one of the these “undevelopable” categories: severely constrained by natural hazards or is designated or zoned to protect natural resources; or not vacant or partially vacant (i.e. the land is already occupied).

capacity on land in HWY-2, residential development is not likely due to the proximity to the Airport flight path, proximity to wastewater uses on MWMC land, other industrial uses within the adjacent Junction City UGB, and the presence of two railroad corridors. It is also furthest from the Eugene UGB.

The land in HWY-3 is flat topographically and has is accessible along River Road. However, it is encumbered by ribbons of floodplain, smaller lot sizes, and preexisting development limiting development capacity. There is no capacity for industrial uses. Based on these factors, it is mixed in its ability to efficiently accommodate identified land needs.

The land in HWY-4 is isolated, lacks access to transportation corridors, is adjacent to an MWMC property precluding access from the south, has no industrial capacity, and is constrained by the ribbons of floodplain to the east in HWY-3. Therefore, it would not aid in the efficient accommodation of identified land needs.

The land in HWY-5 has a negative rating because it could not efficiently accommodate identified land needs due to having no development capacity as “undevelopable” occupied land that is owned by Metro Wastewater Management Commission and Luper Pioneer Cemetery.

Efficient accommodation of identified land needs:	Positive	Mixed	Negative
Land in HWY-1			
Land in HWY-2			
Land in HWY-3			
Land in HWY-4			
Land in HWY-5			

B. Locational Factor 2: Orderly and economic provision of public facilities and services⁹

The information below addresses the feasibility of serving the developable land in the Highway 99 subarea with public facilities and services in an orderly and economical way. It considers the capacity of the current system to serve the area and the extent of new infrastructure that would be needed to serve the area if urbanized. It includes an analysis of **wastewater, water, transportation, transit, stormwater, and fire/emergency services** and also, to a lesser extent, it includes the provision of **electricity, schools and parks**.¹⁰

⁹The definition of “public facilities and services,” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines, is: “[p]rojects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.”

¹⁰ The summarized information used in this section is based on the results of the Eugene Urban Reserves Serviceability Analysis Report (Findings Appendix 3). In providing information for that report, service providers considered the serviceability of the subareas in their entirety; they generally did not differentiate between areas within a subarea.

Before the narrative description is a table showing the generalized serviceability of the subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff, and a **generalized cost estimate** to address the economics of serving the subject area with public facilities and services. It reflects preliminary high-level estimates for the major components of the individual systems. Cost information is provided on a \$ to \$\$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$\$) denoting the greatest cost. The scale used to evaluate each type of service is tailored to address the fact that some services are more expensive to provide than others. For example, a \$ for wastewater does not equate to the same dollar amount as a \$ for transportation. Cost estimates do not include future maintenance costs.

Highway 99						
Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Moderate	Moderate	Moderate	Moderate	Moderate	Easy-Moderate
Generalized cost estimate	\$\$\$\$	\$	\$-\$-\$	\$	\$\$\$	\$

1. **Wastewater:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. This is because a new pump station would be needed to serve the subarea, which would be costly to design and construct.
2. **Water:** The subarea is assigned an “easy to moderate” serviceability rating and the generalized cost estimate for improvements is \$. This is because distribution and transmission systems would have to be extended from incorporated areas within the UGB to provide service. Due to the flat topography, this can be done relatively efficiently along River Road, Prairie Road and Highway 99. There are no east-west roadways through the entire subarea; that and the existence of the Junction City UGB and two railroad corridors make east-west utility connections more complicated and costly.
3. **Fire:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate is \$-\$-\$\$. Given the current locations of the City fire stations and existing street network, there are response time/service delay concerns for fire truck coverage, and a new fire station may be needed.
4. **Transportation:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate is \$. While developable land is not adjacent to Eugene’s UGB, the subarea has access to Highway 99, Prairie Road, and River Road, which serve as connections to Eugene and the regional transportation network. There are two railroad corridors which travel north/south through the subarea and could benefit industrial uses, however they make east-west roadway connections more challenging and costly.
5. **Transit:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate is \$\$\$\$. The subarea is relatively isolated which may make it challenging to create efficient transit service in the subarea. The closest current transit route is on Highway 99 to Junction City and is separated from most of the developable land in this subarea.

6. **Stormwater:** The subarea is assigned a “easy to moderate” serviceability rating and the generalized cost estimate is \$\$\$. This area has flat topography and the soils are likely suitable for infiltration. Future urbanization is likely suitable for on-site infiltration to reduce post-development runoff and protect downstream water quality. If on-site detention is not feasible, neighborhood or regional detention facilities may be necessary, which would make the ease to serve this area ‘moderate.’ The entire area falls within the Junction City Water Control District and stormwater and flood control requirements in the Eugene code at 9.6791(3)(c) would need to be extended into this area.
7. **Other (Parks, Schools, Electric):** There is no parkland or school land within the Highway 99 subarea. The subarea is within the Junction City School District. A portion of the subarea is served by Blachly-Lane Electric.
8. **Is there undeveloped land within the UGB that would be helped in its development/serviceability if this area were included in urban reserves, or is there undeveloped land within the UGB that would negatively impact the orderly and economic provision of public facilities and services?** There is land occupied by MWMC that is a biocycle poplar farm that is both inside the UGB and outside of it (within the subarea in HWY-1). This land is important to include in urban reserves due to its location adjacent to the UGB even though it does not have development capacity, as it provides a path to connect future services to adjacent developable land. Inclusion of land in the Awbrey Subarea in urban reserves (and future UGB) would likely be necessary for the serviceability of this subarea to be feasible because very little of the developable land in the Highway 99 subarea is adjacent to the UGB.

Conclusion: *Based on the input from service providers, the land in the Highway 99 subarea in HWY-1, HWY-2, HWY-3, HWY-4 and HWY-5 is considered moderate to serve. The subarea benefits from flat topography and north/south roadway and railroad connections. However, service provision increases in cost due to the difficulty in providing east-west service connections because of a lack of existing roadway system, the two railroad corridors acting as potential barriers, and the location of the Junction City UGB. Land in the Highway 99 subarea’s serviceability is also impacted by its distance from the Eugene UGB and the existing services within the City limits, and the subarea’s dependence on the Awbrey subarea to the south being included in Urban Reserves and urbanizing first. Overall, the serviceability rating is “mixed” as land in the Highway 99 subarea could be provided with public facilities and services in only a moderately orderly and economic manner.*

Orderly and economic provision of public facilities and services:	Positive	Mixed	Negative
Land in HWY-1			
Land in HWY-2			
Land in HWY-3			
Land in HWY-4			
Land in HWY-5			

C. Locational Factor 3: Comparative environmental, energy, economic and social consequences

1. Environmental consequences:

- a. *Presence of natural resources: To what extent would urbanization of this area negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources?*** There is no existing public open space in the subarea. Flat Creek winds generally north/south on land in HWY-3. Throughout the subarea are ribbons of Lane County Goal 5 wetlands which also provide habitat for many species and could be negatively impacted by adjacent urbanization. While present throughout the Highway 99 subarea, wetlands are most predominant on land in HWY-1 and HWY-3. Future urbanization will increase impervious surfaces such as roofs and pavement and could therefore increase stormwater runoff and potential pollutants in waterways. However, if urbanized, development would be subject to the city’s stormwater standards, which would mitigate those impacts. Goal 5 adopted wetlands are categorized as natural resource land, so urbanization is not assumed on them. There is a small portion of ribbons of floodplains running through land in HWY-2, HWY-4, and HWY-5.
- b. *Presence of hazard areas (steep slope, landslides, floodplain): To what extent would urbanization of this area increase the potential risk of natural hazards, such as landslides, wildfire or flooding?*** Many of the wetlands mentioned above are co-located with or adjacent to FEMA-mapped flood hazard areas in the subarea. The presence of flood hazard areas could increase the risk of flooding on adjacent urbanization. While flood hazard areas are present throughout the Highway 99 subarea, they are most predominant on land in HWY-3 and adjacent to Prairie Road on land in HWY-1 and HWY-2. There is a small portion of ribbons of floodplains running through land in HWY-2, HWY-4, and HWY-5. There are also small strips of high-risk landside areas and steep slopes scattered throughout the subarea. These hazard areas are categorized as “undevelopable,” so urbanization is not assumed on either. However, adjacent development could have negative environmental consequences by increasing stormwater runoff and therefore flood risk. However, if urbanized, development would be subject to the city’s stormwater standards, which is intended to minimize runoff and mitigate those impacts.

- c. Presence of nearby public open space: To what extent would nearby public open space benefit future residents of the area?** There are no public open space areas within or nearby this subarea that would benefit future residents of the area.

Conclusion: *Urbanization of the land in HWY-1 could negatively impact wetlands and increase the risk of natural hazards, such as flooding. Focusing urbanization on less sensitive areas on land in HWY-1 would mitigate negative environmental consequences. Therefore, the environmental consequences of urbanizing the land in HWY-1 are mixed (medium).*

The land in HWY-2 is less encumbered by natural resources and hazard areas, however it does contain some ribbons of wetland and floodplain. Focusing urbanization on less sensitive areas on land in HWY-2 would mitigate negative environmental consequences. Therefore, the environmental consequences of urbanizing the land in HWY-2 are mixed (medium).

The land in HWY-3 contains the most predominant natural resources and hazard areas. Ribbons of floodplain and wetlands are on land throughout HWY-3, including immediately adjacent to River Road. Urban development could have negative impacts on these areas and could increase the risk of flooding. Therefore, the environmental consequences of urbanizing the land in HWY-3 are negative (high).

The land in HWY-4 has only a minor presence of floodplain and wetlands along its edge with HWY-3, but is surrounded by floodplain on land in other parts of the subarea (HWY-1, HWY-5 and HWY-3). Overall, because of its lack of natural resources or natural hazard land, the environmental consequences of urbanizing the land in HWY-4 is positive (low).

The land in HWY-5 contains ribbons of floodplain and wetlands but is assigned no capacity for residential or employment development and would remain in current use as public utility land (MWMC) whether inside or outside the UGB. As such, there would be no environmental consequences of including this land in urban reserves.

Environmental Consequences:	Positive (Low)	Mixed (Medium)	Negative (High)	No Consequences
Land in HWY-1				
Land in HWY-2				
Land in HWY-3				
Land in HWY-4				
Land in HWY-5				

2. Energy Consequences (priority for lower energy usage):

a. To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt)? A few factors make this unlikely in the Highway 99 subarea: it's distance from existing urbanization within the UGB (inability to connect to existing neighborhoods, jobs and services); the location of the floodplain along major roadways (Prairie and River Roads), impeding efficient urbanization; and the proximity of wastewater facilities and the Airport limiting the likelihood of residential development. The land in HWY-1 contains some existing residential uses south of Meadowview Road. Although already developed with residential uses on the western portion of land in HWY-1, the land on the eastern portion is larger in size and has more development capacity for housing types, jobs, and services. The land in HWY-1 is bordered by Highway 99 to the west and Prairie Road to the east—both roads leading to job centers such as the Eugene Downtown. Relative proximity to the UGB, greater residential capacity, and access to Highway 99 makes land in HWY-1 potentially appropriate for a mix of residential housing types and neighborhood-serving commercial uses. Land west of Highway 99 on land in HWY-2 is not well-suited to co-locate a variety of housing types, jobs, and services in order to provide a 20-minute neighborhood (where homes, jobs and services can be reached on foot within 20 minutes thereby limiting the need for vehicle trips and having positive energy impacts), due to its location in the north flightpath of the Eugene Municipal Airport. Airport administrators and the Federal Aviation Administration (FAA) recommend industrial and agricultural-related use in areas immediately north and south of the runways based on the noise and safety concerns from airport operations. The eastern portion of land in HWY-2 is located outside the flightpath, however it is distanced from job centers due to its location north of Meadowview Road. While it contains industrial capacity and access to the railroad, it could not accommodate a variety of housing and services to lower miles traveled. While land in HWY-3 is along River Road (a transportation corridor to job centers such as Downtown Eugene), ribbons of floodplain and existing residential development on smaller lots limit efficient urbanization due to decreased and scattered development capacity and would lead to increased vehicle miles traveled. Although the land in HWY-4 contains development capacity, it lacks access to transportation corridors, resulting in the land being inaccessible and isolated. The land in HWY-4 could not accommodate a mix of housing, jobs, and services due to its isolation. The land in HWY-5 is completely occupied and has no development capacity, resulting in no potential or future urbanization with a variety of identified uses.

b. To what extent is the area easily accessible to other services or uses (e.g., neighborhood commercial, parks, schools)? There is no parkland within or nearby land in the subarea and there are some neighborhood-serving commercial uses in the subarea or nearby, including landscaping services, storage facilities, and truck rental services. Awbrey Park Elementary School is south of the subarea inside the UGB. The land in HWY-1 is closest to urban development within the UGB, and therefore would rely less on vehicle miles traveled in comparison to the other parts of this subarea. Due to the distance of the subarea from services and uses within UGB, urbanization of land in HWY-2, HWY-3, and HWY-4 would

provide mixed energy impacts in due to increased vehicle miles traveled to Downtown and other job centers. Urbanization of land in HWY-5 would have no impacts as it has no capacity for residential or industrial development uses.

- c. To what extent is the area adjacent to or nearby the UGB? (see Locational Factor 1, A.2)** As shown on **Map 5.4 Development Potential**, the only portion of the subarea adjacent or nearby the UGB is a small portion of the Highway 99 subarea on land in HWY-1. This portion is very small and could not accommodate urbanization, therefore there are positive energy implications. Land in remainder of the subarea on land in HWY-3, HWY-4, and HWY-5 are not located nearby the UGB and land in HWY-2 is located farthest from the UGB.
- d. To what extent is there good multi-modal transportation access to this area? To what extent is the area easily accessible to job centers and downtown?** The land in the subarea is very flat (less than one percent of the subarea is 30 percent or higher slope) which creates potential for creating good multi-modal transportation access to the subarea. However, the land in HWY-2 is more distanced and surrounds the Junction City UGB, making multi-modal access to job centers and Eugene’s downtown inaccessible. The land in HWY-3 is encumbered by ribbons of floodplain which would limit the construction of an efficient road system. The land in HWY-4 is isolated and lacks access to major transportation corridors. Highway 99, Prairie Road, and River Road provide access to downtown, Eugene’s main job center. A robust street network between the land in HWY-1 and existing city limits would need to be developed. Transit service would need to be extended to this subarea, and roadway improvements, including bike lanes and sidewalk improvements would be needed to accommodate all users. The land in the subarea is relatively isolated which may make it challenging to create efficient transit service in the subarea. The closest current transit route is on Highway 99 to Junction City and is separated from most of the developable land in this subarea. The land in HWY-5 is completely occupied and has no development capacity, resulting in no potential or future urbanization and needed multi-modal transportation access to this area.
- e. To what extent does future urbanization directly or indirectly generate energy or climate burdens (e.g., loss of open space, loss of growing lands, increased traffic, increased carbon emissions)?** Future urbanization of the land in HWY-1 will directly and indirectly generate energy and climate burdens due primarily to the loss of agricultural lands, increased vehicle traffic, and increased carbon emissions due to development and vehicles miles traveled (although less vehicle miles traveled than other parts of the subarea). The land in HWY-2 is more distanced from the UGB due to its location surrounding the Junction City UGB and therefore would be more vehicle dependent. The land in HWY-3 is a mix of rural residential in addition to agricultural lands and small farms that could be lost to urbanization. The land in HWY-4 is also isolated and lacks vehicle access to major transportation corridors and is constrained by the ribbons of floodplain to the east on land in HWY-3 which may hinder development. The land in HWY-5 is completely occupied and has no development capacity, resulting in no potential or future urbanization with a variety of identified uses.

Conclusion: *As described above, there are mixed energy consequences to urbanizing the developable land in HWY-1. The flat topography and access to major transportation corridors have good potential for co-locating a variety of housing, jobs, and services, limiting the need for vehicle trips and therefore having positive energy impacts compared to other parts of the subarea.*

The land in HWY-2 is farthest from the Eugene UGB. Due to its distance from existing urbanization, the land in HWY-2 would rely more on vehicle miles traveled and would not be suitable for multi-modal access. Land west of Highway 99 in HWY-2 is not well-suited to co-locate a variety of housing types, jobs, and services in order to provide a 20-minute neighborhood (where homes, jobs and services can be reached on foot within 20 minutes thereby limiting the need for vehicle trips and having positive energy impacts), due to its location in the north flightpath. Therefore, there would be negative energy consequences of including this land in urban reserves.

The land in HWY-3 is encumbered by ribbons of floodplain which would limit the construction of an efficient road system for both vehicle and multi-modal travel. Additionally, the land in HWY-3 is a mix of rural residential and active agricultural land with small food-production farms that would be lost to urbanization. Therefore, there would be negative energy consequences of including this land in urban reserves.

The land in HWY-4 is isolated and lacks street connectivity due to its location north of an MWMC facility and west of ribbons of floodplain within HWY-3. Due to its isolation, the land in HWY-4 would rely more on vehicle miles traveled and would not be suitable for multi-modal access. Therefore, there would be negative energy consequences of including this land in urban reserves.

The land in HWY-5 has no capacity for residential or employment development and would remain in its current use whether inside or outside the UGB. As such, there would be no energy consequences of including this land in urban reserves.

Energy Consequences:	Positive	Mixed	Negative	No Consequences
Land in HWY-1				
Land in HWY-2				
Land in HWY-3				
Land in HWY-4				
Land in HWY-5				

3. Economic consequences:

- a. In general, how much economic activity would urbanization of this area bring? Ex: Additional construction opportunities?** The land in the Highway 99 subarea contains 669 acres of developable land. Based on generalized capacity assumptions, this land could accommodate 5,590 new residential dwelling units. Urbanization of new housing and infrastructure would bring construction activity that would benefit the local economy and the local tax base would increase. There is also capacity for industrial development of land

in HWY-1 and HWY-2, which is more likely given the subarea's distance from existing residential urbanization and proximity to existing industrial development. The ribbons of floodplain and smaller lots on land in HWY-3 would result in an inefficient development pattern and limited development capacity, making it less suitable for economic activity. The land in HWY-1, HWY-2, and HWY-3 along Highway 99, the railroad, Prairie Road, and River Road also has positive economic consequences due to its good transportation access to job centers in Eugene and Springfield. The land in HWY-4 lacks access to major transportation corridors, limiting residential development. Additionally, land in HWY-4 has no industrial development capacity. The land in HWY-5 is completely occupied and has no development capacity, resulting in no economic activity.

- b. *Is the area appropriate for future urbanization with a variety of identified uses (not just LDR), to support connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a):*** Some of the land in HWY-1 could support future urbanization with a variety of identified uses which support connected, integrated neighborhoods, providing positive economic consequences. The potential for 20-minute neighborhoods would be low due to the land in the subarea's distance from existing development. Urbanization of the land in this subarea as a 20-minute neighborhood would not be likely without urbanization or annexation of adjacent subareas. Ribbons of floodplain and existing development on lands designated rural residential limit the residential capacity and overall density of land in HWY-3. Relative proximity to the UGB, greater residential capacity, and access to Highway 99 makes land in HWY-1 potentially appropriate for a mix of residential housing types and neighborhood-serving commercial uses. The land in HWY-2 is more distanced and surrounds the Junction City UGB, lacking access to job centers and Eugene's downtown. As previously described, the area west of Highway 99 on land in HWY-2 has a low likelihood of developing as a complete neighborhood due to its adjacency to the airport. Airport administrators and the Federal Aviation Administration (FAA) recommend industrial and agricultural-related use in areas immediately north and south of the runways based on the noise and safety concerns from airport operations. The land in HWY-5 is completely occupied and has no development capacity, resulting in no potential or future urbanization with a variety of identified uses.
- c. *Are there concerns about future urbanization causing a loss of economic activity for existing and nearby uses? (also see Locational Factor 4)*** Given existing uses on developable land being primarily agricultural and residential, there is relatively moderate concern about future urbanization causing a loss of economic activity for existing and nearby uses. There are several heritage farms along the River Road corridor on land in HWY-3 that could be negatively impacted by urbanization if displaced or by increased conflicts between farm operations and new residential development. There is capacity for industrial uses to be located nearby the railroad where there is already existing industrial development outside of the subarea. Land in HWY-4 is designated agricultural, however there are no active farms. The existing commercial and industrial development on land in HWY-1 and HWY-2 could benefit from redevelop potential due to opportunities for more intensive development if

urbanization occurs. The land in HWY-5 is completely occupied and has no development capacity, resulting in no future loss of economic activity.

- d. How cost-efficient is service provision in this area? (also see Locational Factor 2)** As already noted, the low to moderate cost of servicing the land in the subarea makes the likelihood of efficient urbanization and its associated economic benefits positive. The efficient extension of services to developable land within the subarea requires the inclusion of land occupies by MWMC in HWY-1. This occupied land is important to include in Urban Reserves due to its location adjacent to the UGB even though it does not have development capacity, as it provides a path to connect future services through. While the high potential capacity on some parts of the subarea may make the investment in infrastructure economical over the long term, this assumes development occurring at anticipated densities.

Conclusion: *As described above, urbanization will bring mixed economic consequences to the land in HWY-1, but primarily due to the distance from the Eugene UGB makes the land less suitable for residential development, the likelihood of efficient urbanization and its associated economic benefits are mixed. The location of land in HWY-1 along Highway 99, the railroad, and Prairie Road also benefits it economically.*

The land in HWY-2 is far (2 miles) from the Eugene UGB and existing urban development within the Eugene UGB due to this land surrounding the Junction City UGB. The land in HWY-2 is more distanced and surrounds the Junction City UGB, lacking access to job centers and Eugene’s downtown. Additionally, the land west of Highway 99 in HWY-2 has a low likelihood of developing as a complete neighborhood due to its adjacency to the airport. Therefore, the likelihood of efficient urbanization and its associated economic benefits are negative.

The land in HWY-3 contains smaller lots and is constrained by ribbons of floodplain which would lead to inefficient development patterns and lower residential capacity. Additionally, the land in HWY-3 has no industrial development capacity. Therefore, the likelihood of efficient urbanization and its associated economic benefits are negative.

The land in HWY-4 has no capacity for industrial development. Additionally, its adjacency to wastewater facilities and lack of access to transportation corridors makes its likelihood of efficient urbanization and its associated economic benefits negative.

The land in HWY-5 has no capacity for residential or employment development and would remain in its current use whether inside or outside the UGB. As such, there would be no economic consequences of including this land in urban reserves.

Economic Consequences:	Positive	Mixed	Negative	No Consequences
Land in HWY-1				
Land in HWY-2				
Land in HWY-3				
Land in HWY-4				
Land in HWY-5				

4. Social Consequences: ¹¹

- a. Will urbanization negatively impact current residents?** While urbanization may negatively impact some existing residents of land in HWY-1, HWY-2, and HWY-3 due to increased noise, traffic, and impacts to their viewshed, urbanization could also have positive social consequences by providing additional development opportunities for landowners and access to more services and neighborhood commercial uses. Improvements to the roadway system and additional neighborhood-serving commercial uses could also benefit existing and nearby residents. However, residents of small farms on agricultural lands on land in HWY-3 would be highly impacted by urbanization. Land in HWY-4 and HWY-5 is not occupied by existing residents. As previously described, the land west of Highway 99 in HWY-2 is less suitable for future residential development due to its adjacency to the airport. Airport administrators and the Federal Aviation Administration (FAA) recommend industrial and agricultural-related use in areas immediately north and south of the runways based on the noise and safety concerns from airport operations. All of the land in the subarea may be negatively impacted by the odor and noise from tree felling of the MWMC biosolids facilities, which may make all of the land in the subarea unsuitable for residential development.
- b. How would urbanization worsen or improve service delivery to residents in this area (e.g., adequate fire response times, access to water, parks)? (also see Locational Factor 2)** As noted in the serviceability analysis, a new fire station may be needed. However, a detailed analysis may prove that the subarea could be served within existing capacity. EWEB service is already available adjacent to the lands in HWY-1, south of the Eugene UGB. Distribution and transmission systems would have to be extended to provide service, improving service delivery to residents in the area. It is assumed that neighborhood parks would be developed if neighborhoods urbanize to meet service standards.
- c. Will urbanization exacerbate the impacts of potential natural hazards, such as flooding, fire, and landslides? (also see Locational Factor 3, Environmental Consequences C.2.a)** As already noted, urbanization of the land in the subarea could exacerbate the impacts of flooding due to the presence of flood hazard areas that exist across land in the subarea but are most prominent on land in HWY-3. There are small ribbons of identified flood hazards on land in HWY-1, HWY-2, HWY-3, HWY-4, and HWY-5. There are small strips of steep slopes and identified landslide hazards on land in HWY-1, HWY-2, HWY-3, HWY-4, and HWY-5.

¹¹ The definition of “social consequences” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines is: “[t]he tangible and intangible effects upon people and their relationships with the community in which they live resulting from a particular action or decision.”

- d. How might urbanization in this area impact vulnerable populations¹² and underserved groups currently living in the subarea? Could one segment of the population be impacted more than another (e.g., low-income households)?** The potential displacement of some existing rural businesses and farms on land in HWY-1, HWY-2 and HWY-3 if urbanization occurs, could negatively impact vulnerable and underserved groups. While future industrial uses on land in HWY-1 and HWY-2 would be compatible in this subarea because of the nearby industrial corridor, it would continue the mostly industrial pattern (such as the existing MWMC development) in this area, rather than spreading this type of use to other areas around the Eugene UGB. For example, there could be negative impacts to vulnerable populations such as older residents and low-income households due to the potential of increased concentrated industrial development along an industrial corridor. Due to its proximity adjacent to a MWMC facility, the land in the subarea may not be suitable for residential or for connected neighborhoods. This is due to the potential future odor and noise from tree felling that could result from the MWMC biosolids facilities. Additionally, there are small farms within land in HWY-3 that provide local, organic produce in exchange for Oregon SNAP benefits. If the existing farms were urbanized, it may negatively impact access to healthy food for low-income communities
- e. Will urbanization in this area allow for connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a)** As noted above, the subarea does not appear to be suitable for connected, integrated neighborhoods. The land in the subarea is surrounded by the Junction City UGB, MWMC lands, the airport, and River Road corridor lands in HWY-3 that are encumbered by flood hazard areas. Relative proximity to the UGB, greater residential capacity, and access to Highway 99 makes land in HWY-1 potentially appropriate for a mix of residential housing types and neighborhood-serving commercial uses. While the land in the subarea has potential for a mix of residential housing and commercial, its location adjacent to the MWMC biosolids facilities on land in HWY-1, HWY-3, and HWY-5 makes the lands less suitable to be urbanized with a mix of residential housing. As noted several times above, the land west of Highway 99 in HWY-2 is not suitable for connected, integrated neighborhoods due to its proximity to the airport.

Conclusion: *As described more fully above, urbanization of land in HWY-1 would have mixed social consequences. Service delivery would improve with urbanization, but there could be positive or negative social consequences. For example, there could be negative impacts to vulnerable populations such as older residents and low-income households due to the potential of increased concentrated industrial development along an industrial corridor. However, access to services such as utilities and the development of parks and greenspace could benefit existing residents and businesses.*

¹² Vulnerable populations are defined as populations that identify as a non-white race or ethnicity, younger or older populations, populations with a disability, and/or single-headed households. Data is from Livability Lane, 2013 Equity and Opportunity Assessment, Social and Demographic Characteristics Map. The extent to which vulnerable populations and underserved groups currently live in the subarea is speculative.

*The land in **HWY-2** feels isolated from Eugene due to its location north of Meadowview Road surrounding the Junction City UGB. Residents in HWY-2 anecdotally consider themselves part of the Junction City community--their mailing address, school district, irrigation district, etc. are all affiliated with Junction City. However, urbanization would bring access to services such as utilities and the development of parks, which could benefit existing residents and businesses. Some existing businesses on land in HWY-2 may be impacted by future urbanization, however they may also benefit from service extensions. The land west of Highway 99 in HWY-2 is not suitable for connected, integrated neighborhoods due to its proximity to the airport. Therefore, urbanization of land in HWY-2 would have negative social consequences.*

*The land in **HWY-3** contains small farms that, in addition to being at risk of displacement, also provide local, organic produce that would be highly impacted by urbanization. Therefore, the urbanization of land in HWY-3 would result in negative social consequences.*

*The land in **HWY-4** contains no existing businesses or residents, however due to its proximity directly north of an MWMC facility, land in HWY-4 is not suitable for residential or for connected neighborhoods. This is due to the odor and noise from tree felling resulting from the MWMC biosolids facilities. Therefore, the urbanization of land in HWY-4 would result in negative social consequences.*

*The land in **HWY-5** has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. As such, there would be no social consequences of including this land in urban reserves.*

Social Consequences:	Positive	Mixed	Negative	No Consequences
Land in HWY-1				
Land in HWY-2				
Land in HWY-3				
Land in HWY-4				
Land in HWY-5				

Locational Factor 3 Conclusion:

For the land in **HWY-1**, the analysis under Locational Factor 3 shows that urbanization would have mixed Environmental, Energy, Economic, and Social consequences.

For the land in **HWY-2**, the analysis under Locational Factor 3 shows that urbanization would have negative Environmental, Energy, Economic, and Social consequences.

For the land in **HWY-3**, the analysis under Locational Factor 3 shows that urbanization would have mixed Environmental, Energy and Social consequences and positive Economic consequences.

For the land in **HWY-4**, the analysis under Locational Factor 3 shows that urbanization would have Economic and Economic consequences and positive Environmental, Energy consequences.

The land in **HWY-5**, has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. As such, there would be no Environmental, Energy, Economic or Social consequences of including this land in urban reserves.

D. Locational Factor 4: Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

- 1. *How will urbanization impact agricultural and forest activities on farm and forest designated land within the subarea?*** Land in HWY-1, HWY-2 and HWY-3 is a mix of uses, but farmland with agricultural activities is the predominant use. Beyond the risk of displacement, urbanization could cause increased congestion on roadways and odor, safety and other complaints from neighbors which could negatively impact the existing agricultural practices and have a negative impact on farm-designated land within the subarea. This is especially the case on land in HWY-3, where there is more intensively farmed food-producing land and associated activities. The MWMC land in HWY-1 and HWY-5 is used for poplar tree felling, however this land is occupied and has no capacity for future development. The land in HWY-4 is all farmland; urbanization on this land would displace these farm uses, while nearby urbanization on land in HWY-1 or HWY-3 may impact the access to these isolated properties and could also lead to odor, safety and other complaints from neighbors which could negatively impact the existing agricultural practices. There is no forest-designated land within land in the subarea.
- 2. *Is urbanization compatible with existing agricultural and forest uses on farm and forest designated land nearby (outside of the subarea)?*** Existing surrounding uses are primarily agricultural, with some rural residential and commercial/industrial uses. There are active farms surrounding the subarea, especially north and east of the land in HWY-3 that would be incompatible with urbanization. There are no forest activities outside of the subarea.

Conclusion:

*The land in **HWY-1** contains a mix of uses, including agricultural-related activities such as land that is being used as pastureland and for a poplar tree farm. Due to the lack of active agricultural uses surrounding the land, it appears urbanization in HWY-1 would have mixed compatibility with surrounding agricultural activities outside of the UGB*

*The land in **HWY-2** contains a mix of uses, including agricultural-related activities and land that is being farmed for grass. Due to the lack of active agricultural uses surrounding the land, it appears urbanization in HWY-2 would have mixed compatibility with surrounding agricultural activities outside of the UGB.*

*The land in **HWY-3** contains active small food-producing farms and is adjacent to active agricultural uses including small food-producing farms on surrounding the land. Therefore, it appears urbanization in **HWY-3** would be incompatible with surrounding agricultural activities outside of the UGB.*

*The land in **HWY-4** contains land which appears to be used for grass or hay farming. It is adjacent to active agricultural uses (food producing farms) located along River Road to the east, so it appears*

urbanization in **HWY-4** would be incompatible with surrounding agricultural activities outside of the UGB.

The wastewater treatment pond and land for dispersal on land in **HWY-5** has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. Since there are no proposed urban uses on this land, there are no consequences regarding compatibility with nearby agricultural and forest activities occurring on farm and forest land outside the UGB.

Compatibility with nearby agriculture and forest activities	Positive	Mixed	Negative	No Consequences
Land in HWY-1				
Land in HWY-2				
Land in HWY-3				
Land in HWY-4				
Land in HWY-5				

III. Conclusion

Considering the locational factors as analyzed above, there are some positive and some negative aspects of future urbanization of this subarea.



Land in **HWY-1** includes 281 developable acres. It is located south of Meadowview Road. In evaluating the land in **HWY-1**, all Locational Factor conclusions were all “mixed” in their findings: (Locational Factors 1, 2, 3 and 4). The land in **HWY-1** is flat, has residential

and industrial capacity, and has access to major transportation corridors. The negative attributes of the land in **HWY-1** are the lack of developable land near Eugene’s UGB and the proximity to wastewater uses and the railroad corridor, which makes residential development less likely. However, this occupied land is important to include in Urban Reserves due to its location adjacent to the UGB even though it does not have development capacity, as it provides a path to connect future services through. The positive attributes of the land in **HWY-1** are its high development capacity,

access to Highway 99 and Prairie Road, and its flat topography. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in **HWY-1** result in a determination that land in **HWY-1** is suitable for future urbanization and should be considered for urban reserves designation. This land will be moved forward for urban reserves consideration.

Land in **HWY-2** includes 220 developable acres. It is located north of Meadowview Road. The land in HWY-2 is located between the Eugene UGB and the Junction City UGB. In evaluating the land in **HWY-2**, the Locational Factor conclusions were “mixed” and “negative” in their findings: Locational Factors 1, 2, 3(a), and 4 were mixed; and Locational Factors 3(b), 3(c), and 3(d) were negative. Although the capacity analysis shows residential and industrial capacity on land in **HWY-2**, residential development is not likely due to the proximity to the Airport flight path, proximity to wastewater uses on MWMC land, other industrial uses within the adjacent Junction City UGB, and the presence of two railroad corridors. It is also far from urban services within Eugene’s UGB. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in **HWY-2** result in a determination that it is not suitable for future urbanization and should not be considered for urban reserves designation at this time.

Land in **HWY-3** includes 116 developable acres located west of River Road. In evaluating the land in **HWY-3**, the Locational Factor conclusions were mostly “negative” with some “mixed” in their findings; Locational Factors 1 and 2 were mixed; and Locational Factors 3(a), 3(b), 3(c), 3(d), and 4 were negative. The land in **HWY-3** is constrained by ribbons of floodplain and contains smaller lots and active farm operations which would result in negative environmental, energy, economic and social consequences, and the displacement of farm uses on agriculture-designated land. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in **HWY-3** result in a determination that it is not suitable for future urbanization and should not be considered for urban reserves designation at this time.

Land in **HWY-4** includes 52 developable acres. It is located north of the MWMC land in HWY-5. In evaluating the land in **HWY-4**, the Locational Factor conclusions were mostly “negative” in their findings: Locational Factor 3(a) was positive; Locational Factor 2 was mixed; and Locational Factors 1, 3(b), 3(c), 3(d), and 4 were negative. The land in **HWY-4** is isolated and distanced from the UGB with a lack of connectivity due to its location adjacent to MWMC property to the south and lands constrained by ribbons of wetland to the east. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in **HWY-4** result in a determination that it is not suitable for future urbanization and should not be considered for urban reserves designation at this time.

Land in **HWY-5** includes no developable acres. It is significantly different in that it includes only land occupied by MWMC for wastewater detention and dispersal. In evaluating the land in **HWY-5**, the Locational Factor conclusions were mostly “no consequences” in their findings: Locational Factors 2, was mixed; Locational Factor 1 was negative; Locational Factors 3(a), 3(b), 3(c), 3(d), and 4 were no consequences. The land in **HWY-5** is an MWMC property that has no capacity for future jobs or housing and it is not needed for the efficient urbanization, or orderly and economic provision of

services, of the developable land in the subarea. Its remaining out of urban reserves will not affect the developable land nearby and it will not affect how the land will be used. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in **HWY-5** result in a determination that it is not suitable for future urbanization and should not be considered for urban reserves designation at this time.

Please see the summary tables on the following pages and **Map 5.3 Suitability Results**.

Summary

Highway 99 Subarea

Area Suitable for Urban Reserves Designation

Land in HWY-1

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Area Not Suitable for Urban Reserves Designation

Land in HWY-2

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Land in HWY-3

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

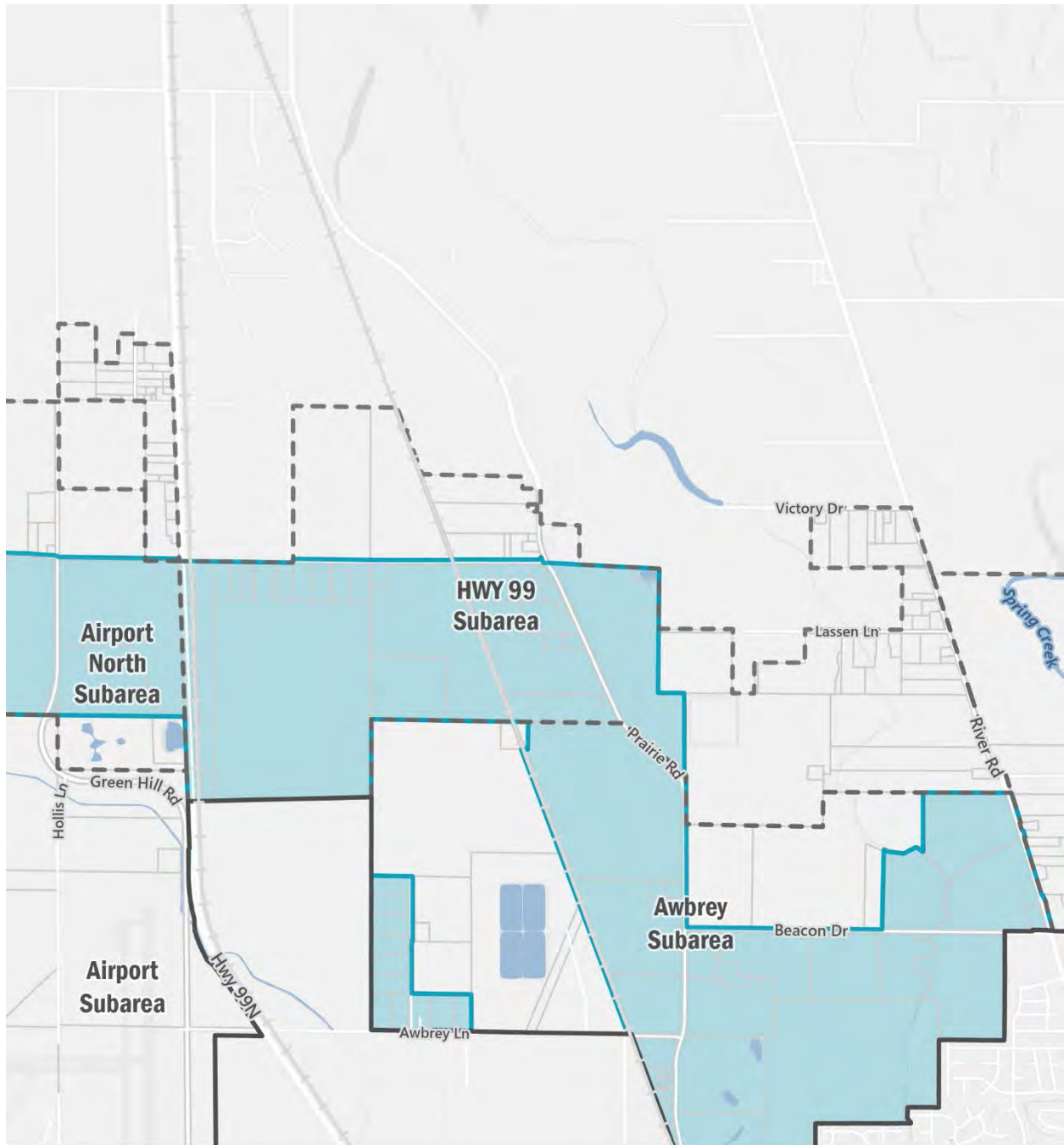
Land in HWY-4

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Land in HWY-5

	Goal 14 Locational Factors	Positive	Mixed	Negative	No Consequences
1.	Efficient accommodation of identified land needs				
2.	Orderly and economic provision of public facilities and services				
3. (a)	Environmental Consequences				
(b)	Energy Consequences				
(c)	Economic Consequences				
(d)	Social Consequences				
4.	Compatibility with nearby ag and forest activities				

Map 5.3 Suitability Results, Highway 99 Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Eugene urban reserves suitable land
- Tax lots



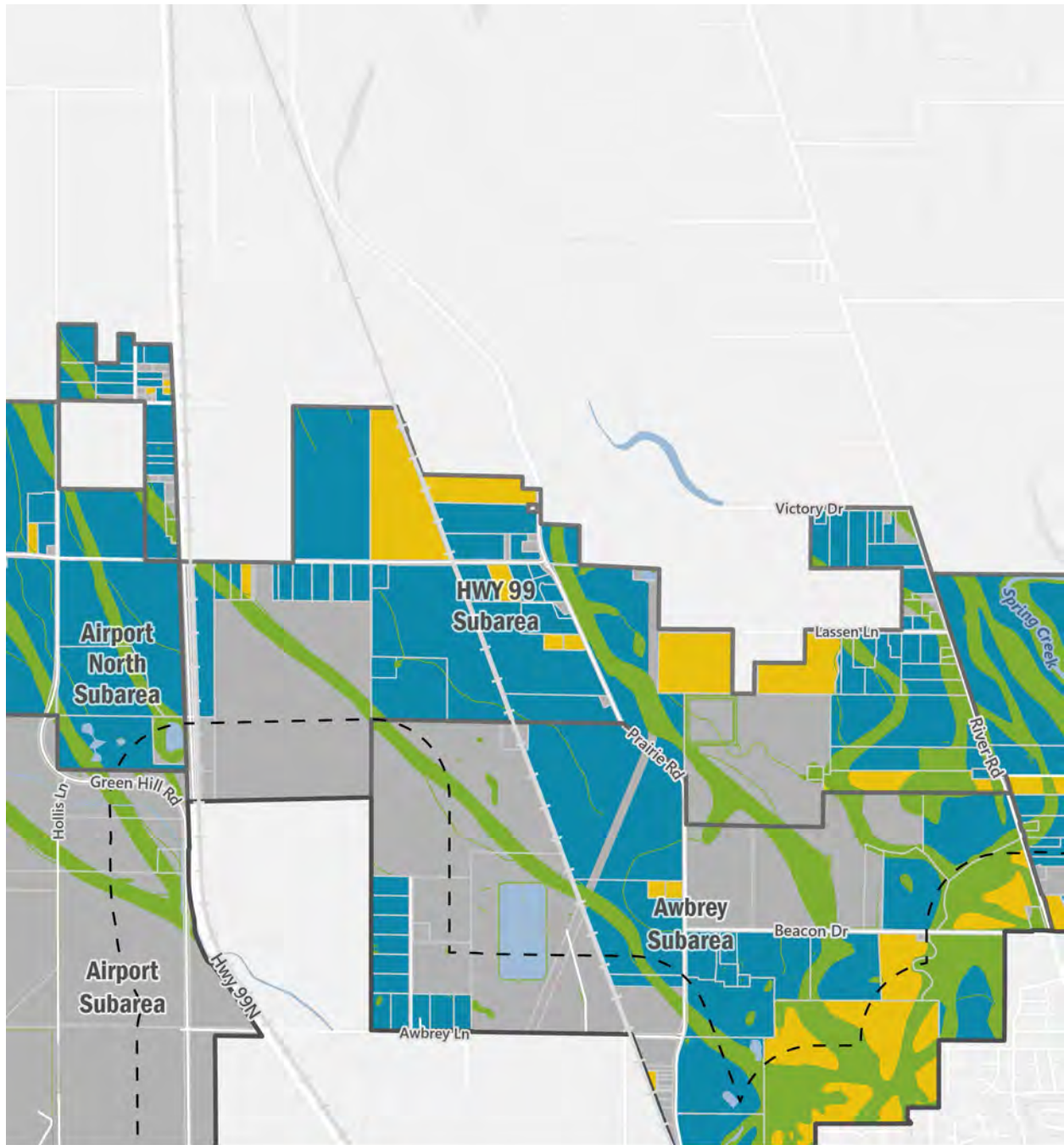
0.45 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 5.4 Development Potential, Highway 99 Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Quarter mile from Eugene UGB
- Tax lots

- Developable**
- Partially Vacant
- Undeveloped
- Undevelopable**
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied



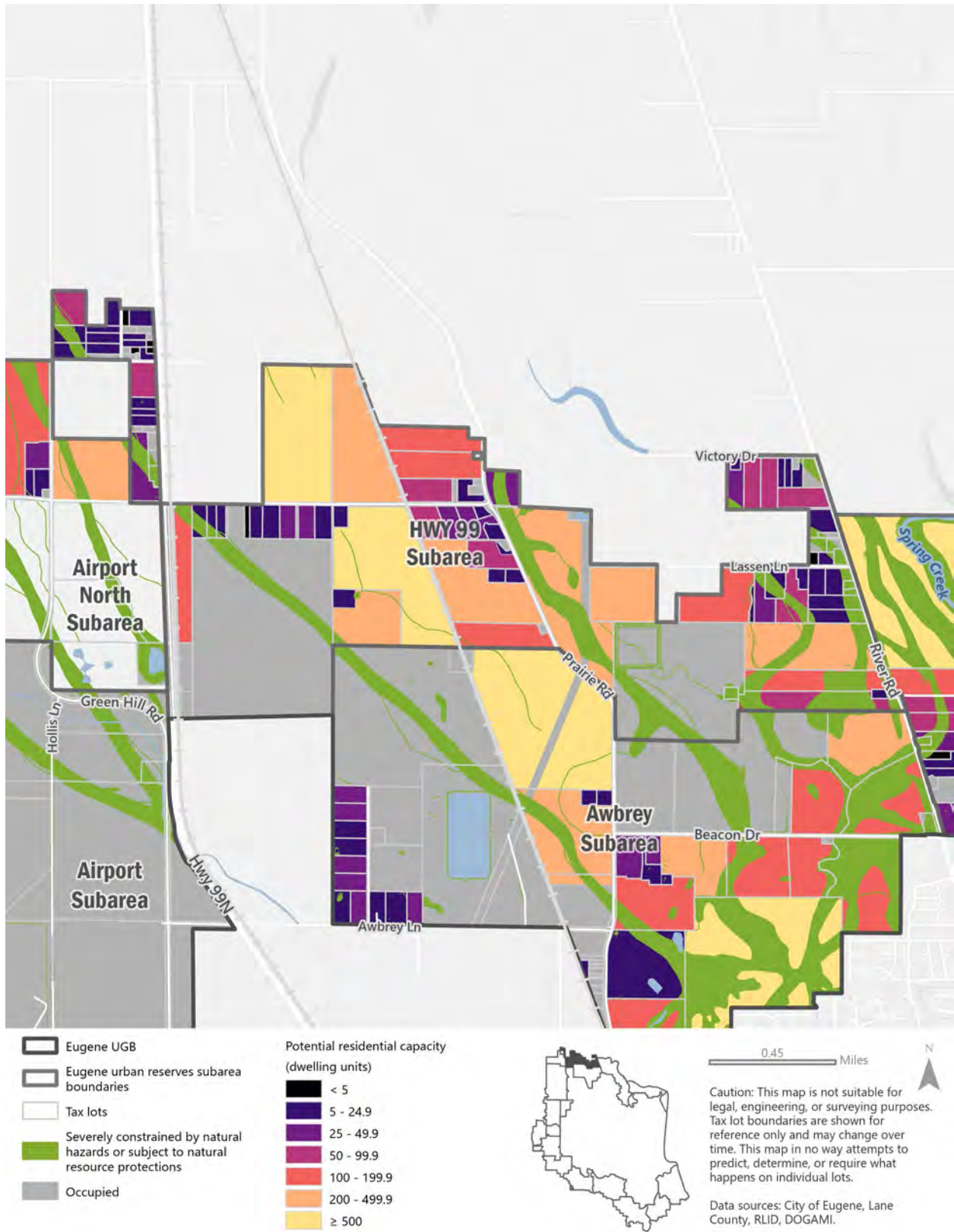
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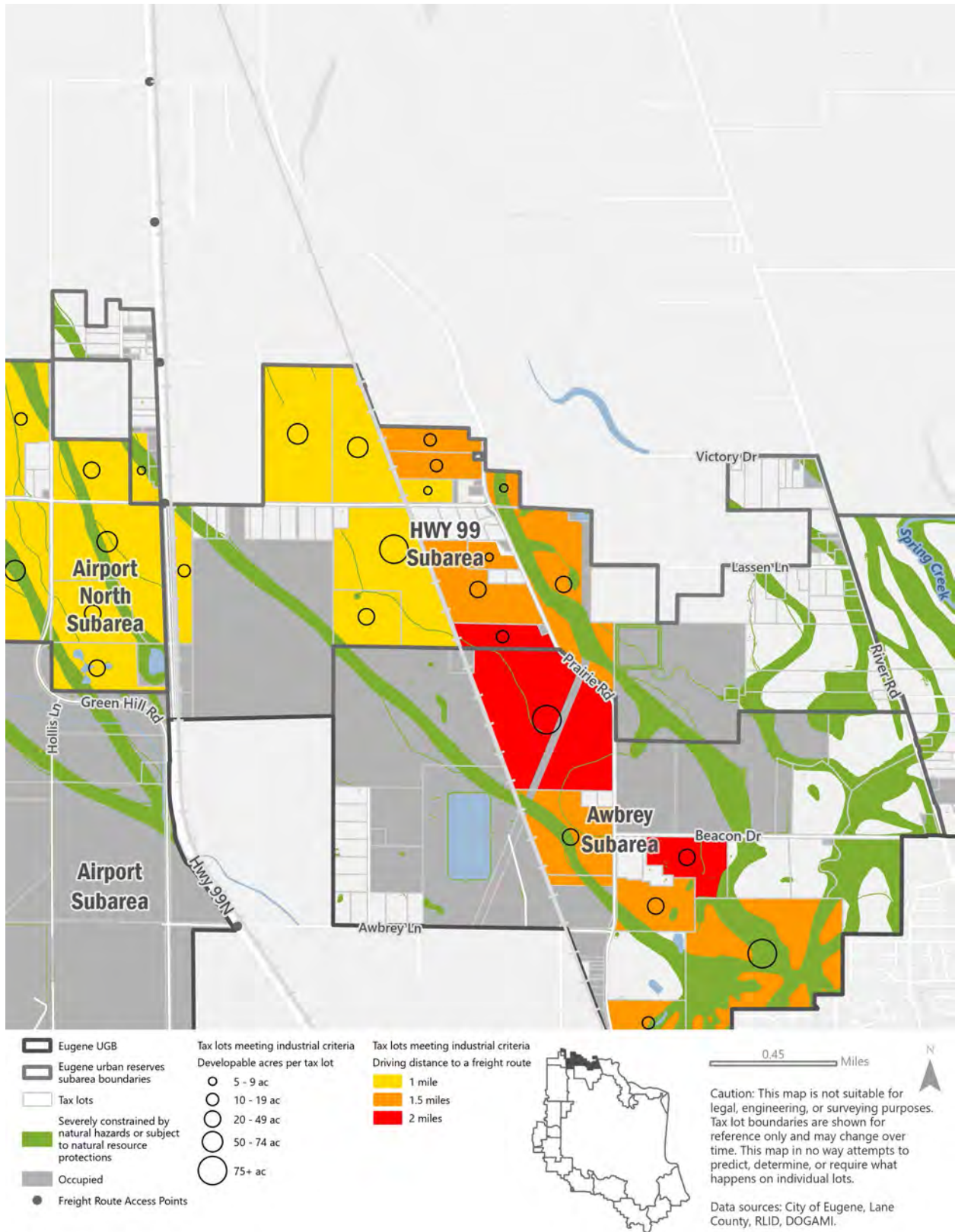
Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

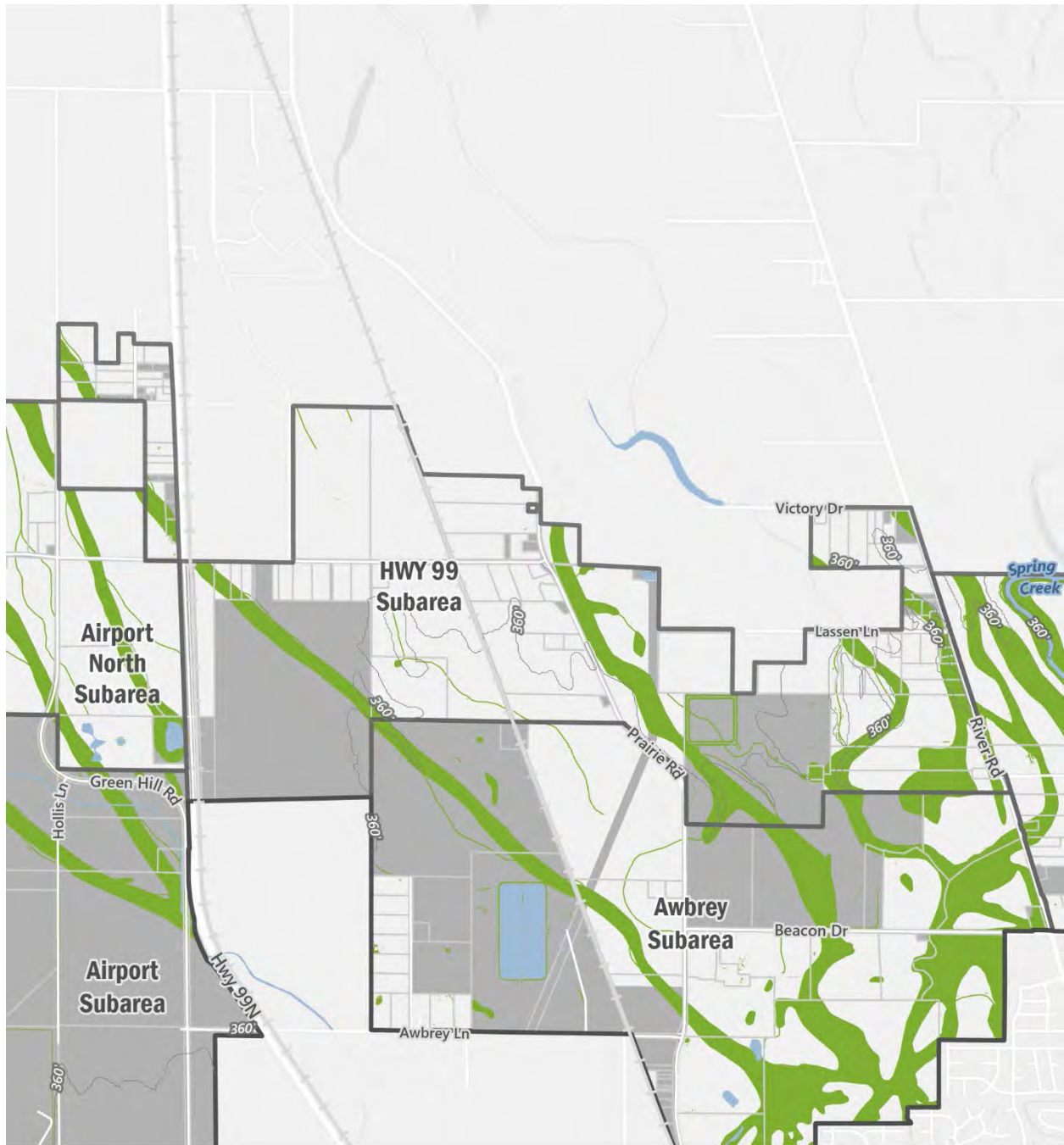
Map 5.5 Potential Residential Capacity, Highway 99 Subarea








Map 5.6 Potential Industrial Capacity, Highway 99 Subarea



Map 5.7 Contours and Hillshade, Highway 99 Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Tax lots
-  Severely constrained by natural hazards or subject to natural resource protections
-  Occupied



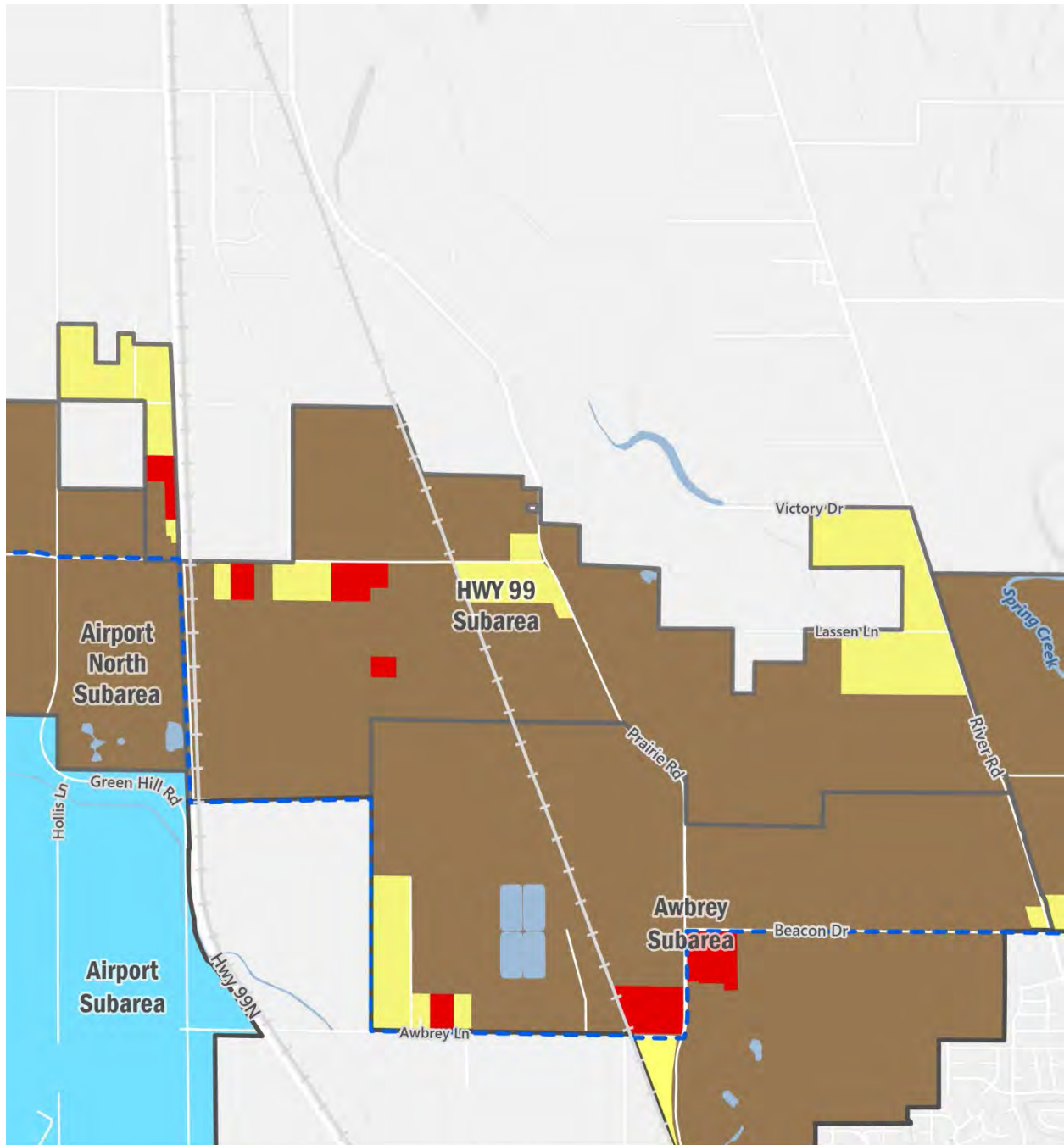
0.45 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 5.8 Plan Designations, Highway 99 Subarea



- | | | |
|--|----------------------------|------------------------|
| Metro plan boundary | Industrial | Agriculture |
| Eugene UGB | Marginal | Airport reserve |
| Eugene urban reserves subarea boundaries | Natural resource: mineral | Forest land |
| Rural comprehensive plan designation | Natural resource: wildlife | Government & education |
| Agriculture | Non resource | Natural resource |
| Airport | Parks | Parks and open space |
| Commercial | Public facility | Rural commercial |
| Forest | Residential | Rural industrial |
| | | Rural residential |
| | | Sand and gravel |



0.45 Miles

Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

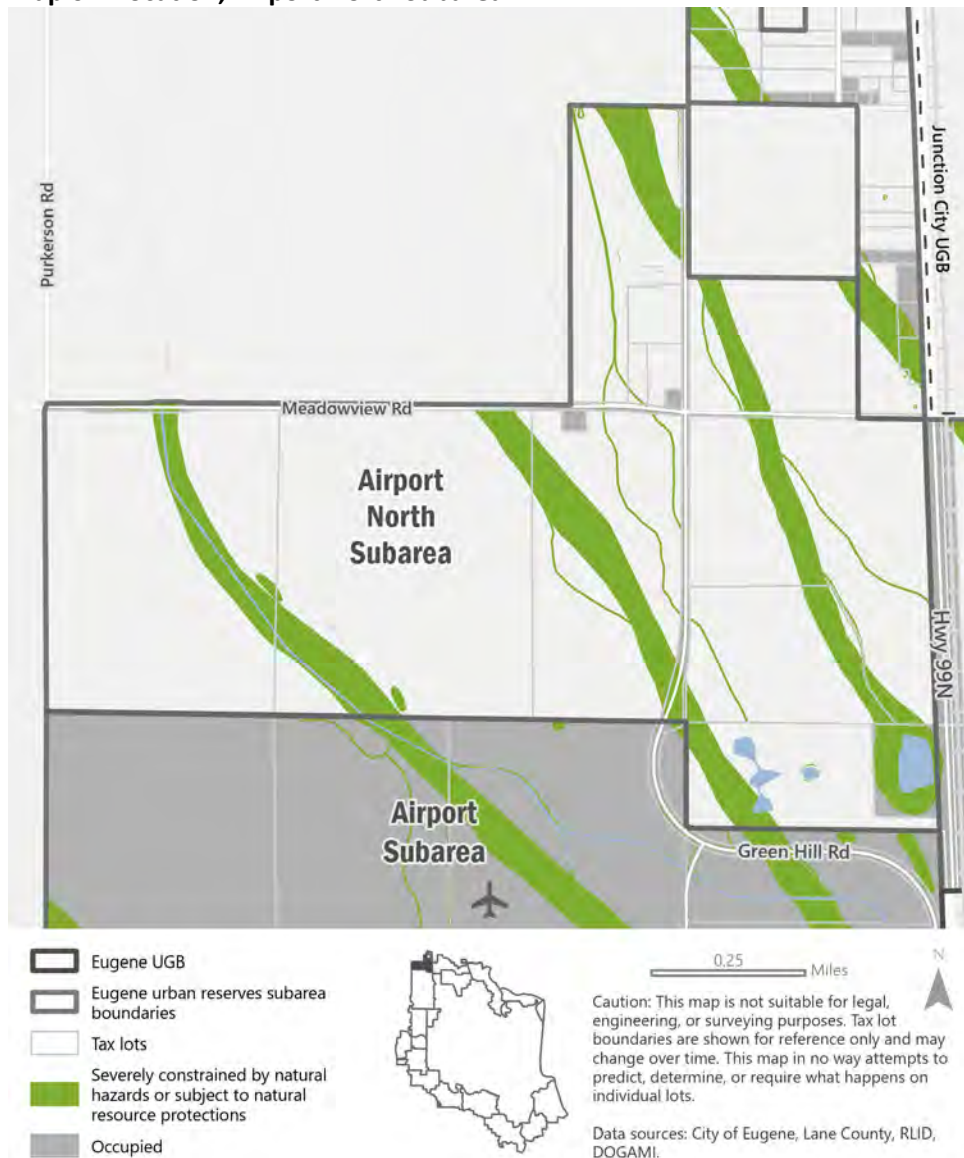
Data sources: City of Eugene, Lane County, RLID, DOGAMI.

6. Suitability Analysis – Airport North

I. Background

- A. **Location:** The land in the Airport North subarea is located to the northwest of Eugene. It is not contiguous to the UGB. It includes land immediately north of the Eugene airport, south of Meadowview Road and west of Highway 99. Most of the land in the subarea is south of Meadowview Road, but it also includes a small portion of land north of Meadowview Road around Green Hill Road. The land in the subarea is approximately equidistant to downtown Eugene and downtown Junction City, as the crow flies. See **Map 6.1 Location**, below, and **Maps 6.2-6.8** for additional information relevant to the subarea analysis.

Map 6.1 Location, Airport North Subarea



- B. Existing Land Uses:** The land in the Airport North subarea encompasses 614 acres, of those 467 have the potential for future residential or employment development. The land in the subarea is flat and is designated for agriculture, as shown on **Map 6.8, Plan Designations**. Land within the subarea appears to be used primarily for agriculture, including grass crops, pastureland, and sheep grazing. There are a few residences along Meadowview Road and Green Hill Road. Two lots in the southeast corner of the subarea, between Green Hill Road and Highway 99, are used for a golf course, driving range and related commercial retail facilities. North of Meadowview Road, there is an equestrian facility and an animal feed facility. Most of the lots within the land in the subarea are classified as partially vacant with one large lot south of Meadowview Road classified as undeveloped and used for hay and pastureland. The remaining land in the subarea is classified as “undevelopable” with no residential or employment development capacity (shown in gray and green on the map). Federal Emergency Management Agency (FEMA) Special Flood Hazard Areas (floodplains) account for the majority of the natural hazard and natural resource land in this subarea; there is very little occupied land (shown in gray). The mapped floodplains follow either the A-1 Channel in the southwest corner of the subarea or several smaller water channels and Lane County Goal 5 wetlands dispersed throughout land in the subarea, as shown in **Map 6.1 Location**, in green.
- C. Barriers to Development:** A total of 147 acres (twenty four percent) of land in the subarea is categorized as “undevelopable” land with either natural hazards, natural resources or occupied land. As mentioned above, most of the natural hazard and natural resource land is co-located with the A-1 Channel or smaller irrigation ditches. There are three fully developed lots on land in the subarea which account for less than twelve acres total. Eventual inclusion of land in the Airport North subarea in the UGB is dependent upon land in the Highway 99 subarea coming into the UGB first, as land in the Airport North subarea does not abut the UGB. Perhaps the most significant barrier to development is the Eugene Airport, which is located immediately south of land in the subarea. Both the main and ancillary runway alignments bifurcate the land in the Airport North subarea and the flight path is over land in the Airport North subarea. Airport administrators and the Federal Aviation Administration (FAA) recommend only locating low-elevation industrial and agricultural-related use in areas immediately north and south of the runways based on noise and safety concerns from airport operations. Therefore, no residential capacity is projected on land immediately north of the airport and south of Meadowview Road¹. In addition, there are two areas of land (4.1 acres and 9.6 acres) along the southern boundary of land in the subarea located within the FAA-designated Runway Protection Zone (RPZ) for Eugene Airport’s Runway 16R and 16L.²
- D. Surrounding Land Uses:** At the southern edge of land in the subarea, is land in the Airport subarea which includes the Eugene Airport and Airport Reserve land, as designated in the Metro Plan. Land immediately to the west and a portion of the land to the north of land in the subarea is outside of the Urban Reserves study area and is used for agriculture. Land in the Highway 99 subarea is immediately to the east and also includes some land that extends to the north of land

¹ See February 12, 2022 letter from Cathryn Stephens, Airport Director, Eugene Airport.

² “For the protection of people and property on the ground, the FAA has identified an area of land located off each runway end as the Runway Protection Zone (RPZ) ...It is desirable to have all areas within the RPZ cleared and owned by the Airport ...” See the Eugene Airport Master Plan, Section 3.5.3.6, page 3-13.

in this subarea, near Skinner Lane. Skinner Lane includes land designated as Industrial and Residential in the Lane County Rural Comprehensive Plan that appear to be used mostly for rural residential development. To the east of Highway 99 and south of Meadowview Road, there is a significant amount of land owned by the Metropolitan Wastewater Management Commission (MWMC) utilized for a biocycle poplar farm. The Junction City UGB extends south to Meadowview Road on the east side of Highway 99, so it is close but not immediately adjacent to the Airport North subarea.

- E. Organization of this Analysis:** After an initial review, it became clear that while much of the land in this subarea shares a variety of common attributes that are relevant to much of the Goal 14 Locational Factor analysis, the land in the subarea needed to be considered and evaluated in terms of three different areas due to substantial differences between the characteristics of the land. Therefore, the land was split into three sub-subareas, as follows:

Land in **AN-1** includes 386 developable acres. It is located south of Meadowview Road. It is designated for agriculture use and used mainly for grass crops, pastureland, and grazing (sheep, cattle, horses). Land in AN-1 is composed primarily of larger, partially vacant lots and one undeveloped lot. It includes 4.1 acres of land along the southern boundary located within the RPZ for Eugene Airport's Runway 16R.³

Land in **AN-2** includes 54 developable acres. It is located north of Meadowview Road. While the land in AN-2 is designated for agricultural use it appears to be developed with a mix of rural residences and agricultural-related businesses, such as an equestrian facility and a large animal feed facility. Land in AN-2 is composed of slightly smaller and more developed partially vacant lots than AN-1.

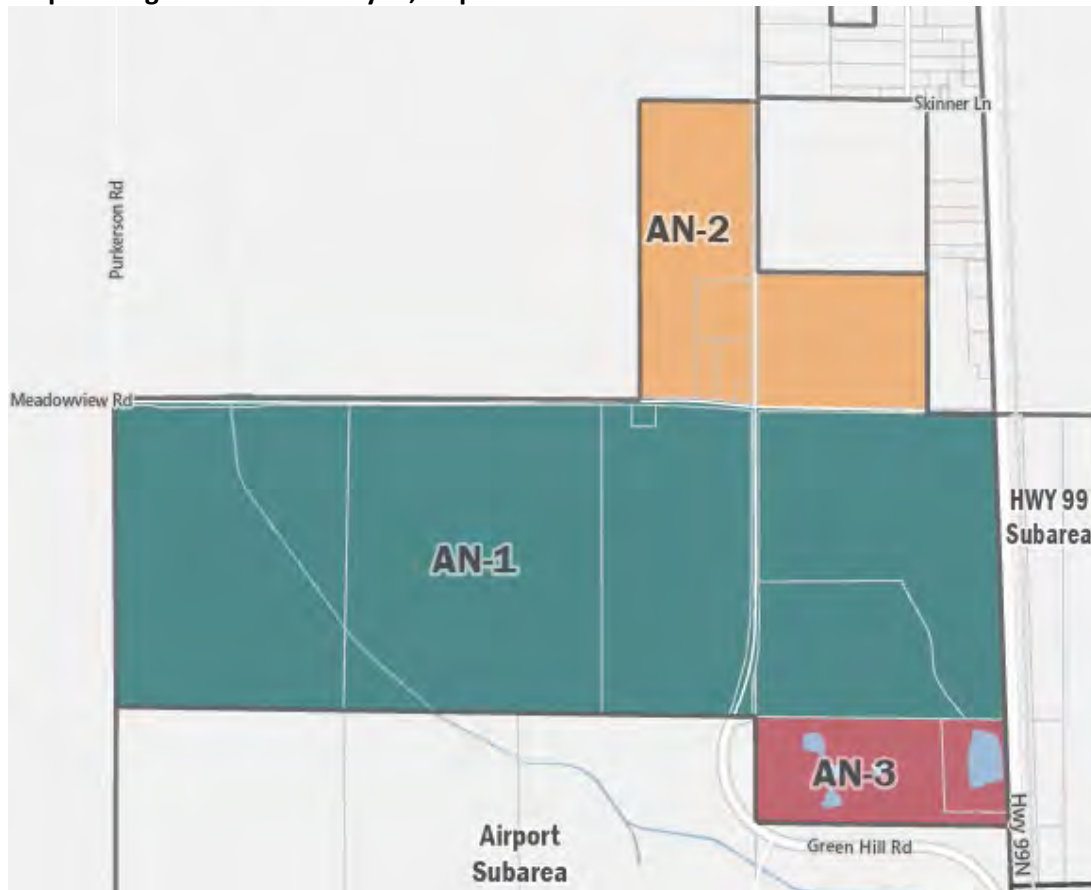
Land in **AN-3** includes 26 developable acres in two tax lots. It is located in the southeast corner of the subarea, adjacent to Green Hill Road and Highway 99, just north of the Airport's secondary runway. It is designated for agriculture, but it is used as a golf center, with a golf course, driving range, commercial retail facilities and parking. It contains wetlands and flood hazard areas and is more constrained by natural hazards and natural resources than land in AN-1 or 2. A portion of the Runway Protection Zone for Eugene Airport's Runway 16L is included on land in AN-3, encompassing the parking lot, most of the built structures, and access to Highway 99.⁴

These different areas are shown in **Map 6.2 Organization of Analysis** below.

³ See footnote 2.

⁴ "The northern portion of the Runway 16L RPZ has a recreational facility that includes a golf course, driving range, pro shop and auto parking. It also has two public use roads... and the BNSF railroad going through the area..." See the Eugene Airport Master Plan, Section 3.5.3.6, page 3-13.

Map 6.2 Organization of Analysis, Airport North Subarea



II. Identify land that would be suitable for urban reserves⁵

A. Locational Factor 1: Efficient accommodation of identified land needs

To what extent is there...

- 1. *Developable land adjacent to or nearby (within .25 mile) of the UGB?*** The land in the Airport North subarea contains no land adjacent to the UGB, but as shown on the **Map 6.4 Development Potential**, in the southeast corner of AN-3 there is a portion of a partially vacant lot⁶ within .25 miles of the UGB. This lot contains 26 developable acres, however a portion of it is located within the Eugene Airport’s RPZ and the Eugene Airport Master Plan recommends no additional development due to safety and noise concerns.⁷ There are no developable acres on

⁵ Refer to Section II C of this Study for background on how the City is identifying land in the study area that would be “suitable,” the explanation of the prompts used for the Goal 14 Locational Factors, and specific terminology.

⁶ In the urban reserves study area, ‘lots’ are used for analysis purposes. See the Eugene Urban Reserves Technical Memo, (Findings Appendix 4), for complete information.

⁷ “In 2012, FAA updated guidance on the appropriate land uses within an RPZ. This update lists buildings, recreational land use, public roads and rail facilities as incompatible land uses ... The Airport should maintain

land in AN-1 and AN-2 within 0.25 miles of the UGB. Land that is within .25 miles of the UGB is likely to accommodate the identified land needs more efficiently than land that is further away from the UGB because of street, utility and neighborhood connections to already urbanized land. Therefore, urbanization of AN-1 or AN-2 would be reliant on land in the Highway 99 subarea urbanizing before or concurrently with land in Airport North.

2. ***Partially vacant developable land (that could be developed for the identified land needs)?*** The land in the Airport North subarea contains 467 developable acres, of which 344 acres are located on lots classified as partially vacant and 122 acres are on lots classified as undeveloped. Most of the developable land is located on land in AN-1 due to larger lot sizes and little current development.
3. ***Developable land that is identified in the capacity analysis⁸ as able to be urbanized with a mix of residential housing? How does this translate into potential dwelling units (per the capacity analysis)?*** As shown on **Map 6.5 Potential Residential Capacity**, only the developable land in AN-2 has capacity for residential development due to its location further from the Airport. Land in AN-2 has capacity for 452 dwelling units, or 8.4 dwelling units per developable acre, which is relatively high compared to 4.8 du/developable acre for the entire study area. Land in AN-1 and AN-3 is not suitable for residential development due to its location immediately adjacent to the airport runways. This is because, as noted previously, Airport administrators and the Federal Aviation Administration (FAA) recommend industrial and agricultural-related use only in areas immediately north and south of the runways based on the noise and safety concerns from airport operations.
4. ***Developable land that is identified in the capacity analysis⁹ as potentially able to be urbanized with industrial land? How does this translate into potential industrial sites (per the capacity analysis)?*** As shown on **Map 6.6 Potential Industrial Capacity**, there are 459 developable acres on land in the subarea identified in the capacity analysis as potentially suitable for urbanization with industrial land uses, located mainly along Meadowview Road in AN-1 and AN-2 and along Highway 99 in AN-3. Since the land in the subarea is not adjacent to the UGB, land on the east side of Highway 99 (in the Highway 99 subarea) would need to be brought into the UGB first for this area to urbanize. The proximity to the airport and freight routes, flat topography, large lot sizes and surrounding uses make land in AN-1 suitable for potential urbanization with industrial uses. Eugene Airport officials have indicated that industrial development with appropriate height limits on land in this subarea would be compatible with the nearby airport uses. While land in AN-3 contains some capacity for industrial development, its only access to Highway 99 is

communication with the FAA Regional Office and Airport District Office to protect against, and remove or mitigate the risk of, any incompatible land uses within the RPZ as practical ... It is recommended that the Airport acquire the unowned land within the RPZs in order to have control over the land use of these areas ... Controlling the land in order to meet FAA requirements achieves the added benefit of preventing new noise sensitive land uses from being introduced near the Airport.” (Eugene Airport Master Plan, Section 3.5.3.6, page 3-13)

⁸ For information on how residential development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

⁹ For information on how industrial development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

within the RPZ, significantly limiting future development opportunities. There are two lots of land in AN-2 north of Meadowview suitable for industrial uses, however, the land in AN-2 is farther from service connections within Eugene’s UGB and is closer to the Junction City UGB which is already served by Junction City municipal services. Therefore, the land in AN-2 is mixed in its ability to efficiently accommodate identified industrial need.

- 5. Topography, steep slopes or other “undevelopable”¹⁰ lands that would make efficient urbanization difficult?** “Undevelopable” lands are shown as gray and green on all of the analysis maps. As shown on **Map 6.7 Contours and Hillshade**, the land in the Airport North subarea is flat, with only 2.5 acres (one percent of land in the subarea) containing prohibitively steep slopes. There are ribbons of FEMA-mapped Flood Hazard Area and Goal 5 wetlands throughout land in the subarea which could make efficient urbanization difficult, particularly in AN-2 and AN-3, where lot sizes are smaller and there is more existing development. The large lot sizes and little current development in AN-1 mitigate this, as development could be designed around these “undevelopable” lands. The land in AN-3 is constrained by “undevelopable” lands (floodplain and wetlands) that are adjacent to Highway 99; combined with the location of the Airport’s Runway Protection Zone, efficient urbanization of land in AN-3 is difficult.

Conclusion: *Most of the land in AN-1 could efficiently accommodate industrial land needs due primarily to its flat topography, large lot sizes, proximity to airport services, and close distance to freight routes. However, no residential capacity is identified on land in AN-1 due to its adjacency to the Eugene Airport, and it is dependent on the land in the Highway 99 subarea urbanizing first. Therefore, the ability of the land in AN-1 to efficiently accommodate identified land needs is mixed.*

There is both residential and industrial capacity on land in AN-2 because it is farther from the Eugene Airport, and it has access from Green Hill and Meadowview Roads. However, the land in AN-2 is also furthest from service connections within Eugene’s UGB, and contains significant existing development, making efficient urbanization difficult. There are also FEMA-mapped Flood Hazard Areas and Goal 5 wetlands on land in AN-2 which could make efficient urbanization difficult. Therefore, the land in AN-2 is mixed in its ability to efficiently accommodate identified land needs.

The ability of the land in AN-3 to efficiently accommodate identified land needs is negative. While land in AN-3 contains some capacity for industrial development and is closest to the UGB, it is still dependent on the land in the Highway 99 subarea urbanizing first. In addition, it is constrained by natural resource and natural hazard land, and the predominance and location of the Airport Runway Protection Zone significantly limits future development opportunities.

¹⁰ As described in section II B of the Eugene Urban Reserves Study (Findings Appendix 2), land was assigned no development capacity if it falls within one of the these “undevelopable” categories: severely constrained by natural hazards or is designated or zoned to protect natural resources; or not vacant or partially vacant (i.e. the land is already occupied).

Efficient accommodation of identified land needs:	Positive	Mixed	Negative
Land in AN-1			
Land in AN-2			
Land in AN-3			

B. Locational Factor 2: Orderly and economic provision of public facilities and services¹¹

The information below is meant to answer how easy or difficult it is to serve the developable land in the Airport North subarea, including the capacity of the current system and new infrastructure needed to serve the area if urbanized. It includes an analysis of **wastewater, water, transportation, transit, stormwater, and fire/emergency services** and also, to a lesser extent, it includes provision of **electricity, schools and parks**.¹²

Before the narrative description is a table showing the **general serviceability** of the subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff. Also included is a **generalized cost estimate**, which represents preliminary estimates for the major components of the individual systems. Cost information is provided on a \$ to \$\$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$\$) denoting the greatest cost. The scale used for each type of service varies and is not comparable to other utilities or services. For example, a \$ for wastewater does not equate to a \$ for transportation. Cost estimates do not include future maintenance costs.

Airport North Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Difficult	Easy	Moderate	Easy	Moderate	Easy-Moderate
Generalized cost estimate	\$\$\$\$\$	\$	\$\$-\$\$\$	\$	\$\$\$	\$\$

1. **Wastewater:** The subarea is assigned a “difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. This is due to capacity issues with the downstream system and the need for an additional pump station. If development was proposed, it is not clear that the existing downstream pump station would have sufficient capacity and there is about 7000' of pipe that is undersized to handle expansion in this area.
2. **Water:** The subarea is assigned an “easy” serviceability rating and the generalized cost estimate for improvements is \$. This is because of the flat topography and proximity to existing water

¹¹ The definition of “public facilities and services,” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines, is: “[p]rojects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.”

¹² The summarized information used in this section is based on the results of the *Urban Reserves Serviceability Analysis Report* (Findings Appendix 3). In providing information for that report, service providers considered the serviceability of the subareas in their entirety; they generally did not differentiate between areas within a subarea.

service. The existing water line that serves the Airport has capacity and will need to be extended further north.

3. **Fire:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$-\$\$\$\$. There is a fire station at the airport, but it does not provide coverage to surrounding areas and would not serve this subarea. The subarea is currently served by Lane Fire Authority. According to Eugene-Springfield Fire Department officials, the location of existing City fire stations and limited street connections could lead to response time and service delay issues for truck coverage if the area was developed, potentially requiring a new fire station.
4. **Transportation:** The subarea is assigned an “easy” serviceability rating and the generalized cost estimate for improvements is \$. This is due to a lack of congestion and good connections to both Eugene and the regional transportation system via Highway 99 and Greenhill Road.
5. **Transit:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. This is because there are challenges in providing efficient bus service given the current distance from other routes and areas of higher density, although the area is easy to access given the flat topography.
6. **Stormwater:** The subarea is assigned an “easy to moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$. This area has flat topography and the soils are likely suitable for infiltration. Future urbanization is likely suitable for on-site infiltration to reduce post-development runoff and protect downstream water quality. If on-site detention is not feasible, neighborhood or regional detention facilities may be necessary, which would make the ease to serve this area ‘moderate.’ The entire area falls within the Junction City Water Control District and stormwater and flood control requirements in the Eugene code at 9.6791(3)(c) would need to be extended into this area.
7. **Other (Parks, Schools, Electric):** There are no parks in this subarea. Pacific Power and Light provides service to a portion of this area. This subarea is within the Junction City School District.
8. **Is there undeveloped land within the UGB that would be helped in its development/serviceability if this area were included in urban reserves, or is there undeveloped land within the UGB that would negatively impact the orderly and economic provision of public facilities and services?** There is undeveloped land within the UGB, in the industrial corridor east of Highway 99 that would potentially benefit in its future development and serviceability if this subarea were included in urban reserves. Since the subarea is not adjacent to the UGB, the Highway 99 subarea would need to be brought into the UGB first for this area to urbanize.

Conclusion: *Based on input from service providers, the land in the Airport North subarea is considered easy to moderate to serve with only wastewater being difficult to serve. The subarea benefits from its flat topography and north/south roadway connections, which makes extending*

services relatively easy. However, serviceability to land in the Airport North subarea is negatively impacted by its distance from the Eugene UGB and connecting to existing services within the City limits. The adjacent Eugene Airport is not within the UGB, so the subarea is dependent on the Highway 99 subarea to the east being included in Urban Reserves and urbanizing in order to connect to services within the UGB. Therefore, the rating is “mixed” as land in the Airport North subarea could be provided with public facilities and services in only a moderately orderly and economic manner.

Orderly and economic provision of public facilities and services:	Positive	Mixed	Negative
Land in AN-1			
Land in AN-2			
Land in AN-3			

C. Comparative environmental, energy, economic and social consequences

1. Environmental Consequences:

- a. **Presence of natural resources: To what extent would urbanization of this area negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources?** There is no existing public open space on land in the subarea. The A-1 Channel and three other small ditches cross the land in AN-1. Two of the ditches appear to originate on land in AN-3 and flow north across land in AN-1 into AN-2. These ditches seem to be used for irrigation. On land in AN-3, there are small ponds on the golf course adjacent to Highway 99. There are also Goal 5 adopted wetlands on land in AN-1, AN-2 and AN-3. Wetlands provide habitat for many species and could be negatively impacted by adjacent urbanization. However, since Goal 5 adopted wetlands are categorized as “undevelopable,” urbanization is not assumed on those areas. Because the lots of land in AN-1 are large and undeveloped, it would be relatively easy to focus urbanization away from natural resources, mitigating any negative environmental consequences on land in AN-1.

- b. **Presence of hazard areas (steep slope, landslides, floodplain): To what extent would urbanization of this area increase the potential risk of natural hazards, such as landslides, wildfire or flooding?** FEMA-mapped flood hazard areas are present in this subarea on land in AN-1, AN-2, and AN-3. These hazard areas are categorized as “undevelopable,” so urbanization is not assumed on them. Increased impervious surfaces and stormwater runoff from adjacent development could have negative environmental consequences by increasing flood risk, however, land containing natural hazards or subject to natural resource protections covers a small portion of land in the subarea (16 percent), so the risk to adjacent urbanization is relatively small. In addition, if the area urbanized, development would be subject to the city’s stormwater standards, which are intended to minimize runoff and mitigate negative impacts. Because the lots of land in AN-1 are large and undeveloped, it would be relatively easy to focus urbanization away from hazard areas, mitigating any negative environmental consequences on land in AN-1. Less than one

percent of land in the subarea (3 acres) contain steep slopes (equal to or greater than 30 percent slope) and there are very small pockets of high-risk landslide areas along the banks of the A-1 Channel and the ditches. No other natural hazard risks have been identified on land in this subarea.

- c. **Presence of nearby public open space: To what extent would nearby public open space benefit future residents of the area?** No publicly accessible open space is currently present on land in this subarea or nearby. However, land near Meadowview Road, in AN-1, is shown on Rivers to Ridges¹³ maps as part of a potential future “farm belt” of publicly accessible agricultural open space if it does not otherwise urbanize.

Conclusion: As described above, total urbanization of the land in **AN-1** could potentially increase the risk of natural hazards, such as flooding, and impact wetlands. However, because the lots are large and undeveloped, it would be relatively easy to focus urbanization on less sensitive areas in **AN-1**, mitigating any negative environmental consequences. Therefore, the environmental consequences of urbanizing the land in **AN-1** are positive (low).

The land in **AN-2** contains some ribbons of floodplain and wetlands through partially vacant lots. Even though they are not a significant presence, considering the smaller lot sizes and existing development on land in **AN-2**, it could be challenging to mitigate negative environmental consequences of development by focusing urbanization away from these natural resource and natural hazard areas, as with land in AN-1. Therefore, the environmental consequences of urbanizing the land in **AN-2** are mixed (medium).

Only one lot in **AN-3** has development capacity due to the presence of flood hazard areas. Urbanization of the developable land in **AN-3** could potentially increase the risk of natural hazards, such as flooding, and negatively impact wetlands. While there is limited developable land in **AN-3**, focusing future urbanization away from natural resource and natural hazard areas would mitigate negative environmental consequences. Therefore, as with land in AN-2, the environmental consequences of urbanizing the land in **AN-3** are mixed (medium).

Environmental Consequences:	Positive (Low)	Mixed (Medium)	Negative (High)
Land in AN-1			
Land in AN-2			
Land in AN-3			

2. Energy Consequences (priority for lower energy usage):

- a. **To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt)?** Land in AN-1, AN-2, and AN-3 is not well-

¹³ Rivers to Ridges is a multi-agency partnership dedicated to improving the quality of life for residents in the upper Willamette Valley by working together to protect and enhance the region’s land and water resources and their ecosystem functions and values; and to provide environmental education and compatible outdoor recreation opportunities. <https://www.eugene-or.gov/650/Rivers-to-Ridges-Partnership>

sited to colocate a variety of housing types, jobs, and services in order to provide a 20-minute neighborhood (where homes, jobs and services can be reached on foot within 20 minutes thereby limiting the need for vehicle trips and having positive energy impacts), due to the land in the subarea's location immediately north of the airport. However, the large undeveloped and partially vacant lots, especially on land in AN-1, proximity to major transportation corridors and the Airport, make the land in the subarea suitable for a variety of industrial development types. Airport administrators and the Federal Aviation Administration (FAA) recommend industrial and agricultural-related use in areas immediately north and south of the runways based on the noise and safety concerns from airport operations. Additionally, there is land in both AN-1 and AN-3 that is within the Airport Runway Protection Zone, which the FAA recommends no additional development in the RPZ due to safety and noise concerns (see footnote 5). While land in AN-2 has residential capacity as it is more distanced from the Airport, it is farther from the UGB, and both the floodplain and existing development limit its potential urbanization with a variety of uses.

- b. To what extent is the area easily accessible to other services or uses (e.g., neighborhood commercial, parks, schools)?** As noted, land in AN-1, AN-2, and AN-3 all have industrial capacity however, there is residential capacity only on land in AN-2, so access to other services or uses is primarily an issue for that land. There are very few neighborhood-serving commercial uses in the Airport North subarea or nearby, and land in the subarea is isolated from daily goods and services. The closest grocery store is within the Eugene UGB about six miles driving distance away, and downtown Junction City is about five miles driving distance away. Within land in the subarea, there is an equestrian facility and animal feed facility on land in AN-2 and a golf course and pro shop on land in AN-3. There are no schools in or nearby land in the subarea: the closest schools are a private school along River Road on land in the Awbrey subarea and Irving Elementary School and Awbrey Park Elementary school, which are both within the UGB and cannot be easily accessed by neighborhood streets from the subarea. There are no City-owned parks in this subarea or within one mile. Due to the distance of land in the subarea from the UGB and existing urban development, there is poor access to other services and uses which would cause negative energy consequences.
- c. To what extent is the area adjacent to or nearby the UGB? (see Locational Factor 1, A.2)** The land in this subarea is not adjacent to the UGB. Only one lot within AN-3, with 26 acres of developable land and located at the southeast corner of land in the subarea, is within .25 miles of the UGB, as shown in blue on **Map 6.4 Development Potential**. The same lot in AN-3 is also located within the Airport's Runway Protection Zone and per FAA guidance, new or modified land uses such as buildings and recreational facilities are considered incompatible due to safety and noise concerns.
- d. To what extent is there good multi-modal transportation access to this area? To what extent is the area easily accessible to job centers and downtown?** There are major roadway connections from land in AN-1, AN-2, and AN-3: Highway 99 provides a direct transportation corridor to downtown, Eugene's main job center; Green Hill Road provides access to the

airport; and Meadowview Road, which separates land in AN-1 from AN-2, provides east-west access. However, there is no transit service to land in the subarea or nearby, and there are no bike lanes on these main corridors. Transit service would need to be extended to land in this subarea, and roadway improvements, including bike lanes and sidewalks, would need to be added to accommodate all users. There is no potential for good local street access from existing neighborhoods within the UGB. The flat topography is beneficial for future multi-modal transportation access, but the lack of local street connections and distance to downtown Eugene make the land in the subarea challenging to access other than by automobile. Land in AN-2 is even further from Eugene’s UGB, making multi-modal access to job centers and services more difficult, resulting in greater negative energy consequences.

- e. ***To what extent does future urbanization directly or indirectly generate energy or climate burdens (e.g., loss of open space, loss of growing lands, increased traffic, increased carbon emissions)?*** Future urbanization of the land in AN-1, AN-2 and AN-3 will, directly and indirectly, generate energy and climate burdens due primarily to the loss of growing lands to urbanization, and increased carbon emissions due to increased vehicle miles traveled. While increased regulations may have positive effects on environmental health (once land in the subarea urbanizes), dependence on fossil fuels for automotive transportation will result in greenhouse gas emissions that will have negative energy effects. Future industrial urbanization of land in AN-1, AN-2 and AN-3 would likely generate climate and energy burdens by increasing vehicle trips as future employees commute to their homes elsewhere.

Conclusion: Overall, urbanization of land in **AN-1** would have negative energy consequences. The flat topography and access to major transportation connections—roadway, rail and airport—is beneficial for materials and products related to industrial use. However, the future jobs in **AN-1** rely on vehicular travel to existing and future neighborhoods elsewhere, likely increasing vehicle miles traveled and carbon emissions. The loss of growing lands in **AN-1** would also generate energy and climate burdens.

Urbanization of land in **AN-2** would have negative energy consequences. It is far from the UGB, making it difficult for multi-modal access and resulting in even more vehicle miles traveled than urbanization of land in AN-1 or AN-3. In addition, urbanization could cause the loss of existing agricultural related businesses. While land in **AN-2** has residential capacity, as it is more distanced from the Airport, it is also farther from the UGB, and the floodplain and existing development patterns limit its potential urbanization with a variety of uses. Therefore, there would be negative energy consequences of including this land in urban reserves.

Urbanization of land in **AN-3** would have mixed energy consequences. The flat topography, developable land near the UGB, and access to major transportation connections increase the potential for locating jobs and services related to industrial use. However, due to the land in **AN-3** being immediately north of the runway, and a portion within the Airport’s Runway Protection Zone, it is not well-suited to co-locate a variety of housing types, jobs, and services, thereby increasing the need for vehicle trips and causing increased carbon emissions.

Energy Consequences:	Positive	Mixed	Negative
Land in AN-1			
Land in AN-2			
Land in AN-3			

3. Economic consequences:

- a. ***In general, how much economic activity would urbanization of this area bring? Ex: Additional construction opportunities?*** The land in the Airport North subarea contains 467 acres of developable land. Land in AN-1 contains large, flat undeveloped and partially vacant lots along Meadowview Road immediately north of the airport. The largest two lots are 133 and 118 acres. This amount and configuration of developable land increases options for future urbanization and associated economic benefits. The potential for industrial urbanization on land in the subarea could bring significant economic activity. Highway 99 and the railroad that runs parallel to it, provide efficient freight access for potential industrial uses. The land in the Airport North subarea is also well-suited for industrial uses that would use the airport as a transportation hub. The construction opportunities would primarily be on land in AN-1; lots in AN-2 and AN-3 contain more development and are smaller, resulting in a more inefficient development pattern and limited development capacity.

- b. ***Is the area appropriate for future urbanization with a variety of identified uses (not just LDR), to support connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a)*** As previously described, land in the Airport North subarea has a low likelihood of developing as a complete neighborhood due to its adjacency to the airport. Airport administrators and the Federal Aviation Administration (FAA) recommend industrial and agricultural-related use in areas immediately north and south of the runways based on noise and safety concerns from airport operations. In addition, land in both AN-1 and AN-3 is within the Airport’s Runway Protection Zone, in which the FAA recommends limiting new development in order to protect of people and property on the ground in the event that an airplane lands or crashes beyond the runway. Therefore, land in the Airport North subarea is not appropriate for future urbanization with a variety of identified uses.

- c. ***Are there concerns about future urbanization causing a loss of economic activity for existing and nearby uses? (also see Locational Factor 4)*** The primary negative economic impact from urbanization will be the loss of agricultural land. The negative impacts to existing businesses are more likely on land in AN-2 because there are existing agriculture-related businesses that are at risk for displacement if this portion of the subarea were to urbanize. On land in AN-2 there is one 45-acre lot containing an animal feed facility, and another 38-acre lot houses an equestrian center that boards and trains horses. These agriculture-related businesses serve an area greater than the Airport North subarea and may be negatively impacted by surrounding urbanization.

- d. ***How cost-efficient is service provision in this area? (also see Locational Factor 2)*** As noted above, in Locational Factor 2, land in the Airport North subarea is considered a mix of easy to

moderate to serve with only wastewater being difficult to serve, increasing the likelihood of land in this subarea urbanizing. However, as mentioned before, the urbanization of land in the Airport North subarea is reliant on the adjacent land in the Highway 99 subarea’s inclusion in the UGB, as it is not contiguous to the UGB. Land in AN-2 is adjacent to land in the Highway 99 subarea (HWY-2) that is not identified as suitable for Urban Reserves (see Highway 99 subarea report); this could negatively impact service delivery to land in AN-2 if it were to urbanize, as options for service connections would be limited and potentially more costly.

Conclusion: *As mentioned above, given the moderate serviceability of the Airport North subarea and its suitability for future industrial uses, urbanization of land in AN-1 would likely bring positive economic activity. However, land in AN-1 does not have residential capacity due to its adjacency to the airport and therefore has a low likelihood of developing with a variety of uses and it is dependent on the adjacent Highway 99 subarea urbanizing. Therefore, the economic consequences of urbanization are mixed.*

If urbanization were to occur on land in AN-2, there could be negative economic impacts on existing farm-related businesses which rely on nearby agricultural lands and may be at risk of displacement. Therefore, the economic consequences of urbanization are negative.

The land in AN-3 contains only two lots and is constrained by floodplain and wetlands and the predominance of the Runway Protection Zone, which could lead to inefficient development patterns and lower industrial capacity. Additionally, the land in AN-3 has no residential development capacity due to its adjacency with the airport. Therefore, the economic consequences of urbanization are negative.

Economic Consequences:	Positive	Mixed	Negative
Land in AN-1			
Land in AN-2			
Land in AN-3			

4. Social Consequences: ¹⁴

- a. **Will urbanization negatively impact current residents?** Few residents live on land in the subarea with none living on land in AN-3. While urbanization may negatively impact existing residents on land in AN-1 and AN-2 due to increased noise, traffic, and impacts to their viewshed, urbanization could also have positive social consequences by providing additional development opportunities for landowners. There are already significant noise impacts to current residents of land in the subarea due to the vicinity of the Airport. Airport administrators and the Federal Aviation Administration (FAA) recommend only industrial and agricultural-related use in areas immediately north and south of the runways based on the noise and safety concerns from airport operations, on land in AN-1 and AN-3. While industrial uses may create

¹⁴ The definition of “social consequences” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines is: “[t]he tangible and intangible effects upon people and their relationships with the community in which they live resulting from a particular action or decision.”

more employment opportunities, current residents could be impacted if industrial uses are located adjacent to existing homes. As noted previously, the Junction City UGB extends close to land in AN-2, to the intersection of Highway 99 and Meadowview Road, and residents of the entire subarea are currently within the Junction City School District boundary. According to the Junction City Manager, Meadowview Road feels like the edge of the Junction City community, although it's not an official boundary. Therefore, current residents and business owners on land in AN-2 may feel more closely affiliated with Junction City than Eugene.

- b. ***How would urbanization worsen or improve service delivery to residents in this area (e.g., adequate fire response times, access to water, parks)? (also see Locational Factor 2)*** As noted in the serviceability analysis, land in the subarea is currently served by Lane Fire Authority, and according to Eugene-Springfield Fire Department staff, a new fire station may be needed if the area were to urbanize. According to the preliminary analysis, distribution and transmission systems would be easy to extend to provide water service. However, wastewater would be difficult to serve. It is assumed that neighborhood parks would be developed if neighborhoods urbanize to meet service standards. Overall, urbanization would greatly improve service delivery to land in the subarea. However, as mentioned previously, land in the Airport North subarea is reliant on the adjacent land in the Highway 99 subarea's suitability for urban reserves. Land in AN-2 is adjacent to land in the Highway 99 subarea which abuts Highway 99 that is not identified as suitable for Urban Reserves (see Highway 99 subarea report); this could negatively impact service delivery to land in AN-2 as options for service connections would be more limited.
- c. ***Will urbanization exacerbate the impacts of potential natural hazards, such as flooding, fire, and landslides? (also see Locational Factor 3, Environmental Consequences C.1.b)*** Sixteen percent of land in the subarea is considered undevelopable due to natural resource and natural hazard land that exists on land in AN-1, AN-2, and AN-3 and which includes FEMA mapped floodplains, adopted Goal 5 wetlands, and small pockets of steep slopes and high-risk landslide areas. Adjacent urbanization could exacerbate the risk of flooding. However, these flood hazard areas are along smaller channels and ditches and they have no development capacity forecast on them, therefore, there is a low risk that future urbanization would be impacted by flooding. Because the lots of land in AN-1 are large and contain more undeveloped land, it would be relatively easy to focus urbanization away from hazard areas, mitigating any negative environmental consequences in AN-1. If land were to be brought into the UGB and urbanized, industrial uses would have to comply with City regulations thereby mitigating potential negative impacts.
- d. ***How might urbanization in this area impact vulnerable populations¹⁵ and underserved groups currently living in the subarea? Could one segment of the population be impacted more than another (e.g., low-income households)?*** There are very few people living on land in this subarea, and it is not suitable for future residential development due to safety and noise

¹⁵ Vulnerable populations are defined as populations that identify as a non-white race or ethnicity, younger or older populations, populations with a disability, and/or single-headed households. Data is from Livability Lane, 2013 Equity and Opportunity Assessment, Social and Demographic Characteristics Map. The extent to which vulnerable populations and underserved groups currently live in the subarea is speculative.

concerns from the Airport. That said, there could be displacement of some existing rural businesses in AN-2 if urbanization occurs, which could negatively impact vulnerable and underserved groups, if present. Additionally, there could be negative impacts to vulnerable populations and underserved groups due to the likelihood of increased industrial development if this subarea urbanizes. Future industrial urbanization would continue the development pattern from the industrial corridor inside the UGB along Highway 99.

- e. **Will urbanization in this area allow for connected, integrated neighborhoods? (also see Locational Factor 3, Energy and Economic consequences)*** As previously noted, both the main and ancillary runway alignments bifurcate land in the Airport North subarea and the flight path is over the subarea. Airport administrators and the Federal Aviation Administration (FAA) recommend only locating industrial and agricultural-related use in areas immediately north and south of the runways based on noise and safety concerns from airport operations, therefore no residential capacity is projected on land in AN-1 or AN-3. In addition, the land in AN-3 that is included in the Airport's Runway Protection Zone has additional constraints and makes urbanization of that land less likely. Therefore, land in AN-1 and AN-3 is not well-situated to co-locate a variety of housing and jobs in order to support connected, integrated neighborhoods. While land in AN-2 does have residential capacity, it is less suitable for connected, integrated neighborhoods due to its proximity to the Airport, distance from the Eugene UGB, and limited development capacity.

Conclusion: *As described more fully above, urbanization of land in AN-1 with industrial uses would have mixed social consequences. There are relatively few residents currently in the area, and the airport use to the south already has a significant impact to the area due to noise and odor. Future industrial urbanization would displace farm uses and continue the industrial development pattern from the industrial corridor inside the UGB along Highway 99 rather than spreading this type of use to other areas around the UGB.*

As described above, Meadowview Road acts as the unofficial edge of the Junction City community and residents in AN-2 may feel more strongly affiliated with Junction City than Eugene and be negatively impacted by Eugene urbanization. Existing businesses in AN-2 may be at risk of displacement if the subarea urbanizes as they are reliant on agricultural uses nearby. Access to services such as utilities and the development of parks could benefit existing residents and businesses but would be unlikely since the adjacent land along Highway 99 is not identified as suitable for Urban Reserves (see Highway 99 subarea report). When balanced together, urbanizing the land in AN-2 would have negative social consequences.

Land in AN-3 does not contain any residences and does not have any assumed residential development capacity due to its location adjacent to the Airport. Urbanization of the land in AN-3 with industrial use may cause negative impacts to current residents nearby, although such impacts may be already present with the adjacent Airport use (e.g., noise, odor and safety concerns). While its accessible location on the edge of the subarea, next to both Highway 99 and Green Hill Roads, could aid in service provision and minimize traffic impacts to residents, overall there would be negative social consequences if the land in AN-3 urbanizes due to its location at the end of the runway, with a portion of the land in the Airport's Runway Protection Zone.

Social Consequences:	Positive	Mixed	Negative
Land in AN-1			
Land in AN-2			
Land in AN-3			

Locational Factor 3 Conclusion:

For the land in **AN-1**, the analysis under Locational Factor 3 shows that urbanization would have negative Energy consequences, mixed Economic and Social consequences and positive Environmental consequences.

For the land in **AN-2**, the analysis under Locational Factor 3 shows that urbanization would have negative Energy, Economic and Social consequences, and mixed Environmental consequences.

For the land in **AN-3**, the analysis under Locational Factor 3 shows that urbanization would have negative Economic and Social consequences, and mixed Environmental and Energy consequences.

D. Locational Factor 4: Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

1. ***How will urbanization impact agricultural and forest activities on farm and forest designated land within the subarea?*** As shown on **Map 6.8, Plan Designations**, all of the land within AN-1, AN-2, and AN-3 is currently designated for Agriculture. There are no forest designated lands or uses occurring within land in the subarea. While land in AN-3 is designated as Agriculture, it is currently used for a golf facility and not being actively farmed. Land in AN-1 appears to be mainly used for grass crops and pastureland. While increased congestion on roadways from urbanization may impact agricultural activities occurring on land in AN-1 and AN-2, industrial uses would be more compatible with adjacent farms than residential uses, and no residential capacity is projected on land in AN-1. In AN-2, there are two large agricultural-related businesses: an equestrian facility and an animal feed facility, which could be negatively impacted if the area were to urbanize, due to odor, noise and other complaints from neighbors. Urbanization of land in AN-2 is also less compatible with nearby agricultural uses because it may cause the loss of businesses that currently serve surrounding agricultural uses.

2. ***Is urbanization compatible with existing agricultural and forest uses on farm and forest designated land nearby (outside of the subarea)?*** There are no forest-designated lands or forest uses nearby. Agriculturally-designated land surrounding the subarea is predominantly used for farm or airport uses. While there may be some nuisance issues, future industrial urbanization of land in AN-1 and AN-3 appears to be generally compatible with existing farm uses on agriculture designated land outside of land in the subarea, such as sheep and cattle grazing occurring within the Airport Reserve to the south. The farms surrounding land in AN-2 are less compatible with possible residential urbanization in that area, due to the potential for odor, noise and other complaints from neighbors.

Conclusion: *The land in AN-1 is agriculturally designated land used predominantly for grass crops and pastureland. Urbanization with industrial uses would cause displacement of active farm uses and may cause increased congestion on roadways. However, impacts are mixed due to the restrictions on future residential urbanization, and the adjacent airport use, which already impacts farm operations with noise, odor and safety issues. It appears industrial urbanization on land in AN-1 would be mixed in its compatibility with surrounding agricultural activities outside of the UGB, such as sheep and cattle grazing in the Airport Reserve.*

It appears that urbanization of the developable land in AN-2 could negatively impact farm activities occurring on agricultural land outside of the UGB both within and outside of the Airport North subarea. Farm-related businesses and operations on land in and surrounding AN-2 may experience negative impacts or be at risk of displacement if the subarea urbanizes particularly with residential development, which could be incompatible with the surrounding agricultural uses. Therefore, urbanization of land in AN-2 is not compatible with nearby agricultural activities.

There are no farm activities occurring on agricultural-designated land in AN-3. It appears that urbanization of the land in AN-3 would be compatible with surrounding agricultural activities outside the UGB as it is buffered from agricultural uses by Green Hill Road and Highway 99, and immediately north of the airport. Therefore, urbanization of land in AN-3 is compatible with nearby agricultural activities.

Compatibility with nearby agriculture and forest activities	Positive	Mixed	Negative
Land in AN-1			
Land in AN-2			
Land in AN-3			

III. Conclusion

Considering and balancing the Goal 14 Locational Factors as analyzed above, there would be some positive and some negative aspects of future urbanization of the Airport North subarea, as detailed in the above analysis, summarized below and shown in the summary tables on the following pages:

Land in **AN-1** includes 386 developable acres. It is located south of Meadowview Road. In evaluating the land in **AN-1**, the Locational Factor conclusions were mostly “mixed” in their findings: Locational Factor 3(a) was positive; Locational Factors 1, 2, 3(c), 3(d) and 4 were mixed; and Locational Factor 3(b) was negative. The land in **AN-1** contains larger lot sizes, is bordered by main roads, has capacity for future industrial urbanization, and with the exception of wastewater, is easy to moderate to serve. Despite its distance from the UGB, the location immediately adjacent to the Eugene Airport is well-suited for low-level industrial development. Its suitability for urban reserves is reliant on inclusion of the adjacent land in the Highway 99 subarea (in HWY-2) in urban reserves, in order to connect to the Eugene UGB in the future. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in AN-1 result in a determination that land in AN-1 is suitable for urban reserves designation. This land will be moved forward for urban reserves consideration with the Highway 99 (HWY-2) subarea.



Land in **AN-2** includes 54 developable acres. It is located north of Meadowview Road. The Locational Factor conclusions were “mixed” and “negative” in their findings: Locational Factors 1, 2, and 3(a) were mixed; and Locational Factors 3(b), 3(c), 3(d) and 4 were negative. The serviceability of land in AN-2 is negatively impacted by its distance from the Eugene UGB and existing services

within the City limits. Land in and around AN-2 includes active farm uses on agricultural-designated land, and it appears that urbanization of the developable land in **AN-2** could negatively impact these farm activities. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in AN-2 result in a determination that it is not suitable for urban reserves designation at this time.

Land in **AN-3** includes 26 developable acres in two tax lots. It is located in the southeast corner of the subarea, adjacent to Green Hill Road and Highway 99, immediately north of the Airport’s secondary runway. In evaluating the land in **AN-3**, the Locational Factor conclusions were mostly “negative” and “mixed” in their findings with only one being “positive”: Locational Factor 4 was positive, Locational Factors 2, 3(a), and 3(b) were mixed; and Locational Factors 1, 3(c), and 3(d) were negative. The land in AN-3 is constrained by natural resource and natural hazard land, and the predominance and location of the Airport Runway Protection Zone significantly limits future development opportunities. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in AN-3 result in a determination that it is not suitable for urban reserves designation at this time.

Please see the summary tables on the following pages, and **Map 6.3 Suitability Results**.

Summary
Airport North Subarea
Suitable for Urban Reserves Designation

Land in AN-1

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Not Suitable for Urban Reserves Designation

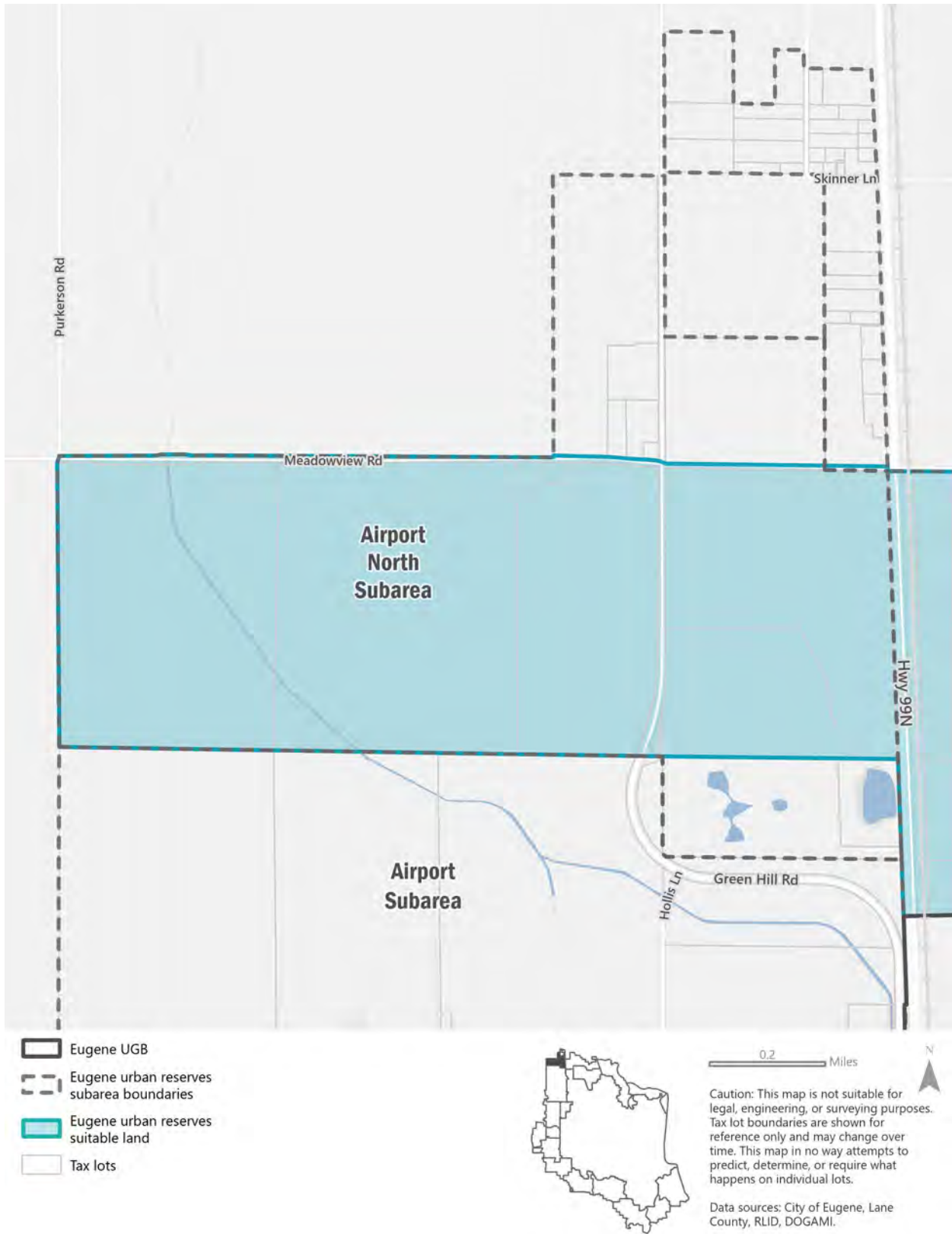
Land in AN-2

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Land in AN-3

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

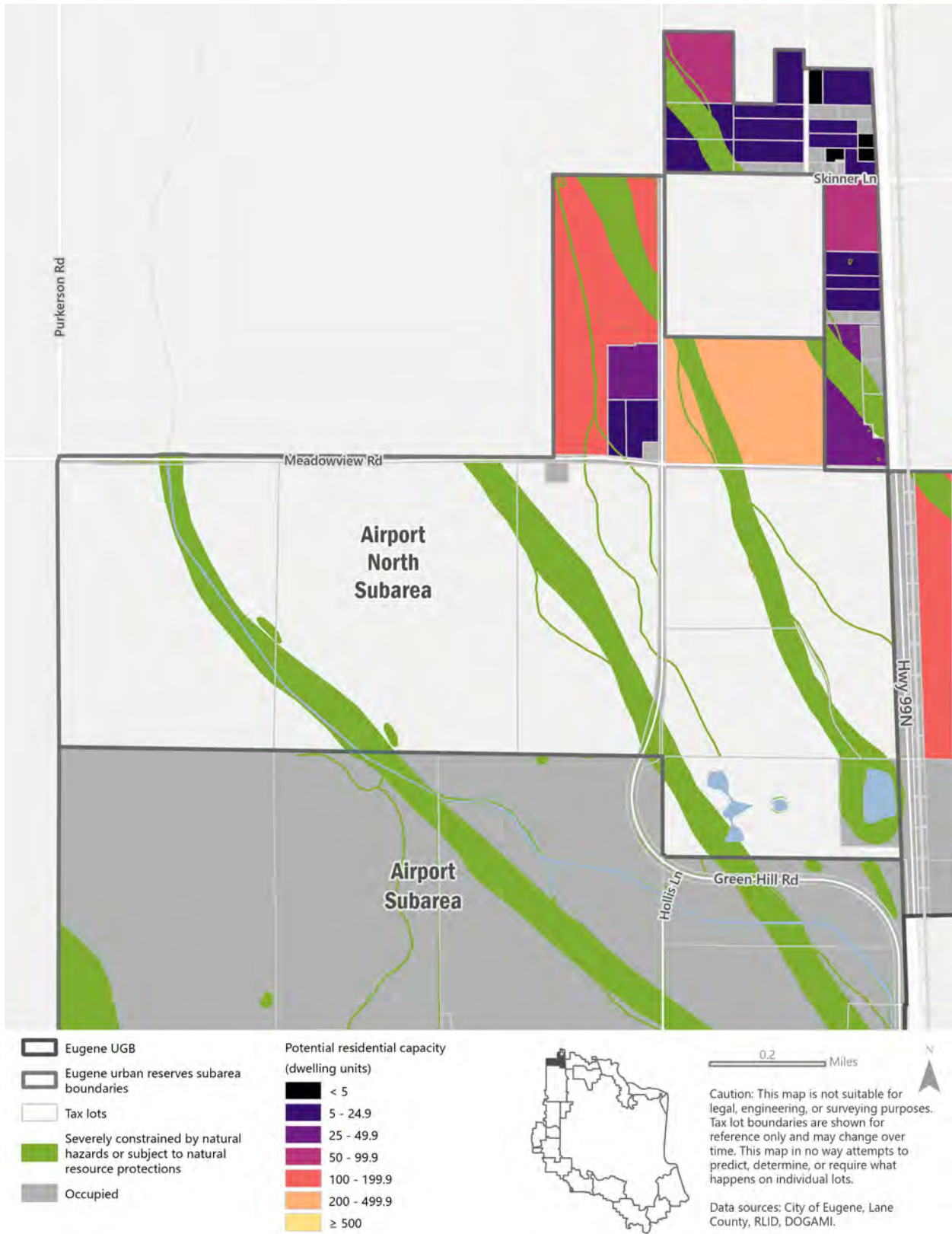
Map 6.3 Suitability Results, Airport North Subarea



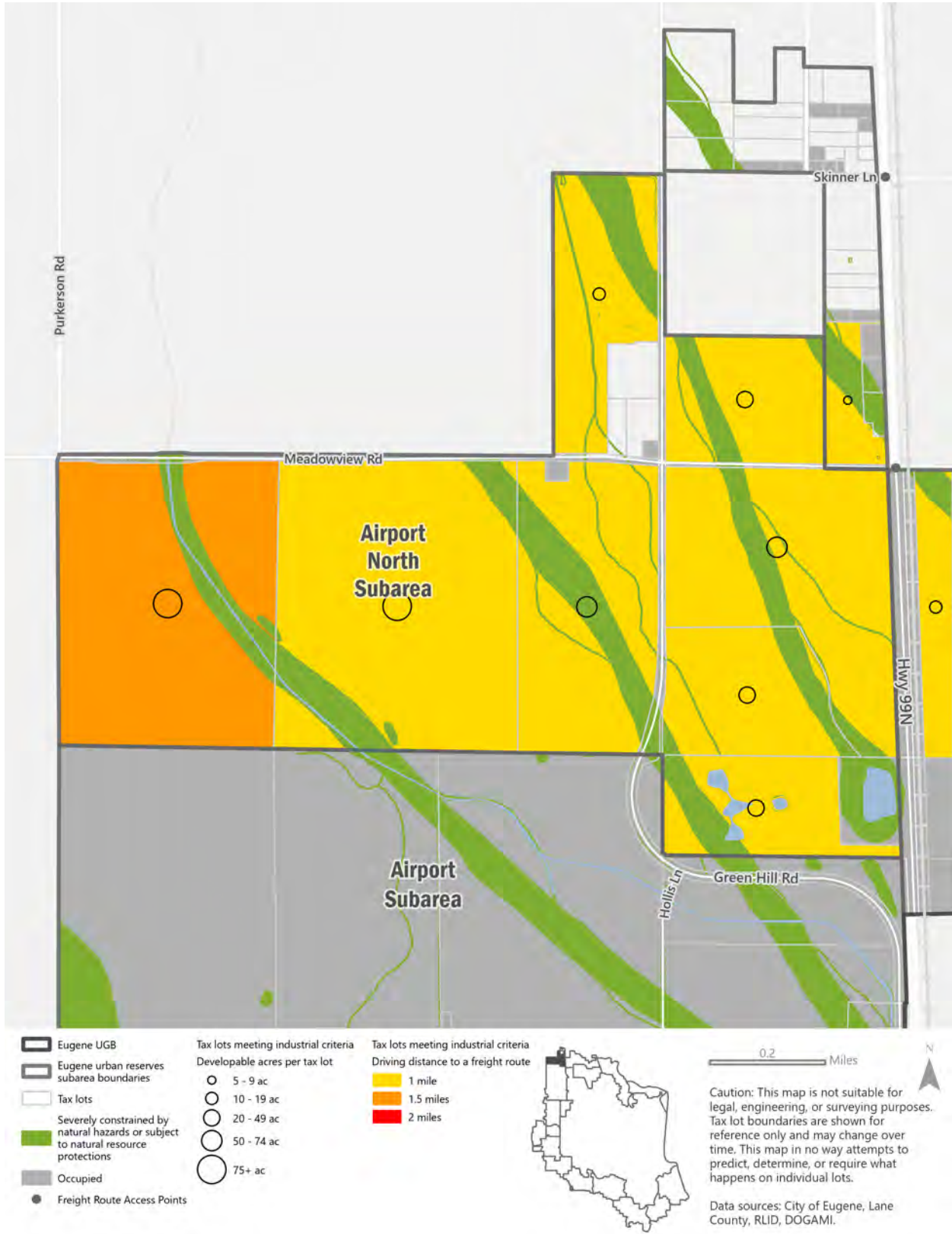
Map 6.4 Development Potential, Airport North Subarea



Map 6.5 Potential Residential Capacity, Airport North Subarea



Map 6.6 Potential Industrial Capacity, Airport North Subarea



Map 6.7 Contours and Hillshade, Airport North Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied

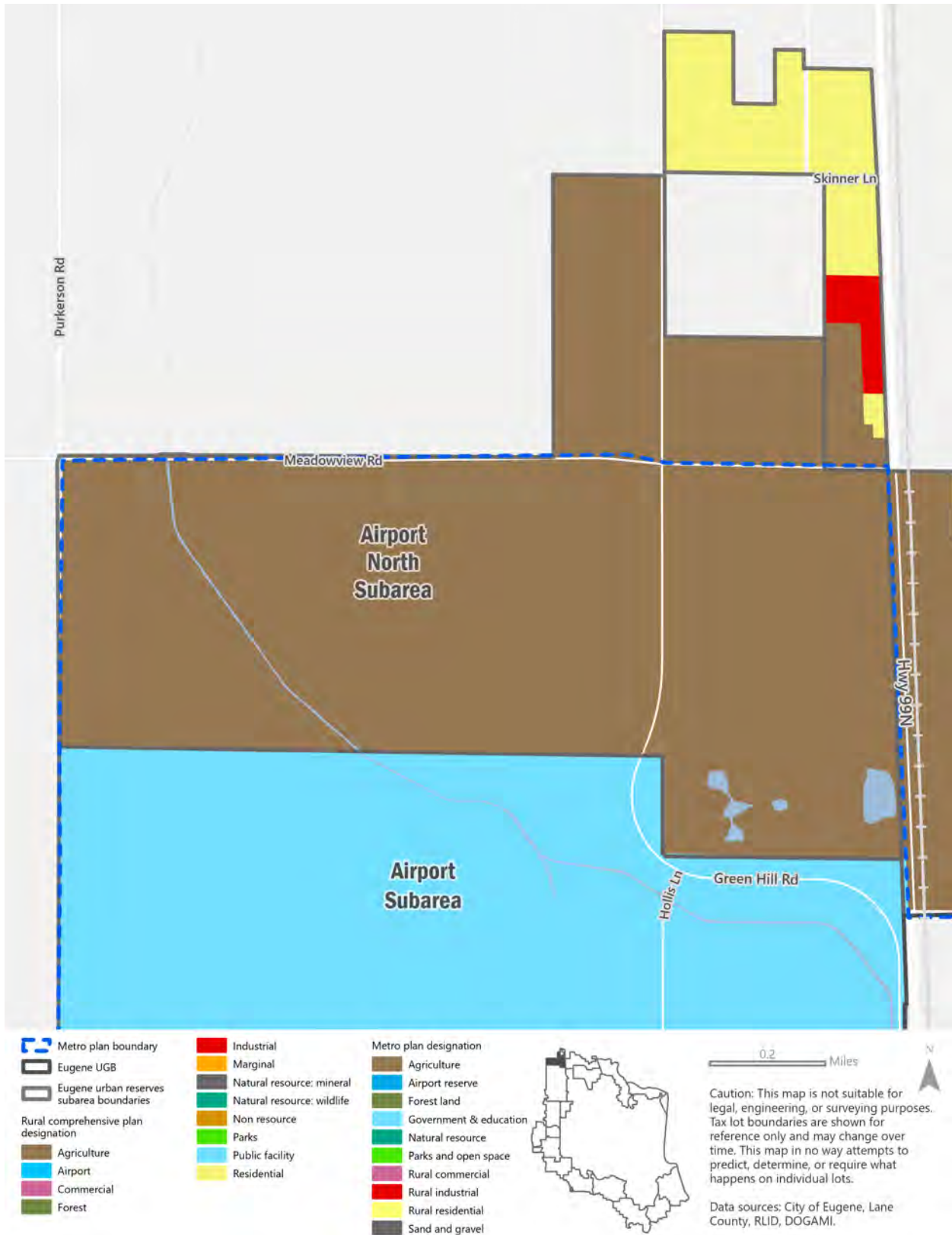


0.2 Miles

Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 6.8 Plan Designations, Airport North Subarea



7. Suitability Analysis – Airport

I. Background

- A. Location:** The Airport subarea is located to the northwest of Eugene. It is contiguous to the UGB at Green Hill Road. It primarily includes Eugene Airport property (shown in gray below). The Airport subarea is bounded to the north by the Airport North subarea and to the south by the Airport South subarea at Clear Lake Road. It is approximately equidistant to downtown Eugene and downtown Junction City, as the crow flies. See **Map 7.1 Location**, below.

Map 7.1 Location, Airport Subarea



- B. Existing Land Uses:** The Airport subarea encompasses 2,655 acres, of those only 184 have the potential for future urbanization. With the Airport occupying much of the subarea, the proximity of any potentially developable land to the Airport results in no land with residential capacity in the subarea. The land in the subarea is flat and is primarily in Airport use or designated for future Airport use, as Airport Reserve, as shown on **Map 7.8, Plan Designations**. Most of the land not in active Airport use appears to be used primarily for agriculture, including grass crops, pastureland, and sheep grazing. There are a few farm dwellings and a small rural residential area along Merryman Road. Amazon Creek traverses the subarea through the southwest corner and empties into Clear Lake. As already noted, most (approximately 93 percent) of the land in the subarea is classified as “undevelopable” with no residential or employment development capacity (shown in gray and green on all maps).
- C. Barriers to Development:** In the Airport subarea, the greatest barrier to development is the vast majority (2,471 acres or 93 percent) of land in the subarea that is categorized as “undevelopable.” Almost all of this undevelopable land is in Airport use and classified as occupied. The remainder of the undevelopable land is comprised of 304 acres (11% of the subarea) of natural hazard and natural resource land. The A-1 Channel crosses the subarea in the northeastern corner and the Amazon Creek, which flows into Clear Lake, borders the subarea along the southwestern edge. The A-2 Channel is located outside of the subarea near the southern edge, across Clear Lake Road. Federal Emergency Management Agency (FEMA) Special Flood Hazard Areas (floodplains) along Amazon Creek, Clear Lake, and the A-1 Channel account for the majority of the natural hazard land in this subarea; with some Lane County Goal 5 wetlands also present and small amounts of prohibitively steep slopes and high-risk landslide areas. The most significant barrier to development is the use of the Eugene Airport itself. Both the main and ancillary runway alignments bifurcate the Airport subarea and the flight path is directly overhead. The Federal Aviation Administration (FAA) has documented the potential for aircraft incidents within the approach and departure paths of a runway, and their desire to limit development under the approach and departure paths. It is due to this that Airport staff and the FAA recommend at most locating low-elevation industrial and agricultural-related uses in areas immediately north and south of the runways based on noise and safety concerns from airport operations. Therefore, no residential capacity is projected on the small amount of developable land immediately south of the Airport and north of Clear Lake Road in the subarea.¹
- D. Surrounding Land Uses:** At the southern edge of the subarea is the Airport South subarea which is composed primarily of farmland and floodplain associated with Amazon Creek. Land immediately to the west of this subarea is outside of the Urban Reserves study area and is primarily used for agriculture. The UGB, Highway 99 and the Eugene Industrial Corridor are immediately to the east. The Airport North subarea is mostly north of Meadowview Road and contains farmland and the Fiddler’s Green golf facility which is located near the northeast corner of the Airport subarea. The Junction City UGB extends south to Meadowview Road on the east side of Highway 99, so it is very close but not immediately adjacent to the Airport subarea.
- E. Organization of this Analysis:** After an initial review, it became clear that within the Airport subarea, while there are a variety of land types, the land throughout the subarea shares similar

¹ See February 12, 2022 letter from Cathryn Stephens, Airport Director, Eugene Airport.

attributes relevant for Goal 14 Locational Factor analysis, so there is no need for the subarea to be subdivided further. This is shown in **Map 7.2 Organization of Analysis**, below.

Map 7.2 Organization of Analysis, Airport Subarea



II. Identify land that would be suitable for urban reserves²

A. Locational Factor 1: Efficient accommodation of identified land needs

² Refer to Section II C of the Eugene Urban Reserve Study (Findings Appendix 2) for background on how the City is identifying land in the study area that would be “suitable,” the explanation of the prompts used for the Goal 14 Locational Factors, and specific terminology.

To what extent is there...

- 1. *Developable land adjacent to or nearby (within .25 mile) of the UGB?*** As shown on the **Map 7.4 Development Potential**, this subarea is almost completely “undevelopable.” There are only two tax lots in the southeast corner the subarea with developable land within .25 miles of the UGB. These lots contain 57 acres of developable land with a portion of their lot within .25 miles of the UGB along its eastern edge. However, they are designated “Government and Education” and “Airport Reserve” in the Metro Plan, and the largest developable lot is south of the Airport’s secondary runway. Therefore, the location of these lots near the UGB does not necessarily aid in their urbanization.
- 2. *Partially vacant developable land (that could be developed for the identified land needs)?*** The Airport subarea contains 184 developable acres, of which over 181 acres are located on lots classified as partially vacant and 2 acres are on lots classified as undeveloped. As shown on **Map 7.4 Development Potential**, almost all of the developable land is located on lots classified as partially vacant.
- 3. *Developable land that is identified in the capacity analysis³ as able to be urbanized with a mix of residential housing? How does this translate into potential dwelling units (per the capacity analysis)?*** No land in the Airport subarea is suitable for residential development due to any developable land being immediately adjacent to the airport runways located within the subarea. This is because, as noted previously, Airport administrators and the Federal Aviation Administration (FAA) recommend at most industrial and agricultural-related uses in areas immediately north and south of the runways based on the noise and safety concerns from airport operations. See **Map 7.5 Potential Residential Capacity**.
- 4. *Developable land that is identified in the capacity analysis⁴ as potentially able to be urbanized with industrial land? How does this translate into potential industrial sites (per the capacity analysis)?*** As shown on **Map 7.6 Potential Industrial Capacity**, there are four lots in the subarea identified in the capacity analysis as potentially suitable for urbanization with industrial land uses, located mainly along Clear Lake and Green Hill Roads. This is because of their proximity to freight routes, flat topography, and larger lot sizes. However, there are significant constraints on this land not considered in the capacity analysis, such as its location immediately adjacent to the Eugene Airport, its designation as Airport Reserve (land which may be acquired by Eugene at some future time in connection with the Eugene Airport), and some of the developable land’s location next to the land in the Airport South subarea (south of Clear Lake Road) that is identified as unsuitable for urban reserves. Therefore, the developable land in the subarea is not able to efficiently accommodate identified industrial need.

³ For information on how residential development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

⁴ For information on how industrial development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

5. Topography, steep slopes or other “undevelopable”⁵ lands that would make efficient urbanization difficult? “Undevelopable” lands are shown as gray and green on all of the analysis maps. Together, these lands make up 93 percent of the subarea. As shown on **Map 7.7 Contours and Hillshade**, the Airport subarea is flat. Only 22 acres (one percent of the subarea) contain prohibitively steep slopes (at or above 30 percent). There are ribbons of FEMA-mapped Flood Hazard Area and Goal 5 wetlands on developable land in the southern portion of the subarea which could make efficient urbanization difficult. In some cases (west of Merryman Road and south of Old Airport Road), there are lots containing no developable land due to the presence of floodplain and wetlands. Combined with the significant presence of the Eugene Airport⁶ in the subarea, efficient urbanization of developable land in the subarea is difficult.

Conclusion: *The vast majority (93 percent) of the land in the subarea is in Airport use, or identified for potential future Airport use, or constrained by natural resource or natural hazard land, and classified as “undevelopable.” For the developable land in the subarea, there is no residential capacity due to its adjacency to the Eugene Airport and identified conflicts of uses. While some of the developable land contains capacity for industrial development its location immediately south of the Airport runways significantly limits future development opportunities. A portion of the developable land is also adjacent to land identified as unsuitable for urban reserves (in the Airport South subarea), making efficient service connections from the UGB difficult. Therefore, the land in the Airport subarea is negative in its ability to efficiently accommodate identified land needs.*

Efficient accommodation of identified land needs:	Positive	Mixed	Negative
Land in the Airport subarea			

B. Locational Factor 2: Orderly and economic provision of public facilities and services⁷

The information below is meant to answer how easy or difficult it is to serve the Airport subarea, including the capacity of the current system and new infrastructure needed to serve the area if urbanized. It includes an analysis of **wastewater, water, transportation, transit, stormwater, and**

⁵ As described in the Eugene Urban Reserves Study Section II B., land was assigned no development capacity if it falls within one of the these “undevelopable” categories: severely constrained by natural hazards or is designated or zoned to protect natural resources; or not vacant or partially vacant (i.e. the land is already occupied).

⁶ In some cases, “undevelopable” land is identified as “suitable” for Eugene urban reserves. In the case of the Eugene Airport, the Airport Administrator has indicated that there is no need for the Eugene Airport to be included in the UGB in the future. As noted in Locational Factor 2, the Eugene Airport is the only public facility in the urban reserves study area already served by City wastewater, stormwater and fire/emergency services, and EWEB water and electricity. Further, it benefits Airport operations to be separated from urbanized areas due to safety concerns noted in Section I.C., which is why the FAA and Airport staff both prefer land immediately surrounding the runways to stay as undeveloped as practicable.

⁷ The definition of “public facilities and services,” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines, is: “[p]rojects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.”

fire/emergency services and also, to a lesser extent, it includes provision of **electricity, schools and parks**.⁸

Before the narrative description is a table showing the **general serviceability** of the subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff. Also included is a **generalized cost estimate**, which represents preliminary estimates for the major components of the individual systems. Cost information is provided on a \$ to \$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$) denoting the greatest cost. The scale used for each type of service varies and is not comparable to other utilities or services. For example, a \$ for wastewater does not equate to a \$ for transportation. Cost estimates do not include future maintenance costs.

Airport Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Moderate	Easy	Moderate	Easy	Moderate	Easy-Moderate
Generalized cost estimate	\$\$\$	\$	\$\$-\$\$\$	\$	\$\$\$	\$\$

- 1. Wastewater:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. The Airport is already served with city wastewater,⁹ so wastewater lines are nearby, but a minimal amount of downstream pipe would likely need to be replaced with larger pipe to serve the developable land in the subarea. Development of this subarea may require the construction of a pump station, as would be required for servicing the developable land in Airport South, which increases the cost of extending services.
- 2. Water:** The subarea is assigned an “easy” serviceability rating and the generalized cost estimate for improvements is \$. This is because of the flat topography and proximity to existing water service. The Eugene Water and Electric Board (EWEB) already serves the Airport, so water distribution lines would have to be extended from nearby roadways to provide service.
- 3. Fire:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$-\$\$\$. There is a fire station at the Airport, but it does not provide coverage to surrounding areas and would not serve the developable land in the subarea if it was not part of the Airport. Similar to serving the land in Airport South, due to the current locations of the city fire stations and existing street network, there may be response

⁸ The summarized information used in this section is based on the results of the *Urban Reserves Serviceability Analysis Report* (Findings Appendix 3). Service providers analyzed subareas in their entirety; they generally did not differentiate between areas within a subarea.

⁹ The Eugene Airport is outside of the UGB but is served with city wastewater, stormwater and fire/emergency services, and with EWEB water and electricity. This is the only circumstance in the urban reserves study area where a public facility is served with urban levels of services. This is due to the special rules surrounding airports in Oregon (OAR 660-024-0067(1) and (5)(g)(B)). Urban development cannot connect to Airport services unless the Airport comes into the UGB. However, nearby areas, if they urbanize, can connect to service lines already installed in rights of way, if those rights of way are included in the UGB and they have capacity.

time/service delay concerns for truck coverage if the area was developed, potentially requiring a new fire station.

4. **Transportation:** The subarea is assigned an “easy” serviceability rating and the generalized cost estimate for improvements is \$. This is due to a lack of congestion and good connections to both Eugene and the regional transportation system via Highway 99, Green Hill and Clear Lake Roads.
5. **Transit:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. This is because there are challenges in providing efficient bus service given the current distance from other routes and areas of higher density, although the area is easy to access given the flat topography.
6. **Stormwater:** The subarea is assigned an “easy to moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$. This area has flat topography and the soils are likely suitable for infiltration. Future urbanization is likely suitable for on-site infiltration to reduce post-development runoff and protect downstream water quality. If on-site detention is not feasible, neighborhood or regional detention facilities may be necessary, which would make the ease to serve this area ‘moderate.’ The entire area falls within the Junction City Water Control District and stormwater and flood control requirements in the Eugene code at 9.6791(3)(c) could need to be extended into this area.
7. **Other (Parks, Schools, Electric):** There are no parks in this subarea. EWEB provides electrical service to the Airport and to the land in the south along Merryman Road and Clear Lake Road. The developable land in the subarea is within the Bethel School District but as there is no residential capacity on this land, therefore enrollment would not be impacted.
8. **Is there undeveloped land within the UGB that would be helped in its development/serviceability if this area were included in urban reserves, or is there undeveloped land within the UGB that would negatively impact the orderly and economic provision of public facilities and services?** There is undeveloped land within the UGB in the industrial corridor that would potentially benefit in its future development and serviceability if this subarea were included in urban reserves and its developable land also urbanized, but only to a small degree, as the amount of developable land in the subarea is small.

Conclusion: *Based on input from service providers, the land in the Airport subarea is considered easy to moderate to serve and the generalized cost estimate for improvements ranges between \$ and \$\$\$\$. The subarea benefits from its flat topography and roadway connections. There are some pipes in the ground that already connect to the Airport, which makes extending services close to the Airport relatively easy. However, the Eugene Airport is classified as “undevelopable” and does not have a need to be within the UGB, and so the subarea is dependent on the land to the east urbanizing in order to connect to services within the UGB. Therefore, the rating is “mixed” as developable land in the Airport subarea could be provided with public facilities and services in a moderately orderly and economic manner.*

Orderly and economic provision of public facilities and services:	Positive	Mixed	Negative
Land in the Airport subarea			

C. Locational Factor 3. Comparative environmental, energy, economic and social consequences

1. Environmental Consequences:

- a. ***Presence of natural resources: To what extent would urbanization of this area negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources?*** There is no existing public open space in the subarea. The Goal 5 adopted Amazon Creek riparian corridor crosses the subarea on land designated for agriculture and rural residential in the southwest corner of the subarea. There is a small Goal 5 adopted riparian area on the eastern edge located between Green Hill, Old Airport, and Airport Roads. There are also Goal 5 adopted wetlands coterminous with the floodplain surrounding these waterbodies. Wetlands provide habitat for many species and could be negatively impacted if the adjacent agricultural land were to urbanize. However, since Goal 5 adopted wetlands are categorized as “undevelopable,” urbanization is not assumed directly on those areas.

- b. ***Presence of hazard areas (steep slope, landslides, floodplain): To what extent would urbanization of this area increase the potential risk of natural hazards, such as landslides, wildfire or flooding?*** FEMA-mapped flood hazard areas are present in this subarea on land adjacent to Amazon Creek, Clear Lake and the A-1 Channel. The floodplain extends from the south onto occupied Airport land and land designated for agriculture and rural residential in the southwest corner of the subarea. These hazard areas are categorized as “undevelopable,” so urbanization is not assumed on them, however increased impervious surfaces and stormwater runoff from adjacent development could have negative environmental consequences by increasing flood risk. If the area urbanized, development would be subject to the city’s stormwater standards, which are intended to minimize runoff and mitigate negative impacts. Only one percent of land in the subarea (22 acres) contain steep slopes (equal to or greater than 30 percent slope) and there are very small pockets of high-risk landslide areas along the banks of the A-1 Channel and ditches. No other natural hazard risks have been identified in this subarea.

- c. ***Presence of nearby public open space: To what extent would nearby public open space benefit future residents of the area?*** No publicly accessible open space is currently present in this subarea or nearby. However, land near Meadowview Road in the Airport North

subarea, is shown on Rivers to Ridges¹⁰ maps as part of a potential future “farm belt” of publicly accessible agricultural open space.

Conclusion: *Because so much of the subarea is in Airport use or identified for potential future Airport use, the environmental impacts of urbanization on the remaining small amount of developable lands are high. Urbanization of the land adjacent to the Amazon Creek riparian area, wetlands and flood hazard area that extend from the Airport South subarea would have an outsized impact on the developable agricultural and rural residential land in the far southwest corner of the subarea, making the environmental impacts of urbanization on this land negative (high).*

Environmental Consequences:	Positive (low)	Mixed (medium)	Negative (high)
Land in the Airport subarea			

2. Energy Consequences (priority for lower energy usage):

- a. ***To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt)?*** Land in the Airport subarea is not well-suited to co-locate a variety of housing types, jobs, and services in order to provide a 20-minute neighborhood (where homes, jobs and services can be reached on foot within 20 minutes thereby limiting the need for vehicle trips and having positive energy impacts), due to the developable land’s location immediately adjacent to the Airport and the inefficient distribution of developable land due to the extent of flood hazard areas and wetlands. As mentioned previously, Airport administrators and the Federal Aviation Administration (FAA) recommend only industrial and agricultural-related use in areas immediately around the runways based on the noise and safety concerns from airport operations, so no residential capacity is assumed. Most of this surrounding developable land in the Airport subarea is designated for current or future airport use.

- b. ***To what extent is the area easily accessible to other services or uses (e.g., neighborhood commercial, parks, schools)?*** There are no neighborhood-serving commercial uses in the Airport subarea or nearby, and land in the subarea is isolated from daily goods and services. The closest grocery store is within the Eugene UGB about five miles driving distance away, and downtown Junction City is about six miles driving distance away. The closest commercial development is inside the UGB along Highway 99 near Beltline, approximately three miles away. The distance of the subarea from other services (beyond the Airport) would cause negative energy consequences.

- c. ***To what extent is the area adjacent to or nearby the UGB? (see Locational Factor 1)*** As shown on the **Map 7.4 Development Potential**, land within the subarea is almost

¹⁰ Rivers to Ridges is a multi-agency partnership dedicated to improving the quality of life for residents in the upper Willamette Valley by working together to protect and enhance the region’s land and water resources and their ecosystem functions and values; and to provide environmental education and compatible outdoor recreation opportunities. <https://www.eugene-or.gov/650/Rivers-to-Ridges-Partnership>

completely “undevelopable.” As noted in Locational Factor 1, there are only two tax lots in the southeast corner the subarea with developable land within .25 miles of the UGB. These lots contain 57 acres of developable land with a portion of their lot within .25 miles of the UGB along the subarea’s eastern edge.

- d. To what extent is there good multi-modal transportation access to this area? (see Locational Factor 1) To what extent is the area easily accessible to job centers and downtown?** Because of the Airport, there are major roadway connections to land in the subarea: Highway 99 provides a direct transportation corridor to downtown, Eugene’s main job center; Green Hill Road provides access to west Eugene to the south and Meadowview Road to the north, and Clear Lake Road provides an additional east/west connection. However, there is no transit service to land in the subarea or nearby, and there are no bike lanes on these main corridors. Transit service would need to be extended to this subarea, and roadway improvements, including bike lanes and sidewalks, would need to be added to accommodate all users. There is very limited potential for good local street access from existing neighborhoods within the UGB as most of the land surrounding the Airport is designated for industrial use. The flat topography is beneficial for future multi-modal transportation access (including Airport use), but the lack of local street connections to nearby residential areas and distance to downtown Eugene make the subarea challenging to access other than by automobile, resulting in negative energy consequences.
- e. To what extent does future urbanization directly or indirectly generate energy or climate burdens (e.g., loss of open space, loss of growing lands, loss of solar access, increased traffic, increased carbon emissions)?** Future urbanization of the land in the Airport subarea will, directly and indirectly, generate energy and climate burdens due primarily to the loss of growing lands to urbanization, and increased carbon emissions due to increased vehicle miles traveled. While increased regulations may have positive effects on environmental health (once the subarea urbanizes), dependence on fossil fuels for automotive transportation will result in greenhouse gas emissions that will have negative energy effects. Any industrial urbanization of land in the subarea would likely generate climate and energy burdens by increasing vehicle trips as future employees would need to commute to their homes elsewhere.

Conclusion: Overall, urbanization of land in the Airport subarea would have negative energy consequences. The flat topography and access to major transportation connections—roadway, rail and airport—is beneficial for materials and products related to industrial use. However, any future jobs in the subarea would rely on vehicular travel to existing and future neighborhoods elsewhere, since there is no residential capacity assumed in the subarea, increasing vehicle miles traveled and carbon emissions. The loss of growing lands to urbanization would also generate energy and climate burdens.

Energy Consequences:	Positive	Mixed	Negative
Land in the Airport subarea			

3. Economic consequences:

- a. ***In general, how much economic activity would urbanization of this area bring? Ex: Additional construction opportunities?*** The Airport subarea contains only 184 acres of developable land, located south of the Airport along Clear Lake and Merryman Roads. While the land in the subarea does have a small amount of industrial capacity, there are significant barriers to development due to the presence of FEMA mapped flood hazards and wetlands and the adjacent Airport use. Any urbanization would bring construction activity that would benefit the local economy. While the City's tax base would increase from urbanization, the cost of services (capital and ongoing) and needed infrastructure may outweigh the increased revenue.
- b. ***Is the area appropriate for future urbanization with a variety of identified uses (not just LDR), to support connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a):*** Land in the Airport subarea is not well-suited to co-locate a variety of housing types, jobs, and services in order to provide a 20-minute neighborhood (where homes, jobs and services can be reached on foot within 20 minutes thereby limiting the need for vehicle trips and having positive energy impacts), due to the developable land's location immediately adjacent to the Airport and the identified noise and safety conflicts. There is also an inefficient distribution of developable land due to the extent of flood hazard areas and wetlands. As mentioned previously, no residential capacity is assumed, due to the Airport and Federal Aviation Administration (FAA) recommendations based on the noise and safety concerns from Airport operations. Most of this surrounding developable land in the Airport subarea is designated for current or future airport use. Therefore, the Airport subarea is not appropriate for future urbanization with a variety of identified uses.
- c. ***Are there concerns about future urbanization causing a loss of economic activity for existing and nearby uses? (also see Locational Factor 4)*** The primary negative economic impact from urbanization will be the loss of agricultural land. There are existing agriculture-related businesses that are at risk for displacement if the developable land in the subarea were to urbanize. However, as noted previously, due to the FEMA-mapped flood hazards, wetlands and adjacent Airport uses, there is only a small amount of developable land that could be suitable for future urbanization with industrial uses. Therefore, there is relatively little concern about future urbanization causing a loss of economic activity for existing and nearby uses.
- d. ***How cost-efficient is service provision in this area? (also see Locational Factor 2)*** As noted in Locational Factor 2, service providers consider the land in the Airport subarea easy to moderate to serve. The subarea benefits from its flat topography and good major roadway connections. There are some pipes in the ground that already connect to the Airport, which makes extending services close to the Airport relatively easy. However, the Airport is classified as "undevelopable" (with no residential or employment capacity) and does not have a need to be within the UGB, and so the developable land in the subarea is dependent on the land to the south and east urbanizing in order to connect to services within the UGB.

Conclusion: *Positive economic consequences of urbanization include the proximity of developable land to major roadways and the moderately cost-efficient provision of services. However, its location immediately adjacent to the Eugene Airport would limit future economic activity to industrial-related uses. Additionally, urbanization would be contingent on the adjacent Clear Lake subarea, that abuts the UGB, being included in urban reserves, and the land within the UGB urbanizing. Furthermore, the developable land is constrained by floodplain and wetlands and the predominance of Airport uses could lead to inefficient development patterns and lower industrial capacity. If urbanization were to occur on land in the subarea, there could be negative economic impacts on existing farm-related businesses which would be at risk of displacement. Based on the above information, urbanization of the land with development capacity in the Airport subarea would have mixed economic consequences.*

Economic Consequences:	Positive	Mixed	Negative
Land in the Airport subarea			

4. Social Consequences: ¹¹

- a. **Will urbanization negatively impact current residents?** It appears that land in the subarea contains mostly agricultural related uses and a limited number of residences. Most of the land with rural residential homes is constrained by floodplain, so no additional capacity is assumed there. However, as noted previously, due to the FEMA-mapped flood hazards, wetlands and adjacent Airport uses, there is only a small amount of developable land that could be suitable for future urbanization with industrial uses. If the land with development capacity were to urbanize, impacts to current residents could be negative given that it is primarily suitable for industrial use. While industrial uses may create more employment opportunities there could be negative social consequences if industrial uses are located adjacent to homes. There are already significant noise impacts to current residents in the subarea due to the vicinity of the Airport.

- b. **How would urbanization worsen or improve service delivery to residents in this area (e.g., adequate fire response times, access to water, parks)? (also see Locational Factor 2)** As noted in the serviceability analysis, according to Eugene-Springfield Fire Department staff, if land in the subarea were to urbanize, a new fire station may be needed. According to the preliminary analysis, distribution and transmission systems would be easy to extend to provide water service, while wastewater service would be more complicated and potentially costly. No new neighborhood parks would be developed since there is no residential capacity on the developable land and the FAA and Airport administration recommend against developing any type of facility where people would congregate immediately surrounding the Airport. Overall, urbanization would improve service delivery to the developable land in the southern portion of the subarea, but it would not come without a price, and it would be dependent on land within the UGB urbanizing first.

¹¹ The definition of “social consequences” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines is: “[t]he tangible and intangible effects upon people and their relationships with the community in which they live resulting from a particular action or decision.”

- c. ***Will urbanization exacerbate the impacts of potential natural hazards, such as flooding, fire, and landslides? (also see Locational Factor 3, Environmental Consequences, C.1.b)*** FEMA-mapped flood hazard areas are present in this subarea on land adjacent to Amazon Creek, Clear Lake and the A-1 Channel. The floodplain extends from the south onto Airport land and land designated for agriculture and rural residential in the southwest corner of the subarea. These hazard areas are categorized as “undevelopable,” so urbanization is not assumed on them, however increased impervious surfaces and stormwater runoff from adjacent development could have negative environmental consequences by increasing flood risk. If the area urbanizes, development would be subject to the city’s stormwater standards, which are intended to minimize runoff and mitigate negative impacts. Only one percent of land in the subarea (22 acres) contain steep slopes (equal to or greater than 30 percent slope) and there are very small pockets of high-risk landslide areas throughout the subarea such as along the banks of the A-1 Channel and other ditches. No other natural hazard risks have been identified in this subarea.
- d. ***How might urbanization in this area impact vulnerable populations¹² and underserved groups currently living in the subarea? Will one segment of the population be impacted more than another (e.g., low-income households)?*** It appears that land in the subarea contains mostly agricultural related uses and a limited number of residences, and it is not suitable for future residential development due to safety and noise impacts from the Airport. The potential displacement of some existing agricultural businesses if urbanization occurs could negatively impact vulnerable and underserved groups. Additionally, there could be negative impacts on existing vulnerable and underserved groups from industrial development if land in the subarea urbanizes. Future industrial urbanization would continue the development pattern from the industrial corridor inside the UGB along Highway 99.
- e. ***Will urbanization in this area allow for connected, integrated neighborhoods? (also see Locational Factor 3, Energy and Economic consequences)*** No. As previously noted, both the main and ancillary runway alignments of the Eugene Airport bifurcate the Airport subarea and the flight path is over the subarea. Airport administrators and the Federal Aviation Administration (FAA) recommend only locating industrial and agricultural-related use in areas immediately north and south of the runways based on noise and safety concerns from airport operations, therefore no residential capacity is projected on land in the subarea. Therefore, land in the subarea is not well-situated to co-locate a variety of housing and jobs in order to support connected, integrated neighborhoods.

Conclusion: As described more fully above, urbanization of land in the Airport subarea would have negative social consequences. Future industrial urbanization would displace farm uses and continue the industrial development pattern from the industrial corridor inside the UGB along Highway 99 rather than spreading this type of use to other areas around the UGB. The developable land in the

¹² Vulnerable populations are defined as populations that identify as a non-white race or ethnicity, younger or older populations, populations with a disability, and/or single-headed households. (from Livability Lane, 2013 Equity and Opportunity Assessment, Social and Demographic Characteristics Map.) The extent to which vulnerable populations and underserved groups currently live in the subarea is speculative.

subarea does not have any residential development capacity due to its location adjacent to the Airport. Urbanization of the land in the subarea with industrial use may intensify negative impacts to current residents nearby, although such impacts are already present due to the adjacent Airport (e.g., noise, odor and safety concerns). While the subarea’s accessible location, near Clear Lake Road, Green Hill Road and Highway 99, could aid in service provision and minimize traffic impacts to current residents, overall, there would be negative social consequences if the land in the subarea urbanizes.

Social Consequences:	Positive	Mixed	Negative
Land in the Airport subarea			

Locational Factor 3 Conclusion:

For the land in the Airport subarea, the analysis under Locational Factor 3 shows that urbanization would have negative Energy, Environmental and Social consequences, and mixed Economic consequences.

D. Locational Factor 4: Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

1. ***How will urbanization impact agricultural and forest activities on farm and forest designated land within the subarea?*** There are 31 acres of developable land currently designated agriculture in the southwest corner of the subarea. There are no forest-designated lands or uses occurring within the subarea. See **Map 7.8, Plan Designations**. The agriculture-designated land appears to be mainly used for grass crops and pastureland. Due to its location and lot configuration, this agricultural land is not identified with either industrial or residential capacity. While increased congestion on roadways from urbanization may impact agricultural activities, industrial uses would be more compatible with adjacent farms than residential uses, and no residential capacity is projected nearby.

2. ***Is urbanization compatible with existing agricultural and forest uses on farm and forest designated land nearby (outside of the subarea)?*** There is a significant amount of land designated for agriculture immediately south and west of the developable land in the subarea. There are no forest-designated lands or forest uses nearby. If land in the Airport subarea were to urbanize, there may be some traffic issues, but future industrial urbanization of land in the subarea appears to be generally compatible with existing nearby farm uses (primarily grass crops and grazing) on agriculture-designated land outside of the subarea.

Conclusion: *The agricultural-designated land in the Airport subarea is used predominantly for grass crops and pastureland. The Airport uses within the subarea already impact farm operations inside and adjacent the subarea with noise, odor and safety issues; adjacent urbanization with industrial uses could cause increased congestion on roadways although only a small amount of land in the subarea is considered developable. There are no impacts to forest-designated or forest uses nearby.*

Therefore, it appears that urbanization on land in the Airport subarea would be mixed in its compatibility with surrounding agricultural activities outside of the UGB, such as pastureland for livestock grazing.

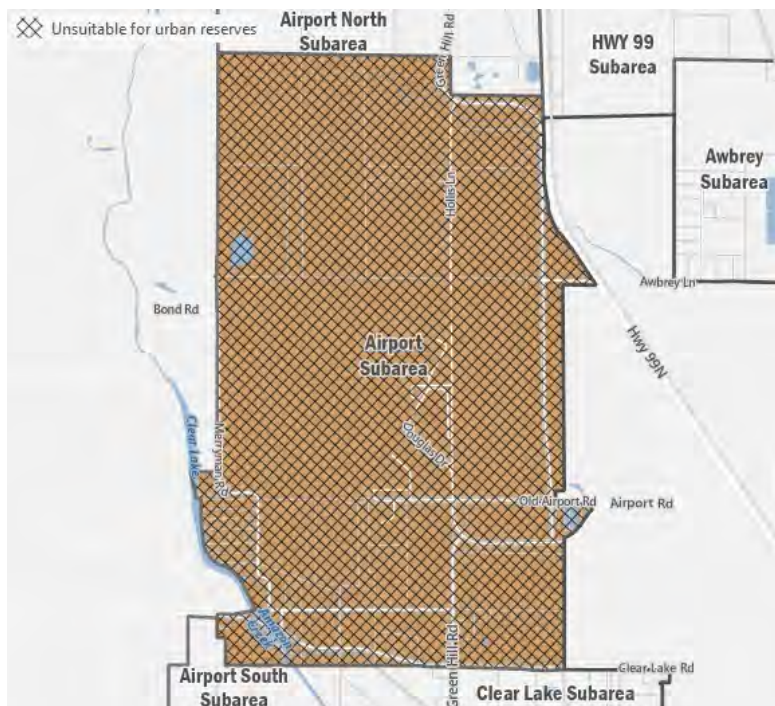
Compatibility with nearby agriculture and forest activities	Positive	Mixed	Negative
Land in the Airport subarea			

III. Conclusion:

Considering and balancing the Goal 14 Locational Factors as analyzed above, there would be some mixed and some negative aspects of future urbanization of the Airport subarea, as detailed in the above analysis and shown in the summary table on the following pages:

Land in **the Airport subarea** includes 184 developable acres. The subarea is predominantly made up of the Eugene Airport and surrounding land designated for the Airport’s future use, located north of Clear Lake Road and west of Green Hill Road. In evaluating the land in the Airport subarea, the Locational Factor conclusions were “mixed” and “negative” in their findings.

The vast majority (93 percent) of the land in the subarea is classified as “undevelopable” as it is in Airport use or constrained by natural resource or natural hazard land. The remaining developable



land in the subarea is along its southern edge, surrounded by land owned for Airport use. There is no residential capacity on developable land in the subarea due to its adjacency to the Eugene Airport and identified conflicts of use. While some of the developable land contains capacity for industrial development, its location on land designated as Airport Reserve immediately south of the Airport runways significantly limits future development opportunities. A portion of developable land within the subarea is also adjacent to land identified as unsuitable for urban reserves (in the Airport South subarea), making efficient urbanization difficult.

Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in the Airport subarea result in a

determination that it is not suitable for future urbanization and should not be considered for urban reserves designation at this time.¹³

Please see the summary tables on the following pages, and **Map 7.3 Suitability Results**.

¹³ Finding the Airport unsuitable for urban reserves consideration is consistent with OAR 660-024-0067(5)(g)(B).

Summary

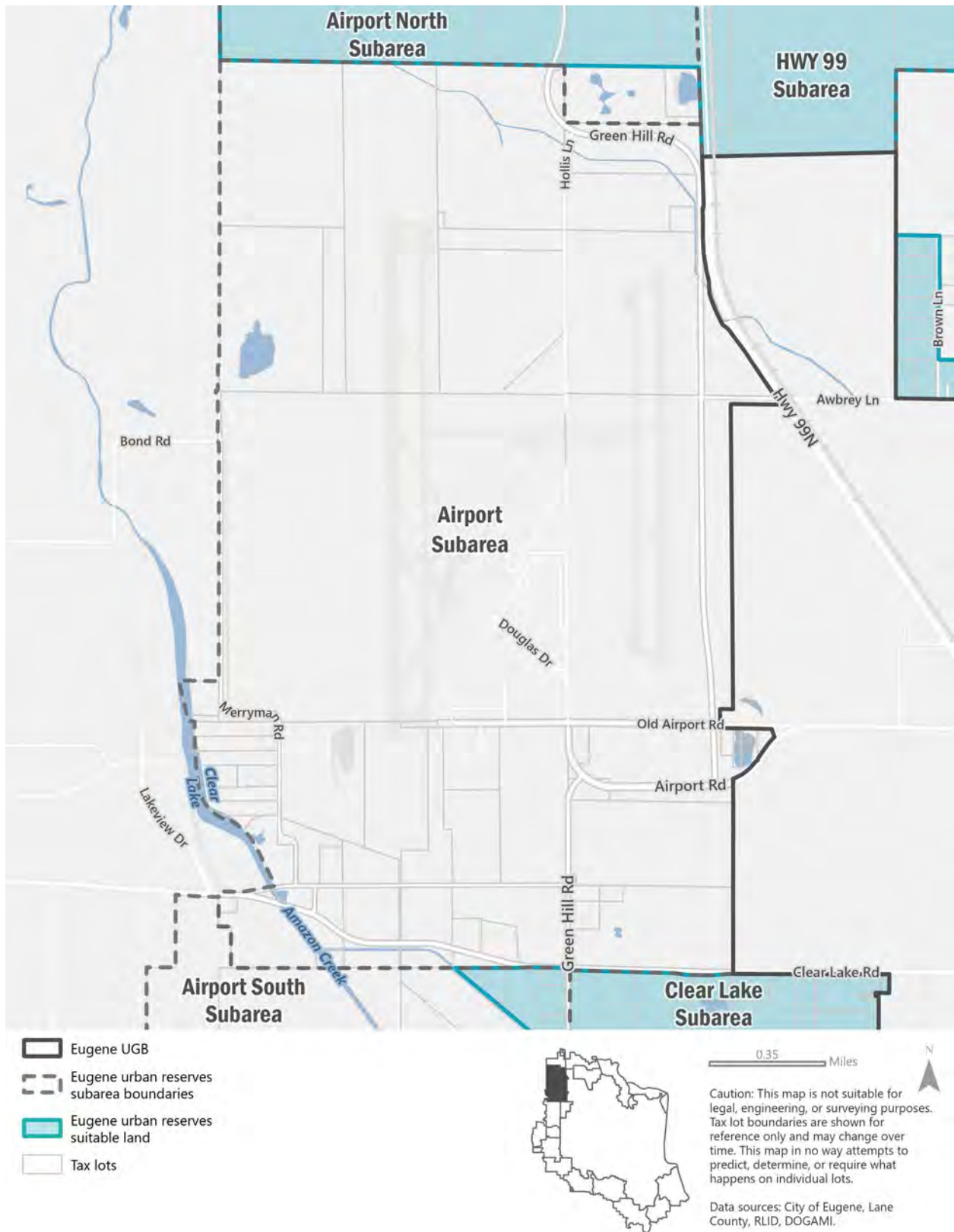
Airport Subarea

Not Suitable for Urban Reserves Designation

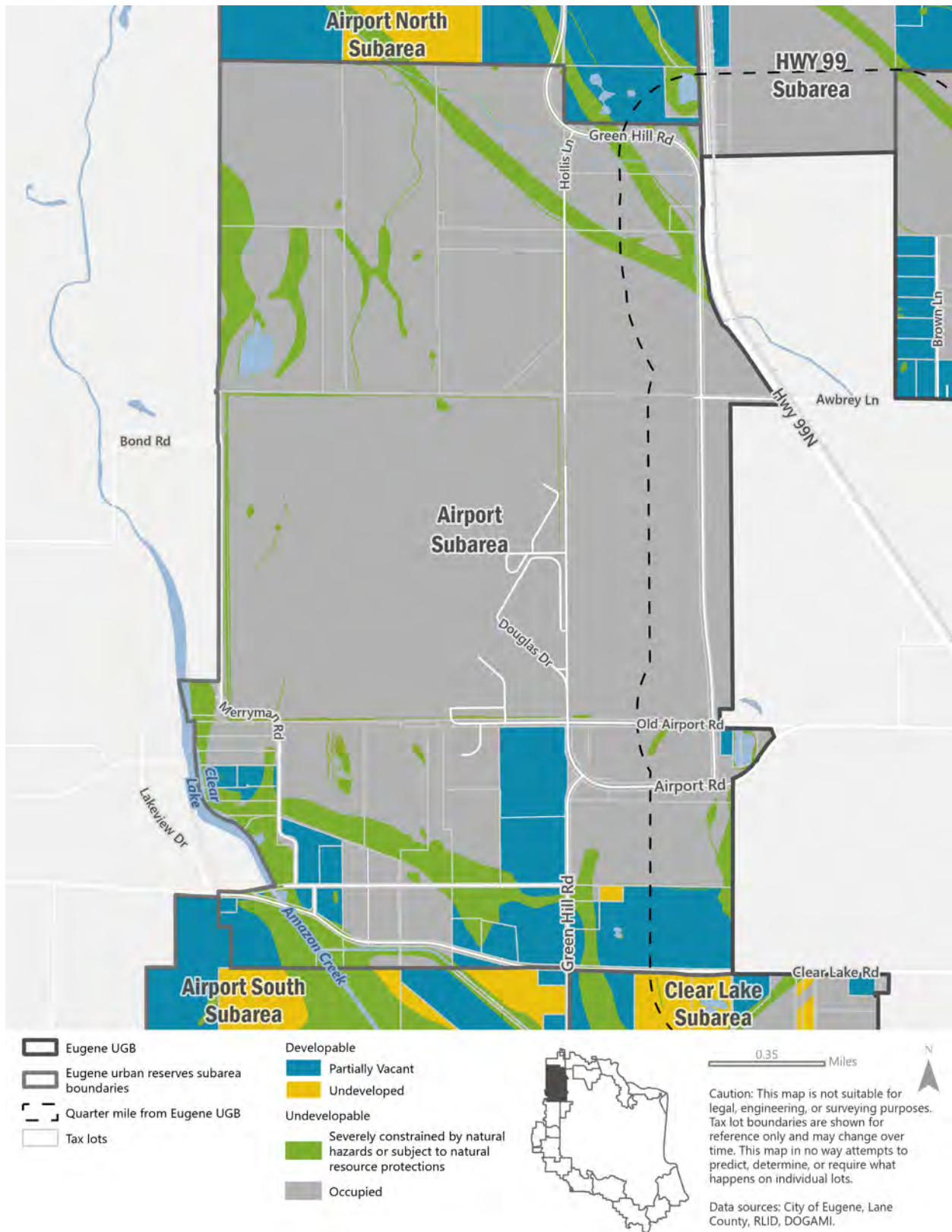
Land in the Airport Subarea

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

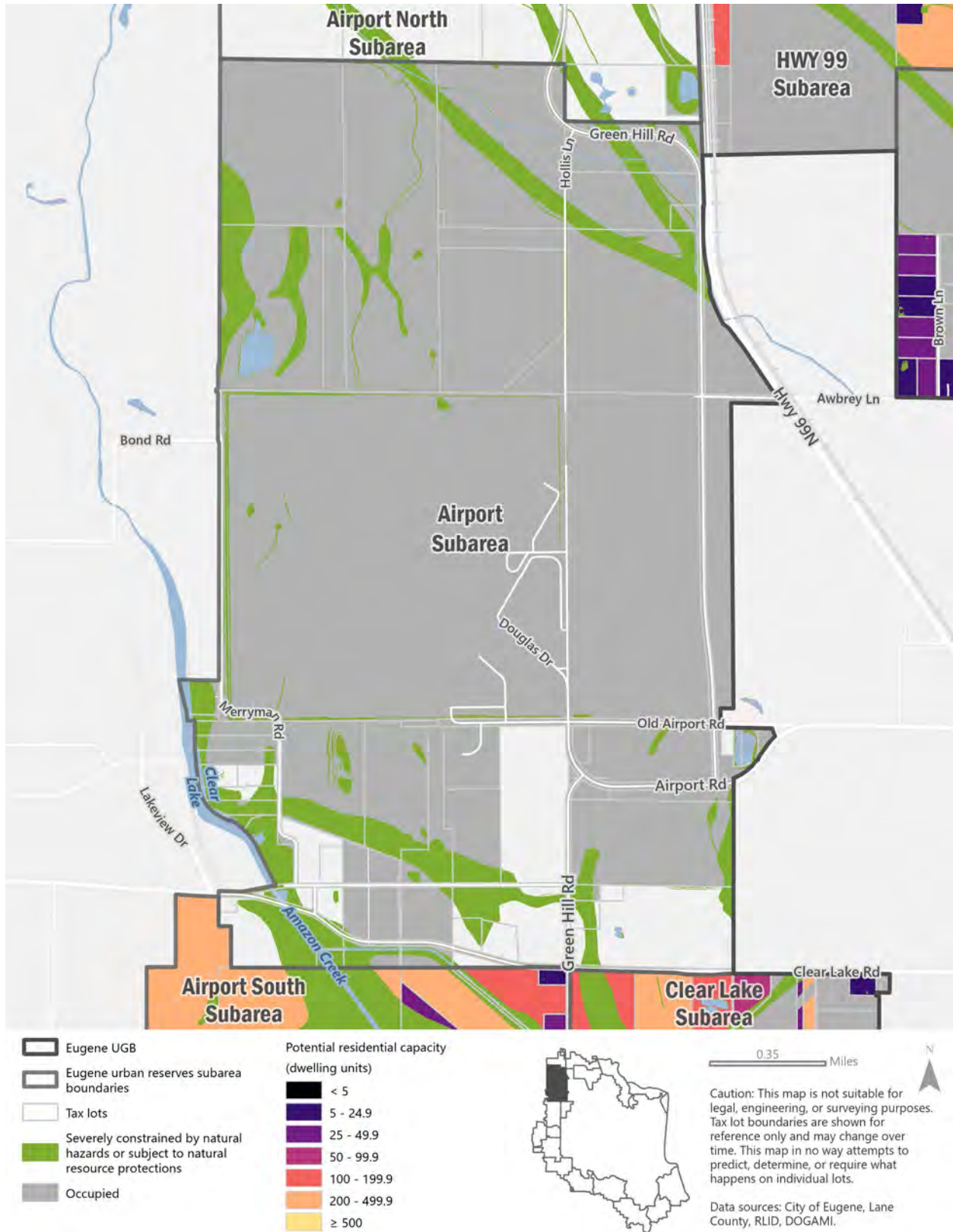
Map 7.3 Suitability Results, Airport Subarea



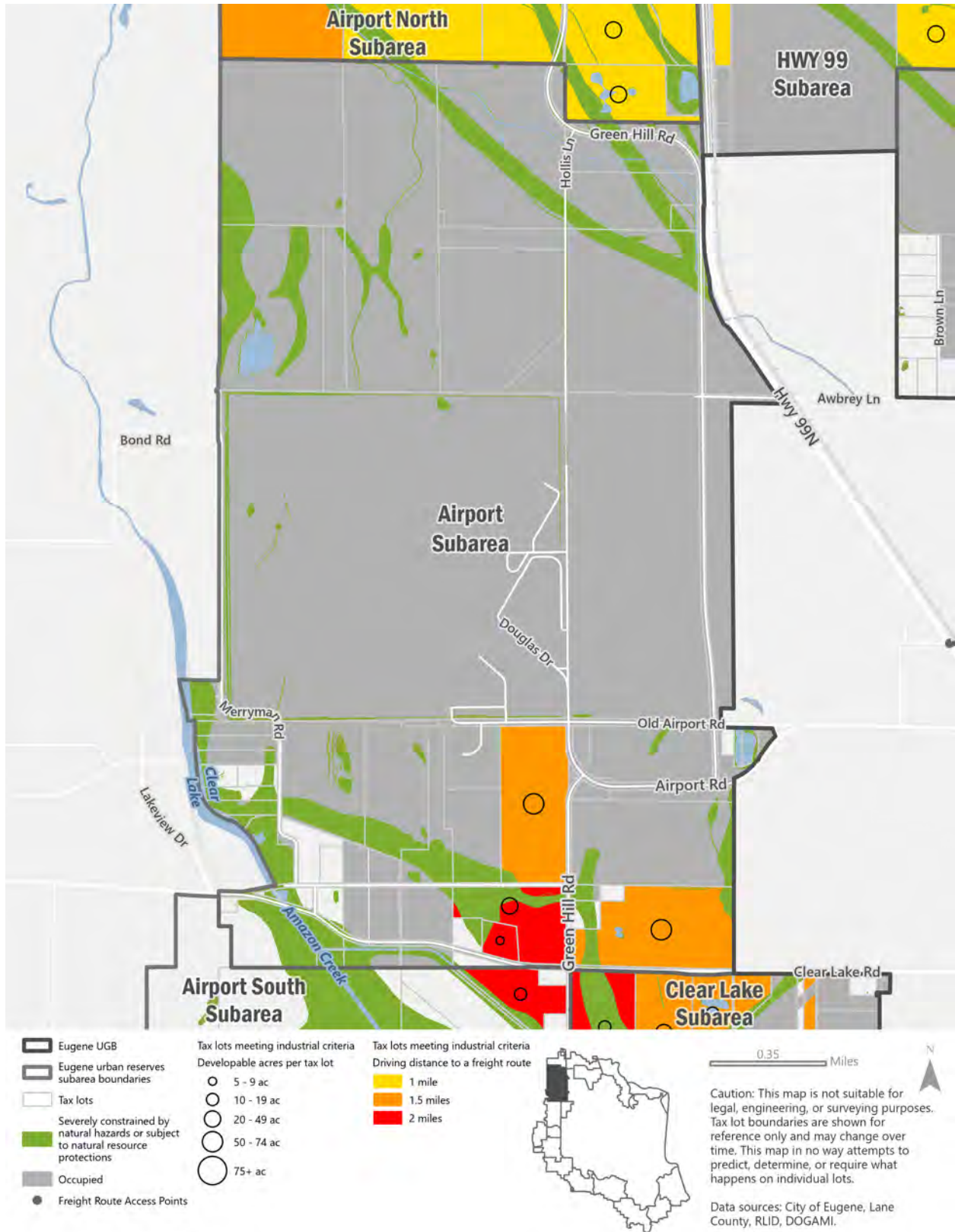
Map 7.4 Development Potential, Airport Subarea



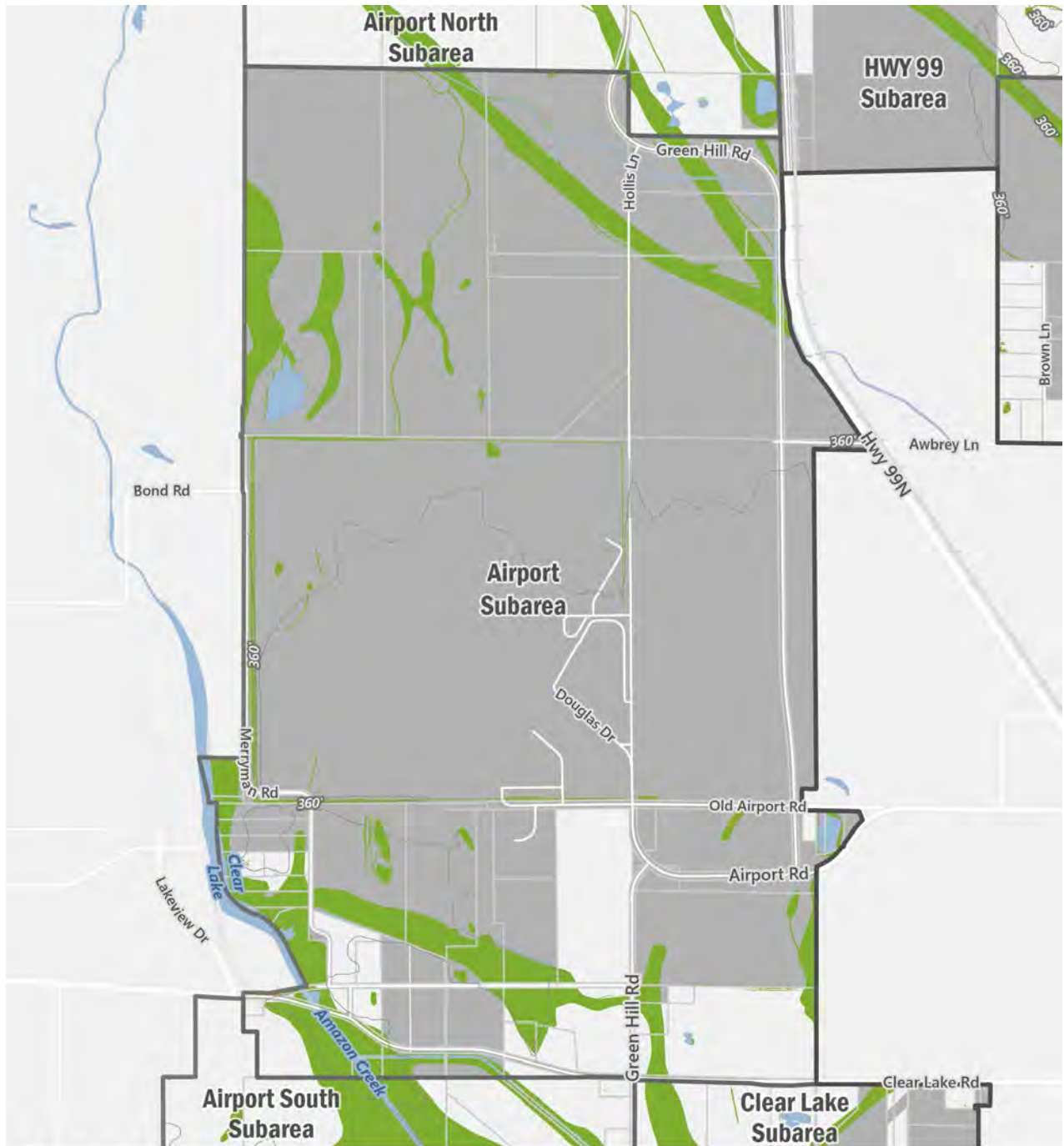
Map 7.5 Potential Residential Capacity, Airport Subarea



Map 7.6 Potential Industrial Capacity, Airport Subarea



Map 7.7 Contours and Hillshade, Airport Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied



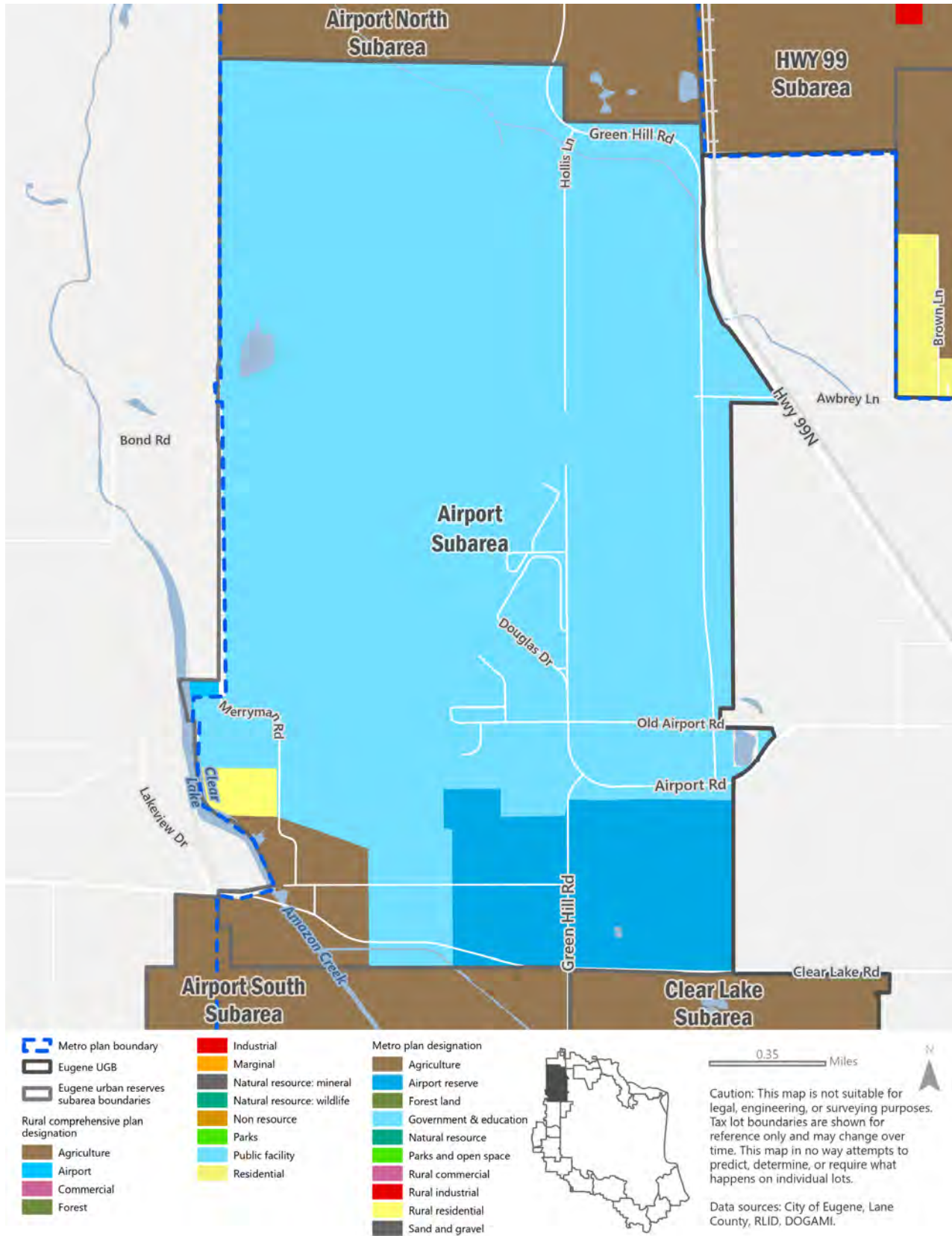
0.35 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 7.8 Plan Designations, Airport Subarea








8. Suitability Analysis – Clear Lake

I. Background

- A. **Location:** The land in the Clear Lake subarea is located to the northwest of Eugene and is bordered by Clear Lake Road to the north, Barger Drive to the south, Green Hill Road to the west and the UGB along its eastern edge. It encompasses 513 acres. The Airport South Subarea is directly to the west and the Airport Subarea is to the north. To the east of the subarea, along Clear Lake Road and the western boundary of the UGB, is the 2017 Clear Lake UGB expansion area. See **Map 8.1 Location**, below, and **Maps 8.2-8.8** for additional information relevant to the subarea analysis.

Map 8.1 Location, Clear Lake Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Tax lots
-  Severely constrained by natural hazards or subject to natural resource protections
-  Occupied



0.25 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

- B. Existing Land Uses:** Of the 513 acres of land in the subarea, 312 have potential for future residential or employment development. Land in the subarea is flat and is primarily designated agriculture, as shown on **Map 8.8, Plan Designations**, and appears to be primarily used for grass, feed crops and pastureland. The remaining land in the subarea has no residential or employment development capacity (shown in gray and green on the map). Occupied land, shown in gray, includes a Bonneville Power Administration (BPA) easement that runs through the subarea, as well as land owned by the Bethel School District and a site reserved for a future EWEB substation, both located in the northeast corner of the subarea. There are some existing residences and farm dwellings mostly along the frontages of Clear Lake Rd, Barger Dr, and Green Hill Rd. Most of the lots (87 percent) with developable acres are undeveloped (shown in yellow on **Map 8.4, Development Potential**). The A2 channel (shown in green) bifurcates the land in the subarea and the southwest corner contains wetlands.
- C. Barriers to Development:** Almost forty percent, more than a third, of land in the subarea is categorized as “undevelopable” with either natural hazards, natural resources or because it is occupied land. There are 140 acres of natural resource and natural hazard land shown in green on the maps, which include Federal Emergency Management Agency (FEMA) Special Flood Hazard Areas (floodplain), adopted Goal 5 wetlands mapped on the National Wetland Inventory (NWI), high-risk landslide areas and prohibitively steep slopes, some of which are co-located with the A2 Channel. The land in the subarea’s southwestern corner, near the intersection of Barger Dr and Green Hill Rd, is particularly constrained by Goal 5 wetlands. The Eugene Airport is located to the northwest of land in the subarea with a secondary runway, used for smaller aircraft, aligned with the western portion of the subarea. Airport administrators and the Federal Aviation Administration (FAA) recommend limiting development to industrial and agricultural-related uses in areas immediately north and south of the runways based on the noise and safety concerns from airport operations.¹
- D. Surrounding Land Uses:** Abutting the southeast edge of land in the subarea within the UGB, is a residential neighborhood (between Jessen Drive and Barger Drive). Land along the northeast subarea boundary, where the UGB was expanded in 2017 for industrial, park, and education uses, is currently being used for agriculture. To the northwest of land in the subarea at Clear Lake Road is land in the Airport subarea (which includes the Eugene Airport and associated uses, as well as Airport reserve land). Clear Lake Road, at the land in the subarea’s northern edge, is a connector street into downtown via Highway 99. To the west of land in the subarea is the Airport South subarea which contains land primarily designated and used for agricultural uses, such as feed crops like hay and pastureland, and is dominated by the Amazon Creek flood plain. The commercial flight path for the Eugene Airport bifurcates land in the Airport South subarea.
- E. Organization of this Analysis:** After an initial review, it became clear that while much of the land in this subarea shares a variety of common attributes that are relevant to much of the Goal 14 Locational Factor analysis, the land in the subarea needed to be considered and evaluated in terms of three different areas due to substantial differences between the characteristics of the land. Therefore, the land was split into three sub-subareas, as follows:

Land in **CL-1** includes 312 developable acres. It is composed of the majority of the land in the subarea and extends the length of the subarea from Clear Lake Road to Barger Drive save the

¹ See February 12, 2022 letter from Cathryn Stephens, Airport Director, Eugene Airport.

southwest corner at the intersection of Barger Drive and Green Hill Road. It is designated for agriculture use and appears to be used mainly for grass crops with some scattered rural residential development. This area contains the A2 Channel and a smaller irrigation canal; it contains floodplain and wetlands, but to a lesser extent than the land in CL-2. It has access to three main roadways, existing neighborhoods, and borders the UGB.

Land in **CL-2** contains no developable land. It is comprised of four lots at the corner of Barger Drive and Green Hill Road. CL-2 is entirely made up of natural hazard and natural resource land which includes Goal 5 protected wetlands and mapped flood hazard areas (100-year floodplain), and it therefore contains no development capacity. The natural resource and natural hazard land in CL-1 is different, as it does not comprise complete lots; the natural resource and natural hazard land in CL-2 completely constrains these lots.

These different areas are shown in **Map 8.2 Organization of Analysis** below.

Map 8.2 Organization of Analysis, Clear Lake Subarea



II. Identify land that would be suitable for urban reserves²

A. Locational Factor 1: Efficient accommodation of identified land needs

To what extent is there ...

1. ***Developable land adjacent to or nearby (within .25 mile) of the UGB?*** Land in CL-1 includes 293 developable acres located within lots³ that have a portion of their boundary within .25 miles of the UGB, as shown on **Map 8.4 Development Potential**. This is approximately 94 percent of the developable land in the subarea. There is no developable land in CL-2. Land that is within .25 miles of the UGB is likely to more efficiently accommodate the identified land needs than land that is further away from the UGB because of street, utility and neighborhood connections to already urbanized land.
2. ***Partially vacant developable land (that could be developed for the identified land needs)?*** Land in CL-1 contains 312 acres of developable land, with 39 acres located on lots classified as partially vacant and 273 acres on lots classified as undeveloped. The distribution of these lots is shown on the **Map 8.4 Development Potential**. There are no partially vacant lands on land in CL-2.
3. ***Developable land that is identified in the capacity analysis⁴ as potentially able to be urbanized with a mix of residential housing? How does this translate into potential dwelling units (per the capacity analysis)?*** Sixty percent of the land in the subarea is identified as developable, with capacity for 2,614 dwelling units, or an average residential density of 8.4 dwelling units per developable acre (compared to 4.8 du/developable acre for the entire study area) as shown on **Map 8.5 Potential Residential Capacity**. Land in CL-1 is flat and abuts the UGB, both factors that aid in the orderly and economic provision of public facilities and services (as described in Locational Factor 2). However, as stated previously, Airport administrators and the Federal Aviation Administration (FAA) recommend limiting development to industrial and agricultural-related use in areas immediately north and south of the runways based on the noise and safety concerns from airport operations. This could limit a mix of residential housing on the land in CL-1 the southern and eastern edge that is directly adjacent to existing housing inside the UGB. There is no developable land in CL-2.

² Please refer to Section II C of this Study (Findings Appendix 2) for background on how the City is identifying land in the study area that would be “suitable,” the explanation of the prompts used for the Goal 14 Locational Factors, and specific terminology.

³ In the urban reserves study area, ‘lots’ are used for analysis purposes. See the Eugene Urban Reserves Technical Memo, (Findings Appendix 4), for complete information.

⁴ For information on how residential development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

4. ***Developable land that is identified in the capacity analysis⁵ as potentially able to be urbanized with industrial land need? How does this translate into potential industrial sites (per the capacity analysis)?*** As shown on **Map 8.6 Potential Industrial Capacity**, there are ten lots on land in CL-1 that are identified in the capacity analysis as potentially suitable for industrial land. Five of those lots abut Clear Lake Road at the north boundary of land in the subarea and are the most suitable for future industrial uses due to good transportation connections, compatibility with adjacent future industrial uses, and large sizes. The lots in the southern portion of land in the subarea that have potential industrial capacity may not be suitable for industrial use as they abut an existing residential neighborhood. There is no developable land in CL-2.

5. ***Topography, steep slopes or other “undevelopable”⁶ lands that would make efficient urbanization difficult?*** The land in CL-1 and CL-2 is predominately flat, as shown on **Map 8.7 Contours and Hillshade map**. Land in CL-1 contains only 5 acres (1% of land in the subarea) of land having slopes of 30% or greater; these are located along the A2 Channel. The presence of flood hazard areas and Goal 5 wetlands could provide a challenge for some of the land in CL-1, but the lots are large enough and the location of the “undevelopable” land is such that urbanization could occur on surrounding developable land. Land in CL-2 contains no developable land as it is entirely made up of natural hazard and natural resource land which includes Goal 5 wetlands and mapped flood hazard areas (100-year floodplain).

Conclusion: As described above, land in **CL-1** is mixed in its ability to efficiently accommodate both identified residential and industrial land needs. Its positive characteristics include high residential development capacity, plentiful industrial capacity, proximity to the UGB and flat terrain. In all likelihood, however, land in the subarea’s proximity to the Airport would limit residential capacity to the land in the southern edge of CL-1 adjacent to existing neighborhoods, and industrial development would be most suitable on the land in CL-1 closer to the Airport and not adjacent to residential development.

There is no developable land in CL-2 due to the presence of mapped flood hazards and wetlands which completely encumber the land. Land in CL-2 has a negative rating because it could not efficiently accommodate identified land needs and it is not needed to aid in the efficient accommodation of identified land needs for the adjacent developable land.

Efficient accommodation of identified land needs:	Positive	Mixed	Negative
Land in CL-1			
Land in CL-2			

⁵ For information on how industrial development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

⁶ As described in section II B of the Eugene Urban Reserve Study (Findings Appendix 2), land was assigned no development capacity if it falls within one of the these “undevelopable” categories: severely constrained by natural hazards or is designated or zoned to protect natural resources; or not vacant or partially vacant (i.e. the land is already occupied).

B. Locational Factor 2: Orderly and economic provision of public facilities and services⁷

The information below addresses the feasibility of serving the developable land in the Clear Lake subarea with public facilities and services in an orderly and economical way. It considers the capacity of the current system to serve the area and the extent of new infrastructure that would be needed to serve the area if urbanized. It includes an analysis of **wastewater, water, transportation, transit, stormwater, and fire/emergency services** and also, to a lesser extent, it includes the provision of **electricity, schools and parks**.⁸

Before the narrative description is a table showing the **generalized serviceability** of the subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff, and a **generalized cost estimate** to address the economics of serving the subject area with public facilities and services. It reflects preliminary high-level estimates for the major components of the individual systems. Cost information is provided on a \$ to \$\$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$\$) denoting the greatest cost. The scale used to evaluate each type of service is tailored to address the fact that some services are more expensive to provide than others. For example, a \$ for wastewater does not equate to the same dollar amount as a \$ for transportation. Cost estimates do not include future maintenance costs.

Clear Lake Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Moderate	Easy	Easy-Moderate	Easy	Moderate	Easy-Moderate
Generalized cost estimate	\$\$\$	\$	\$\$-\$\$\$	\$	\$\$\$	\$\$

1. **Wastewater:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. Only a minimal amount of existing downstream pipe is undersized to serve the area. However, development of this area will likely require the construction of a pump station.
2. **Water:** The subarea is assigned a “easy” serviceability rating and the generalized cost estimate for improvements is \$. EWEB service is, or will be, available adjacent to subarea within the UGB and city limits. Distribution and transmission systems would have to be extended to provide service but those are not anticipated to be costly.
3. **Fire:** The subarea is assigned an “easy to moderate” serviceability rating and the generalized cost estimate for improvements is \$-\$\$\$. Lane Fire Authority currently provides service to this area. Given the proximity to the nearest city fire stations and existing street network, it appears response times to this area would be acceptable.

⁷The definition of “public facilities and services,” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines, is: “[p]rojects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.”

⁸ The summarized information used in this section is based on the results of the *Urban Reserves Serviceability Analysis Report* (Findings Appendix 3). In providing information for that report, service providers considered the serviceability of the subareas in their entirety; they generally did not differentiate between areas within a subarea.

4. **Transportation:** The subarea is assigned a “easy” serviceability rating and the generalized cost estimate for improvements is \$. This is due to lack of congestion and good access for residential and industrial uses, given the flat topography, existing street connectivity and nearby freight routes.
5. **Transit:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. This is because the flat topography makes the area accessible but especially the northern part of the subarea is quite far from other routes and areas of higher density which may make it challenging to provide efficient bus service. The closest current transit stop is approximately one mile from the subarea at Barger Drive and Terry St.
6. **Stormwater:** The subarea is assigned a “easy to moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$. Drainage from the subarea would be to tributaries of Amazon Creek within the subarea. There are existing roadside ditches and pipe segments to receiving waterways whose capacity would need to be evaluated. The flat topography and soils are less conducive to on-site infiltration, but it would still be desirable to employ green infrastructure wherever possible. The capacity of the downstream system requires further evaluation but appears to be good. The entire area falls within the Junction City Water Control District and stormwater and flood control requirements in the Eugene code at 9.6791(3)(c) would need to be extended into this area.
7. **Other (Parks, Schools, Electric):** There are no parks in this subarea but there is close access to parks inside the UGB in the Bethel neighborhood, such as Golden Gardens Park and Bethel Community Park. The Jessen Multi Use Path, which provides access to Golden Gardens Park and extends to the Beltline Path, terminates at the eastern boundary of the subarea. EWEB provides electric service to a portion of this area and EWEB owns land in the northeast portion of the subarea for a future substation. This area is in the Bethel School District. Bethel School district owns 20 acres of land in the northeast corner of the subarea adjacent to Clear Lake Road and the UGB; this land is classified as occupied. Adjacent school district land is identified for a future school, and Meadowview School is within the UGB approximately a quarter of a mile from the subarea’s southern boundary.
8. **Is there undeveloped land within the UGB that would be helped in its development/serviceability if this area were included in urban reserves, or is there undeveloped land within the UGB that would negatively impact the orderly and economic provision of public facilities and services?** There is a significant amount of undeveloped land within the UGB along Clear Lake Road. In both the Airport South and Clear Lake subareas, the orderly and economic provision of public facilities and services would be dependent on this land within the UGB first receiving City services and annexing into the City. Plans to serve the land inside the UGB could benefit from planning for extension to this subarea if it were included in urban reserves.

Conclusion: *As described above, public facilities and services may be provided in an orderly and economic manner to the developable land in CL-1. The Clear Lake subarea is ranked as “easy to*

moderate” and least to moderately costly to serve due to its flat terrain, adjacency to existing urbanization within the UGB, and an existing street network that could be easily extended. Therefore, the land in CL-1 is positive in its ability to be served in an orderly and economic manner.

The land in CL-2 is completely constrained by natural hazard and natural resource land; it is classified as “undevelopable” and assigned no development capacity. While it is bordered by Barger Drive and Green Hill Road, it contains no developable land in need of public facilities and services and is not needed for extending services to adjacent land, therefore it has a negative rating.

Orderly and economic provision of public facilities and services:	Positive	Mixed	Negative
Land in CL-1			
Land in CL-2			

C. Locational Factor 3: Comparative environmental, energy, economic and social consequences

1. *Environmental consequences:*

- a. *Presence of natural resources: To what extent would urbanization of this area negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources?*** The predominant natural resources within land in the subarea are Goal 5 adopted wetlands and waterways. On land in CL-1, identified waterways include the A2 channel and a side channel of Amazon Creek; neither are Goal 5 resources, but they both have mapped floodplain associated with them. All of the land in CL-2 is constrained by wetlands and/or floodplain with no development capacity. While wetlands and floodplain/flood hazard areas are categorized as “land that is severely constrained by natural hazards or subject to natural resource protections,” and no development capacity is assigned to them, urbanization of the developable land in CL-1 would cause an increase in impervious surfaces, which could negatively impact the quantity and quality of stormwater runoff entering waterways and wetlands in both CL-1 and CL-2. However, urban development would be subject to the city’s stormwater standards; city regulations and adequate buffers around waterways, wetlands and flood hazard areas could mitigate some of the environmental consequences of urbanization on land in CL-1 and CL-2. While there is no public open space within land in the subarea, Golden Gardens Park is located a half mile from the edge of CL-1, within the UGB.

- b. *Presence of hazard areas (steep slope, landslides, floodplain): To what extent would urbanization of this area increase the potential risk of natural hazards, such as landslides, wildfire or flooding?*** As already noted, there are FEMA-mapped flood hazard areas within land in the subarea, including on all of the land in CL-2 and branching from the A-2 Channel on land in CL-1, as shown on maps. These hazard areas are categorized as “undevelopable,” so urbanization is not assumed on them, however, nearby urbanization could increase the risk of flooding both within land in the subarea and potentially within the UGB. Future

urbanization will increase impervious surfaces such as roofs and pavement and could therefore increase stormwater runoff and potential pollutants in waterways. If urbanized, development would be subject to the city’s stormwater standards, which would mitigate the aforementioned impacts. Less than one percent of land in the subarea (5 acres) contain steep slopes (equal to or greater than 30 percent slope) and there are very small pockets of high-risk landslide areas along the banks of the A2 Channel on land in CL-1. No other natural hazard risks have been identified on land in this subarea.

- c. Presence of nearby public open space: To what extent would nearby public open space benefit future residents of the area?** No publicly accessible open space is present on land in this subarea. However, Bethel Community Park and Golden Gardens Park are located nearby closest to land in CL-1 and future residents would benefit from the proximity of this parkland.

Conclusion: As mentioned above, there are riparian areas, wetlands, and flood hazard areas running through the Clear Lake subarea. While no development capacity is assumed on land with natural hazards and natural resources, adjacent urbanization could negatively impact them. However, urban levels of development would be subject to the city’s stormwater standards and regulations; adequate buffers around waterways, wetlands and flood hazard areas could mitigate some of the environmental consequences of urbanization. Therefore, environmental consequences of urbanization of land in **CL-1** are mixed (medium).

There are no environmental consequences of urbanization on land in **CL-2** because it is all floodplain and wetlands and is therefore assigned no development capacity. That said, urbanizing land adjacent to **CL-2** (in CL-1) could cause negative environmental consequences on the natural hazard and natural resource land in **CL-2** which could be mitigated by the city’s stormwater standards and regulations.

Environmental Consequences:	Positive (Low)	Mixed (Medium)	Negative (high)	No consequences
Land in CL-1				
Land in CL-2				

2. Energy Consequences (priority for lower energy usage):

- a. To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt)?** Some of the land in CL-1 may be well-situated to co-locate a variety of housing types, jobs and services, limiting the need for vehicle trips and having positive energy impacts. There are large undeveloped and partially vacant lots immediately adjacent to existing residential neighborhoods in the UGB/city limits, with access to street connections in the southern edge of land in CL-1. In all likelihood the land in the subarea’s proximity to the Airport would limit residential capacity to the land in this area, whereas the northern portion may be more appropriate to industrial uses. Land in CL-2 is not well-situated to co-locate a variety of housing and jobs as it is completely encumbered by natural hazard and natural resource land.

- b. To what extent is the area easily accessible to other services or uses (e.g., neighborhood commercial, parks, schools)?** There appear to be no or very few neighborhood-serving commercial uses on land in the subarea or nearby. Within land in the subarea, there are primarily farm dwellings and agricultural lands. There are schools and parks nearby: adjacent school district land on Clear Lake Road is identified for a future school, and Meadowview School is within the UGB approximately a half mile from land in the subarea's southern boundary. Golden Gardens Park and Bethel Community Park are both less than a mile from land in the subarea inside the UGB. Urbanization of land in CL-1 with neighborhood-serving commercial would benefit residents both inside and outside of the UGB.
- c. To what extent is the area adjacent to or nearby the UGB? (see Locational Factor 1, A.2)** As already noted, land in the Clear Lake subarea is adjacent to the UGB along its eastern and southern boundary. Land in CL-1 includes 293 developable acres located within lots that have a portion of their boundary within .25 miles of the UGB, as shown on **Map 8.4 Development Potential**. Land that is within .25 miles of the UGB is likely to more efficiently accommodate the identified land needs than land that is further away from the UGB because of street, utility and neighborhood connections to already urbanized land. Land in CL-2 also abuts the UGB but there are no developable acres within CL-2.
- d. To what extent is there good multi-modal transportation access to this area? To what extent is the area easily accessible to job centers and downtown?** As noted above, there is good transportation access to land in CL-1 and CL-2. Green Hill Road, Clear Lake Road, and Barger Drive provide access to downtown, which is Eugene's main job center. The Jessen Multi Use Path, which provides access to Golden Gardens Park and extends to the Beltline Path, terminates at the eastern boundary of land in the subarea. Transit service would need to be extended to land in this subarea and roadway improvements, including bike lanes and sidewalk improvements, would be needed in order to accommodate all users. On developable land in CL-1 there is potential for good local street access by extending streets from the existing residential neighborhood within the UGB/city limits. Transportation and transit serviceability are further discussed in Locational Factor 2.
- e. To what extent does future urbanization directly or indirectly generate energy or climate burdens (e.g. loss of open space, loss of growing lands, increased traffic, increased carbon emissions)?** Future urbanization of the land in CL-1 will both directly and indirectly generate energy and climate burdens due primarily to the loss of growing lands. Increased traffic and increased carbon emissions resulting from new development and gas-powered vehicles would also create energy burdens. All of the land in the subarea is designated as agricultural, so urbanization would potentially cause a loss of 513 acres of farmland. The significant presence of flood hazard areas and wetlands in CL-2 would not allow for future urbanization of this land.

Conclusion: Based on the information above, there are mixed energy consequences to urbanizing the developable land in **CL-1**. Factors that could have positive energy consequences include its location

adjacent to the UGB and existing neighborhoods, connection to major transportation corridors and ease of serviceability. However, if the developable land in CL-1 were to urbanize there would be a significant loss of farmland which could cause negative energy impacts. Therefore, overall, if land in CL-1 were to urbanize, it would result in mixed energy consequences.

There are no energy consequences of urbanization on developable land in CL-2, as all of the land in CL-2 is floodplain and wetlands which is classified as “undevelopable” due to it being severely constrained by natural hazards or subject to natural resource protections, and is therefore assigned no development capacity.

Energy Consequences:	Positive	Mixed	Negative	No Consequences
Land in CL-1				
Land in CL-2				

3. Economic Consequences:

- a. ***In general, how much economic activity would urbanization of this area bring (Ex: Additional construction opportunities)?*** The land in CL-1 contains 312 acres of developable land, 245 acres of which are potentially suitable for industrial uses. Based on generalized capacity assumptions, the land in the subarea could also accommodate 2,614 residential dwelling units. Given that land in the subarea is rated as easy to moderate to serve, urbanization of land in CL-1 would likely bring positive economic activity with construction opportunities and jobs. In all likelihood, however, as noted in Locational Factor 1, land in the subarea’s proximity to the Airport would limit residential capacity to only the land adjacent to neighborhoods in the southern edge of land in CL-1, and industrial development would be most likely limited to the land in CL-1 closer to the Airport. Land in CL-2 would not bring economic activity to the area because it is completely encumbered by natural hazard and natural resource land and therefore assigned no development capacity.

- b. ***Is the area appropriate for future urbanization with a variety of identified uses (not just LDR), to support connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a)*** Some of the land in CL-1, to the south and adjacent to existing neighborhoods, could be appropriate for future urbanization with a variety of identified uses that would support connected, integrated neighborhoods due to the amount of flat or mildly sloping developable land, relative low cost to serve, and good transportation connections to job centers and the rest of Eugene. Land in the northern portion of CL-1, closer to the Airport and planned industrial uses is likely not appropriate for residential development. Land in CL-2 is not appropriate for a variety of uses since it is completely encumbered by natural hazard and natural resource land and therefore assigned no development capacity.

- c. ***Are there concerns about future urbanization causing a loss of economic activity for existing and nearby uses? (also see Locational Factor 4)*** The primary negative economic impact from urbanization will be the loss of agricultural land in CL-1. Adjacent uses appear

to primarily be agriculture, scattered rural residential, single-family residential, and small-scale industrial. If land in CL-1 were to urbanize the primary loss of economic activity for nearby and existing uses would be the conversion of farmland to other uses. However, urbanization could also have positive economic consequences by providing additional development opportunities for landowners. Land in CL-2 will not urbanize and cause a loss of economic activity for existing and nearby uses because it is completely encumbered by natural hazard and natural resource land and therefore assigned no development capacity.

- d. How cost-efficient is service provision in this area? (also see Locational Factor 2)** As noted above, in Locational Factor 2, the developable land, located all within CL-1, is able to be served in an orderly and economic manner, based on its flat topography, location adjacent to existing infrastructure within the city limits, and limited floodplain. The relatively low cost of servicing land in CL-1 makes the likelihood of urbanization and its associated economic benefits high. CL-2 is not assigned development capacity, so it does not need to be served.

Conclusion: Based on the above information, the land in **CL-1** would overall have mixed economic consequence. Positive attributes include the proximity to major roadways, relatively low costs to extend utilities and services as well as adjacency to the UGB and existing urbanization. In all likelihood, however, as noted in Locational Factor 1, the subarea’s proximity to the Airport would limit residential capacity to only the land adjacent to neighborhoods in the southern edge of CL-1, and industrial development would be most likely limited to the land in **CL-1** closer to the Airport not adjacent to residential development.

There are no economic consequences of urbanization on developable land in **CL-2**, as all of the land in **CL-2** is floodplain and wetlands which is classified as “undevelopable” due to it being severely constrained by natural hazards or subject to natural resource protections and is therefore assigned no development capacity.

Economic Consequences:	Positive	Mixed	Negative	No Consequences
Land in CL-1				
Land in CL-2				

4. Social Consequences⁹:

- a. Will urbanization negatively impact current residents?** Land in CL-1 and CL-2 contains mostly agricultural related uses with a very limited number of residences. While urbanization may negatively impact existing residents of land in CL-1 and CL-2 due to increased noise, traffic, and impacts to their viewshed, there are already significant noise impacts to current residents in the subarea due to the vicinity of the Airport. Urbanization could also have positive social consequences by providing additional development

⁹ The definition of “social consequences” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines is: “[t]he tangible and intangible effects upon people and their relationships with the community in which they live resulting from a particular action or decision.”

opportunities for landowners. While industrial uses may create more employment and economic opportunities, current residents could be impacted if industrial uses are located adjacent to existing homes. As land in CL-2 has no development capacity, residents will only be impacted by urbanization of adjacent land in CL-1.

b. *How would urbanization worsen or improve service delivery to residents in this area (e.g., adequate fire response times, access to water, parks)? (also see Locational Factor 2)*

Service delivery to residents would improve if land in CL-1 were to urbanize. Land in the subarea is currently served by Lane Fire Authority. According to Eugene-Springfield Fire Department staff, given the current locations of the city fire stations and existing street network, response times would be adequate. Urbanization would provide an opportunity for residents to access EWEB water service and City of Eugene wastewater service. Residents in the subarea will benefit from close proximity to Bethel Community Park and Golden Gardens Park, as well as Meadowview School and a future school on Clear Lake Road. Additional neighborhood parks may be needed if the area urbanizes, in accordance with the City's service standards, which would benefit all residents. Land in CL-2 has no development capacity and therefore would not urbanize.

c. *Will urbanization exacerbate the impacts of potential natural hazards, such as flooding, fire, and landslides? (also see Locational Factor 3, Environmental Consequences C.1.b)*

As already noted, there are FEMA-mapped flood hazard areas within land in the subarea, including on all of the land in CL-2 and branching from the A-2 Channel on land in CL-1, as shown on maps. Urbanization could increase the risk of flooding within the subarea. Future urbanization will increase impervious surfaces such as roofs and pavement and could therefore increase stormwater runoff and potential pollutants in waterways. However, if urbanized, development would be subject to the city's stormwater standards, which would mitigate those impacts. There are small strips of high-risk landslide areas on land in the subarea along the banks of the A-2 Channel on land in CL-1.

d. *How might urbanization in this area impact vulnerable populations¹⁰ and underserved groups currently living in the subarea? Could one segment of the population be impacted more than another (e.g., low-income households)?*

There are less than ten residences scattered on land in the subarea, accessed from Clear Lake Road, Greenhill Road and Barger Drive. It is unknown whether there are vulnerable populations or underserved groups living on land in the subarea; that said, current residents may experience negative social consequences should the developable land in CL-1 urbanize with industrial uses, expanding the industrial land uses for the land inside the UGB along Clear Lake Road adjacent to the subarea. While industrial uses may create more employment and economic opportunities, there could be negative health effects if not adequately regulated, and health impacts from

¹⁰ Vulnerable populations are defined as populations that identify as a non-white race or ethnicity, younger or older populations, populations with a disability, and/or single-headed households. (from Livability Lane, 2013 Equity and Opportunity Assessment, Social and Demographic Characteristics Map.) The extent to which vulnerable populations and underserved groups currently live in the subarea is speculative.

industrial uses typically tend to disproportionately affect vulnerable populations at higher rates. Land in CL-2 is not assigned development capacity therefore it is not assumed to urbanize.

- e. ***Will urbanization in this area allow for connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a):*** As noted previously, urbanization of developable land on the south edge of CL-1 adjacent to existing neighborhoods could allow for a connected, integrated neighborhood. Residential is unlikely in the northern portion of CL-1, as Airport administrators and the Federal Aviation Administration (FAA) recommend limiting development to industrial and agricultural-related use in areas immediately north and south of the runways based on the noise and safety concerns from airport operations.

Conclusion: As described above, urbanization of the land in **CL-1** has mixed social consequences. Positive social consequences include improvements in service provision, additional development opportunities, and potential for a connected, integrated neighborhood on land to the south adjacent to the city limits. **CL-1** has a high amount of developable land with potential for both residences and industrial uses, however, there are siting constraints and noise and safety concerns associated with the proximity to the airport. There is also some flood risk due to urbanization of land in **CL-1**, which is mitigated by city regulations. Therefore, overall, urbanization of the land in **CL-1** has mixed social consequences.

*There are no social consequences of urbanization on developable land in **CL-2**, as all of the land in **CL-2** is floodplain and wetlands which is classified as “undevelopable” due to it being severely constrained by natural hazards or subject to natural resource protections and is therefore assigned no development capacity.*

Social Consequences:	Positive	Mixed	Negative	No Consequences
Land in CL-1				
Land in CL-2				

Locational Factor 3 Conclusion:

For the land in **CL-1**, the analysis under Locational Factor 3 shows that urbanization would have mixed Environmental, Energy, Economic and Social consequences.

The land in **CL-2** has no capacity for residential or employment development and would remain in its current use whether inside or outside the UGB. As such, under Locational Factor 3, there would be no Environmental, Energy, Economic or Social consequences of including this land in urban reserves.

D. Locational Factor 4: Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

1. **How will urbanization impact agricultural and forest activities on farm and forest designated land within the subarea?** As shown on **Map 8.8 Plan Designations**, all of the land in CL-1 and CL-2 is designated for agriculture and appears to be used for farming activities, primarily for hay and pastureland. If the subarea were to urbanize, increased congestion on roadways could negatively impact these agricultural activities to some degree. Increased urbanization could also lead to odor, safety and other complaints from neighbors which could negatively impact the existing agricultural practices on land in CL-1 and CL-2. However, this farmland in CL-1 currently abuts developed neighborhoods inside the city limits to the south and east, which is an indication that these agricultural uses can be compatible adjacent to urbanization. Due to the extent of wetlands and flood hazard areas on land in CL-2, the land does not appear to be farmed. There are no forest activities or forest designated lands within land in the subarea.

2. **Is urbanization compatible with existing agricultural and forest uses on farm and forest designated land nearby (outside of the subarea)?** If the northern portion of land in CL-1, along Clear Lake Road, urbanizes with industrial uses, it appears to be compatible with existing farm practices on agriculture-designated land outside of land in the subarea, as this is a similar development pattern as along Airport Road to the north. If land in the adjacent subarea to the west, Airport South, remains largely rural, then urbanization of land in CL-1 could affect those nearby farm operations due to increased traffic and create more nuisance complaints regarding agricultural practices. As noted above, however, the existing agricultural operations within land in the subarea already operate adjacent to existing residential neighborhoods which is an indication that these agricultural uses can be compatible adjacent to urbanization. There are no forest activities or forest designated lands nearby land in this subarea.

Conclusion: *As described above, it appears that urbanization of the developable land in CL-1 could have mixed compatibility with nearby agricultural activities occurring on farmland outside of the UGB. As all of the developable land in CL-1 is in farm use, traffic and nuisance issues are likely to increase as urbanization occurs. However, some negative impacts could be mitigated by the fact that land in CL-1 has access to major roadways and appears to be compatible with the developed neighborhoods to the south and east.*

The land in CL-2 is all floodplain and wetlands which are classified as “undevelopable” due to being severely constrained by natural hazards or subject to natural resource protections, and it is therefore assigned no development capacity. Since there are no proposed urban uses on this land, there are no consequences regarding compatibility with nearby agricultural and forest activities occurring on farm and forest land outside the UGB.

Compatibility with nearby ag and forest activities	Positive	Mixed	Negative	No Consequences
Land in CL-1				
Land in CL-2				

III. Conclusion

Considering and balancing the Goal 14 Locational Factors as analyzed above, there would be some positive and some negative aspects of future urbanization of the Clear Lake subarea, as detailed in the above analysis and shown in the summary tables on the following pages:



The land in **CL-1** includes 312 developable acres. It is bordered by Clear Lake and Greenhill Roads and Barger Drive. In evaluating the land in CL-1, the Locational Factor conclusions were mostly “mixed” in their findings: Locational Factor 2 was positive and Locational Factors 1, 3(a), 3(b), 3(c), 3(d) and 4 were mixed. The land in CL-1 is mixed in its ability to efficiently accommodate both identified residential and industrial land needs. Its positive characteristics include proximity to the UGB and city limits, access to major transportation corridors, flat terrain and easy-moderate serviceability. The undevelopable land that is severely constrained by natural hazards or subject to natural resource protections is

clustered in a way that allows for adjacent urbanization. In all likelihood, the subarea’s proximity to the Airport would limit residential development to the land in the southern edge of CL-1 adjacent to existing neighborhoods, while industrial development would be more suitable on the land in CL-1 closer to the Airport. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in CL-1 result in a determination that land in CL-1 is suitable for urban reserves designation.

The land in **CL-2** includes no developable acres. It is comprised of four lots at the corner of Barger Drive and Green Hill Road. These lots are entirely constrained by natural hazard and natural resource land which includes Goal 5 protected wetlands and mapped flood hazard areas (100-year floodplain). In evaluating the land in CL-2, the conclusions of Locational Factors 1-2 were “negative” in their findings; and Locational Factors 3 and 4 were “No consequences.” This is because the land in CL-2 has no capacity for future jobs or homes, as it is entirely made up of undevelopable land that is severely constrained by natural hazards or subject to natural resource protections and it is not now needed for the efficient urbanization, or orderly and economic provision of services, of the developable land in the subarea. Its remaining out of urban reserves will not affect the developable land nearby and it will not affect how the land will be used. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, unlike the rest of the subarea, the consequences with respect to the land in CL- 2 result in a determination that land in CL-2 is not suitable for urban reserves designation at this time.

Please see the summary tables on the following pages, and **Map 8.3 Suitability Results**.

Summary

Clear Lake Subarea

Suitable for Urban Reserves Designation

Land in CL-1

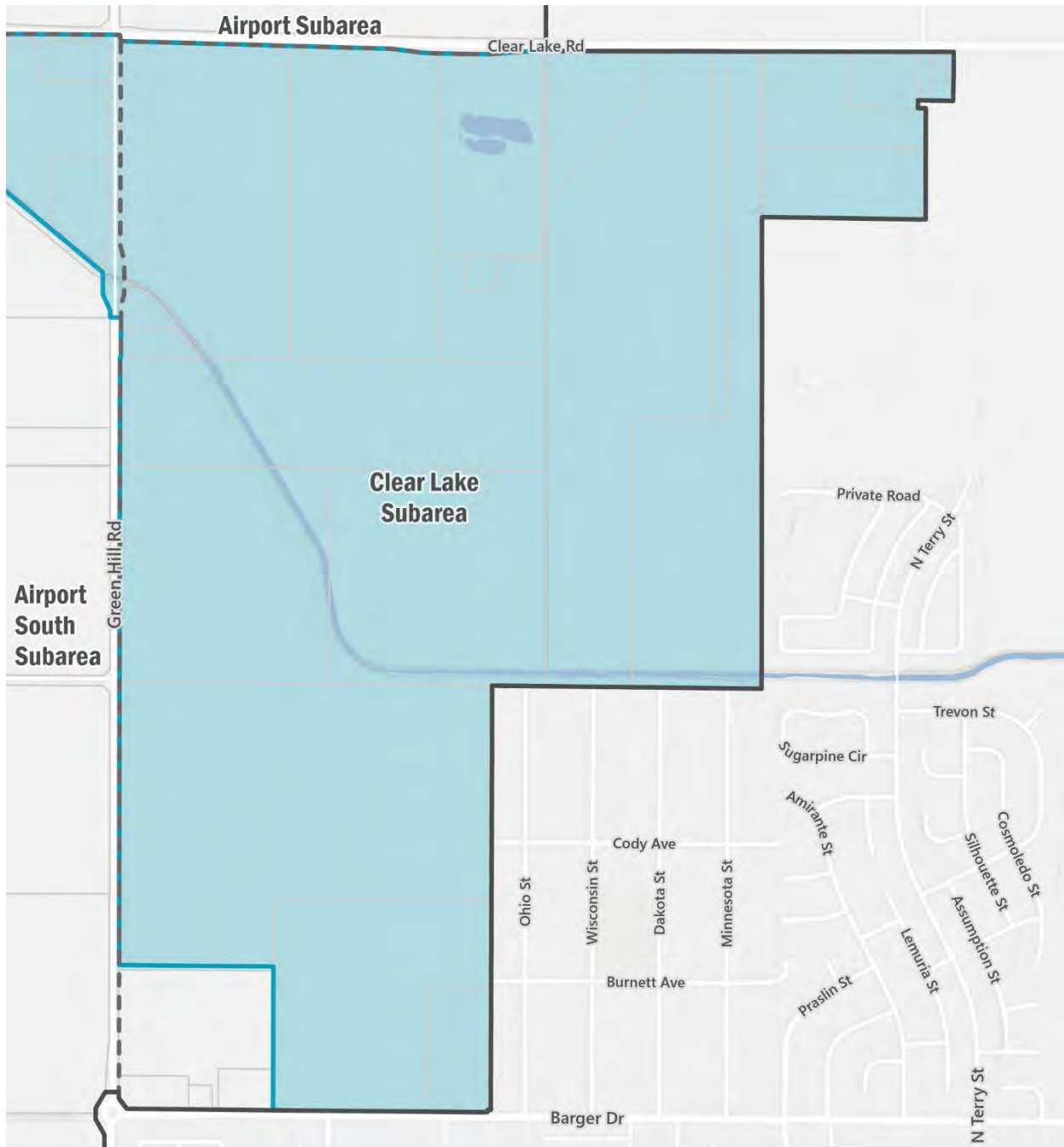
	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			





Not Suitable for Urban Reserves Designation

Land in CL-2

	Goal 14 Locational Factors	Positive	Mixed	Negative	No Consequences
1.	Efficient accommodation of identified land needs				
2.	Orderly and economic provision of public facilities and services				
3. (a)	Environmental Consequences				
(b)	Energy Consequences				
(c)	Economic Consequences				
(d)	Social Consequences				
4.	Compatibility with nearby ag and forest activities				

Map 8.3 Suitability Results, Clear Lake Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Eugene urban reserves suitable land
-  Tax lots



0.15 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

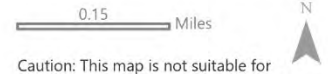
Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 8.4 Development Potential, Clear Lake Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Quarter mile from Eugene UGB
- Tax lots

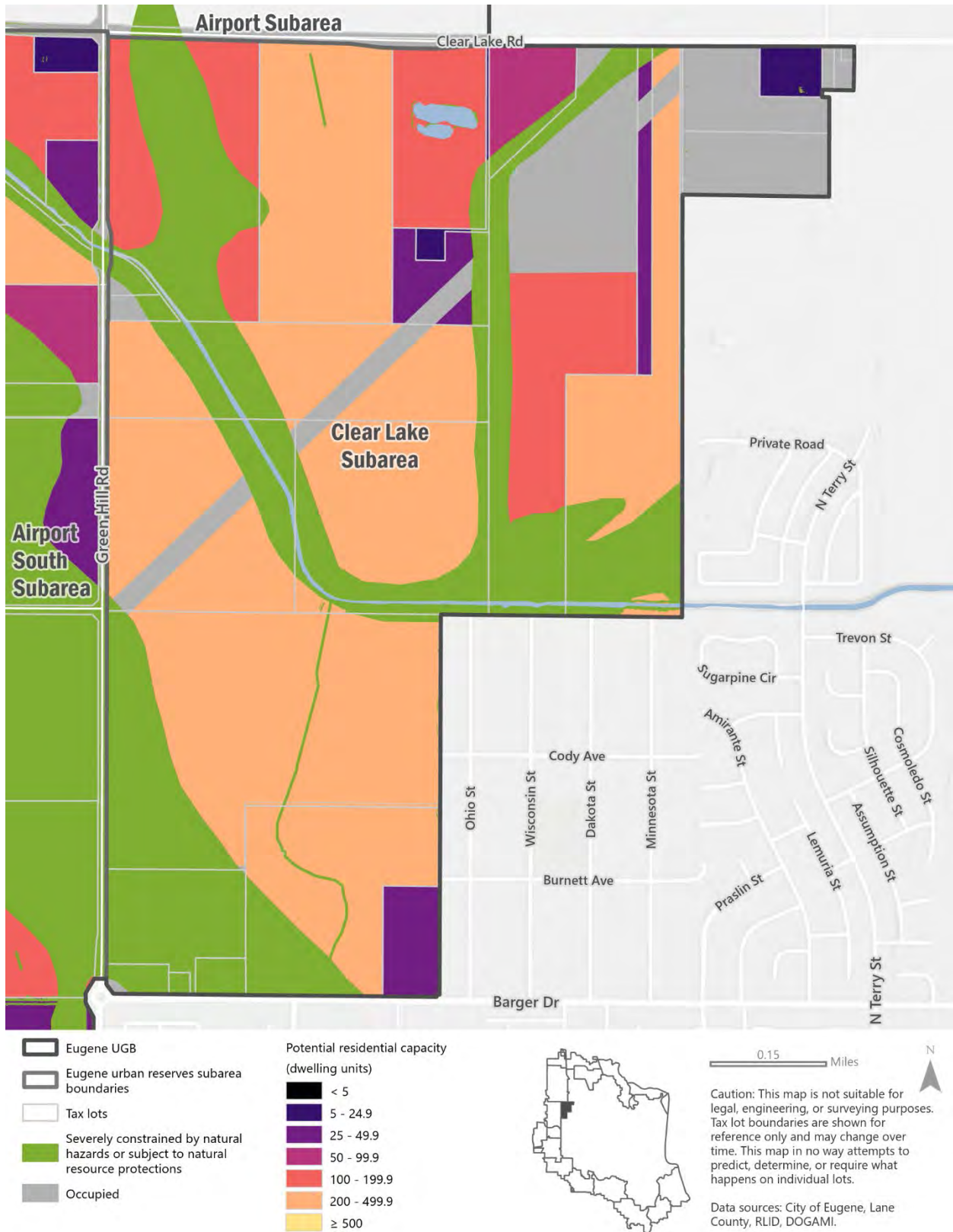
- Developable**
 - Partially Vacant
 - Undeveloped
- Undevelopable**
 - Severely constrained by natural hazards or subject to natural resource protections
 - Occupied



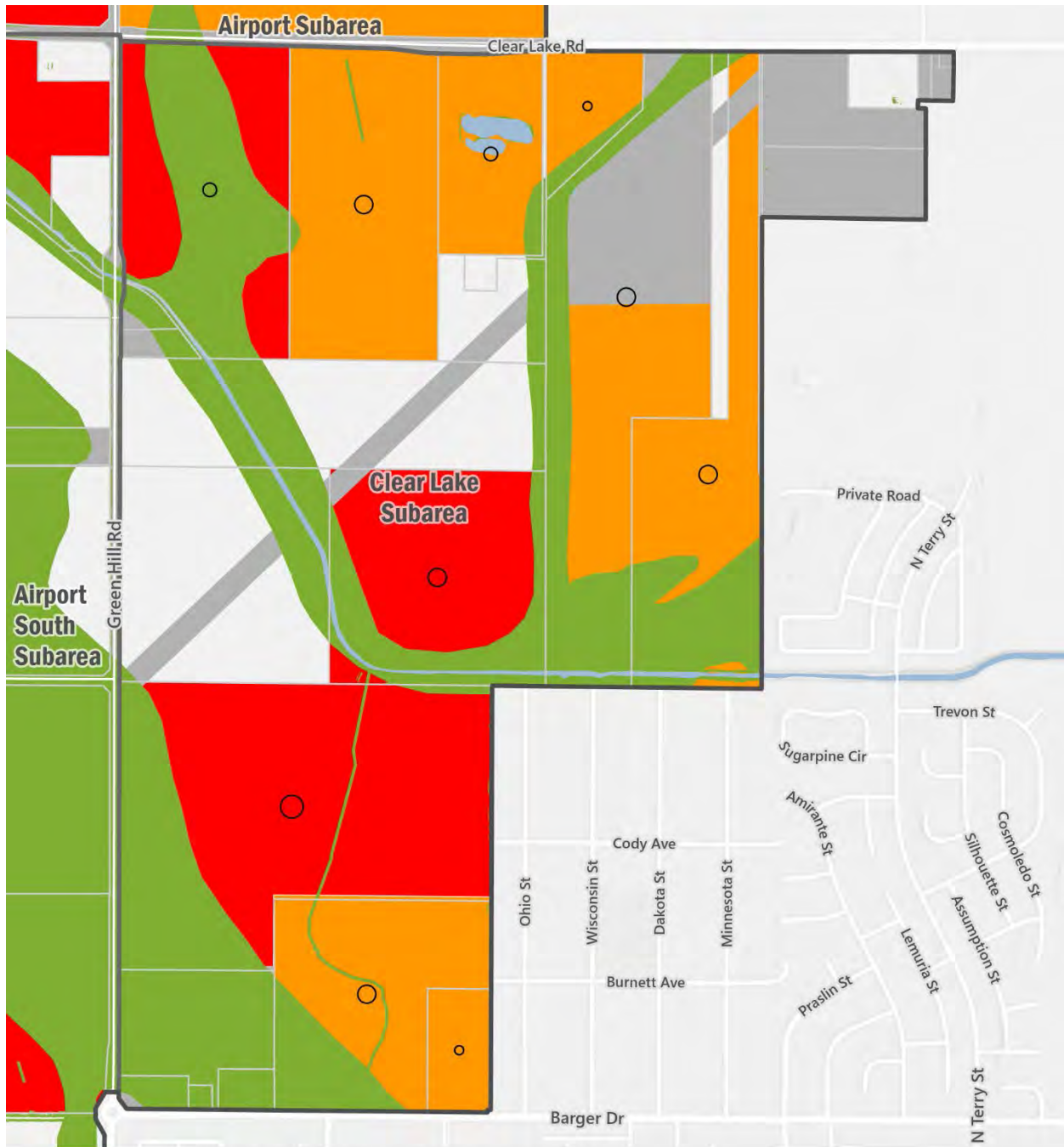
Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 8.5 Residential Capacity, Clear Lake Subarea



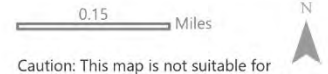
Map 8.6 Industrial Capacity, Clear Lake Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied
- Freight Route Access Points

- Tax lots meeting industrial criteria
 Developable acres per tax lot
- 5 - 9 ac
 - 10 - 19 ac
 - 20 - 49 ac
 - 50 - 74 ac
 - 75+ ac

- Tax lots meeting industrial criteria
 Driving distance to a freight route
- 1 mile
 - 1.5 miles
 - 2 miles








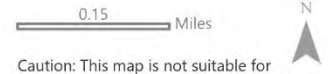
Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 8.7 Contours and Hillshade, Clear Lake Subarea



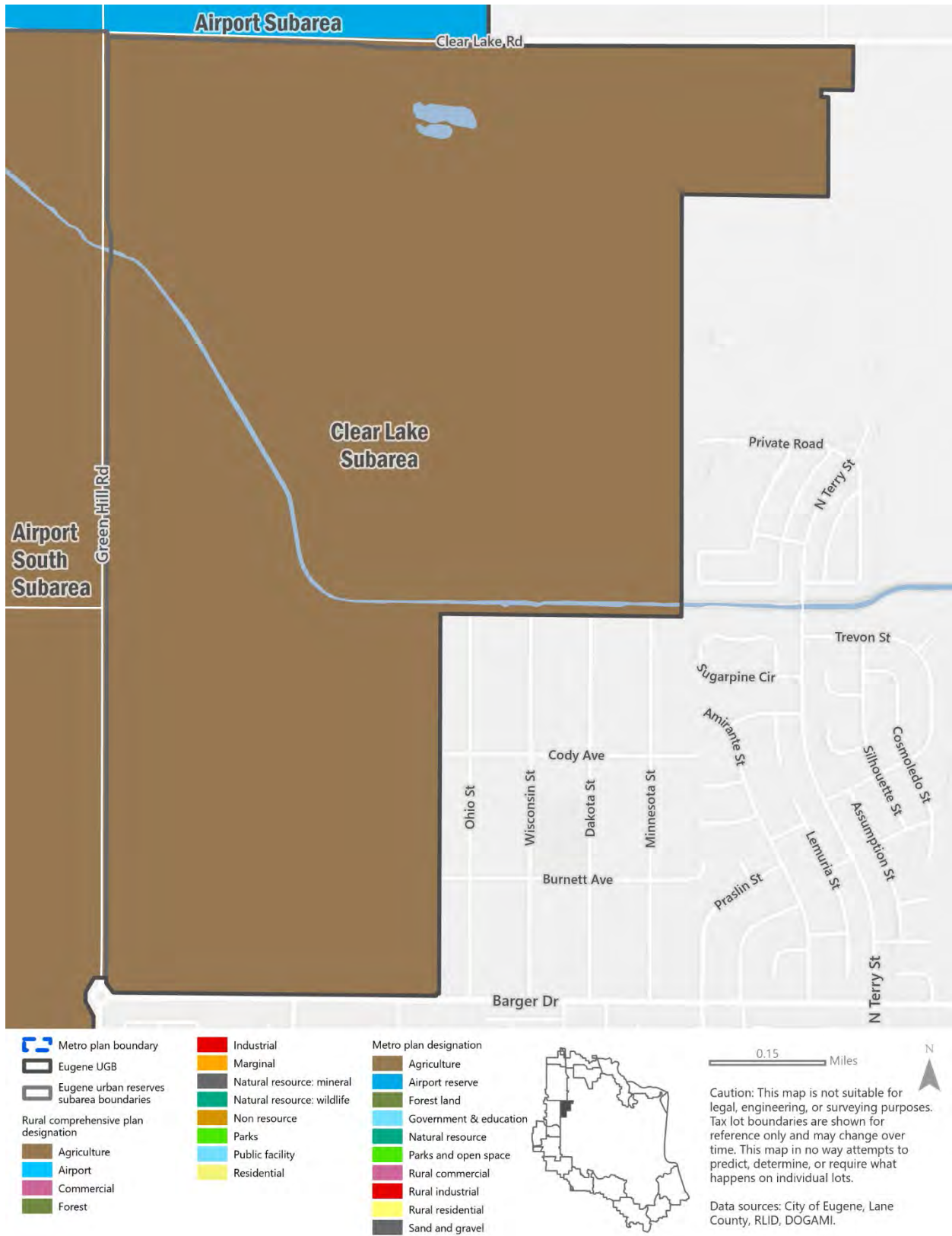
-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Tax lots
-  Severely constrained by natural hazards or subject to natural resource protections
-  Occupied



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 8.8 Plan Designation, Clear Lake Subarea

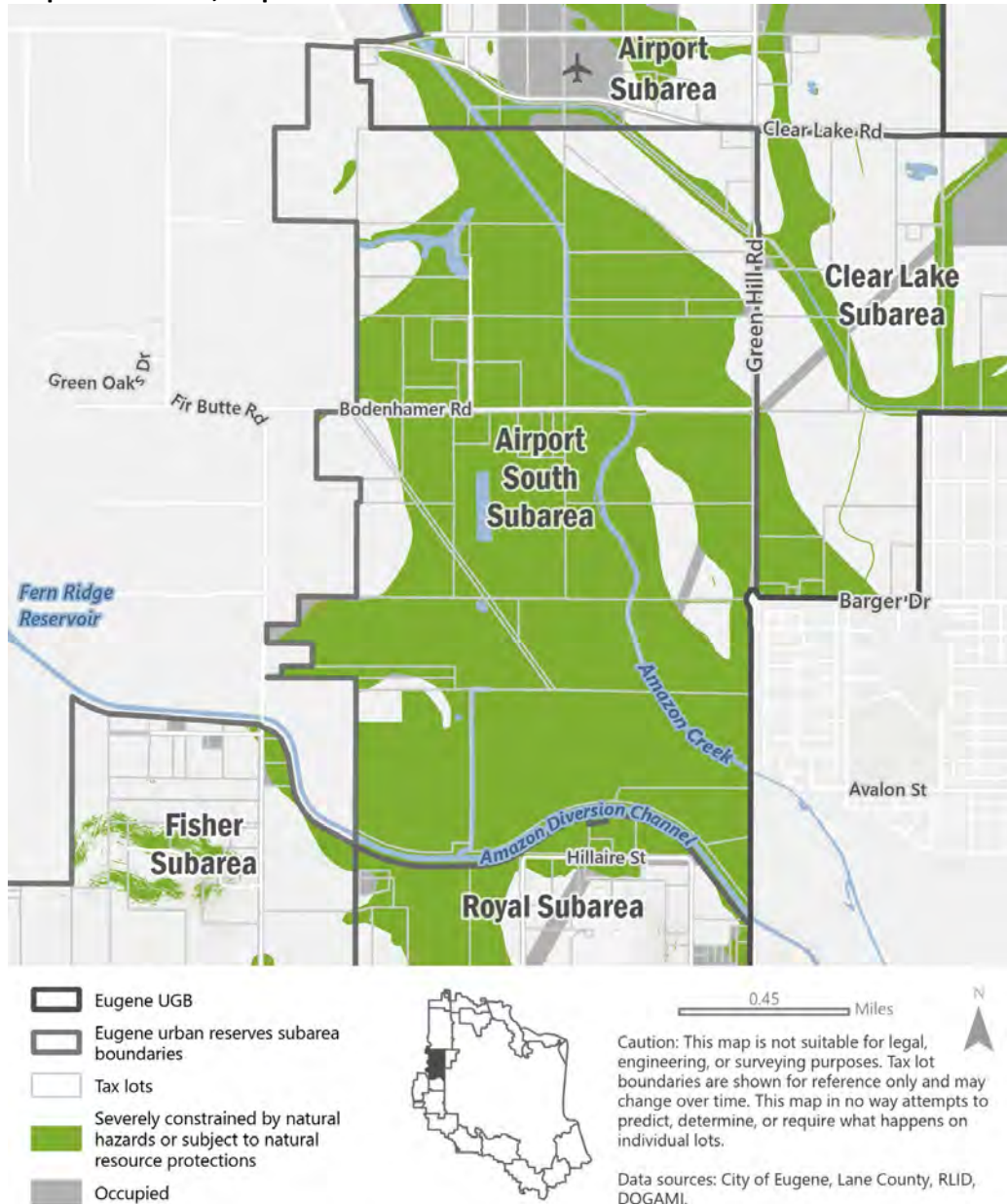


9. Suitability Analysis – Airport South

I. Background

- A. **Location:** The land in the Airport South subarea is located south of the Eugene Airport at Clear Lake Road, west of Eugene. It is contiguous to the UGB at its southern eastern boundary, at Barger and Green Hill Road. The Clear Lake subarea is directly to the east, along Clear Lake Road. The southern boundary of the subarea is the Amazon Diversion Channel. See **Map 9.1 Location**, below, and **Maps 9.2-9.8** for additional information relevant to the subarea analysis.

Map 9.1 Location, Airport South Subarea



- B. Existing Land Uses:** The land in the Airport South subarea encompasses 1,390 acres. The land in the subarea is flat and is being used primarily for farming, which is consistent with its Metro Plan designation for agriculture, as shown on **Map 9.8, Plan Designations**. There appear to be large hay and grass operations, along with associated agricultural structures and some residences. There are a few smaller businesses such as a dog boarding facility. Both the Amazon Creek and the Amazon Diversion Channel runs through land in the subarea, and most of the farmland land contains FEMA Special Flood Hazard Areas (or 100-year flood plain), as shown in **Map 9.1 Location**, in green. A Bonneville Power Administration transmission line (shown in gray) crosses the subarea at the corner of Green Hill and Bodenhamer Roads, and the Amazon Diversion Channel and associated informal walking path is on the southern edge.
- C. Barriers to Development:** The Eugene Airport is located immediately north of land in the subarea. The main runway alignment bifurcates land in the Airport South subarea and the flight path is over land in the Airport South subarea. Airport administrators and the Federal Aviation Administration (FAA) recommend limiting development to industrial and agricultural-related use in areas immediately north and south of the runways based on the noise and safety concerns from airport operations¹. In addition, almost eighty percent of the land within the subarea is classified as undevelopable land primarily due to the Goal 5 riparian corridor, Amazon Creek, and the surrounding Federal Emergency Management Agency (FEMA) Special Flood Hazard Areas (floodway and 100-year floodplain). There are also Goal 5 wetlands on land in the subarea, and together these areas are shown on the accompanying maps in green as lands that are “severely constrained by natural hazards or subject to natural resource protections.” Of the 1,390 acres of land in this subarea, only 260 have potential for future urbanization. The land in the Airport South subarea does not abut the UGB, making future urbanization of land dependent upon land in the adjacent Clear Lake subarea being included in the UGB and urbanizing.
- D. Surrounding Land Uses:** At the south-east edge of land in the subarea, immediately adjacent to the UGB, is a residential neighborhood (south of Barger along Green Hill Road). To the north of land in the subarea is the Eugene Airport. Green Hill Road is the eastern boundary of the subarea and connects to Clear Lake Road to the north. The area to the west is primarily agricultural. The Amazon Diversion Channel is the southern boundary of land in the subarea with agricultural and rural residential uses south of that.
- E. Organization of this Analysis:** After an initial review, it became clear that most of the land in this subarea shares a variety of common attributes that are relevant to much of the Goal 14 Locational Factor analysis.

The land, identified as **AS-2**, includes 236 developable acres and extends the length of the subarea, from Clear Lake Rd to the Amazon Diversion Channel; it is predominantly agricultural land with 100-year floodplain, and includes all but the northeast corner of the subarea.

The land, identified as **AS-1**, includes 24 developable acres and is significantly different and shares a set of common attributes: it is on the corner of Clear Lake and Greenhill Roads and is outside of the floodplain, separated from the rest of the subarea by the A2 Channel.

¹ See February 12, 2022 letter from Cathryn Stephens, Airport Director, Eugene Airport.

These circumstances enable the land in the Airport South subarea to be considered in terms of the two areas shown in **Map 9.2 Organization of Analysis**.

Map 9.2 Organization of Analysis



II. Identify land that would be suitable for urban reserves²

A. Locational Factor 1: Efficient accommodation of identified land needs

To what extent is there...

- 1. *Developable land adjacent to or nearby (within .25 mile) of the UGB?*** There are 32 developable acres on land in AS-2 located within two lots³ that have a portion of their boundary within .25 miles of the UGB, as shown on **Map 9.4 Development Potential**. This is approximately 12.3 percent of the developable land in the subarea. There are no developable acres on land in AS-1 within .25 miles of the UGB. Developable land adjacent or nearby the UGB is presumed to be more efficient to serve, to provide access to and connect to neighborhoods in the UGB, but in this case flood hazard areas are between the road and the developable land, making efficient urbanization difficult.
- 2. *Partially vacant developable land (that could be developed for the identified land needs)?*** The land in the subarea contains 136 developable acres on lots classified as partially vacant and 136 developable acres on lots classified as undeveloped. As shown on **Map 9.4 Development Potential**, most of the developable land is surrounded by flood hazard areas and wetlands, or on the far west side of the subarea on land in AS-2, making efficient accommodation of identified land need difficult, except on land in AS-1.
- 3. *Developable land that is identified in the capacity analysis⁴ as able to be urbanized with a mix of residential housing? How does this translate into potential dwelling units (per the capacity analysis)?*** Nineteen percent of the land in the subarea is identified as developable, with capacity for 2,179 dwelling units, or an average residential density of 8.4 dwelling units per developable acre (compared to 4.8 du/developable acre for the entire study area), as shown on **Map 9.5 Potential Residential Capacity**. However, this developable land has considerable constraints. As noted above, and shown on **Map 9.4 Development Potential**, most of the developable land in AS-2 is surrounded by flood hazard areas or is isolated on the far west side of the subarea, making efficient accommodation of identified land need difficult. Only the developable land located in the northeastern corner of the subarea on land in AS-1 is relatively free of flood hazard areas and is easily accessible from both Clear Lake and Greenhill Roads. Even so, it is adjacent to land designated for future airport use, as noted in I. C “Barriers to Development” above. Airport administrators and the Federal Aviation Administration (FAA) recommend future development be limited to industrial and agricultural-related use in areas immediately north and south of the runways based on the noise and safety concerns from airport operations.

² Refer to Section II C of this Study (Findings Appendix 2) for background on how the City is identifying land in the study area that would be “suitable,” the explanation of the prompts used for the Goal 14 Locational Factors, and specific terminology.

³ In the urban reserves study area, tax lots are characterized as ‘lots’ for analysis purposes. See the *Eugene Urban Reserves Technical Memo*, (Findings Appendix 4), for complete information.

⁴ For information on how residential development capacity was estimated for the Eugene urban reserves, see the *Eugene Urban Reserves Technical Memo*, (Findings Appendix 4).

Therefore, given the considerable constraints, neither land within AS-1 or AS-2 is able to efficiently accommodate the identified residential land need.

4. *Developable land that is identified in the capacity analysis⁵ as potentially able to be urbanized with industrial land? How does this translate into potential industrial sites (per the capacity analysis)?* As shown on **Map 9.6 Potential Industrial Capacity**, there are two lots identified as potentially suitable for urbanization with industrial land. They range in size from 5 to 19 developable acres. However, one of those lots, located along Green Hill Road in the middle of the subarea on land in AS-2, has only a small portion of developable land with industrial capacity surrounded by land that is severely constrained by natural hazards (floodplain). This creates an isolated developable area, making it difficult for industrial development. The other lot is within AS-1, at the corner of Clear Lake and Green Hill Roads. A portion of its west boundary is identified as land with natural hazards, but it has street frontage on two sides, and includes 18 acres of developable land with industrial capacity. This lot on land in AS-1 could efficiently accommodate a potential industrial site, however, the lot on land in AS-2 identified as having potential industrial capacity is too constrained by flood hazards to efficiently accommodate the identified land need.

5. *Topography, steep slopes or other “undevelopable”⁶ lands that would make efficient urbanization difficult?* As shown on **Map 9.7 Contours and Hillshade**, land in the Airport South subarea is flat, with only 1% of the subarea containing prohibitively steep slopes of 30% or greater. “Undevelopable” lands are shown as gray and green on the analysis maps. As already discussed, there are extensive areas constrained by natural hazards or subject to natural resource protections on 78 percent of the land in the subarea, making efficient urbanization extremely difficult on all but the three parcels in AS-1.

Conclusion: *Only the small area with industrial development capacity in AS-1, at the intersection of Clear Lake and Greenhill Roads, may efficiently accommodate identified industrial land needs. AS-1 has street frontage on two sides and 24 acres of developable land with industrial capacity. The land is rated as mixed in its ability to efficiently accommodate identified land needs as its proximity to the Eugene Airport makes residential use unlikely, it is dependent on the land in the Clear Lake subarea urbanizing first, and a portion of its southwestern boundary is included in the 100-year floodplain.*

Although land in AS-2 is flat and some of it is adjacent to the UGB, it has a low likelihood of residential development due to proximity to the Eugene Airport. In addition, the land with development capacity in AS-2 could not efficiently accommodate identified land needs due to the extensive mapped flood hazard area and the presence of wetlands surrounding it, making efficient

⁵ For information on how industrial development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

⁶ As described in the Urban Reserves Study in Section II B (Findings Appendix 2), land was assigned no development capacity if it falls within one of the these “undevelopable” categories: severely constrained by natural hazards or is designated or zoned to protect natural resources; or not vacant or partially vacant (i.e. the land is already occupied).

urbanization unlikely as the small islands of land with development capacity are isolated by these “undevelopable” lands. Therefore, land in AS-2 is rated as negative in its ability to efficiently accommodate identified land needs.

Efficient accommodation of identified land needs:	Positive	Mixed	Negative
Land in AS-1			
Land in AS-2			

B. Locational Factor 2: Orderly and economic provision of public facilities and services⁷

The information below is meant to answer how easy or difficult it is to serve developable land in the Airport South subarea, including the capacity of the current system and new infrastructure needed to serve the area if urbanized: It includes an analysis of **wastewater, water, transportation, transit, stormwater, and fire/emergency services** and also, to a lesser extent, it includes provision of **electricity, schools and parks**.⁸

Before the narrative description is a table showing the **general serviceability** of the subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff. Also included is a **generalized cost estimate**, which represents preliminary estimates for the major components of the individual systems. Cost information is provided on a \$ to \$\$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$\$) denoting the greatest cost. The scale used for each type of service varies and is not comparable to other utilities or services. For example, a \$ for wastewater does not equate to a \$ for transportation. Cost estimates do not include future maintenance costs.

Airport South Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized Serviceability	Moderate	Easy	Moderate	Easy	Moderate	Easy-Moderate
Generalized cost estimate	\$\$\$	\$	\$\$-\$\$\$	\$	\$\$\$	\$\$

- 1. Wastewater:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. This is due to the fact that only a minimal amount of downstream pipe would need to be replaced with larger pipe to serve the subarea. However, development of this subarea will likely require the construction of a pump station, which increases the cost of extending services.

⁷ The definition of “public facilities and services,” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines, is: “[p]rojects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.”

⁸ The summarized information used in this section is based on the results of the *Urban Reserves Serviceability Analysis Report* (Findings Appendix 3). In providing information for that report, service providers considered the serviceability of the subareas in their entirety; they generally did not differentiate between areas within a subarea.

2. **Water:** The subarea is assigned a “easy” serviceability rating and the generalized cost estimate for improvements is \$. This is because EWEB service is already available adjacent to this subarea. Distribution and transmission systems would have to be extended only a short distance to provide service.
3. **Fire:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$-\$\$\$\$. This is due to the current locations of the city fire stations and existing street network, there may be response time/service delay concerns for truck coverage. A new fire station would likely have to be built to serve the subarea.
4. **Transportation:** The subarea is assigned a “easy” serviceability rating and the generalized cost estimate for improvements is \$. There are no significant transportation concerns within the subarea because of the existing street system and flat topography.
5. **Transit:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. This is because there is flat topography which is good for accessibility. However, it may be challenging to create efficient service in the area given the relative isolation and need to deviate from existing routes.
6. **Stormwater:** The subarea is assigned a “easy to moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$. This is due to there being a portion of the subarea that is not in the floodplain and which has flat topography and soils that appear suitable for infiltration. Some degree of a stormwater system already exists in the area and would need to be further evaluated for capacity and needed improvements. The entire area falls within the Junction City Water Control District and stormwater and flood control requirements in the Eugene code at 9.6791(3)(c) would need to be extended into this area.
7. **Other (Parks, Schools, Electric):** In AS-2, the Amazon Diversion Channel on the southern edge of the subarea has an informal walking path that connects to Meadowlark Prairie (a publicly owned natural area that is part of the West Eugene Wetlands) to the east and Fern Ridge Reservoir to the west. EWEB provides electric service to a portion of this area. This subarea is within the Bethel School District.
8. ***Is there undeveloped land within the UGB that would be helped in its development/serviceability if this area were included in urban reserves, or is there undeveloped land within the UGB that would negatively impact the orderly and economic provision of public facilities and services?*** While the land within the UGB that is contiguous to the subarea is developed with residential, school and parks and open spaces uses, there is a significant amount of undeveloped land within the UGB along Clear Lake Road. In both the Airport South and Clear Lake subareas, the orderly and economic provision of public facilities and services would be dependent on this land within the UGB first annexing into the City, urbanizing and receiving City services.

Conclusion: Overall, public facilities and services may be provided in an orderly and economic manner on only the 24 acres of developable land in **AS-1** due to its flat terrain and access to two major roadways. The rating is “mixed” due to the land in AS-1’s distance from urbanized land inside the City limits, and its dependence on the Clear Lake subarea to the east being included in Urban Reserves, and both that land and the land within the UGB urbanizing first.

The land with development capacity in **AS-2** is not able to be served in an orderly and economic manner. This is because the land with development capacity (236 acres) is located mostly on the far western edge of the subarea and surrounded by flood hazard areas and wetlands. This creates significant difficulties for efficiently accommodating identified land needs, as noted in Locational Factor 1, and also for extending services to the developable land in AS-2 in an orderly and economic manner.

Orderly and economic provision of public facilities and services:	Positive	Mixed	Negative
Land in AS-1			
Land in AS-2			

C. Locational Factor 3. Comparative environmental, energy, economic and social consequences

1. Environmental consequences:

- a. Presence of natural resources: To what extent would urbanization of this area negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources?** In AS-2, there are large areas of Goal 5 adopted wetlands near the Amazon Diversion Channel on the south end of the land in the subarea. These wetland areas appear to be co-located within FEMA-mapped flood hazard areas. Wetlands provide habitat for many species. There are two waterways in the subarea: the A2 Channel, which separates the land in AS-1 from land in AS-2, and the Goal 5 adopted Amazon Creek riparian corridor, which travels from Green Hill Road northeast past Clear Lake Road in AS-2. There are also a few small waterbodies and other Goal 5 adopted wetlands on land in AS-2. As the developable land in AS-2 is surrounded by natural resources, there could be significant impacts from future urbanization. Future urbanization will increase impervious surfaces such as roofs and pavement and could therefore increase stormwater runoff and potential pollutants in waterways. However, if urbanized, development would be subject to the City’s stormwater standards, which would mitigate those impacts. Goal 5 adopted wetlands and riparian corridors are categorized as natural resource land, so urbanization is not assumed on them.

- b. Presence of hazard areas (steep slope, landslides, floodplain): To what extent would urbanization of this area increase the potential risk of natural hazards, such as landslides, wildfire or flooding?** As already noted, the land in AS-2 includes extensive FEMA-mapped flood hazard areas, with small, scattered strips of steep slopes and high-risk landslide areas.

Although there is only a small amount of land with development capacity in AS-2, future urbanization would potentially have negative environmental consequences by increasing flood risk due to the significant amount of flood hazard areas surrounding the developable land. Land in AS-1 includes only a small portion of flood hazard land along the A2 Channel, therefore future urbanization could potentially increase flood risk on land in AS-1 but to a lesser degree. As noted above, if urbanized, development would be subject to the City’s stormwater standards, which is intended to minimize runoff and mitigate flood hazard impacts.

- c. Presence of nearby public open space: To what extent would nearby public open space benefit future residents of the area?** On land in AS-2, a 30-acre segment of the Amazon Diversion Channel runs along the southern boundary of land in the subarea and is publicly owned and designated as Parks and Open Space, providing nearby walking and nature appreciation opportunities. While not within land in the subarea, Bethel Community Park, Meadowlark Prairie, State Street City Park and Dragonfly Bend are located nearby, also benefitting future residents.

Conclusion: *The developable land in AS-1 has only a minor amount of mapped flood plain and wetland along the A2 Channel, on its far edge. Urbanization of the land in AS-1, while mitigated by city regulations, could increase environmental impacts to the A2 Channel and its adjacent wetlands. Therefore, urbanization of the land in AS-1 would have mixed environmental consequences*

Urbanizing the land in AS-2 would have negative environmental consequences due to the large presence of natural hazard and natural resource land. Urbanization of the surrounding developable land could cause significant environmental and natural hazard impacts as it could increase flood risk and impact wetlands and riparian areas.

Environmental Consequences:	Positive	Mixed	Negative
Land in AS-1			
Land in AS-2			

2. Energy Consequences (priority for lower energy usage):

- a. To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt)?** Neither the land in AS-1 or AS-2 is well-situated to co-locate a variety of housing types, jobs and services to promote walking and bicycling, therefore limiting the need for vehicle trips and having positive energy impacts. The land in AS-2 is poorly suited to co-locate a variety of housing types, jobs and services, given the inefficient distribution of land considered developable due to the extent of flood hazard areas and natural resource land. The land in AS-1 is poorly suited to co-locate a variety of housing types, jobs and services due to its proximity to the Airport. As mentioned previously, Airport administrators and the Federal Aviation Administration (FAA) recommend industrial and agricultural-related use in

areas immediately north and south of the runways based on the noise and safety concerns from airport operations.

- b. To what extent is the area easily accessible to other services or uses (e.g., neighborhood commercial, parks, schools)?** The southern portion of land in the subarea, in AS-2 near the UGB, has good access to existing parks and schools. The nearest public elementary school is Meadow View School. Bethel Community Park, Dragonfly Bend natural area, Meadowlark Prairie and State Street Park are all in proximity to land in the subarea. While an area to the east of land in the subarea, south of Barger Drive, has been mostly developed for residential use, there are a few neighborhood-serving commercial uses there which would allow for local trips for some services and help limit energy usage.
- c. To what extent is the area adjacent to or nearby the UGB? (see Locational Factor 1, A.2)** Only 32 acres (12.3%) of developable land is located on lots with at least a portion of the lot adjacent to or nearby (within 0.25 miles) the UGB, as shown on **Map 9.4 Development Potential**. This land is located in AS-2 and is isolated from road connections due to natural hazard and natural resource land. Most of the developable land in the subarea is not adjacent to or nearby the UGB, and there are no developable acres of land in AS-1 within .25 miles of the UGB.
- d. To what extent is there good multi-modal transportation access to this area? To what extent is the area easily accessible to job centers and downtown?** The Fern Ridge multiuse path currently ends at Royal Avenue and Green Hill Road, just south of land in the subarea. Urbanization of land in this subarea may provide opportunities to extend the Fern Ridge path farther west, such as along the Amazon Diversion Channel, providing opportunities for multi-modal access in AS-2. Land in the entire subarea is very flat which could accommodate future multi-modal transportation; however, it currently lacks sidewalks and bicycle lanes/facilities and is distant from existing transit (the nearest transit route is approximately 4 miles away). There is access from land in AS-1 and AS-2 to Eugene’s job centers via Clear Lake Road, Barger Drive and Greenhill Road.
- e. To what extent does future urbanization directly or indirectly generate energy or climate burdens (e.g. loss of open space, loss of growing lands, increased traffic, increased carbon emissions)?** Future urbanization of the land in AS-1 and AS-2 will both directly and indirectly generate energy and climate burdens due primarily to the loss of growing lands. Increased traffic and increased carbon emissions resulting from new development and gas-powered vehicles would also create energy burdens. All of the land in the subarea is designated as agricultural, so urbanization would cause a loss of potentially 260 acres of farmland. The small amount of developable land (24 acres) in AS-1 in addition to its location near Clear Lake Road and Greenhill Road help to mitigate its energy consequences should it urbanize. The significant presence of flood hazard areas on land in AS-2 would not allow for efficient urbanization of identified land needs (Locational Factor 1), so energy and climate consequences of development in these areas would be negative (high).

Conclusion: Based on the information above, urbanization of the land in **AS-1** would have negative energy consequences due to its relative isolation from other urban uses and its ability to primarily accommodate industrial uses which may increase vehicle miles traveled and lead to increased carbon emissions. While the developable land in AS-1 has direct access to the Airport, it is designated for agriculture; if it were to urbanize there would be indirect energy burdens from the loss of growing lands.

Urbanization of the land in **AS-2** also has negative energy consequences due to its very low potential for co-locating housing, jobs and services because of the large presence of FEMA-mapped flood hazard areas and wetlands, and adjacent airport uses. Urbanization of the developable land in AS-2 would have negative impacts on energy usage due to carbon emissions from increased driving and new development. In addition, all the land in AS-2 is designated for agriculture and its urbanization would result in a loss of growing land, creating indirect energy burdens.

Energy Consequences:	Positive	Mixed	Negative
Land in AS-1			
Land in AS-2			

3. Economic consequences:

a. In general, how much economic activity would urbanization of this area bring (Ex: Additional construction opportunities)? As noted previously, land in the Airport South subarea contains 260 acres of developable land. Twenty-four acres of developable land in AS-1 have potential industrial capacity or residential capacity; therefore, there is the potential for a small amount of future economic activity adjacent to the airport. Urbanization would bring construction activity that would benefit the local economy. While the land in AS-2 does have a small amount of developable capacity, there are significant barriers to development due to the presence of FEMA mapped flood hazards and wetlands and adjacent Airport use. While the City’s tax base would increase from urbanization, the cost of services (capital and ongoing) and needed infrastructure may outweigh the increased revenue.

b. Is the area appropriate for future urbanization with a variety of identified uses (not just LDR), to support connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a) As noted previously, land in this subarea is not well-situated to co-locate a variety of housing and jobs which could support connected, integrated neighborhoods, due to the presence of FEMA mapped flood hazards and wetlands and adjacent Airport uses. The land in AS-2 is poorly suited for future urbanization with a variety of uses given the inefficient distribution of land considered developable due to the extent of flood hazard areas and natural resource land. The land in AS-1 is poorly suited to co-locate a variety of housing types, jobs and services due to its proximity to the Airport and small amount of developable land.

- c. Are there concerns about future urbanization causing a loss of economic activity for existing and nearby uses? (also see Locational Factor 4)** If land in AS-2 were to urbanize there would be loss of potentially farmable land. However, as noted previously, due to the FEMA-mapped flood hazards, wetlands and adjacent Airport uses, only the small amount of developable land in AS-1 appears suitable for future urbanization with industrial uses. Therefore, there is relatively little concern about future urbanization causing a loss of economic activity for existing and nearby uses.
- d. How cost-efficient is service provision in this area? (also see Locational Factor 2)** As noted previously under Locational Factor 2, the 24 acres of developable land in AS-1, adjacent to Clear Lake Road and Greenhill Road, are able to be served in an orderly and economic manner, due to the flat topography, limited floodplain, and location next to roadways. The land in AS-2 is significantly encumbered by natural hazard and natural resource land making it challenging to serve the areas of land with development potential in an orderly and economically feasible way. While the subarea is flat, the 236 developable acres are spread out through the subarea, farther from existing utilities and not clustered together.

Conclusion: Based on the above information, urbanization of the land with development capacity in AS-1 would have mixed economic consequences. Positive attributes include its relative lack of mapped flood hazards, proximity to major roadways, and moderately cost-efficient provision of services. However, its location adjacent to the Eugene Airport would limit future economic activity to industrial-related uses, and urbanization would be contingent on the adjacent Clear Lake subarea that is adjacent to the UGB being included in urban reserves, and the land within the UGB urbanizing.

The land in AS-2 is poorly suited for future urbanization with a variety of uses given the inefficient distribution of land considered developable due to the extent of flood hazard areas and natural resource land and its proximity to Airport uses. Therefore, there is a low likelihood of future economic activity from urbanization in AS-2, and economic consequences are negative.

Economic Consequences:	Positive	Mixed	Negative
Land in AS-1			
Land in AS-2			

4. Social Consequences:

- a. Will urbanization negatively impact current residents?** It appears that land in the subarea contains mostly agricultural related uses and a limited number of residences. If the 24 acres of land with development capacity in AS-1 were to urbanize, impacts to current residents could be negative given that it is primarily suitable for industrial use. While industrial uses may create more employment opportunities there could be negative social consequences if industrial uses are located adjacent to homes. However, given the small amount of land in AS-1 and adjacency to roads and Airport uses, these consequences are mitigated. If the 236 developable acres of

land in AS-2 were to urbanize with industrial uses, there could be increased traffic, noise and potential nuisance issues for nearby agricultural operations and residents.

- b. How would urbanization worsen or improve service delivery to residents in this area (e.g. adequate fire response times, access to water, parks)? (also see Locational Factor 2)** As noted in Locational Factor 2, public facilities and services may be provided in an orderly and economic manner on only the 24 acres of developable land in AS-1 due to its flat terrain, relative lack of natural hazards and access to two major roadways. This would improve service delivery to residents in AS-1. While urbanization of the land with development capacity in AS-2 could improve service delivery to residents, it is not likely, as it is not able to be served in an orderly and economic manner. This is because the land with development capacity in AS-2 is located mostly on the far western edge of the subarea and surrounded by flood hazard areas and wetlands. This creates significant difficulties for efficiently accommodating identified land needs, as noted in Locational Factor 1, and also for extending services to the developable land in AS-2 in an orderly and economic manner.
- c. Will urbanization exacerbate the impacts of potential natural hazards, such as flooding, fire, and landslides for residents? (also see Locational Factor 3, Environmental Consequences C.1.b)** As already noted, urbanization of land in AS-2 could exacerbate the impacts of flooding for existing and future residents due to the significant presence of flood hazard areas by increasing impermeable surfaces which could create more risk of flooding. Land in AS-1, has little mapped natural hazard and natural resource land, so it would be less likely to exacerbate the impacts of potential natural hazards. Land in AS-1 and AS-2 has mostly flat topography, with only small strips of steep slopes and high-risk landslide areas; it is also primarily farmland and not significantly forested, so urbanization would not exacerbate the risk of landslides or fire.
- d. How might urbanization in this area impact vulnerable populations⁹ and underserved groups currently living in the subarea? Could one segment of the population be impacted more than another (e.g., low-income households)?** There could be some negative impacts to vulnerable and underserved groups if land in AS-1 develops with industrial uses, as it has a small amount of industrial capacity. Continuation of the industrial use pattern south of the Airport may create negative impacts such as noise, water, and air pollution and health effects from industrial uses can disproportionately affect vulnerable populations at higher rates. However, if land in AS-1 were to be brought into the UGB and urbanized, industrial uses would have to comply with city regulations thereby mitigating potential negative impacts. The land in AS-2 is primarily used for agriculture and there are relatively few residences, which minimizes the chances of negative impacts. In AS-2, there could be negative impacts to farm workers if farms and agricultural businesses were displaced as urbanization occurs.

⁹ Vulnerable populations are defined as populations that identify as a non-white race or ethnicity, younger or older populations, populations with a disability, and/or single-headed households. (from Livability Lane, 2013 Equity and Opportunity Assessment, Social and Demographic Characteristics Map.) The extent to which vulnerable populations and underserved groups currently live in the subarea is speculative.

- e. Will urbanization in this area allow for connected, integrated neighborhoods? (also see Locational Factor 4C)** As previously noted, land in this subarea is not well-situated to co-locate a variety of housing and jobs in order to support connected, integrated neighborhoods, given that eighty three percent of the land within the subarea contains natural hazards, natural resources, or is occupied and therefore has no development capacity. In addition, as mentioned above, no new residential capacity is assumed throughout this subarea due to adjacent Airport uses.

Conclusion: As described above, if urbanized, land in **AS-1** would have mixed social consequences. Positive attributes are its accessible location on the edge of the subarea, next to both Clear Lake and Green Hill Roads, which could aid in service provision and minimize traffic impacts to residents. Urbanization of the land AS-1 with industrial use may cause negative impacts to current residents, although such impacts may be already present with the adjacent Airport use (e.g., noise, odor and safety concerns). The small amount of developable land in AS-1 combined with City regulations once the land urbanizes would mitigate some of the negative social consequences to residents.

Land in **AS-2**, if urbanized, would have negative social impacts to current and future residents due to the extensive flood hazard areas which severely limits the potential for connected, integrated neighborhoods and increases the risk of flooding. There could be negative social impacts if farms and agricultural businesses were displaced as urbanization occurs. Additionally, there may be noise, odor and safety concerns associated with the land’s proximity to the airport and other industrial uses.

Social Consequences:	Positive	Mixed	Negative
Land in AS-1			
Land in AS-2			

Locational Factor 3 Conclusion:

For the land in **AS-1**, the analysis under Locational Factor 3 shows that urbanization would have negative Energy consequences, and mixed Environmental, Economic and Social consequences.

For the land in **AS-2**, the analysis under Locational Factor 3 shows that urbanization would have negative Environmental, Energy, Economic and Social consequences.

D. Locational Factor 4. Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

- 1. How will urbanization impact agricultural and forest activities on farm and forest designated land within the subarea?** As shown on **Map 9.8 Plan Designations**, all of the land in AS-1 and AS-2 is designated for agriculture and appears to be used for farming activities, primarily for hay, grass, and pastureland. If the land in the subarea were to urbanize, increased congestion on roadways could negatively impact these agricultural activities. Increased urbanization could also lead to odor, safety and other complaints from neighbors which could negatively impact the existing agricultural practices on land in AS-2 and AS-1. However, due to the extent of flood

hazard areas on land in AS-2, future urbanization in the area is unlikely, thereby limiting impacts. Industrial urbanization of land in AS-1 could impact current agricultural uses, however, due to the area’s small size, adjacency to main roadways and location of the A2 Channel, the impacts to nearby agricultural uses would be minimal. There are no lands designated or used for forestry in the subarea.

- 2. Is urbanization compatible with existing agricultural and forest uses on farm and forest designated land nearby (outside of the subarea)?** Future small-scaled industrial urbanization of land in AS-1 appears to be compatible with existing farm practices on agriculture-designated land outside of the subarea. There are farming operations on land designated for agriculture on land in the Clear Lake subarea, adjacent to the eastern boundary of land in AS-1 and AS-2, however such land would need to be brought into the UGB before land in Airport South can be urbanized, limiting potential conflicts of urbanization. If the developable land on the western edge of the subarea in AS-2 were to urbanize, it could negatively impact the farming practices on adjacent land designated for agriculture, which is the predominant designation and use in that area.

Conclusion: *As described above, it appears that urbanization of the land in AS-1 would be compatible with surrounding agricultural activities outside the UGB—it is at the intersection of two major roadways, and immediately south of the airport. In addition, the area is relatively small in size, and the A2 Channel provides separation between the area and the agricultural land to the south.*

Future urbanization of the developable land in AS-2 could be incompatible with surrounding farm activities and could also displace some farm uses. However, developable land in AS-2 is severely encumbered by natural hazard and natural resource land resources or isolated on the western side of the subarea therefore lessening the potential for urbanization to occur and mitigating negative consequences.

Compatibility with nearby agriculture and forest activities	Positive	Mixed	Negative
Land in AS-1			
Land in AS-2			

III. Conclusion

Considering and balancing the Goal 14 Locational Factors as analyzed above, there are some positive and some negative aspects of future urbanization of the Airport South subarea. As detailed in the above analysis and shown in the summary tables on the following page:

Land in **AS-1** includes 24 developable acres. In evaluating the land in AS-1 (located in the northeast corner of the Airport South subarea on the corner of Clear Lake and Greenhill Roads, separated from the rest of the subarea by the A2 Channel) the Locational Factor conclusions were almost all “mixed” in their findings: Locational Factor 4 was positive, Locational Factors 1, 2, 3(a), 3(c), and 3(d) were mixed; and Locational Factor 3(b) was negative. Based on the conclusions as described above, when balanced and considered together, the consequences with respect to the land in AS-1 result in a determination that land in AS-1 is suitable for future urbanization and should be considered for urban reserves consideration. This land will be moved forward for urban reserves consideration with the Clear Lake subarea, as its suitability for urban reserves is reliant on the adjacent land in the Clear Lake subarea’s inclusion in urban reserves.



Land in **AS-2** includes 236 developable acres. The land in AS-2 is the remainder of the Airport South subarea and was analyzed in the same manner as the land in AS-1. In evaluating the land in **AS-2**, the Locational Factor conclusions were mostly “negative” in their findings: only Locational Factor 4 was mixed and Locational Factors 1, 2, 3(a), 3(b), 3(c), and 3(d) were negative. It extends the length of the subarea, from Clear Lake Rd to the Amazon Diversion Channel. It is characterized by agricultural uses and lack of development capacity due to extensive floodplain and natural resource constraints. The Locational Factor conclusions were almost all “negative” in their findings. Based on the conclusions as described above, when balanced and considered together, the consequences with respect to the land in AS-2 result in a determination that land in AS-2 is not suitable for future urbanization and should not be considered for urban reserves designation.

Please see the summary tables on the following pages, and **Map 9.3 Suitability Results**.

Summary

Airport South Subarea

Area Suitable for Urban Reserves Designation

Land in AS-1

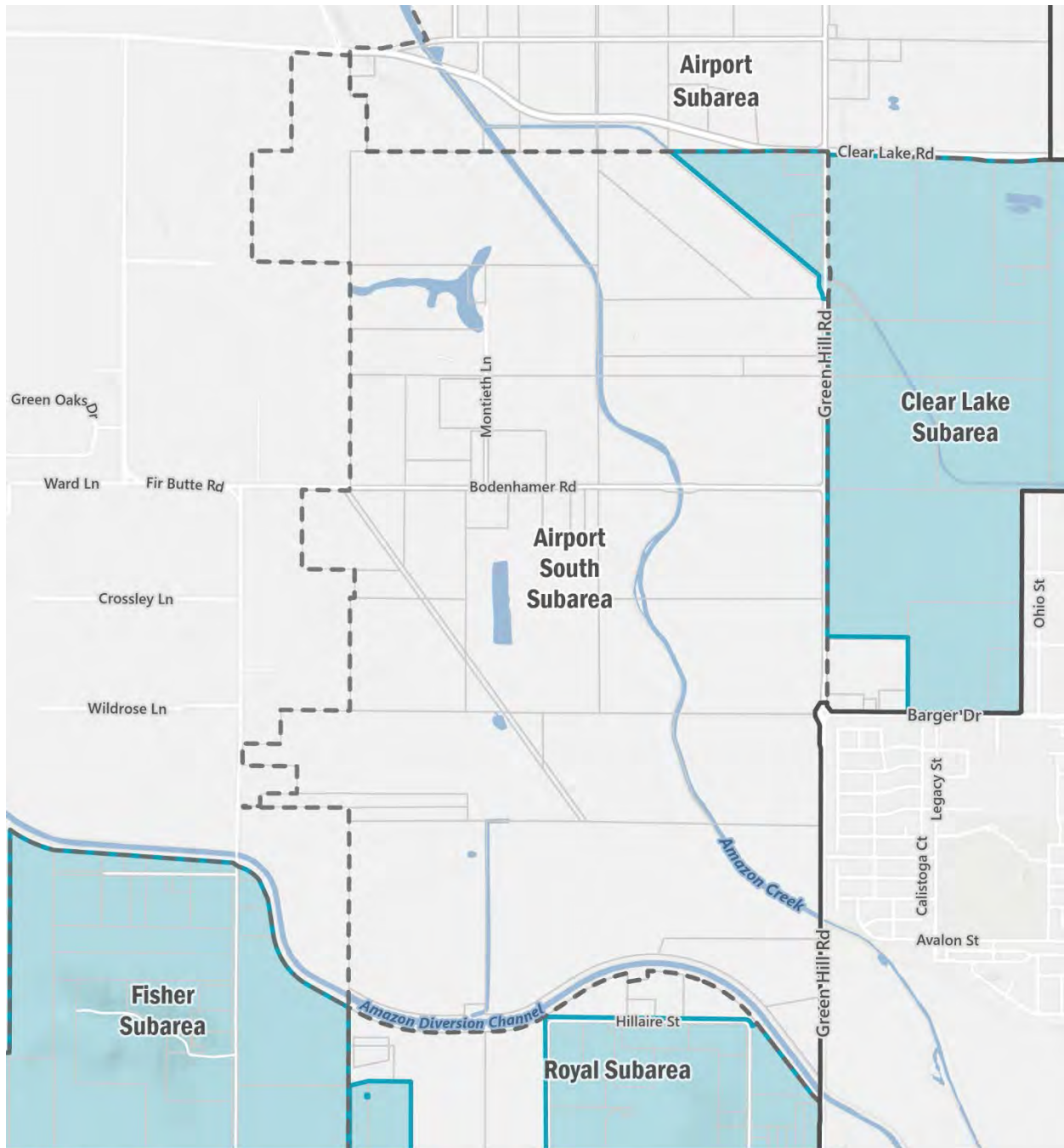
	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Not Moving Forward for Urban Reserves Designation

Land in AS-2

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Map 9.3 Suitability Results, Airport South Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Eugene urban reserves suitable land
- Tax lots



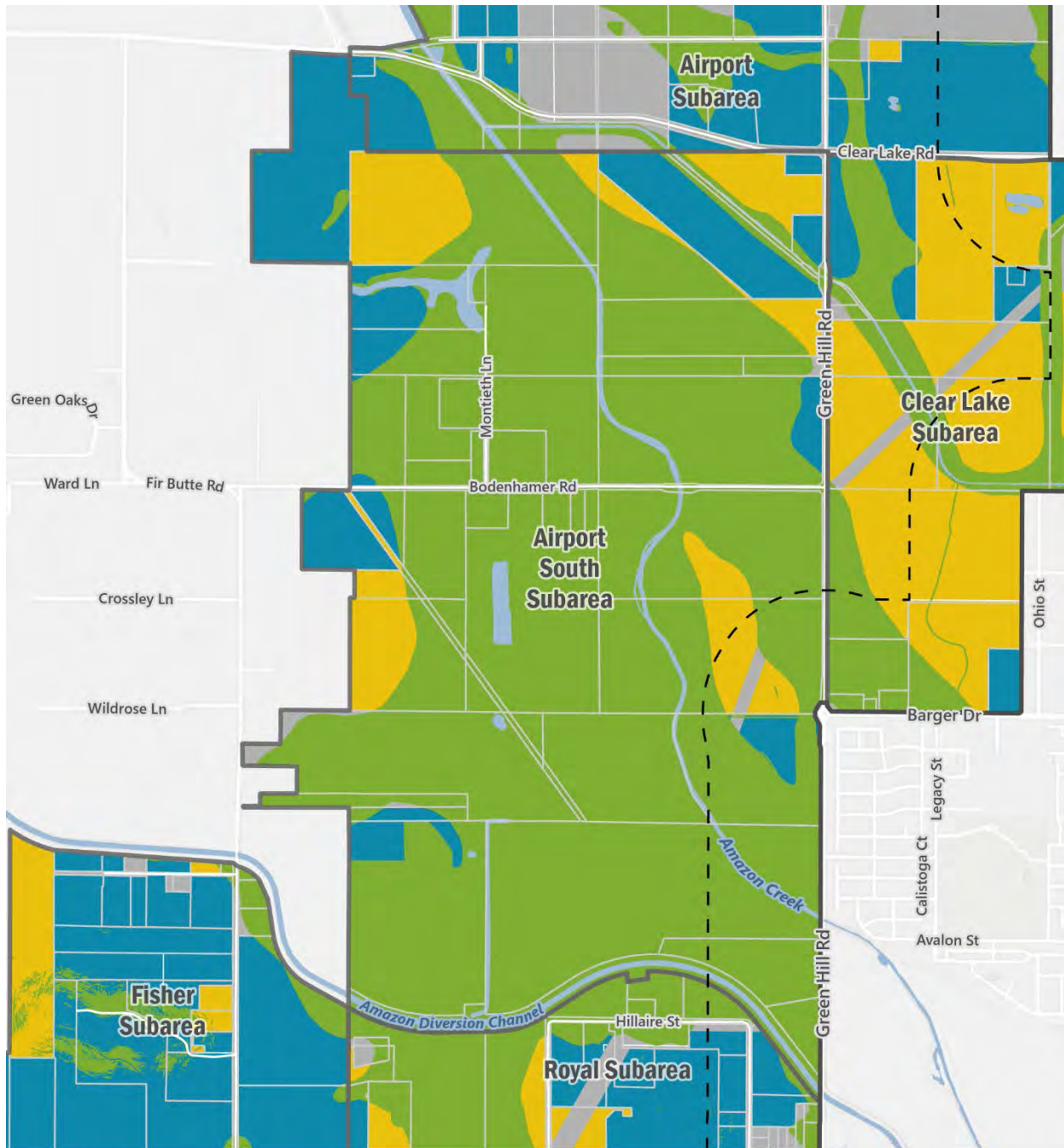
0.3 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 9.4 Development Potential, Airport South Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Quarter mile from Eugene UGB
- Tax lots

- Developable**
- Partially Vacant
- Undeveloped
- Undevelopable**
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied

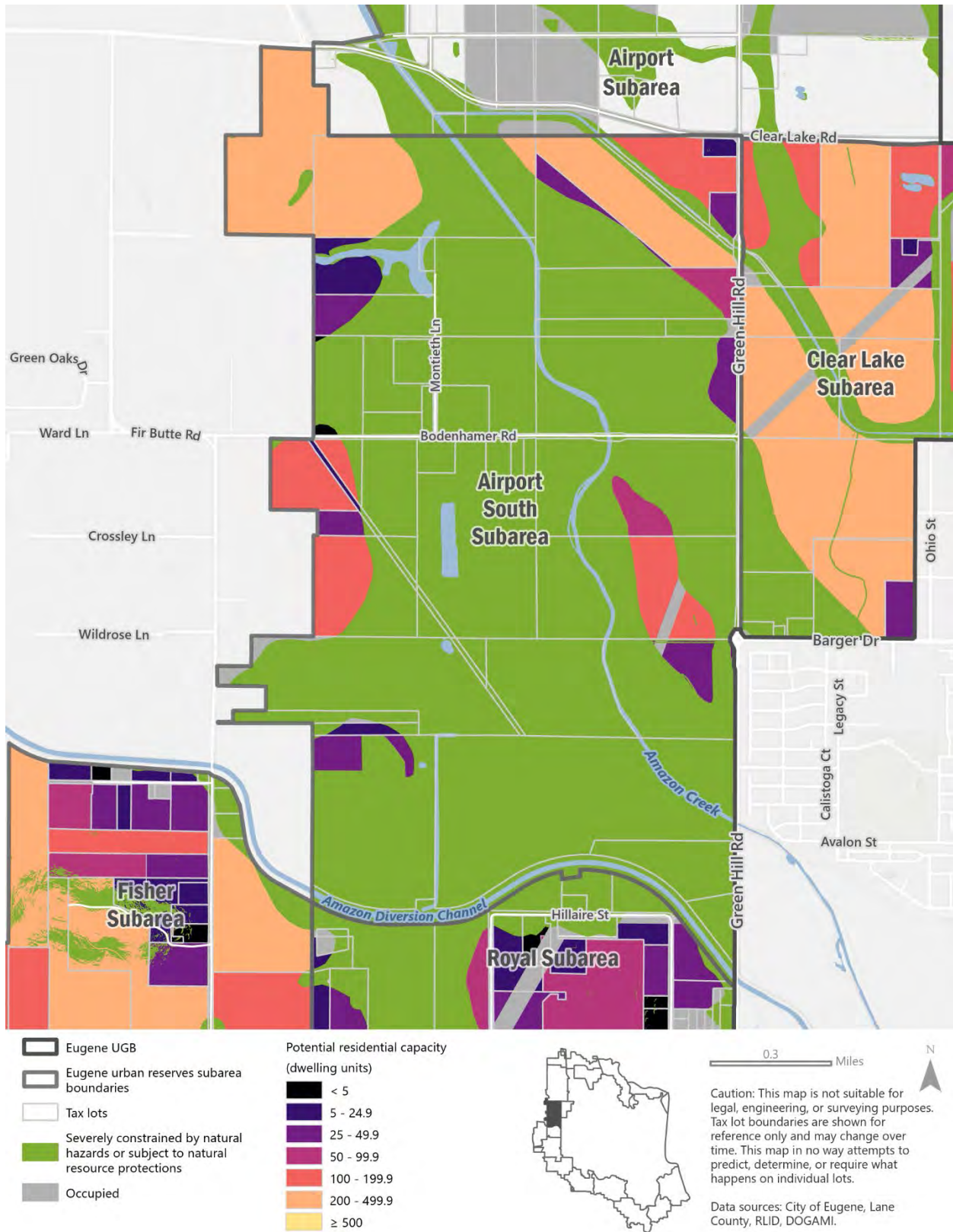


0.3 Miles

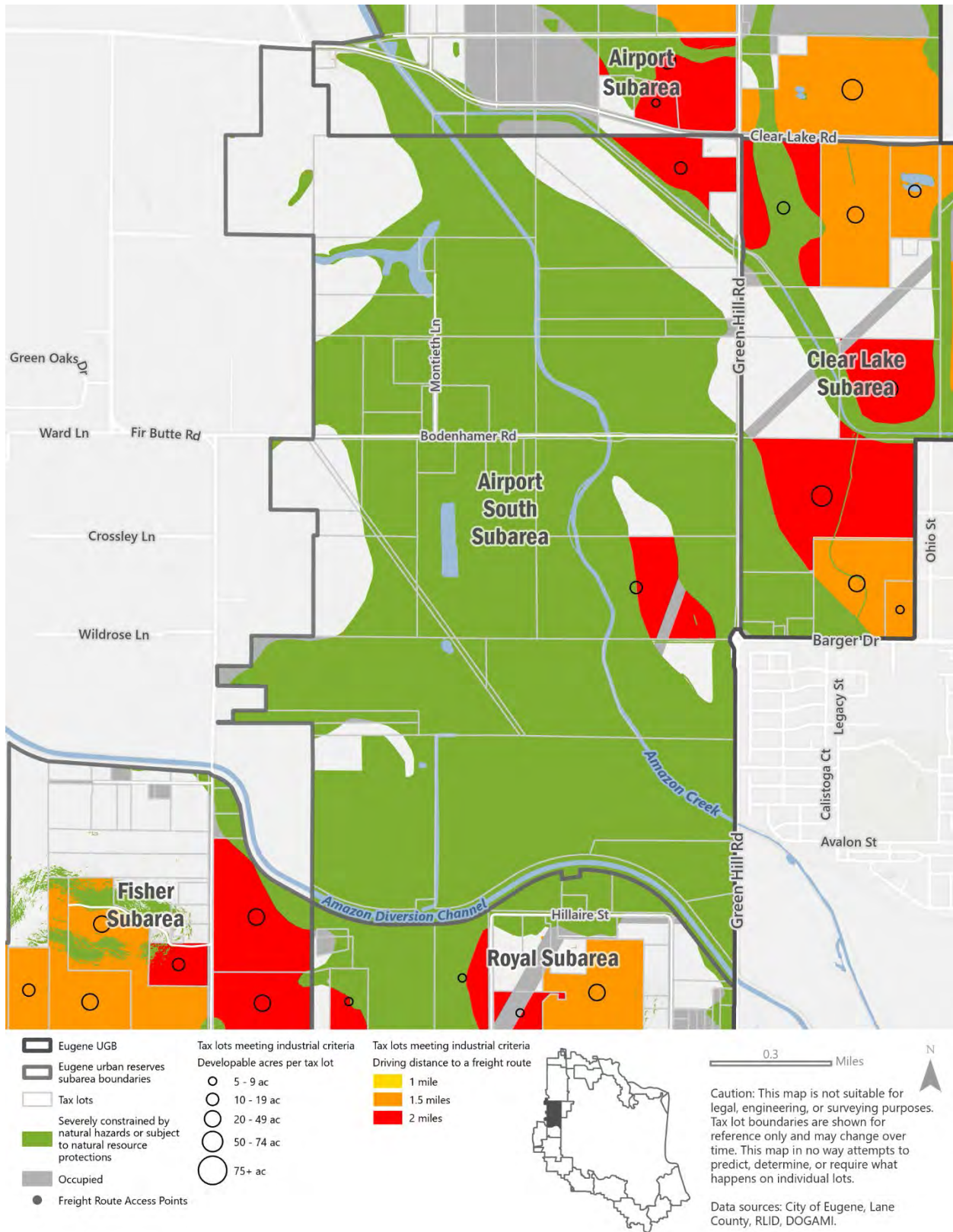
Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

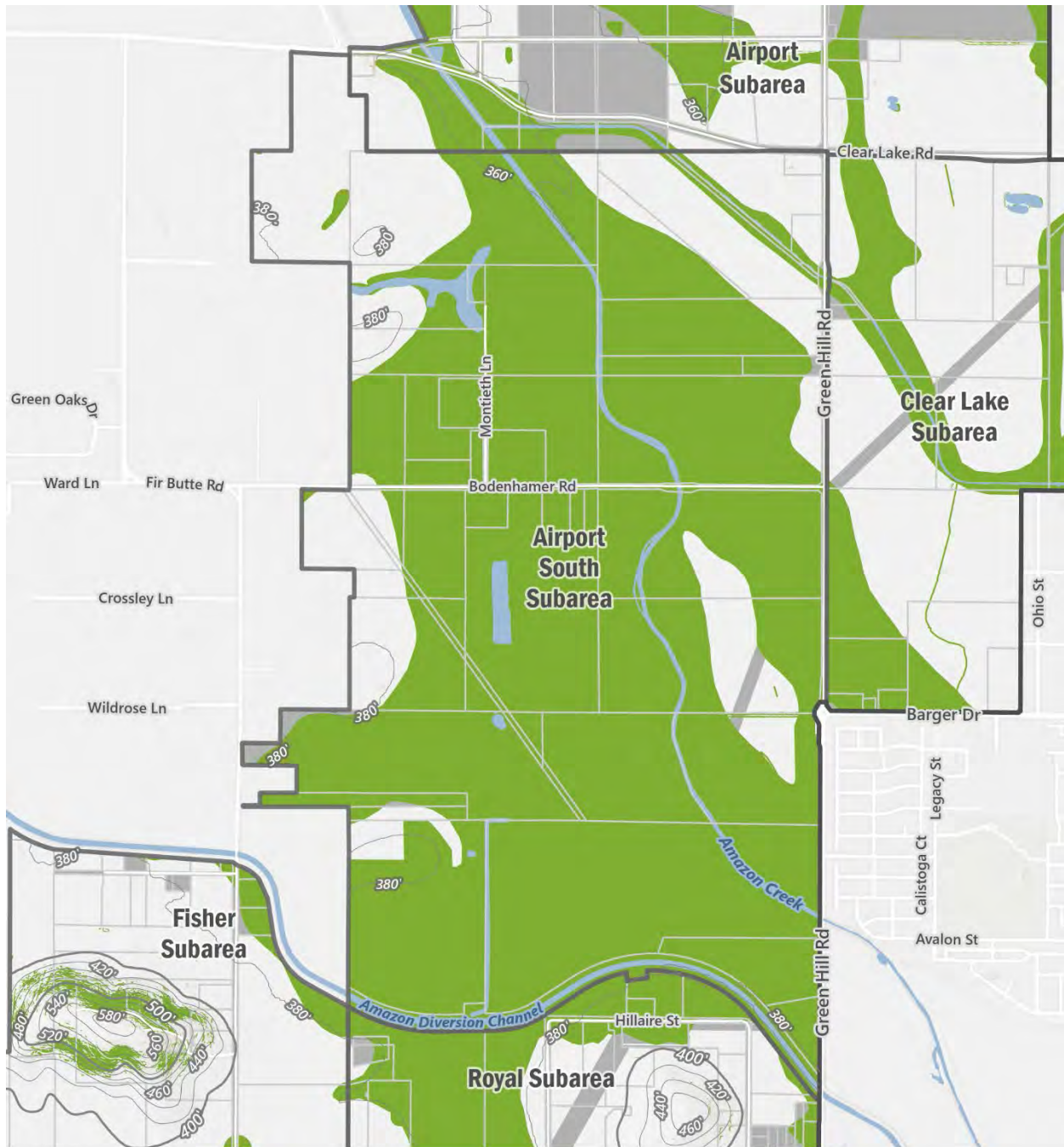
Map 9.5 Potential Residential Capacity, Airport South Subarea








Map 9.6 Potential Industrial Capacity, Airport South Subarea



Map 9.7 Contours and Hillshade, Airport South Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Tax lots
-  Severely constrained by natural hazards or subject to natural resource protections
-  Occupied



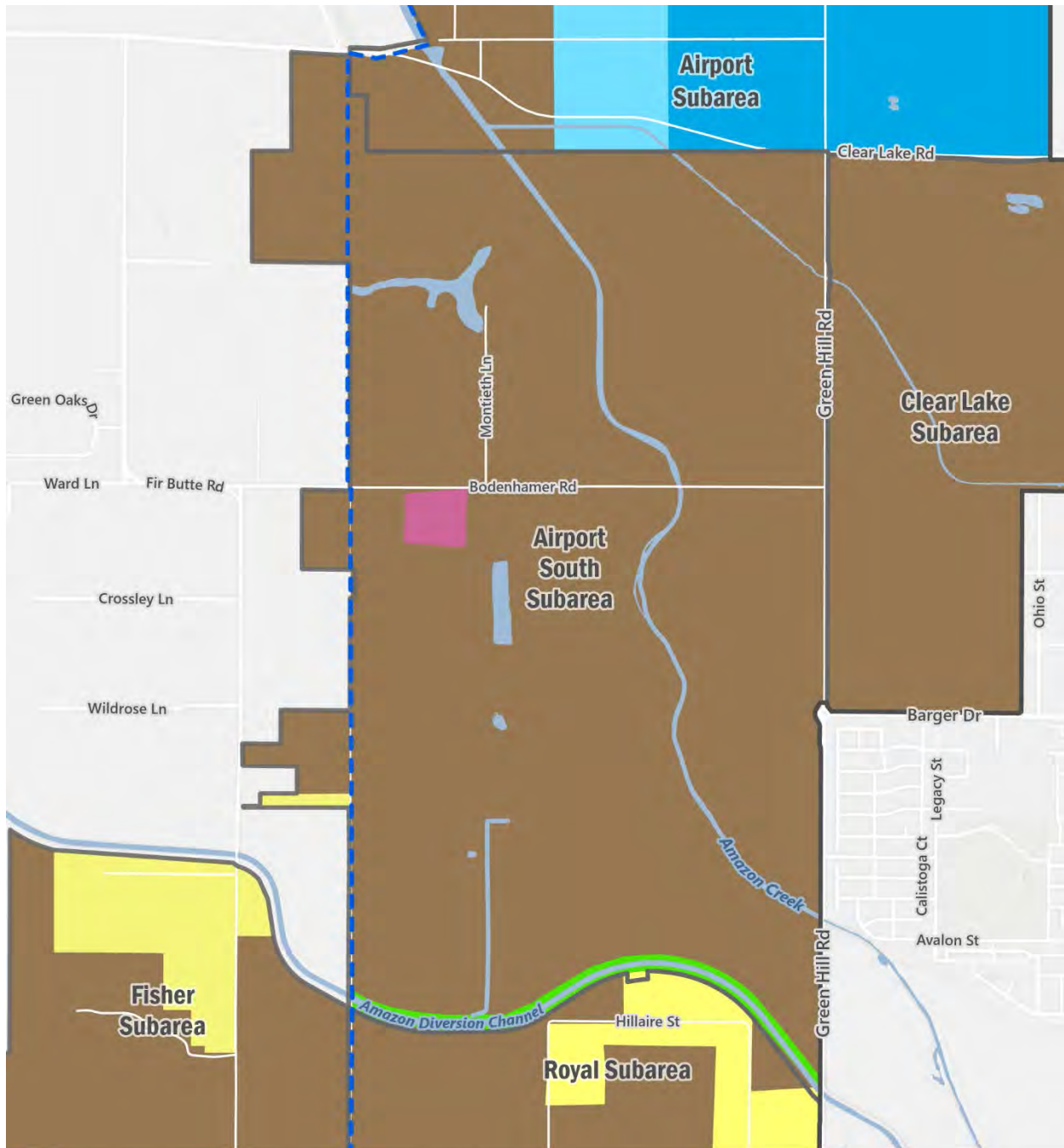
0.3 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 9.8 Plan Designations, Airport South Subarea



- | | | |
|---|----------------------------|------------------------|
| Metro plan boundary | Industrial | Agriculture |
| Eugene UGB | Marginal | Airport reserve |
| Eugene urban reserves subarea boundaries | Natural resource: mineral | Forest land |
| Eugene urban reserves subarea boundaries | Natural resource: wildlife | Government & education |
| Rural comprehensive plan designation: Agriculture | Non resource | Natural resource |
| Airport | Public facility | Parks and open space |
| Commercial | Residential | Rural commercial |
| Forest | | Rural industrial |
| | | Rural residential |
| | | Sand and gravel |



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

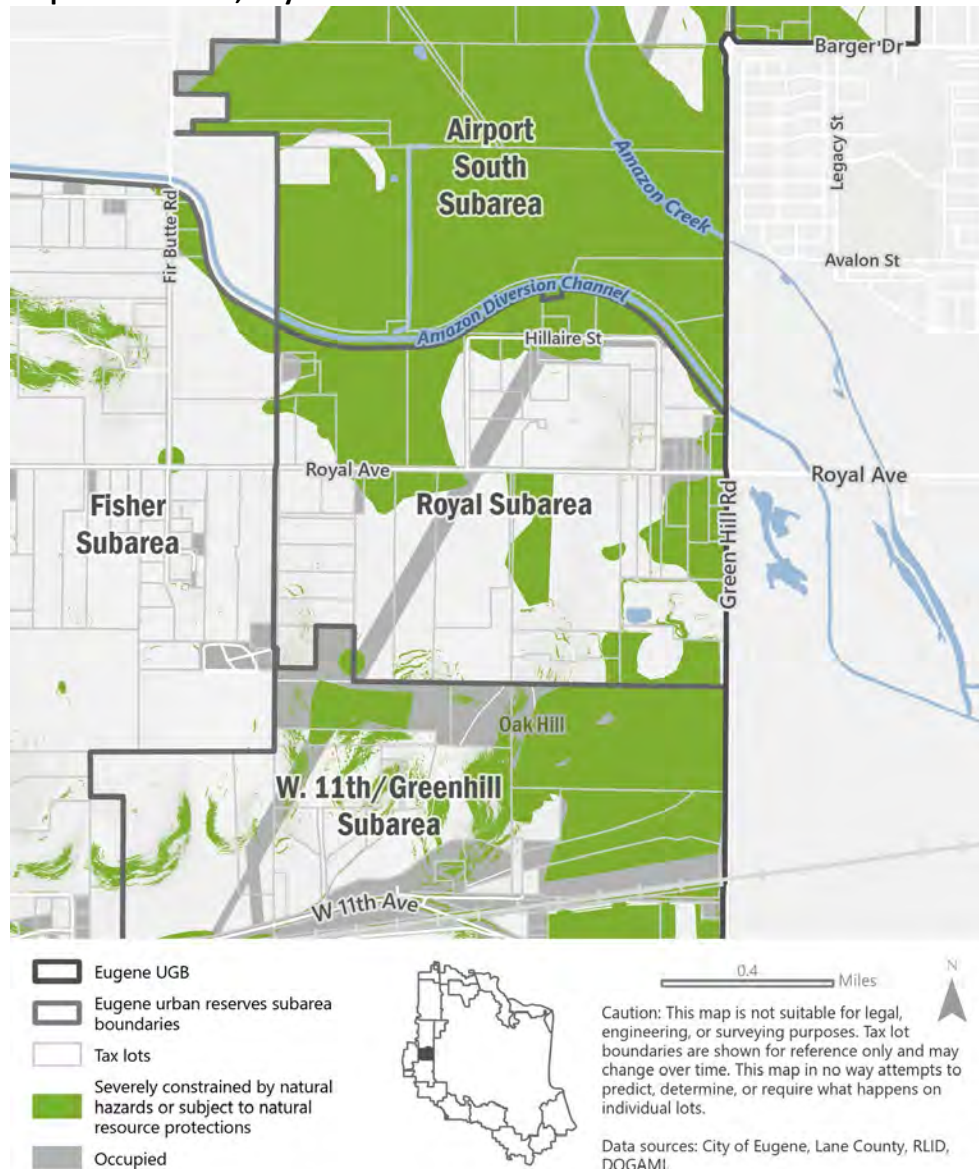
Data sources: City of Eugene, Lane County, RLID, DOGAMI.

10. Suitability Analysis – Royal

I. Background

- A. Location:** The land in the Royal subarea is located to the west of Eugene, adjacent to the UGB, and includes land on both sides of Royal Avenue. Green Hill Road demarcates the edge of the UGB and is the eastern boundary of land in this subarea. Oak Hill Cemetery Road is the western boundary. The land in the subarea is bounded by Amazon Diversion Channel to the north and the Bureau of Land Management’s Oak Hill property in the W. 11th/Greenhill subarea to the south. See **Map 10.1 Location**, below, and **Maps 10.2-10.8** for additional information relevant to the subarea analysis.

Map 10.1 Location, Royal Subarea



- B. Existing Land Uses:** The land in the Royal subarea encompasses 546 acres, of those 285 have the potential for future residential or employment development. The land in the subarea is flat with a few areas of mild slope. Land is designated primarily for agriculture with some rural residential and forest land, as shown on **Map 10.8, Plan Designations**. It appears that land in the subarea is used mostly for agriculture, including grass crops and pastureland, with some rural residential development. Residential development is located mostly along Royal Avenue and Hillaire Street. The Amazon Diversion Channel is just north of the subarea, and most of the farmland land to the south contains FEMA Special Flood Hazard Areas (or 100-year flood plain), as shown in **Map 10.1 Location**, in green. The Greenhill Humane Society is located in the southeast corner of land in the subarea along Green Hill Road, other businesses on land in the subarea include a blueberry farm, publishing company, and dog boarding facility.
- C. Barriers to Development:** Thirty two percent of the land within the subarea is classified as undevelopable land primarily due to the Goal 5 riparian corridor of the Amazon Diversion Channel, the surrounding Federal Emergency Management Agency (FEMA) Special Flood Hazard Areas (floodway and 100-year floodplain) and adopted Goal 5 wetlands. There are also very small areas of steep slopes (30% or greater) and high-risk landslide areas. Together, these areas are shown on the accompanying maps in green as lands that are “severely constrained by natural hazards or subject to natural resource protections.” The largest area of wetlands and floodplain are in the northwest portion of the subarea, between Royal Avenue and the Amazon Diversion Channel. Parcels adjacent to the UGB, within land in the subarea, contain some amount of floodplain or wetland. There is also land within the subarea, primarily along Royal Avenue between Hillaire Street and Greenhill Road, that is completely developed and categorized as occupied (shown on the accompanying maps in gray). A Bonneville Power Administration easement runs through the center of the land in the subarea. At the time of this analysis¹ there was a 5.3-acre lot of land in this subarea that was owned by the City of Eugene and categorized as occupied, however this has since been sold to a private owner². Another barrier to development is the significant amount of publicly owned land that abuts land in the subarea to the east and south, as described below.
- D. Surrounding Land Uses:** The land in this subarea is surrounded on three sides by natural resource and parkland. The entire southern boundary of land in the subarea abuts the Oak Hill property owned by the Bureau of Land Management (BLM), which includes both wetland and upland habitat and is located within land in the West 11th subarea. The adjacent land to the east within the UGB contains undeveloped parkland and wetlands, owned by City of Eugene and the BLM, with the exception of one smaller industrial site located northeast of the Royal Avenue and Green Hill Road intersection. There are connections to the Fern Ridge multiuse path, which extends all the way to downtown Eugene, with a trailhead at the corner of Green Hill Road and Royal Avenue. Adjacent land to the west is in the Fisher Road subarea and is primarily used for agriculture. The adjacent land to the north, in the Airport South subarea, is almost entirely natural resource and natural hazard land such as the Amazon Diversion Channel and flood hazard areas (see the Airport South Suitability Analysis).

¹ The analysis was based on a GIS land model that was run in 2018. More information on this can be found in the Urban Reserves Technical Memo (Findings Appendix 4).

² While this property has since been sold to a private owner it will still appear as occupied (shown as grey on the maps) as it was owned by a public entity at the time the land model was run.

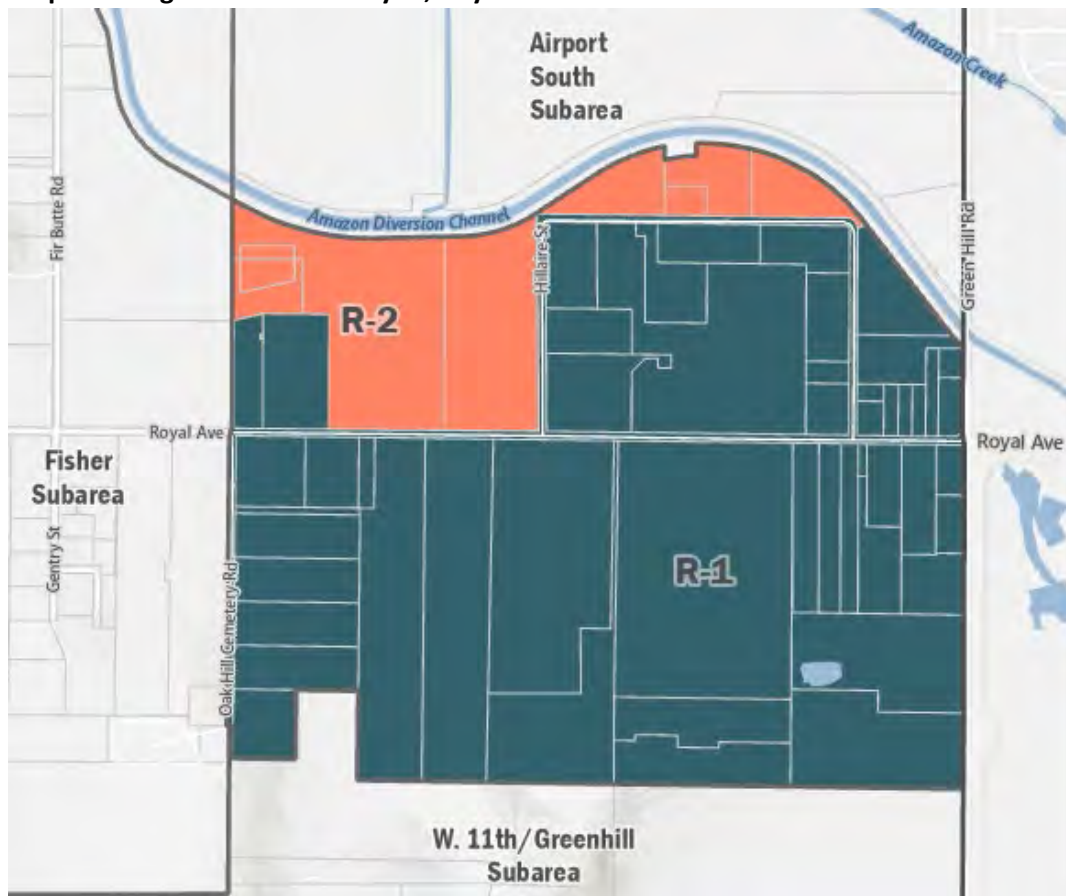
E. Organization of this Analysis: After an initial review, it became clear that there are different areas of land in the Royal subarea that share attributes relevant for Goal 14 Locational Factor analysis. These circumstances enable the land in the Royal subarea to be considered in terms of the two areas shown in the map below, and therefore they have been subdivided further, as follows:

R-1 is composed of 277 developable acres, which is the majority of developable land within the subarea. R-1 includes land that abuts the UGB and land generally south of Royal Avenue. It also includes land enclosed by Hillaire Street. R-1 appears to be used mainly used for agriculture with rural residential development located along Royal Avenue and Hillaire Street. Green Hill Humane society, a publishing company, a blueberry farm, and a dog boarding facility are all located within R-1. There is a BPA easement which runs through the subarea.

R-2 is located in the northwest of the Royal subarea and includes land that is adjacent to Amazon Diversion Channel. It only contains 8 developable acres as it is almost entirely covered by natural resource and natural hazard land which include adopted Goal 5 protected wetlands and floodplain. Most of the land in R-2 is used for agriculture with a small amount of scattered rural residential development.

These circumstances enable the land in the Royal subarea to be considered in terms of the two areas shown in **Map 10.2 Organization of Analysis**.

Map 10.2 Organization of Analysis, Royal Subarea



II. Identify land that would be suitable for urban reserves³

A. Locational Factor 1: Efficient accommodation of identified land needs

To what extent is there ...

- 1. *Developable land adjacent to or nearby (within .25 mile) of the UGB?*** In total, there are 130 developable acres (partially vacant or undeveloped) located in R-1 with a portion of their lot⁴ within .25 miles of the UGB, as shown on the **Map 10.4 Development Potential**. This is approximately 46 percent of the developable acres within the subarea. There are no developable acres in R-2 within .25 miles of the UGB. Land that is within .25 miles of the UGB is likely to more efficiently accommodate the identified land needs than land that is further away from the UGB because of street, utility and neighborhood connections to already urbanized land.
- 2. *Partially vacant developable land (that could be developed for the identified land needs)?*** The subarea contains 227 developable acres on lots classified as partially vacant and 58 developable acres on lots classified as undeveloped. The full subarea has capacity for 1,962 dwelling units. As shown on **Map 10.4 Development Potential**, most of the developable land is located on land within R-1 whereas land within R-2 only has a small amount of undeveloped land west of Hillaire Street.
- 3. *Developable land that is identified in the capacity analysis⁵ as potentially able to be urbanized with a mix of residential housing? How does this translate into potential dwelling units (per the capacity analysis)?*** Fifty two percent of the land in the subarea is identified as developable, with capacity for 1,962 dwelling units, or an average residential density of 6.88 dwelling units per developable acre (compared to 4.8 du/developable acre for the entire study area) as shown on **Map 10.5 Potential Residential Capacity**. Land in R-1 is appropriate for potential development of a mix of housing types due to its proximity to the UGB, serviceability, and good transportation access, making R-1 appropriate for potential development as a 20-minute neighborhood (where homes, jobs and services can be reached on foot within 20 minutes). Land in R-2 is less suitable for potential residential development due to the high amount and distribution of natural resource and natural hazard land (i.e., wetlands and floodplain).
- 4. *Developable land that is identified in the capacity analysis⁶ as potentially able to be urbanized with industrial land need? How does this translate into potential industrial sites (per***

³ Please refer to Section II C of this Study (Findings Appendix 2) for background on how the City is identifying land in the study area that would be “suitable,” the explanation of the prompts used for the Goal 14 Locational Factors, and specific terminology.

⁴ In the urban reserves study area, ‘lots’ are used for analysis purposes. See the *Eugene Urban Reserves Technical Memo*, Attachment X, for complete information.

⁵ For information on how residential development capacity was estimated for the Eugene urban reserves, see the *Eugene Urban Reserves Technical Memo*, (Findings Appendix 4).

⁶ For information on how industrial development capacity was estimated for the Eugene urban reserves, see the *Eugene Urban Reserves Technical Memo*, (Findings Appendix 4)

the capacity analysis)? As shown on **Map 10.6 Potential Industrial Capacity**, there are nine lots identified in the capacity analysis as potentially suitable for urbanization with industrial uses given their site characteristics. One lot is located on land in R-2 with the rest located on land in R-1. Three lots, all in close proximity to each other and located on either side of Royal Avenue in the center of land in the subarea, are most suitable for future industrial uses due to lot sizes ranging from 31 to 44 developable acres, and good transportation access. The two lots with the best transportation connections for industrial uses are adjacent to the UGB and within one-mile driving distance of a freight route, however, both have smaller lot sizes and natural hazard and natural resource constraints.

- 5. Topography, steep slopes or other “undevelopable”⁷ lands that would make efficient urbanization difficult?** The land in the Royal subarea is generally flat with only 1% (6 acres) of land having slopes of 30% or greater, as shown on **Map 10.7 Contours and Hillshade map**. Within land in R-1 there are some areas of elevation between Royal Avenue and Hillaire Street and also along the southern boundary of the subarea. Efficient urbanization of land in R-2 would be difficult due to the predominance of FEMA-mapped Flood Hazard Areas and adopted Goal 5 wetlands and riparian areas. The location and presence of wetlands and flood hazard areas on land in R-1 adjacent to the UGB provides some challenges to efficient urbanization, but overall good service connections along Royal Avenue mitigate these constraints.

Conclusion: *As described above, while land in R-1 is not without constraints, overall it could efficiently accommodate a mix of identified residential or industrial land needs due to high development capacity, proximity to the UGB, good transportation connections and its flat terrain. A portion of its eastern boundary contains natural resource and natural hazard land which could separate future development from existing development inside the UGB. Overall, land in R-1 is rated as positive in its ability to efficiently accommodate identified land needs.*

Land in R-2 could not efficiently accommodate identified land needs. Within R-2 there is little developable land and it is encumbered by natural hazards and natural resources which makes efficient urbanization unlikely. Therefore, land in R-2 is rated as negative in its ability to efficiently accommodate identified land needs.

Efficient accommodation of identified land needs:	Positive	Mixed	Negative
Land in R-1			
Land in R-2			

⁷ As described in section II B of the Eugene Urban Reserve Study (Findings Appendix 2), land was assigned no development capacity if it falls within one of the these “undevelopable” categories: severely constrained by natural hazards or is designated or zoned to protect natural resources; or not vacant or partially vacant (i.e. the land is already occupied).

B. Locational Factor 2: Orderly and economic provision of public facilities and services⁸

The information below addresses the feasibility of serving developable land in the Royal subarea with public facilities and services in an orderly and economical way. It considers the capacity of the current system to serve the area and the extent of new infrastructure that would be needed to serve the area if urbanized. It includes an analysis of **wastewater, water, transportation, transit, stormwater, and fire/emergency services** and, to a lesser extent, it includes the provision of **electricity, schools and parks.**⁹

Before the narrative description is a table showing the **generalized serviceability** of the subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff, and a **generalized cost estimate** to address the economics of serving the subject area with public facilities and services. It reflects preliminary high-level estimates for the major components of the individual systems. Cost information is provided on a \$ to \$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$) denoting the greatest cost. The scale used to evaluate each type of service is tailored to address the fact that some services are more expensive to provide than others. For example, a \$ for wastewater does not equate to the same dollar amount as a \$ for transportation. Cost estimates do not include future maintenance costs.

Royal Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Moderate	Moderate	Easy-Moderate	Moderate	Moderate	Easy-Moderate
Generalized cost estimate	\$\$\$	\$\$	-\$-\$\$\$	\$\$\$	\$\$\$	\$

1. **Wastewater:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. This is due to the need to construct a pump station and the sufficient capacity of the downstream system.

2. **Water:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$. The extension of water service to the Royal subarea is more difficult without the inclusion of land in the Fisher subarea, which would provide an opportunity to have a large looped roadway distribution system (Greenhill Rd/Royal Ave/Fisher Rd/Hwy 126). If only land in Royal were urbanized, a smaller loop roadway distribution system would be possible on Royal and Hilaire St. A single-feed system results in poor water quality and lower reliability to customers. Pressure could be an issue in areas with higher elevation. Most of the land in this subarea is below 500’ elevation, so pressure should be adequate and no new pumping stations are required.

⁸The definition of “public facilities and services,” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines, is: “[p]rojects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.”

⁹ The summarized information used in this section is based on the results of the *Urban Reserves Serviceability Analysis Report (Findings Appendix 3)*. In providing information for that report, service providers considered the serviceability of the subareas in their entirety; they generally did not differentiate between areas within a subarea.

3. **Fire:** The subarea is assigned an “easy-moderate” serviceability rating and the generalized cost estimate for improvements is \$-\$\$\$\$. This is because the existing street network and proximity to the nearest city fire stations would facilitate acceptable response times to this subarea. Fire protection is currently provided by Zumwalt Rural Fire Protection District, who contracts with Eugene-Springfield Fire Department for fire protection.
4. **Transportation:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. The generally flat topography makes this area well suited for multimodal transportation, but improvements such as sidewalks and bike lanes would need to be made to accommodate all users, particularly on Royal Ave. There is a planned project to improve Royal Avenue between Terry Street and Green Hill Road to urban standards, which would improve connectivity from the Royal subarea to downtown. Development of this area may exacerbate identified capacity constraints and congestion on W. 11th Avenue.
5. **Transit:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. This is because the subarea is easy to access given relatively flat topography and existing street connectivity although no service currently exists. EmX West is the closest route to this area. Expanding the bus system may be possible in over 20 years in with urbanization. The area could be served by some type of connector route, or by deviating an existing route, however, this may be challenging to do efficiently given its isolated location from other routes and areas of higher levels of density.
6. **Stormwater:** The subarea is assigned an “easy to moderate” serviceability rating and the generalized cost estimate for improvements is \$. This is because informal systems, like roadside ditches and swales, currently exist to convey runoff and this subarea is relatively close to a receiving waterway. Extending stormwater service could be easy as long as there is adequate capacity. Stormwater development standards would need to be met for pollution reduction, and potentially flow controls which could present moderate challenges since soils are likely to be less suitable for infiltration.
7. **Other (Parks, Schools, Electric):** This subarea does not contain any parks but has lots of park land surrounding it. Adjacent to the southern boundary in R-1, is the BLM-owned Oak Hill property, which has public access. The eastern boundary, immediately inside the UGB, is the 404-acre Meadowlark Prairie which is a natural area co-owned by the Bureau of Land Management and the City of Eugene. Adjacent to the northern boundary of the subarea is the publicly owned Amazon Diversion Channel with mowed, informal walking paths on the north and south banks. The southern bank of the Amazon Diversion Channel is identified on Rivers to Ridges¹⁰ maps as part of “proposed future regional trails and paths.” EWEB provides electric service to this subarea. The portion of this subarea south of Royal Avenue is in the Eugene 4J School District and the portion north of Royal Avenue is in the Bethel School District.

¹⁰ Rivers to Ridges is a multi-agency partnership dedicated to improving the quality of life for residents in the upper Willamette Valley by working together to protect and enhance the region’s land and water resources and their ecosystem functions and values; and to provide environmental education and compatible outdoor recreation opportunities. <https://www.eugene-or.gov/650/Rivers-to-Ridges-Partnership>

6. Is there undeveloped land within the UGB that would be helped in its development/serviceability if this area were included in urban reserves, or is there undeveloped land within the UGB that would negatively impact the orderly and economic provision of public facilities and services? There is a small portion of land north of Royal Avenue on Greenhill Road that may benefit from the Royal subarea urbanizing, however, the majority land adjacent to the subarea inside the UGB is almost entirely undeveloped as park land, and is not planned for development. Therefore, it is unlikely to benefit from services to the Royal subarea if it were included in urban reserves. Instead, the parcels within the UGB adjacent to R-1 that contain natural resource and natural hazard land make future urbanization more isolated from existing development within the UGB, potentially increasing the cost of extending services to this subarea.

Conclusion: While service providers analyzed the developable land in the subarea as a whole, in looking at the different characteristics of the land in R-1 and R-2, there are some differences in the provision of public facilities and services that stand out. Overall, due to the Royal subarea’s mostly flat terrain, fire and stormwater service extensions are rated as easy to moderate; while wastewater, water, transportation and transit are rated as moderate in their ability to orderly and economically provide services to the developable land in the subarea.

As the vast majority of developable land evaluated by service providers is located in **R-1**, land in R-1 is rated as mixed for its ability to be provided with public facilities and services in an orderly and economic manner.

The land with development capacity in **R-2** is not able to be served in an orderly and economic manner. This is because the developable land in R-2 (7.9 acres) is located mostly on northwestern edge of the subarea and encumbered primarily by flood hazard areas and wetlands. This creates significant difficulties for efficiently accommodating identified land needs, as noted in Locational Factor 1, and also for extending services to the developable land in R-2 in an orderly and economic manner.

Orderly and economic provision of public facilities and services:	Positive	Mixed	Negative
Land in R-1			
Land in R-2			

C. Locational Factor 3: Comparative environmental, energy, economic and social consequences

1. Environmental consequences:

a. Presence of natural resources: To what extent would urbanization of this area negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources? Within the subarea, land in R-2 and a small portion of land in R-1 is adjacent to the Amazon Diversion Channel, which is a Goal 5 riparian area, and contains adjacent Goal 5

wetlands. There are also adopted Goal 5 wetlands near Greenhill Road in the southeastern portion of R-1. Urbanization of land in the subarea would cause an increase in impervious surfaces, which could negatively impact the quantity and quality of stormwater runoff entering the Amazon Diversion Channel and wetlands. However, urban development would be subject to the City’s stormwater standards, which would mitigate those impacts. While there is no public open space within land in the subarea, plentiful open space is located nearby, adjacent to land in R-1. To the south is the Oak Hill property, to the east is Dragonfly Bend and to the southeast is Meadowlark Prairie, all of which provide wildlife habitat and open space connectivity.

- b. Presence of hazard areas (steep slope, landslides, floodplain): To what extent would urbanization of this area increase the potential risk of natural hazards, such as landslides, wildfire or flooding?** There is a small amount of flood hazard land in R-1, along Greenhill Rd. Land in R-2 contains significant FEMA-mapped flood hazard areas primarily along the Amazon Diversion Channel, as shown on the maps. These flood hazard areas are categorized as “undevelopable,” so urbanization is not assumed on them, limiting where potential development can occur and making efficient urbanization of land in R-2 especially challenging as it is almost entirely encumbered by flood hazard areas. Flood hazard areas increase the potential risk of flooding on adjacent properties. There are very small areas (6 acres) of steep slopes and high-risk landslide areas on land in R-1.
- c. Presence of nearby public open space: To what extent would nearby public open space benefit future residents of the area?** Most of the land immediately adjacent to land in the subarea is public parkland. Meadowlark Prairie, a 400-acre natural area, Dragonfly Bend, a 75-acre restored wetland site, the 190-acre Oak Hill property, and the Amazon Diversion Channel with mowed, informal walking paths on the north and south banks, are adjacent to land in R-1 and R-2. Within R-1 and R-2, wildlife habitat and connectivity would be negatively impacted by additional urbanization, but future residents would benefit from nearby access to open space.

Conclusion: *As described above, urbanization of land in R-1 could potentially increase the risk of natural hazards, such as flooding, and could increase environmental impacts to Goal 5 wetlands. At the same time, there is a significant amount of parkland around land in R-1, providing positive environmental consequences and benefitting area residents. Focusing urbanization on less sensitive areas with developable land in R-1 would mitigate these negative environmental consequences. Therefore, the environmental consequences of urbanizing the land in R-1 are mixed.*

Urbanizing the land in R-2 would have negative environmental consequences due to the large presence of natural hazard and natural resource land, as noted above. Urbanization of the surrounding developable land could cause significant environmental and natural hazard impacts as it could increase flood risk and negatively impact wetlands and riparian areas.

Environmental Consequences	Positive (Low)	Mixed (Medium)	Negative (High)
Land in R-1			
Land in R-2			

2. Energy Consequences (priority for lower energy usage):

- a. *To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt)?*** Land in R-1 is well-suited to co-locate a variety of housing and jobs, given several factors: easy connection to the Fern Ridge Bike Path, partially vacant parcels within .25 miles of the UGB, generally flat topography that makes it easier to build more densely and easier for bicycles and pedestrians, and access to Royal Avenue and Greenhill Road which connect to existing job and neighborhood centers within the UGB. The land in R-2 is poorly suited to co-locate a variety of housing types, jobs and services, given the small amount of land considered developable due to the extent of surrounding natural hazard and natural resource land. The primary challenge to developing a complete, connected neighborhood on land in R-1 is the “undevelopable” parkland and adopted Goal 5 wetlands immediately within the UGB, which precludes new development connecting to existing neighborhoods.
- b. *To what extent is the area easily accessible to other services or uses (e.g., neighborhood commercial, parks, schools)?*** There are very few neighborhood-serving commercial uses on land in the subarea or immediately adjacent to it. On land in R-1, there is a local blueberry farm, publishing company, and Greenhill Humane Society. Danebo Elementary School and Meadow View School are both approximately two miles from land in the subarea. As noted above, there is plentiful access to parks and open space, such as Dragonfly Bend, Meadowlark Prairie, Oak Hill property and the Amazon Diversion Channel. The land in R-2 lacks easy access to nearby services or uses as it is encumbered by natural resource and natural hazard land.
- c. *To what extent is the area adjacent to or nearby the UGB? (see Locational Factor 1, A.2)*** As already noted in Locational Factor 1, the eastern boundary of land in the Royal subarea is the UGB, and the subarea includes a moderate amount of developable land adjacent to or nearby (within .25 mile) the UGB, most of which is located within R-1, as shown on **Map 10.4 Development Potential**.
- d. *To what extent is there good multi-modal transportation access to this area? To what extent is the area easily accessible to job centers and downtown?*** There is good multi-modal transportation access to land in the subarea, primarily to the developable land in R-1. Royal Avenue provides easy access to goods and services within the UGB, as well as to the Randy Pape Beltline and other major corridors. Green Hill Road provides a connection to the Eugene Airport and West 11th Avenue, which is one of Eugene’s key transportation corridors and has transit service. Both Royal Avenue and Green Hill Road would need improvements, such as bike lanes and sidewalks, to accommodate all users safely. The Fern Ridge Path, a multi-use paved path, ends adjacent to this subarea near the intersection of Royal Avenue and Greenhill Road and provides convenient multimodal access to employment centers and existing neighborhoods; urbanization of this subarea may provide opportunities to extend Fern Ridge Path farther west, along the Amazon Diversion Channel. Land in R-2 lacks good transportation access, as it is encumbered by natural resources and natural hazards and predominantly undevelopable.

e. To what extent does future urbanization directly or indirectly generate energy or climate burdens (e.g., loss of open space, loss of growing lands, increased traffic, increased carbon emissions)? Future urbanization of land in the Royal subarea would directly and indirectly generate energy and climate burdens due primarily to the loss of growing lands, increased traffic, and increased carbon emissions. The significant presence of natural resource and natural hazard areas on land in R-2 would not allow for efficient urbanization of identified land needs (Locational Factor 1), so energy and climate consequences of development on this land would be negative (high). As noted above, land in R-1 has good potential for co-locating a variety of housing types, jobs and services and it also has good multimodal transportation access; both may reduce vehicle miles traveled by making future residents less dependent on automobile travel.

Conclusion: As described above, there may be some negative energy impacts due to the land in R-1’s separation from existing neighborhoods within the UGB, as well as the loss of growing lands from urbanization. However, due to land in R-1 being adjacent to the UGB, suitable for a mix of uses, and well connected to major transportation corridors including the Fern Ridge Path, overall urbanization of land in R-1 would have positive energy consequences.

Urbanization of land in R-2 would have negative energy consequences as efficient urbanization would be limited by the extent of natural resource and natural hazard areas. Land in R-2 is also more isolated from existing urbanization and may be more susceptible to the potential loss of growing lands.

Energy Consequences	Positive	Mixed	Negative
Land in R-1			
Land in R-2			

3. Economic Consequences:

a. In general, how much economic activity would urbanization of this area bring? Ex: Additional construction opportunities? As noted previously, land in the Royal subarea contains 285 acres of developable land, of which 154 acres also have potential industrial capacity. The majority of developable land is located within R-1. Land in R-2 only contains eight developable acres. Due to the predominance of natural hazards and natural resource lands, land in R-2 is assigned little development capacity and is unlikely to generate additional economic activity. Based on generalized capacity assumptions, the land in the subarea could accommodate 1,962 residential dwelling units almost entirely on land in R-1. As described above, while land in R-1 is not without constraints, overall it could efficiently accommodate a mix of identified residential or industrial land needs due to high development capacity, proximity to the UGB, good transportation connections and its flat terrain.

b. Is the area appropriate for future urbanization with a variety of identified uses (not just LDR), to support connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a) The land in R-1 is appropriate for future urbanization with a variety of identified uses and housing types, to support connected, integrated neighborhoods. Given the flat topography and good access to major transportation corridors, new housing in R-1 may

support future neighborhood commercial uses. There is also potential capacity for industrial uses on land in R-1. As noted previously, land in R-2 has only a small amount of developable land which would not be appropriate for a variety of uses as it is encumbered by natural resource and natural hazard land.

- c. Are there concerns about future urbanization causing a loss of economic activity for existing and nearby uses? (also see Locational Factor 4)** There is some concern that urbanization could cause a loss of economic activity for some of the farm uses and other rural-uses within the subarea. However, future residents could also provide more business for local agricultural and commercial operations if they remain. As land in R-2 is encumbered almost entirely by natural resource and natural hazard land there is little concern that existing agricultural operations on land within R-2 would be displaced. However, existing uses on land in R-1 and R-2 may be impacted by an increase in conflicts between current operations and urban-levels of residential development. Job and neighborhood centers within the UGB would benefit from urbanization of the subarea.

- d. How cost-efficient is service provision in this area? (also see Locational Factor 2)** As noted above, land in R-1 is rated as mixed for its ability to be provided with public facilities and services in an orderly and economic manner; that translates to moderately cost-efficient service provision. The land with development capacity in R-2 is not able to be served in an orderly and economic manner. This is because the developable land in R-2 (7.9 acres) is located mostly on northwestern edge of the subarea and encumbered primarily by flood hazard areas and wetlands. This creates significant difficulties for efficiently accommodating identified land needs, as noted in Locational Factor 1, and also for extending services to the developable land in R-2 in an orderly and economic manner.

Conclusion: *Based on the above information, urbanization of the land with development capacity in R-1 would have positive economic consequences. This is due to its ability to efficiently accommodate identified land needs (Locational Factor 1); appropriateness for a variety of identified uses to support connected, integrated neighborhoods; and moderately cost-efficient service provision.*

The land in R-2 is poorly suited for future urbanization given the small amount and inefficient distribution of developable land due to the extent of flood hazard areas and natural resource land. Therefore, there is a low likelihood of future economic activity from urbanization in R-2, and economic consequences are negative.

Economic Consequences	Positive	Mixed	Negative
Land in R-1			
Land in R-2			

4. Social Consequences: ¹¹

- a. Will urbanization negatively impact current residents?** As the land in the subarea urbanizes, increased traffic, noise, and emissions could negatively impact current residents. However, existing nearby residents could also benefit from urbanization, such as improvements to the roadway system and additional neighborhood-serving commercial uses. Some existing residents are employed and/or own existing businesses on land within R-1. As discussed in Economic Consequences some of those businesses could be negatively affected while some are more likely to be positively affected by urbanization. While industrial uses may create more employment opportunities, current residents could be impacted if industrial uses are located adjacent to existing homes. Since land in R-2 is almost entirely “undevelopable” due to the prevalence of natural resources and natural hazards, impacts are only from urbanization on adjacent land in R-1.
- b. How would urbanization worsen or improve service delivery to residents in this area (e.g., adequate fire response times, access to water, parks)? (also see Locational Factor 2)** Urbanization would improve service delivery to residents in the subarea, primarily on land in R-1, where there is more developable land. The Zumwalt Rural Fire Protection District already contracts with Eugene-Springfield Fire Department to provide fire service in this subarea. Urbanization would provide an opportunity for residents to access EWEB water service and City of Eugene wastewater service. Existing residents on land in R-1 and R-2 already benefit from several parks and natural areas surrounding the subarea, as well the Fern Ridge Multiuse Path, which could be extended in the future along the Amazon Diversion Channel. Additional neighborhood parks may be needed if the area urbanizes, in accordance with the City’s service standards, which would benefit all residents.
- c. Will urbanization exacerbate the impacts of potential natural hazards, such as flooding, fire, and landslides? (also see Locational Factor 3, Environmental Consequences C.1.b)** As already noted, urbanization of land in the subarea could exacerbate the impacts of flooding due to the extensive presence of flood hazard areas, especially on land in R-2, where most of the land is floodplain from Amazon Creek. There are also very small pockets of steep slopes and high-risk landslide areas on land in R-1. Urbanization of land in the subarea could exacerbate the impacts of flooding on land in R-2 due to the location and extent of these flood hazard areas.
- d. How might urbanization in this area impact vulnerable populations¹² and underserved groups currently living in the subarea? Could one segment of the population be impacted more than another (e.g., low-income households)?** Several large lots along Royal Avenue, primarily located

¹¹ The definition of “social consequences” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines is: “[t]he tangible and intangible effects upon people and their relationships with the community in which they live resulting from a particular action or decision.”

¹² Vulnerable populations are defined as populations that identify as a non-white race or ethnicity, younger or older populations, populations with a disability, and/or single-headed households. (from Livability Lane, 2013 Equity and Opportunity Assessment, Social and Demographic Characteristics Map.) The extent to which vulnerable populations and underserved groups currently live in the subarea is speculative.

on land in R-1 with one on land in R-2, have been identified as potentially suitable for industrial uses, as shown on **Map 10.6 Potential Industrial Capacity**. In general, vulnerable and underserved groups such as low income households may be disproportionately burdened by the risks associated with industrial uses if environmental risks are not properly mitigated. They may also be more at risk for displacement with any urbanization.

- e. Will urbanization in this area allow for connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a)** As noted previously the land in R-1 is appropriate for future urbanization with a variety of identified uses and housing types, which would support connected, integrated neighborhoods. This could also benefit existing and nearby residents who currently have few services in the area. As there is only a small amount of developable land in R-2, it would not be appropriate for a variety of uses.

Conclusion: *As described above, urbanization of land in R-1 will have mixed social consequences. While serviceability will improve, and all residents could benefit from the development of connected, integrated neighborhoods, vulnerable populations particularly could be negatively impacted by future industrial uses.*

Urbanization would have negative social consequences on the small amount of developable land in R-2 due to the extensive flood hazard areas which increase the risk of flooding. As most of the land in R-2 is “undevelopable” it would not benefit from improved serviceability. Current residents could be negatively impacted if industrial uses are located adjacent to existing homes. Since land in R-2 is almost entirely “undevelopable” due to the prevalence of natural resources and natural hazards, impacts are only from urbanization on adjacent land in R-1.

Social Consequences	Positive	Mixed	Negative
Land in R-1			
Land in R-2			

Locational Factor 3 Conclusion:

For the land in R-1, the analysis under Locational Factor 3 shows that urbanization would have mixed Environmental and Social consequences, and positive Energy and Economic consequences.

For the land in R-2, the analysis under Locational Factor 3 shows that urbanization would have negative Environmental, Energy, Economic and Social consequences.

D. Locational Factor 4: Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

- 1. How will urbanization impact agricultural and forest activities on farm and forest designated land within the subarea?** A majority of land in the subarea is designated for agriculture (as shown on **Map 10.8 Plan Designations**) and appears to be used for farming activities, primarily for hay, pastureland, and small-scale food production. If land in the subarea were to urbanize,

increased congestion on roadways could negatively impact these agricultural activities. Increased urbanization could also lead to odor, safety and other complaints from neighbors which could negatively impact the existing agricultural practices on land in R-1 and R-2. While there is concern that small scale agricultural activities may experience a loss in economic activity if surrounding properties develop, they may also benefit from urbanization by being able to serve future residents (such as blueberry farming). Due to natural resource and natural hazard areas on land in R-2, future urbanization in the area is unlikely, thereby limiting impacts. Land in R-1 also contains a small portion of forest designated land which currently appears to be used for rural residential development.

- 2. *Is urbanization compatible with existing agricultural and forest uses on farm and forest designated land nearby (outside of the subarea)?*** There is land outside the UGB around the subarea that is designated for agriculture and appears to be used for farm operations. However, the Amazon Diversion Channel provides a natural buffer from the farm practices to the north, and the BLM Oak Hill property provides a buffer to the south. Only agricultural land to the west could be impacted by increased congestion on roadways from urbanization or nuisance complaints from new neighbors. It appears there is no nearby forest-designated used for commercial forestry.

Conclusion: As described above, it appears that urbanization of the developable land in R-1 could have mixed compatibility with nearby agricultural activities occurring on farmland outside of the UGB both within and outside of the Royal subarea. While there is a small amount forest designated land in the southern portion of R-1 it is currently not used for active forestry operations. However, some negative impacts are lessened since land in R-1 is served by major roadways and some rural development and businesses already exist in the subarea. While there is a small portion of forest designated land in R-1 it is currently not being used for forest operations.

Future urbanization of the land in R-2 could be incompatible with surrounding farm activities and could displace some farm uses. However, there is little developable land in R-2 as it is almost entirely encumbered by natural hazard and natural resource land, lessening the potential for urbanization to occur and mitigating negative consequences. Therefore, compatibility of urbanization with nearby agricultural and forest activities occurring on farmland outside the UGB in R-2 overall are mixed.

Compatibility with nearby ag and forest activities	Positive	Mixed	Negative
Land in R-1			
Land in R-2			

III. Conclusion:

Considering and balancing all of the Goal 14 locational factors as analyzed above, there are some positive and some negative aspects of future urbanization of the Royal subarea as a whole, as detailed in the above analysis and shown in the summary tables on the following pages:

The land in **R-1** includes 277 acres of developable land. It is adjacent to the UGB, bordered by main roadways, and has capacity for future urbanization. In evaluating the land in **R-1**, the Locational Factor conclusions were mostly “positive” and “mixed” in their findings: Locational Factor 1, 3(b), and 3(c) was positive, Locational Factors 2, 3(a), 3(d), and 4 were mixed. The land in **R-1** contains larger lot sizes, is bordered by main roads, has capacity for future industrial urbanization, and with the exception of wastewater, is easy to moderate to serve. When balanced and considered together, the consequences of urbanization with respect to the land in **R-1** result in a determination that this land is suitable for urban reserves designation.

The land in **R-2** includes only 8 developable acres and has little capacity for future jobs or homes as it is significantly constrained by natural hazard and natural resource land. In evaluating the land in **R-2**,



the Locational Factor conclusions were mostly “negative” in their findings: only Locational Factor 4 was mixed and Locational Factors 1, 2, 3(a), 3(b), 3(c), and 3(d) were negative. Land in R-2 is not needed for the efficient urbanization, or orderly and economic provision of services, of the developable land in the R-1. Its remaining out of urban reserves will not affect the developable land nearby in R-1 or other adjacent subareas that are suitable for urbanization, and it will not affect how the land will be

used. Therefore, unlike the rest of the subarea in R-1, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in R-2 result in a determination that it is not suitable for urban reserves designation at this time.

Please see the summary tables on the following pages, and **Map 10.3 Suitability Results**.

Summary
Royal Subarea

Suitable for Urban Reserves Designation

Land in R-1

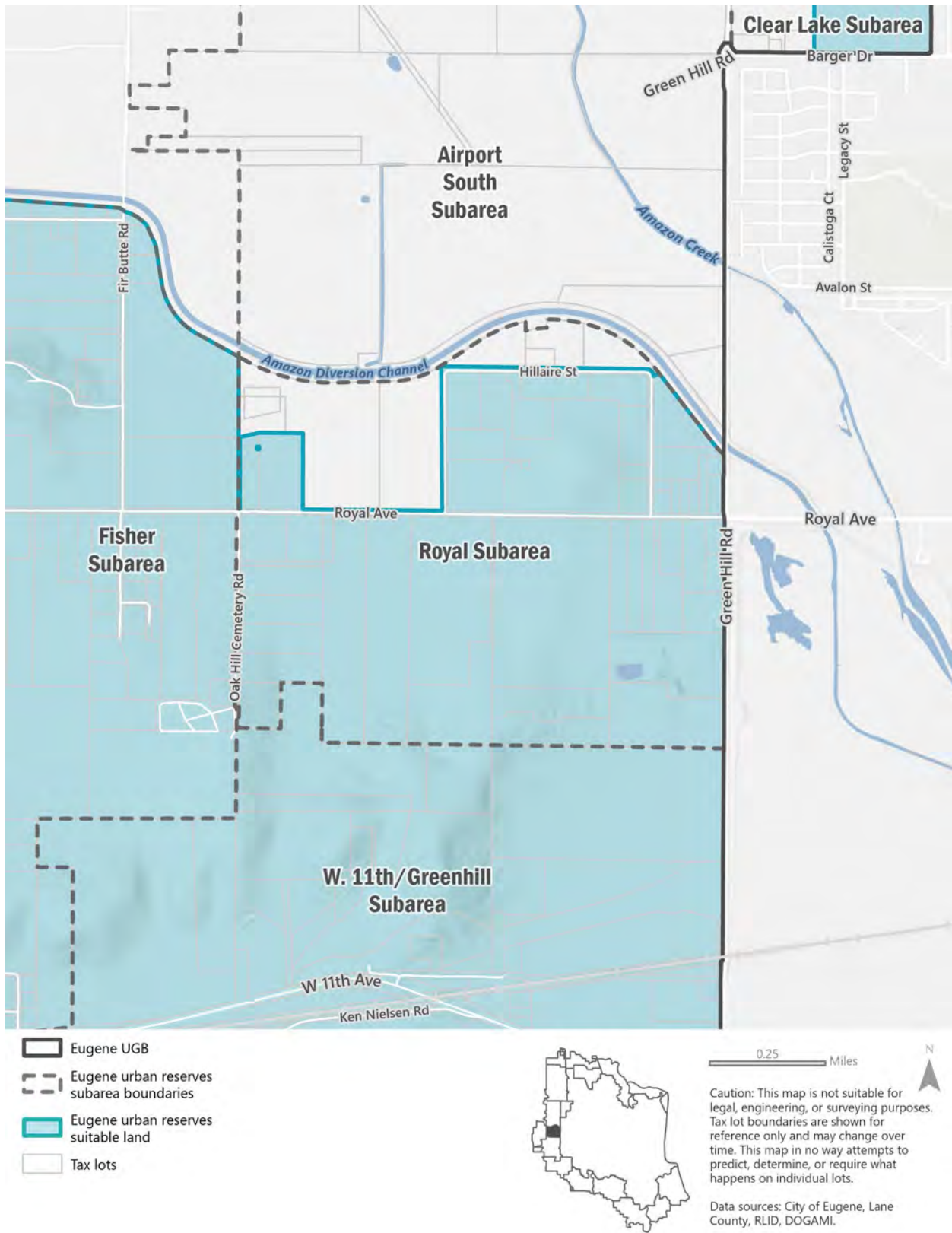
	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Not Suitable for Urban Reserves Designation

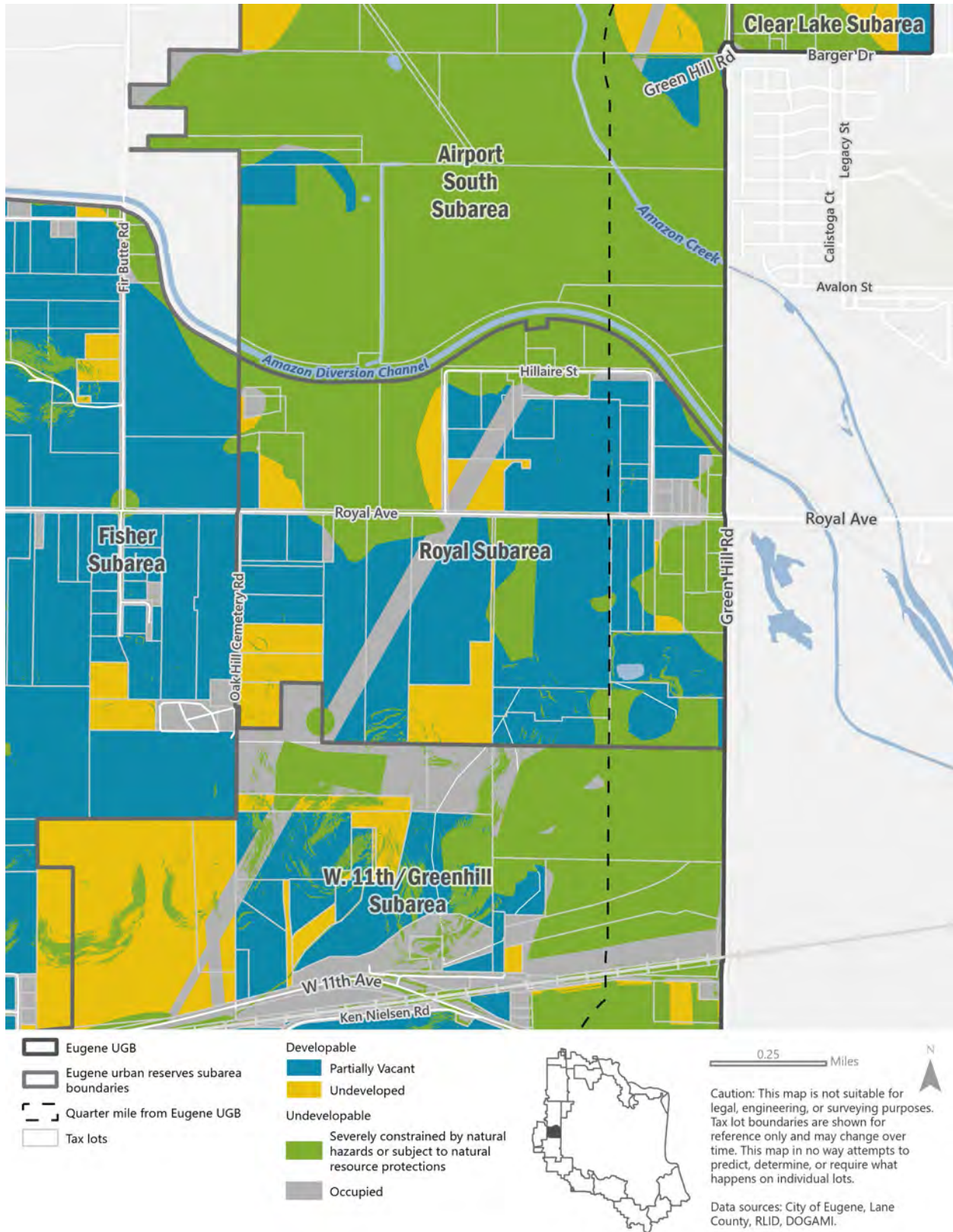
Land in R-2

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

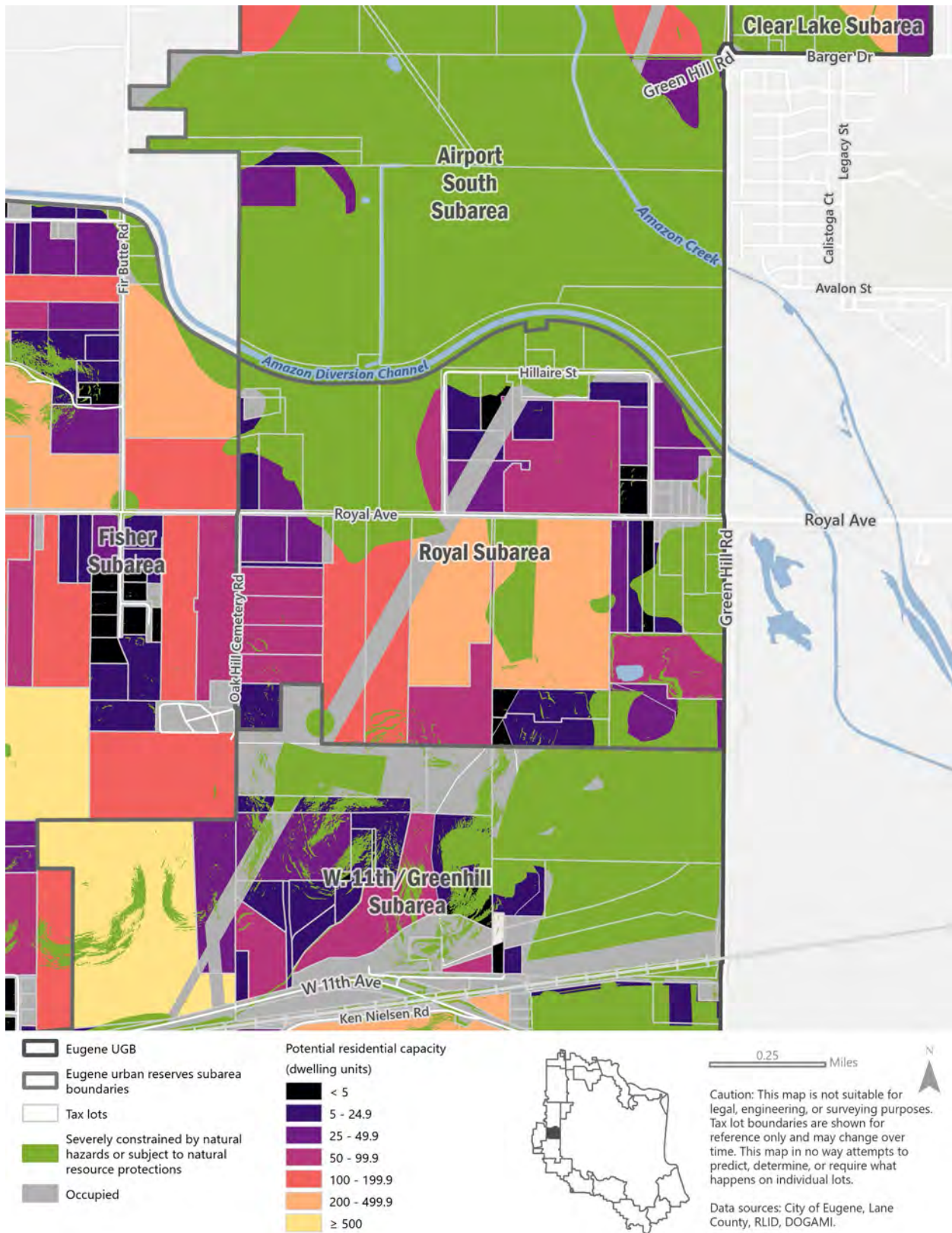
Map 10.3 Suitability Results, Royal Subarea



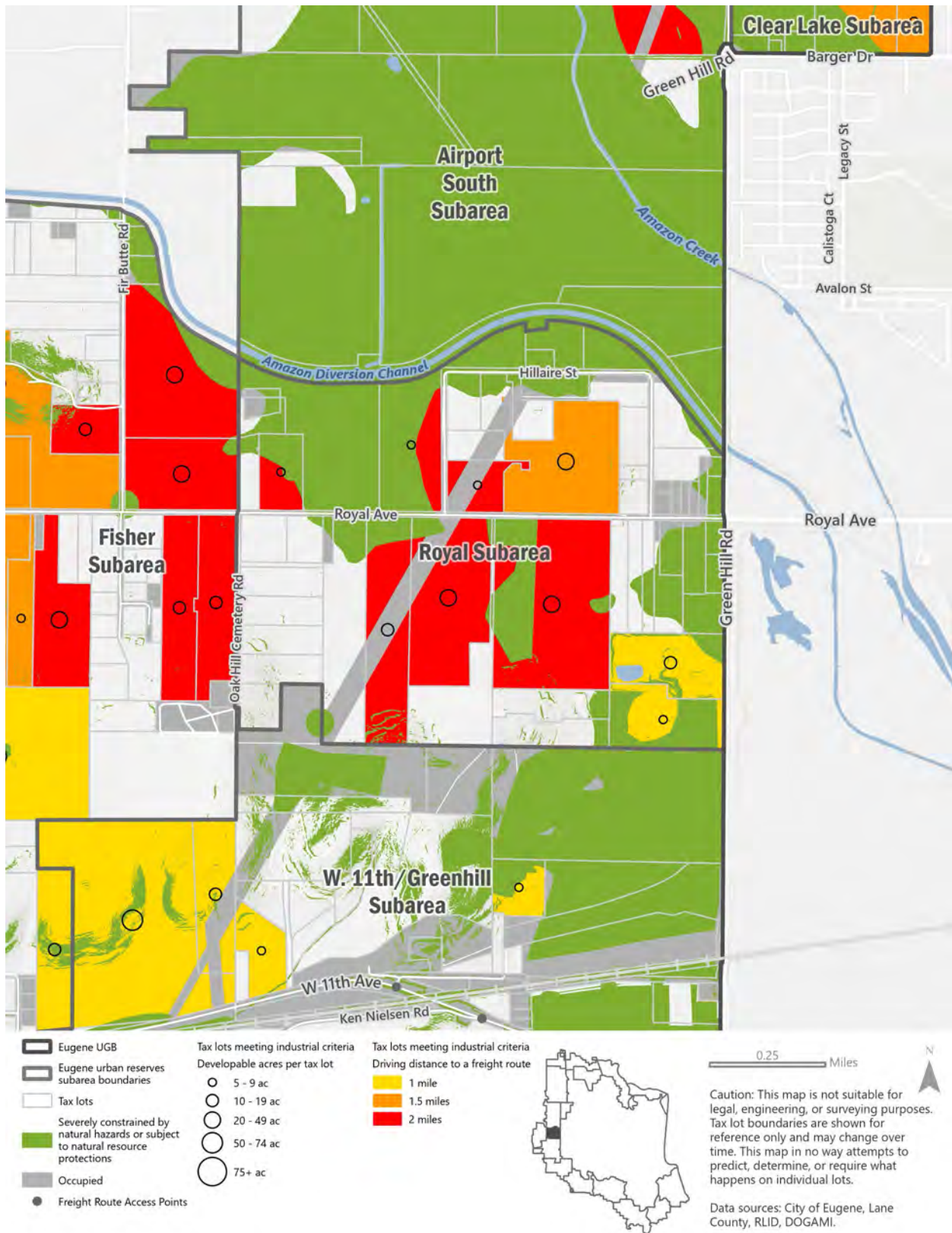
Map 10.4 Development Potential, Royal Subarea



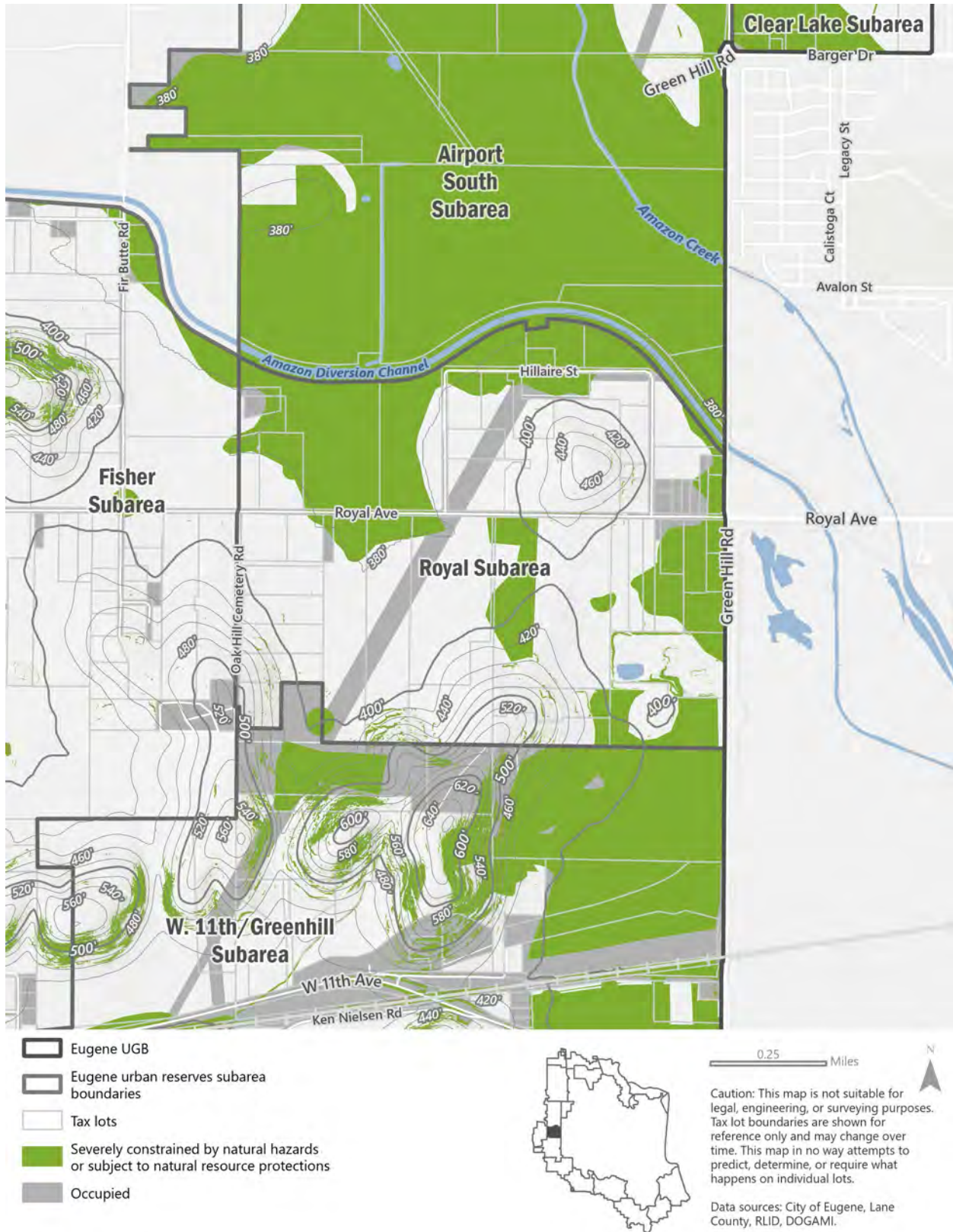
Map 10.5 Residential Capacity, Royal Subarea



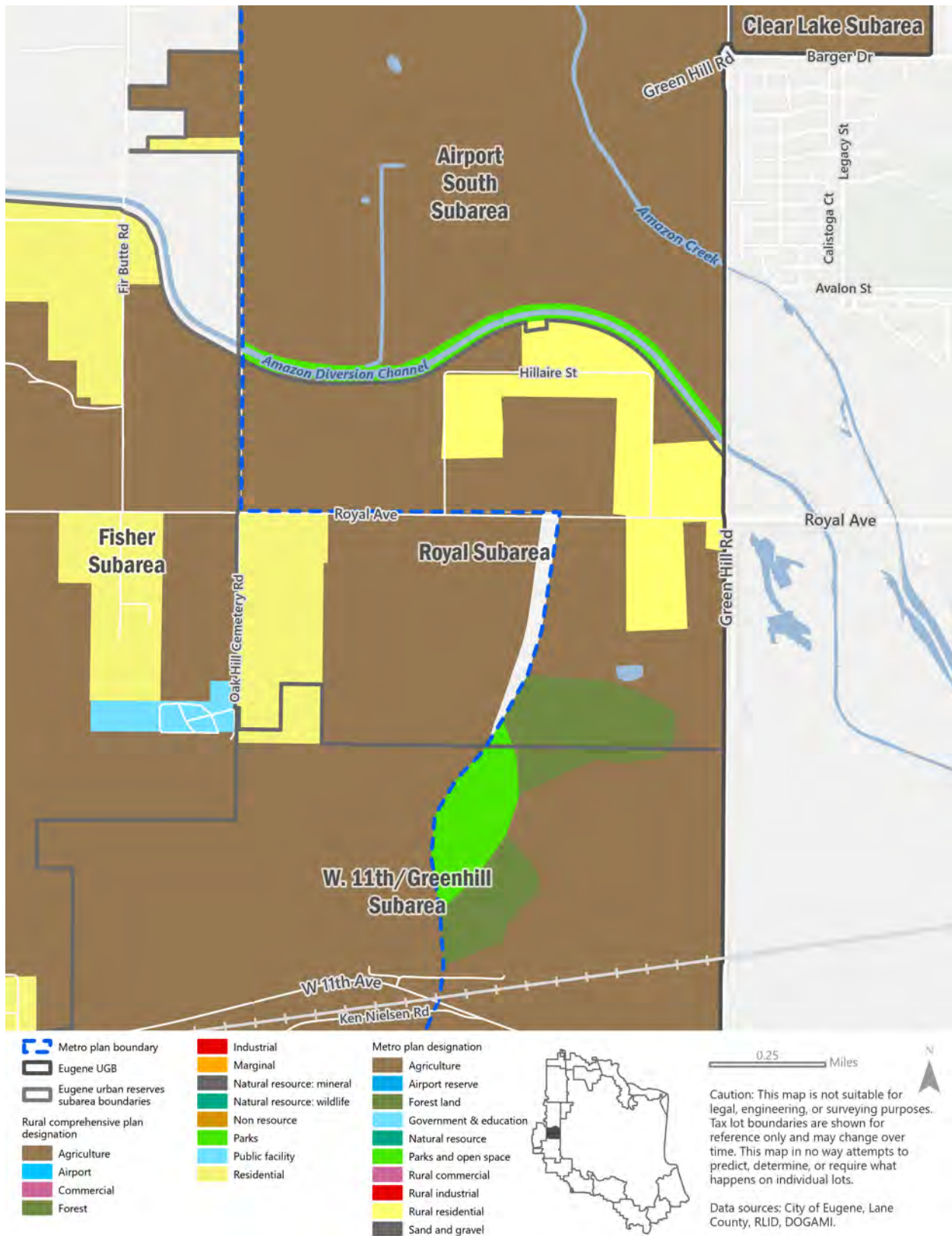
Map 10.6 Industrial Capacity, Royal Subarea



Map 10.7 Contours and Hillshade, Royal Subarea



Map 10.8 Plan Designation, Royal Subarea

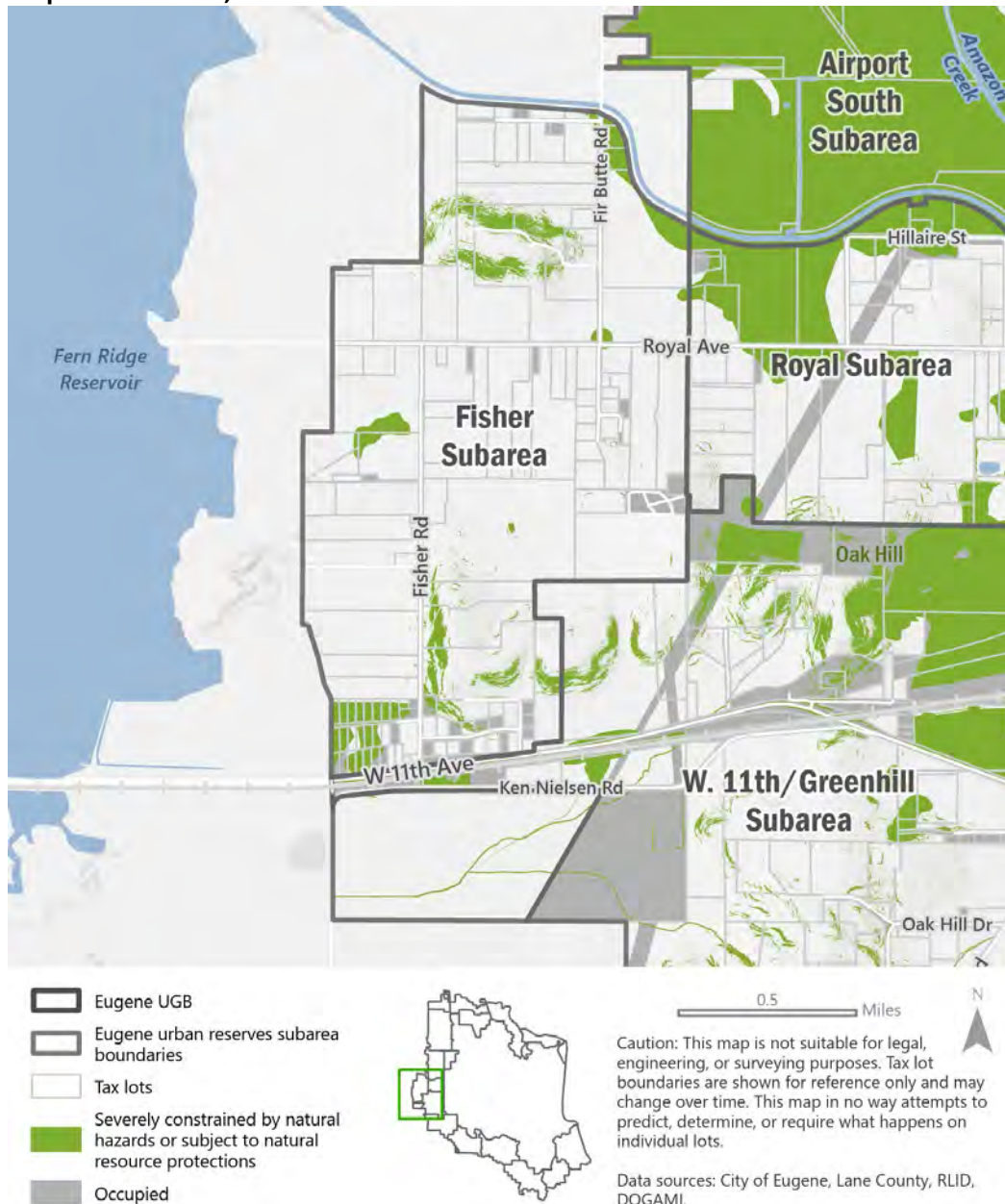


11. Suitability Analysis – Fisher

I. Background

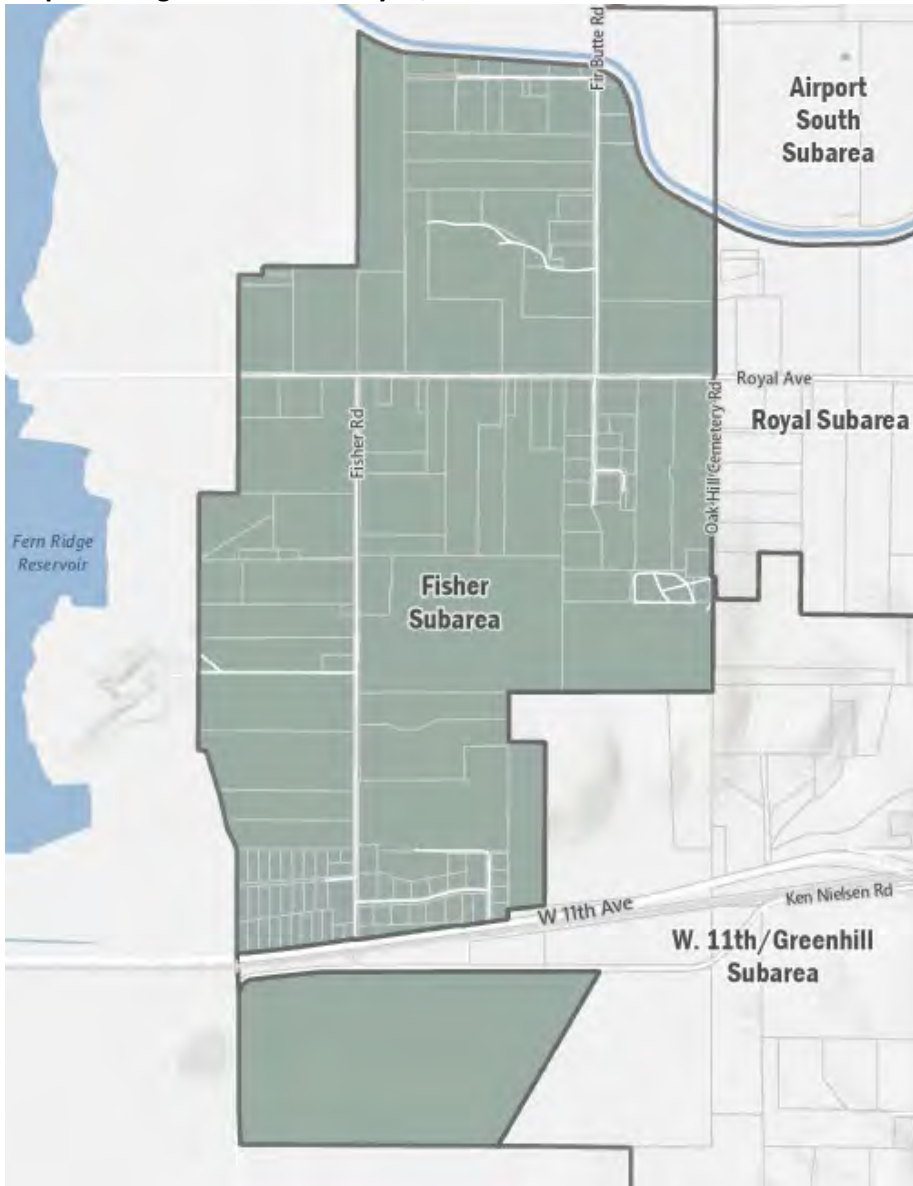
- A. Location:** The land in the Fisher subarea encompasses 1,145 acres and is located to the west of Eugene near the Fern Ridge Reservoir, including land north and south of West 11th Avenue/Highway 126. The northern boundary of the subarea is the Amazon Creek Diversion Channel, to the east is Oak Hill Cemetery Road, and to the south and west is the Fern Ridge Wildlife Area. See **Map 11.1 Location**, below, and **Maps 11.2-11.8** for additional information relevant to the subarea analysis.

Map 11.1 Location, Fisher Subarea



- B. Existing Land Uses:** The land in the Fisher subarea is primarily used for agriculture with some forest land and rural residential development. There are three residential areas; they are concentrated around Fir Butte Road and the southern terminus of Fisher Road. Businesses on the land in the subarea include an equestrian facility north of the intersection of Royal Avenue and Fisher Road and a few small farms along Fisher Road.
- C. Barriers to Development:** The northern boundary of the land in the subarea is the Amazon Creek Diversion Channel that is adjacent to land categorized as natural hazards in the floodplain. There are also two wetlands west of Fisher Road mapped on the National Wetland Inventory. Oak Hill Cemetery (9 acres) is at the east edge of the subarea, south of Royal Avenue. Other lands that are categorized as natural hazard are areas with steep slopes equal to or in excess of 30 percent and high-risk landslide areas. These areas of prohibitively steep slopes and high-risk landslide areas are generally located north of Royal Avenue and north of Highway 126, east of Fisher Road. There are two small buttes below 600 feet of elevation that the slopes are attributed to.
- D. Surrounding Land Uses:** The land to the north of the Amazon Creek Diversion Channel is used for agriculture and is mainly flat. The land in the West 11th/Greenhill and Royal subareas adjacent to the east also includes mostly land designated agricultural. South of Highway 126 is a large, undeveloped lot that is surrounded on all sides by occupied land owned by: the US Army Corps of Engineers (a substation), Oregon Department of Fish and Wildlife (the Fern Ridge Wildlife Area), and a Port of Coos Bay railroad line. West of the land in the subarea are some agricultural uses, the Fern Ridge Wildlife Area, and the Fern Ridge Reservoir. The Fern Ridge Reservoir is a large, publicly accessible recreation area. The residential, commercial, and light industrial centers on West 11th Avenue to the east, near Beltline, are approximately 3.5 miles from the land in this subarea. The edge of the UGB at Greenhill Road is approximately 2.5 miles away to the east of the eastern boundary of the subarea.
- E. Organization of this Analysis:** After an initial review, it became clear that within land in the Fisher subarea, while there are a variety of land types, the land shares attributes relevant for Goal 14 Locational Factor analysis, so there is not a need for it to be subdivided further, as shown on **Map 11.2 Organization of Analysis**.

Map 11.2 Organization of Analysis, Fisher Subarea



II. Identify land that would be suitable for urban reserves¹

A. Locational Factor 1: Efficient accommodation of identified land needs

To what extent is there ...

1. ***Developable land adjacent to or nearby (within .25 mile) of the UGB?*** As noted previously, the eastern boundary of the land in the Fisher subarea is 2.5 miles from the UGB (at Greenhill Road). As such, the land in the Fisher subarea includes no developable land adjacent to or nearby (within .25 mile) the UGB, as shown on **Map 11.4 Development Potential**. Land in other subareas (Royal Road, West 11th/Greenhill) are located between the UGB and land in the Fisher subarea.
2. ***Partially vacant developable land (that could be developed for the identified land needs)?*** The land in the Fisher subarea contains 922 developable acres: 674 acres located on lots classified as partially vacant, and 247 acres located on lots² classified as undeveloped. The distribution of these lots is shown on the **Map 11.4 Development Potential Map**.
3. ***Developable land that is identified in the capacity analysis³ as potentially able to be urbanized with a mix of residential housing? How does this translate into potential dwelling units (per the capacity analysis)?*** The developable land in the Fisher subarea has capacity for 6,795 dwelling units, or an average residential density of 7.4 dwelling units per developable acre (compared to 4.8 du/developable acre for the entire study area). As shown on **Map 11.5 Potential Residential Capacity**, there are 3 large lots with very high capacity (>500 dwelling units per developable lot) east of Fisher Road and south of Ken Nielsen Road, 5 lots with high capacity (200-499.9 dwelling units per lot) north of Royal Avenue and southwest of the intersection of Fisher Road and Royal Avenue, a mix of larger undeveloped lots with relatively high capacity (100-199 dwelling units per lot) interspersed throughout land in the subarea, and smaller partially vacant lots with enough developable land for less than 5 dwelling units per lot mainly in the southwest area of the subarea north of West 11th Avenue, north of the Oak Hill Cemetery, and along Fir Butte Road. The land in the subarea's large amount of developable acreage, small amount of land that is undevelopable (including land that is occupied, hazard areas, wetlands, floodplain, riparian areas, etc.), generally flat topography, access to transportation corridors Royal Avenue and West 11th Avenue/Highway 126 makes it appropriate for a mix of residential housing types and neighborhood-serving commercial uses.

¹ Please refer to Section II C of this Study for background on how the City is identifying land in the study area that would be "suitable," the explanation of the prompts used for the Goal 14 Locational Factors, and specific terminology.

² In the urban reserves study area, 'lots' are used for analysis purposes. See the Eugene Urban Reserves Technical Memo, (Findings Appendix 4), for complete information.

³ For information on how industrial capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

4. ***Developable land that is identified in the capacity analysis⁴ as potentially able to be urbanized with industrial land need? How does this translate into potential industrial sites (per the capacity analysis)?*** As shown on **Map 11.6 Potential Industrial Capacity**, there are 634 developable acres identified as potentially suitable for urbanization with industrial land need, due to their relatively flat topography, large size, and convenient access to freight routes. However, the lots adjacent to existing rural residential development along the southern terminus of Fisher Road and along Fir Butte Road would not likely be suitable for industrial development due to increased noise and traffic. The lot with the largest industrial capacity is the approximately 150-acre vacant lot south of Highway 126 and Ken Nielsen Road.

5. ***Topography, steep slopes or other “undevelopable”⁵ lands that would make efficient urbanization difficult?*** “Undevelopable” lands are shown as gray and green on all of the analysis maps. As shown primarily on **Map 11.4 Development Potential**, and **Map 11.7 Contours and Hillshade**, land in the Fisher subarea generally has mildly sloped topography but contains scattered areas with steep slopes of 30 percent or greater, particularly north of Royal Avenue and north of West 11th Avenue/Highway 126. The two buttes that contain steep slopes and high-risk landslide areas are relatively small and the land around them has development capacity and may still be able to urbanize efficiently. These steep slopes account for 37 acres, or 3% of the subarea. The large lot south of Ken Nielsen Road is categorized as vacant and could be appropriate for urbanization with a variety of uses. It is separated from West 11th Avenue/Highway 126 by the railroad line and is surrounded by public land occupied by ODOT and the Port of Coos Bay Railroad.

Conclusion: As described above, the ability of the land in the Fisher subarea to efficiently accommodate identified land needs is positive. This is due to a variety of factors including: a large amount of developable land throughout the subarea, capacity for both residential and industrial development, access to adjacent West 11th/Greenhill and Royal subareas and, despite containing no land within .25 miles of the UGB, access to transportation routes West 11th Avenue/Highway 126 and Royal Avenue, and a small amount of undevelopable land including two areas of steep topography.

Efficient accommodation of identified land needs:	Positive	Mixed	Negative
Land in the Fisher subarea			

⁴ For information on how industrial capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

⁵ As described in section II B., land was assigned no development capacity if it falls within one of the these “undevelopable” categories: severely constrained by natural hazards or is designated or zoned to protect natural resources; or not vacant or partially vacant (i.e. the land is already occupied).

B. Locational Factor 2: Orderly and economic provision of public facilities and services⁶

The information below addresses the feasibility of serving the developable land in the Fisher subarea with public facilities and services in an orderly and economical way. It considers the capacity of the current system to serve the area and the extent of new infrastructure that would be needed to serve the area if urbanized. It includes an analysis of **wastewater, water, transportation, transit, stormwater, and fire/emergency services** and also, to a lesser extent, it includes the provision of **electricity, schools and parks.**⁷

Before the narrative description is a table showing the **generalized serviceability** of the subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff, and a **generalized cost estimate** to address the economics of serving the subject area with public facilities and services. It reflects preliminary high-level estimates for the major components of the individual systems. Cost information is provided on a \$ to \$\$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$\$) denoting the greatest cost. The scale used to evaluate each type of service is tailored to address the fact that some services are more expensive to provide than others. For example, a \$ for wastewater does not equate to the same dollar amount as a \$ for transportation. Cost estimates do not include future maintenance costs.

Fisher Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Moderate	Moderate	Easy-Moderate	Moderate	Moderate	Moderate
Generalized cost estimate	\$\$\$	\$\$	\$-\$\$\$	\$\$\$	\$\$\$	\$\$

1. **Wastewater:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. The downstream system has enough capacity to serve this subarea if it developed; however, a new pump station would need to be built for this subarea or the pump station anticipated in the W. 11th/Greenhill subarea would need to be upsized.
2. **Water:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$. The extension of water service to this subarea provides an opportunity to have a large looped distribution system extending from the Royal and West 11th/Greenhill subareas (Greenhill Rd/Royal Ave/Fisher Rd/Hwy 126). This would assume land in the Royal and West 11th/Greenhill subareas would urbanize first. Most of the land in this subarea is below 500’ elevation, so pressure will be adequate and no new pumping stations are required.

⁶The definition of “public facilities and services,” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines, is: “[p]rojects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.”

⁷ The summarized information used in this section is based on the results of the *Urban Reserves Serviceability Analysis Report* (Findings Appendix 3). Service providers analyzed subareas in their entirety; they generally did not differentiate between areas within a subarea.

3. **Fire:** The subarea is assigned a “easy to moderate” serviceability rating and the generalized cost estimate for improvements is \$-\$\$\$\$. The existing street network and proximity to city fire stations means response times would be acceptable, so a new fire station would not need to be built.
4. **Transportation:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. This is due to the flat topography and existing street connectivity, which increase access to this subarea. The proximity to the Fern Ridge Path and a possible extension along the Amazon Creek Diversion Channel further improves the potential for good multimodal transportation opportunities.
5. **Transit:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. This is due to the flat topography and existing street connectivity, which increase access to this subarea. EmX West is the closest route to this area. Deviating the Bus Rapid Transit system is not feasible at this time but may be possible in over 20 years if development continues to push out past the transit line. The area could be served by some type of connector route, or through deviating an existing route, however, this would be challenging to do efficiently given isolated location from other routes and areas of higher levels of density.
6. **Stormwater:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$. Drainage from this area would be to Amazon Creek. Given that the subarea is relatively close to the receiving waterway, extending stormwater service could be easy as long as there is adequate capacity. The existing stormwater system, composed of roadside ditches, would need to be evaluated for capacity.
7. **Other (Parks, Schools, Electric):** There are no parks in this area. The nearest natural areas are Fern Ridge Wildlife Area and Fern Ridge Reservoir. EWEB provides electric service to a portion of this area. The subarea is within the 4J School District.
8. ***Is there undeveloped land within the UGB that would be helped in its development/serviceability if this area were included in urban reserves, or is there undeveloped land within the UGB that would negatively impact the orderly and economic provision of public facilities and services?*** The orderly and economic provision of public facilities and services on land in this subarea is not impacted by consideration of this question. No part of the Fisher Road subarea is adjacent to the UGB and therefore land in the UGB will likely not be impacted if this area were included in urban reserves. However, the Fisher Road subarea would be dependent on the adjacent subarea to the east, the West 11th/Greenhill Road subarea, being included in Urban Reserves, and both that land and the land within the UGB urbanizing first.

Conclusion: *As described above, public facilities and services may be provided in an orderly and economic manner to this subarea. The land in the Fisher subarea is ranked as easy to moderate to serve due to flat terrain and an easily extended street network. Therefore, the land in the Fisher subarea is positive in its ability to be served in an orderly and economic manner. However, land in the Fisher subarea would be dependent on the adjacent land in the subarea to the east, the West*

11th/Greenhill subarea, being included in Urban Reserves, and both that land and the land within the UGB urbanizing first.

Orderly and economic provision of public facilities and services:	Positive	Mixed	Negative
Land in the Fisher subarea			

C. Locational Factor 3: Comparative environmental, energy, economic and social consequences

1. Environmental consequences:

- a. *Presence of natural resources: To what extent would urbanization of this area negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources?*** There could be negative environmental consequences of urbanization on the relatively small amount of adopted Goal 5 wetlands. Future development would increase impervious surfaces such as roofs and pavement and could increase stormwater runoff and potential pollutants in waterways. However, if urbanized, development would be subject to the City’s stormwater standards, which would mitigate those impacts. Both wetlands and flood hazard areas are categorized as land with natural hazards and natural resources, so urbanization is not assumed on either. However, adjacent development could negatively impact these areas and make efficient urbanization more challenging. However, urbanization of the subarea would likely include decommissioning septic systems near Fern Ridge Reservoir, which will help to improve the future groundwater quality on land in the subarea.
- b. *Presence of hazard areas (steep slope, landslides, floodplain): To what extent would urbanization of this area increase the potential risk of natural hazards, such as landslides, wildfire or flooding?*** As already noted, there are FEMA-mapped flood hazard areas at the northern boundary of the land in the subarea along the Amazon Diversion Channel and relatively small wetlands within the land in the subarea west of Fisher Road. The presence of flood hazard areas could increase the risk of flooding on adjacent urbanization. Future development would increase impervious surfaces such as roofs and pavement and increase the stormwater runoff and potential pollutants in waterways. There are some shallow DOGAMI landslide risk areas present on land in the Fisher subarea, and these are co-located with a few areas with greater than or equal to 30 percent slope classification. The slopes of 30 percent or greater are categorized as undevelopable. There is only one small, mapped flood hazard area along the Amazon Creek Diversion Channel. As these areas are small, and development capacity is not assumed on land classified as natural hazards, there is no risk of natural hazards that would impact potential future urbanization.

- c. Presence of nearby public open space: To what extent would nearby public open space benefit future residents of the area?** While there is no public open space within land in the Fisher subarea, there is a significant amount of publicly accessible open space near land in the subarea. The Fern Ridge Reservoir is located west of land in the subarea and the 5,000-acre Fern Ridge Wildlife Area, owned by Oregon Department of Fish and Wildlife, is immediately to the west and south.

Conclusion: As described above, there are relatively small amounts of areas of steep slopes, high-risk landslide areas, wetlands, and flood hazard areas running through land in the Fisher subarea. While no development capacity is assumed on land classified as natural hazards and natural resources lands, adjacent urbanization could have a negative impact, however that impact would be minimal. Therefore, environmental consequences of urbanization of land in the Fisher subarea overall are positive.

Environmental Consequences:	Positive (Low)	Mixed (Medium)	Negative (High)
Land in the Fisher subarea			

2. Energy Consequences (priority for lower energy usage):

- a. To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt)?** The land in the Fisher subarea is well-situated to co-locate a variety of housing types due to several factors: large undeveloped and partially vacant lots with high development capacity, generally flat topography that makes it easier to build more densely and easier for bicycles and pedestrians, easy access to major transportation corridors such as Highway 126 which connect to existing job and neighborhood centers within the UGB. It is also suitable for a mix of jobs and neighborhood-serving commercial due to its flat topography, access to transportation corridors (West 11th Avenue/Highway 126), and, due to its flat topography, access to transportation corridors (West 11th Avenue/Highway 126), and high development capacity. This land in the Fisher subarea is walkable and has good potential as a 20-minute neighborhood (where homes, jobs and services can be reached on foot within 20 minutes), limiting the need for vehicle trips and having positive energy impacts.
- b. To what extent is the area easily accessible to other services or uses (e.g., neighborhood commercial, parks, schools)?** While there are no neighborhood-serving commercial uses in the subarea, there are several large employment centers nearby within the UGB. Within land in the subarea there is a koi fish retailer, horse farm, and a few small farms. Neighborhood-serving commercial would benefit residents both inside and outside of the UGB. Kennedy Middle School and Danebo Elementary School are the closest schools to land in this subarea, but both are several miles away within the UGB. While there are no parks within land in the subarea, there is the Fern Ridge Wildlife Refuge and Fern Ridge Reservoir to the west.

- c. **To what extent is the area adjacent to or nearby the UGB? (see Locational Factor 1, A.2)** As already noted in Locational Factor 1, land in the Fisher subarea contains no land adjacent to or nearby the UGB, as shown on **Map 11.4 Development Potential**.

- d. **To what extent is there good multi-modal transportation access to this area? To what extent is the area easily accessible to job centers and downtown?** The land in the Fisher subarea has good transportation access, primarily because of Highway 126/West 11th Avenue’s connection to job centers and downtown Eugene. However, both Highway 126 and Royal Avenue currently lack sidewalks and bike lanes on land in this subarea, and these improvements would need to be made to provide safe multimodal access. The terminus of the Fern Ridge multimodal path is located 1 mile from the edge of land in the subarea at the intersection of Royal Avenue and Greenhill Road, and there is opportunity for expanding the path farther west along the Amazon Creek Diversion Channel. The path currently provides bicycle and pedestrian access to the West 11th commercial corridor and all the way to downtown Eugene. The closest transit service is currently the LTD’s Bus Rapid Transit line serving west Eugene on West 11th Avenue, and the closest stop is three miles from the edge of land in the subarea. Bus service routes connecting Eugene and Veneta pass through the subarea on West 11 Avenue/Highway 126. Overall the land in this subarea has a high potential for good multimodal transportation, assuming that necessary improvements are made, due to: relative proximity to the Bus Rapid Transit system, connections provided by West 11th Avenue, access to job centers, and proximity to the Fern Ridge bike path.

- e. **To what extent does future urbanization directly or indirectly generate energy or climate burdens (e.g. loss of open space, loss of growing lands, increased traffic, increased carbon emissions)?** Future urbanization of land in the Fisher subarea will directly and indirectly generate energy and climate burdens due primarily to the loss of growing lands, increased traffic, and increased carbon emissions. While increased regulations, once the land in the subarea urbanizes, may have positive effects on environmental health, increased vehicle trips resulting in greenhouse gas emissions will have negative energy effects.

Conclusion: As described above, the negative energy impacts are isolation from existing urbanization and the UGB as well as the potential loss of growing lands. The positive energy impacts are that the land has the potential to co-locate a variety of housing types and is well-suited for multimodal transportation. Therefore, urbanization of the land in the Fisher subarea would have mixed energy consequences.

Energy Consequences:	Positive	Mixed	Negative
Land in the Fisher subarea			

3. Economic consequences:

- a. **In general, how much economic activity would urbanization of this area bring? Ex: Additional construction opportunities?** The land in the Fisher subarea contains 922 acres of developable land. Based on generalized capacity assumptions, this developable land could

accommodate 6,795 residential dwelling units. Given that the land in the subarea was evaluated as moderately easy to serve, urbanization of the land in this subarea would likely bring positive economic activity. In addition, the number of lots identified as potentially suitable for urbanization for industrial uses, as shown on the **Map 11.6 Potential Industrial Capacity**, increase the potential for positive economic activity associated with urbanizing this subarea. This assumes that the land directly east of the land in the Fisher subarea and adjacent to the UGB (Royal subarea) would urbanize first, so future economic activity could be significant, but due to the distance from the UGB, land in the Fisher subarea would likely not be among the first to urbanize.

b. Is the area appropriate for future urbanization with a variety of identified uses (not just LDR), to support connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a) As noted previously, the land in the Fisher subarea could support future urbanization with a variety of identified uses which support connected, integrated neighborhoods, providing positive economic consequences.

c. Are there concerns about future urbanization causing a loss of economic activity for existing and nearby uses? (also see Locational Factor 4) Some of the existing rural and commercial uses of land in the Fisher subarea could benefit from additional residents, development opportunity and access to urban services. There is some concern over negative economic impact to existing businesses in the subarea, particularly small farms that sell produce, if land in this subarea were to urbanize and those properties were to redevelop. On the other hand, if these existing uses remained as the areas urbanized around them, they may receive economic benefits from the increased density and economic activity in the subarea.

d. How cost-efficient is service provision in this area? (also see Locational Factor 2) As already noted, the relative low cost of servicing the land in the Fisher subarea makes the likelihood of efficient urbanization and its associated economic benefits positive.

Conclusion: As described above, urbanization will bring significant positive economic consequences to the land in the Fisher subarea, primarily due to the low cost of service provision and the likelihood of efficient urbanization. Overall economic consequences are positive.

Economic Consequences:	Positive	Mixed	Negative
Land in the Fisher subarea			

4. Social Consequences: ⁸

a. Will urbanization negatively impact current residents? While urbanization may negatively impact some existing residents of land in the Fisher subarea due to increased noise and

⁸ The definition of “social consequences” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines is: “[t]he tangible and intangible effects upon people and their relationships with the community in which they live resulting from a particular action or decision.”

traffic, urbanization could also have positive social consequences by providing additional development opportunities for landowners, including housing, services, multimodal access, and neighborhood commercial uses accessible to a broad range of residents.

b. How would urbanization worsen or improve service delivery to residents in this area (e.g. adequate fire response times, access to water, parks)? (also see Locational Factor 2)

The land in the Fisher subarea is currently served by Zumwalt Rural Fire Protection District, which contracts with the Eugene-Springfield Fire to provide service. According to Eugene-Springfield Fire staff, given the proximity to the nearest city fire stations and existing street network, it appears response times to this subarea would be acceptable. Future residents would benefit from the relative ease and cost-efficiency of fire and emergency protection. In addition, the existing street network has good connectivity to downtown Eugene and employment centers and transit service on West 11th Avenue. There is good potential for multimodal transportation connections to the land in this subarea, including the possible expansion of the Fern Ridge Bike Path. It is assumed that neighborhood parks would be developed as neighborhoods urbanize to meet the City's service standards.

c. Will urbanization exacerbate the impacts of potential natural hazards, such as flooding, fire, and landslides? (also see Locational Factor 3, Environmental Consequences C.1.b)

Impacts from hazards are minimal: there is a small section of mapped flood hazard area adjacent to the Amazon Creek Diversion channel and some shallow DOGAMI landslide risk areas present in the subarea. However, there are a few areas with slope classification greater than or equal to 30 percent that are designated as protected because they are natural hazard areas. As development capacity is not designated on those areas with slope of 30 percent or greater, there is presently minimal risk of natural hazards that would impact potential future urbanization. The large lot south of Ken Nielsen Road was studied for potential use as a wetland mitigation site, as it is surrounded by other publicly owned land. However, it was found to contain contaminated soil likely from past pesticide use, which may impact future urbanization. There is no fire risk on land in the subarea.

d. How might urbanization in this area impact vulnerable populations⁹ and underserved groups currently living in the subarea? Could one segment of the population be impacted more than another (e.g. low-income households)?

As noted above, there are no significant natural hazard risks on land in the Fisher subarea, so it does not appear that vulnerable or underserved groups would be disproportionately burdened if the subarea were to urbanize. Vulnerable populations may experience negative consequences should an industrial land use pattern develop throughout the subarea rather than be spread out around the UGB. While industrial uses may create more employment opportunities there could be negative

⁹ Vulnerable populations are defined as populations that identify as a non-white race or ethnicity, younger or older populations, populations with a disability, and/or single-headed households. Data is from Livability Lane, 2013 Equity and Opportunity Assessment, Social and Demographic Characteristics Map. The extent to which vulnerable populations and underserved groups currently live in the subarea is speculative

health effects if clustered. Health effects from industrial uses typically tend to disproportionately affect vulnerable populations.

- e. Will urbanization in this area allow for connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a)** As discussed previously, the land in the subarea could support future urbanization with a variety of identified uses which support connected, integrated neighborhoods, providing positive social consequences in the Fisher subarea.

Conclusion: As described more fully above, due to the high amount of undeveloped land in the subarea, and the potential development of residences, jobs, and neighborhood services, development of land in the Fisher subarea would have positive social consequences.

Social Consequences:	Positive	Mixed	Negative
Land in the Fisher subarea			

Locational Factor 3 Conclusion:

For the land in the Fisher subarea, the analysis under Locational Factor 3 shows that urbanization would have mixed Energy consequences and positive environmental, Economic and Social consequences.

D. Locational Factor 4: Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

- 1. How will urbanization impact agricultural and forest activities on farm and forest designated land within the subarea?** There is some existing development within land in the subarea, including agricultural uses such as farms, an alpaca farm, and stables as well as a handful of farm dwellings. Increased urbanization could also create more nuisance complaints regarding agricultural practices. Due to the presence of agricultural activities, small scale of farm dwellings, adjacency to main roadways such as Highway 126/West 11th Avenue and location of the A-2 Channel to the north, there would be moderate impacts to nearby agricultural uses. There are no lands designated or used for forestry on land in the subarea, as shown on **Map 11.8 Plan Designations**.

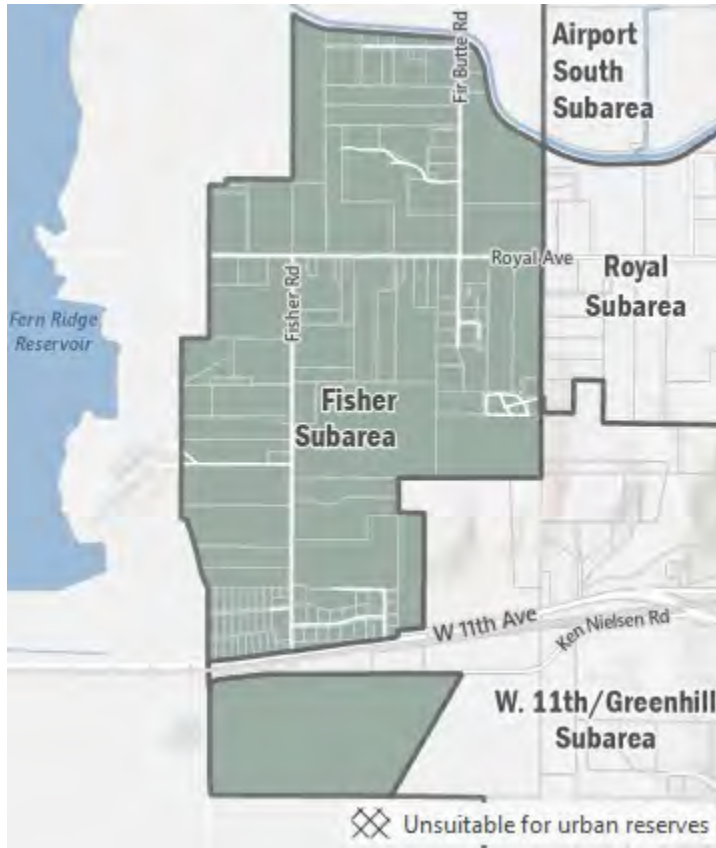
- 2. Is urbanization compatible with existing agricultural and forest uses on farm and forest designated land nearby (outside of the subarea)?** The land in the subarea is buffered to the west by Fern Ridge Reservoir, Department of Fish and Wildlife Fern Ridge Wildlife Area, and to the north, the Amazon Creek Diversion Channel. There are farming operations on land designated for agriculture in the West 11th/Greenhill subarea, adjacent to the east, however such land would need to be brought into the UGB before land in the Fisher subarea can be urbanized, limiting potential conflicts of urbanization. Therefore, future urbanization in appears to be compatible with existing farm practices on agriculture-designated land outside of the subarea.

Conclusion: *The location of land in the Fisher subarea provides natural buffers from surrounding uses (bordered by the Fern Ridge Reservoir, Department of Fish and Wildlife Fern Ridge Wildlife Area, and the Amazon Creek Diversion Channel), however urbanization could have mixed compatibility with nearby agricultural activities occurring on farm land outside of the UGB. Therefore, compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB on land in the Fisher subarea overall are mixed.*

Compatibility with nearby ag and forest activities	Positive	Mixed	Negative
Land in the Fisher subarea			

III. Conclusion

Considering and balancing all the Goal 14 locational factors as analyzed above, there are mostly positive aspects of future urbanization of land in the Fisher subarea, as detailed in the above analysis, summarized below, and shown in the summary tables on the following pages:



Land in the **Fisher subarea** encompasses 1,145 acres and is located to the west of Eugene near the Fern Ridge Reservoir, including land north and south of West 11th Avenue/Highway 126. The northern boundary of the subarea is the Amazon Creek Diversion Channel, to the east is Oak Hill Cemetery Road, and to the south and west is the Fern Ridge Wildlife Area. In evaluating the land in the subarea, the conclusion of Locational Factors 1, 2, 3(c), and 3(d) were “positive” in their findings; and Locational Factors 3(a), 3(b), and 4 were rated as “mixed.” In summary, the subarea’s relatively flat topography, access to major transportation corridor West 11th Avenue/Highway 126, high development capacity, ease of serviceability and connection to job

centers Downtown and the West 11th commercial area make the land in the subarea suitable for future urbanization. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in the Fisher subarea result in a determination that this land is suitable for urban reserves designation.

Please see the summary table on the following page and **Map 11.3 Suitability Results.**

Summary

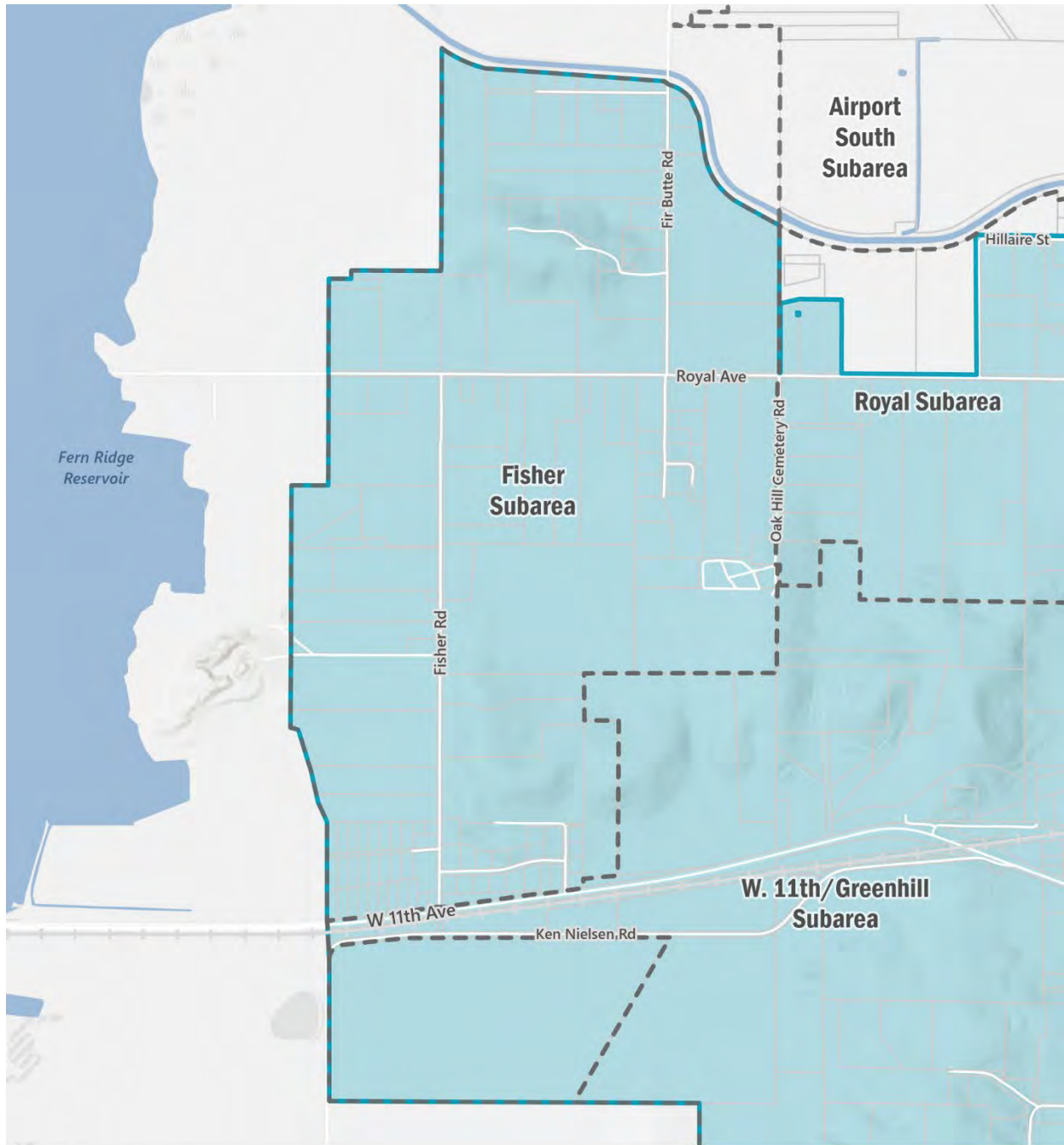
Fisher Subarea

Suitable for Urban Reserves Designation

Land in the Fisher subarea

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Map 11.3 Suitability Results, Fisher Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Eugene urban reserves suitable land
- Tax lots



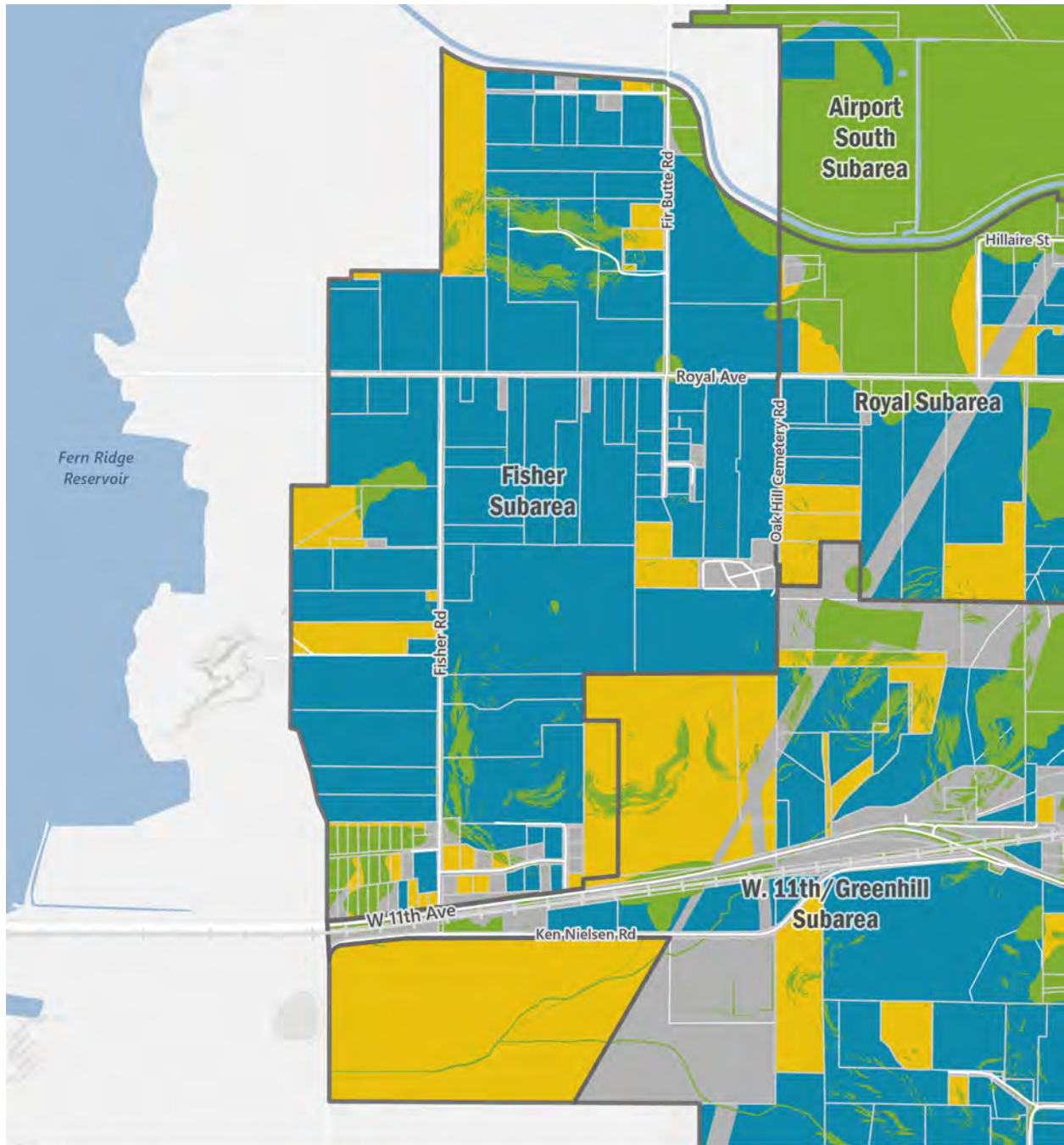
0.3 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 11.4 Development Potential, Fisher Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Quarter mile from Eugene UGB
- Tax lots

- Developable**
 - Partially Vacant
 - Undeveloped
- Undevelopable**
 - Severely constrained by natural hazards or subject to natural resource protections
 - Occupied

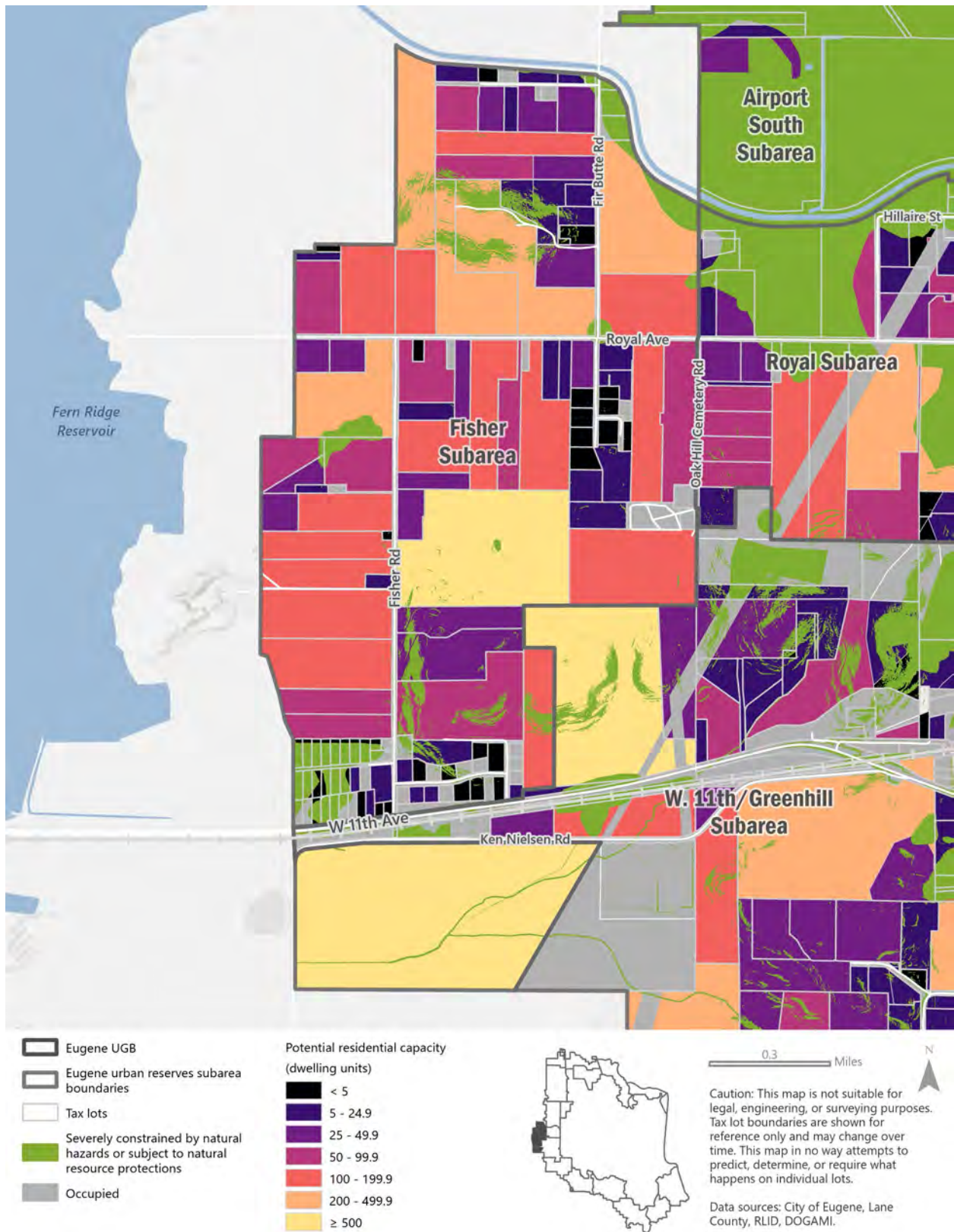


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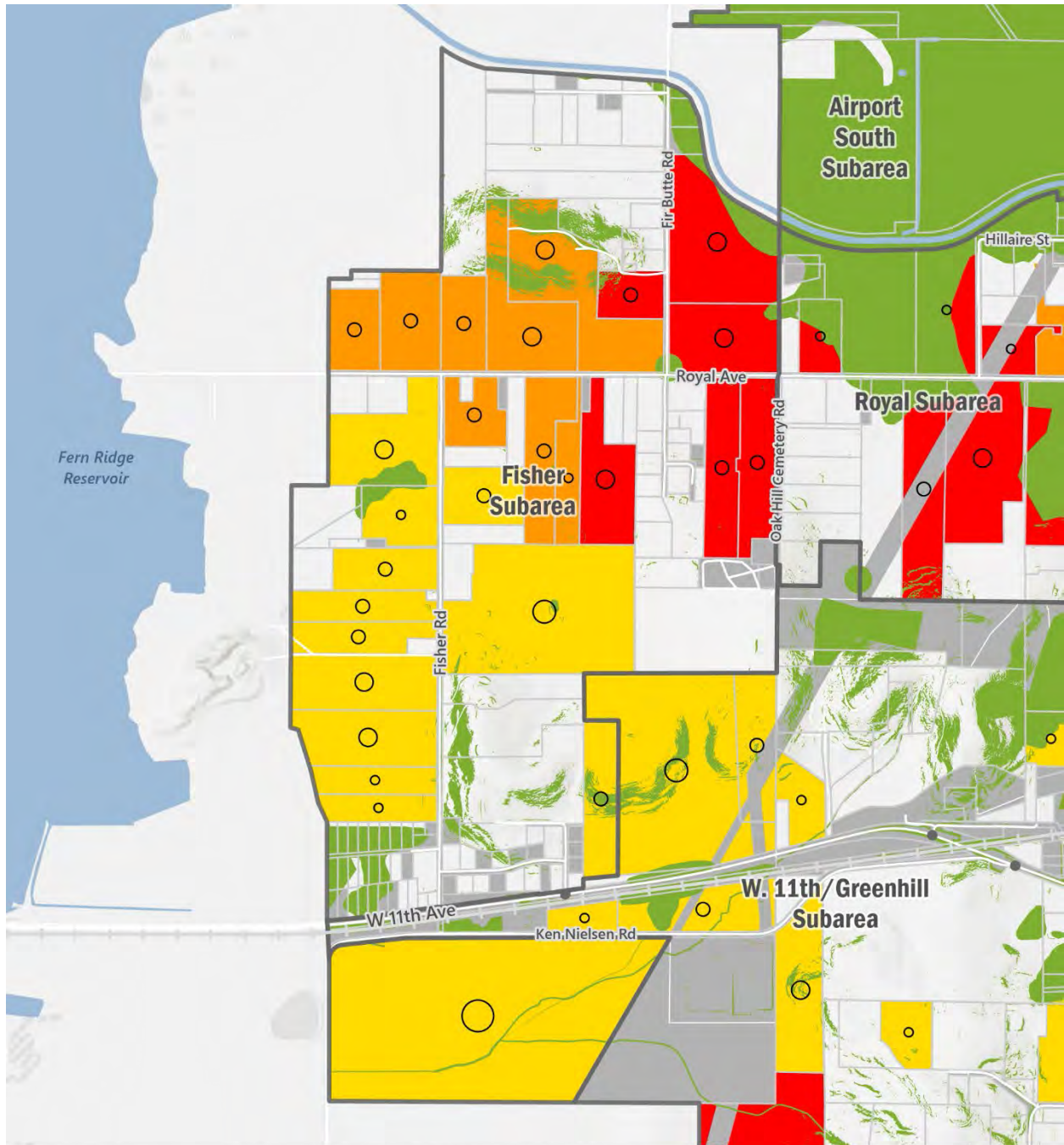
Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 11.5 Potential Residential Capacity, Fisher Subarea



Map 11.6 Potential Industrial Capacity, Fisher Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied
- Freight Route Access Points

- Tax lots meeting industrial criteria
 Developable acres per tax lot
- 5 - 9 ac
 - 10 - 19 ac
 - 20 - 49 ac
 - 50 - 74 ac
 - 75+ ac

- Tax lots meeting industrial criteria
 Driving distance to a freight route
- 1 mile
 - 1.5 miles
 - 2 miles



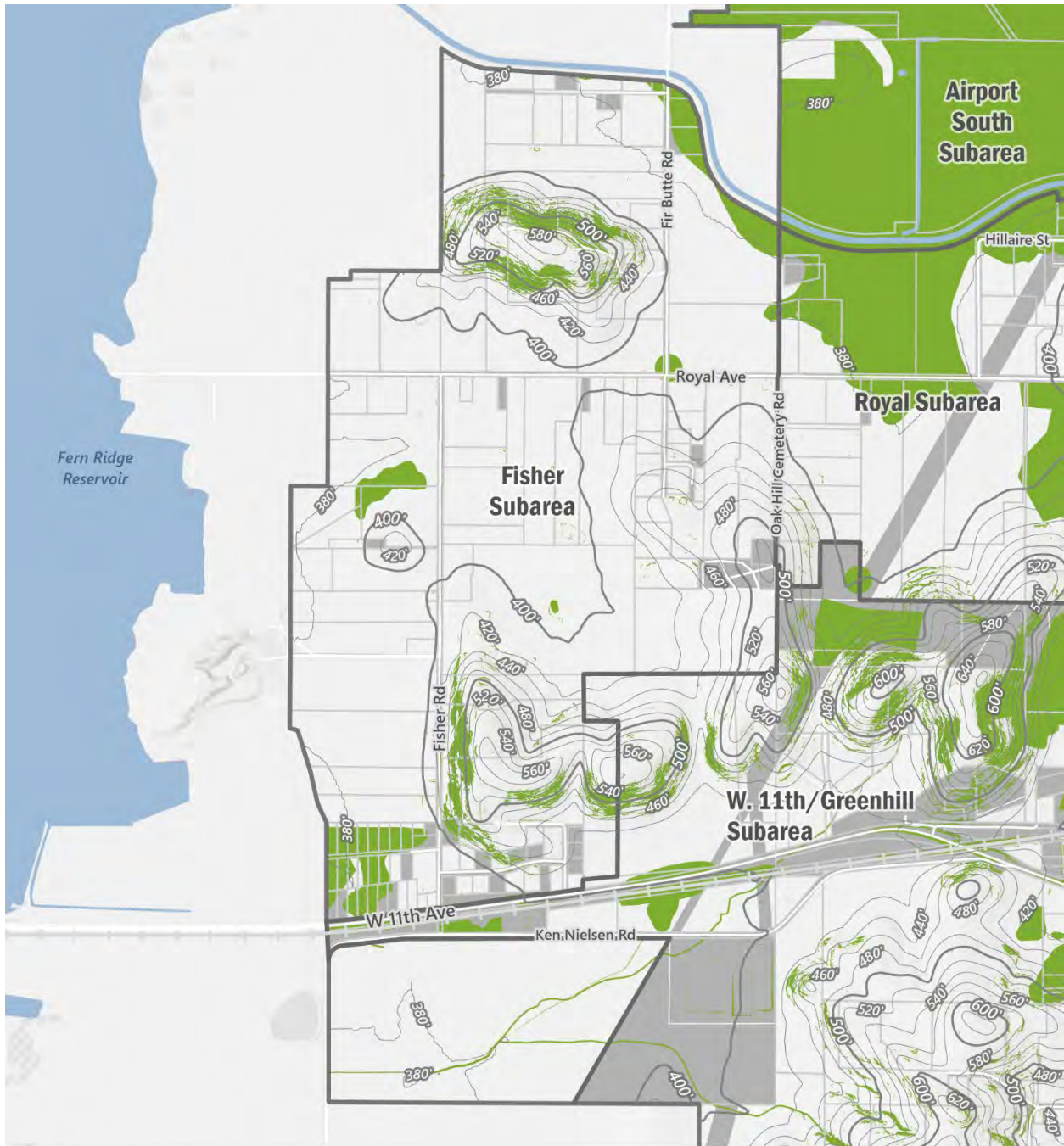
0.3 Miles








Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 11.7 Contours and Hillshade, Fisher Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Tax lots
-  Severely constrained by natural hazards or subject to natural resource protections
-  Occupied



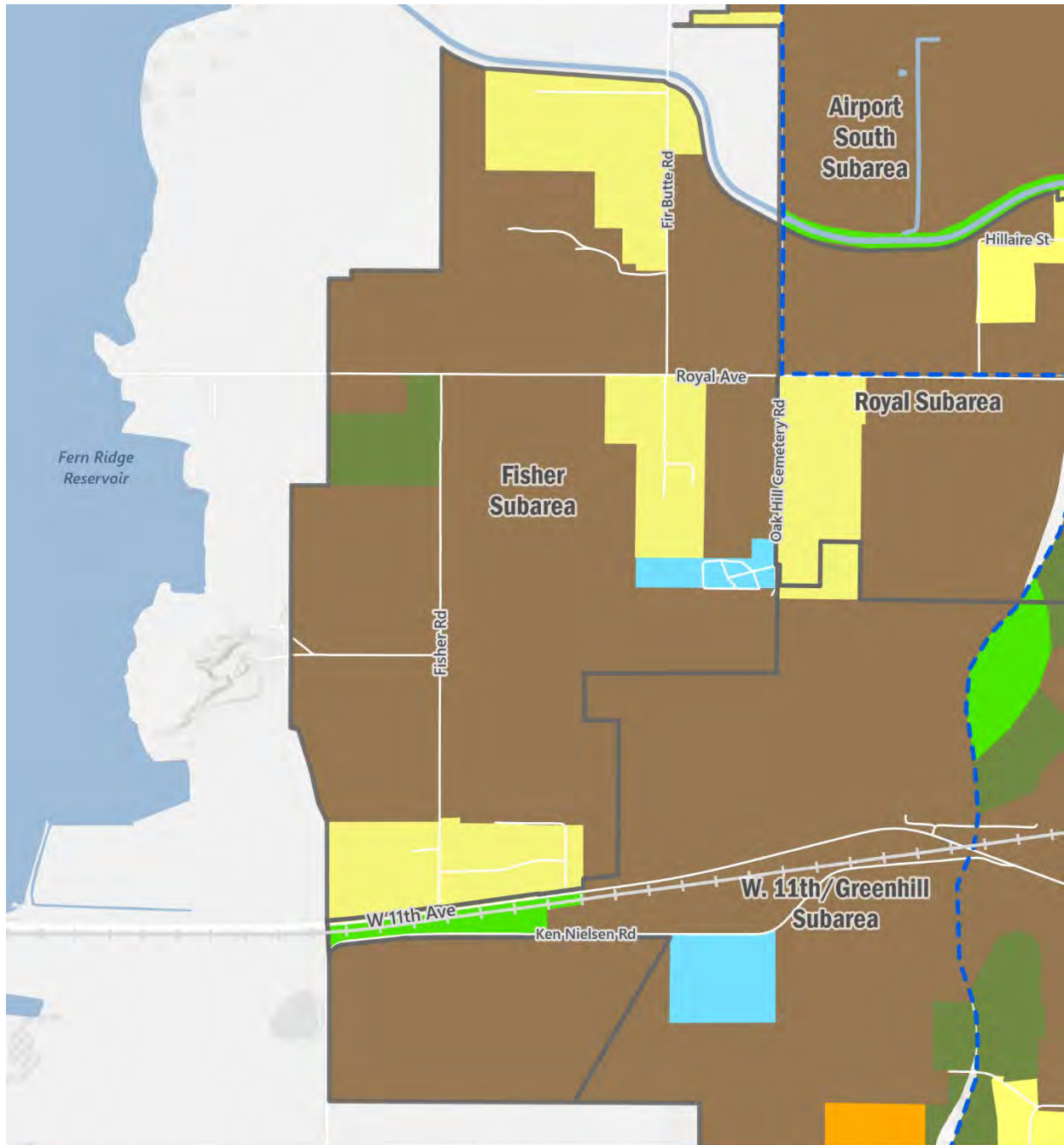
0.3 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 11.8 Plan Designations, Fisher Subarea



- | | | |
|---|--|---|
| <ul style="list-style-type: none"> Metro plan boundary Eugene UGB Eugene urban reserves subarea boundaries <p>Rural comprehensive plan designation</p> <ul style="list-style-type: none"> Agriculture Airport Commercial Forest | <ul style="list-style-type: none"> Industrial Marginal Natural resource: mineral Natural resource: wildlife Non resource Parks Public facility Residential | <p>Metro plan designation</p> <ul style="list-style-type: none"> Agriculture Airport reserve Forest land Government & education Natural resource Parks and open space Rural commercial Rural industrial Rural residential Sand and gravel |
|---|--|---|



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

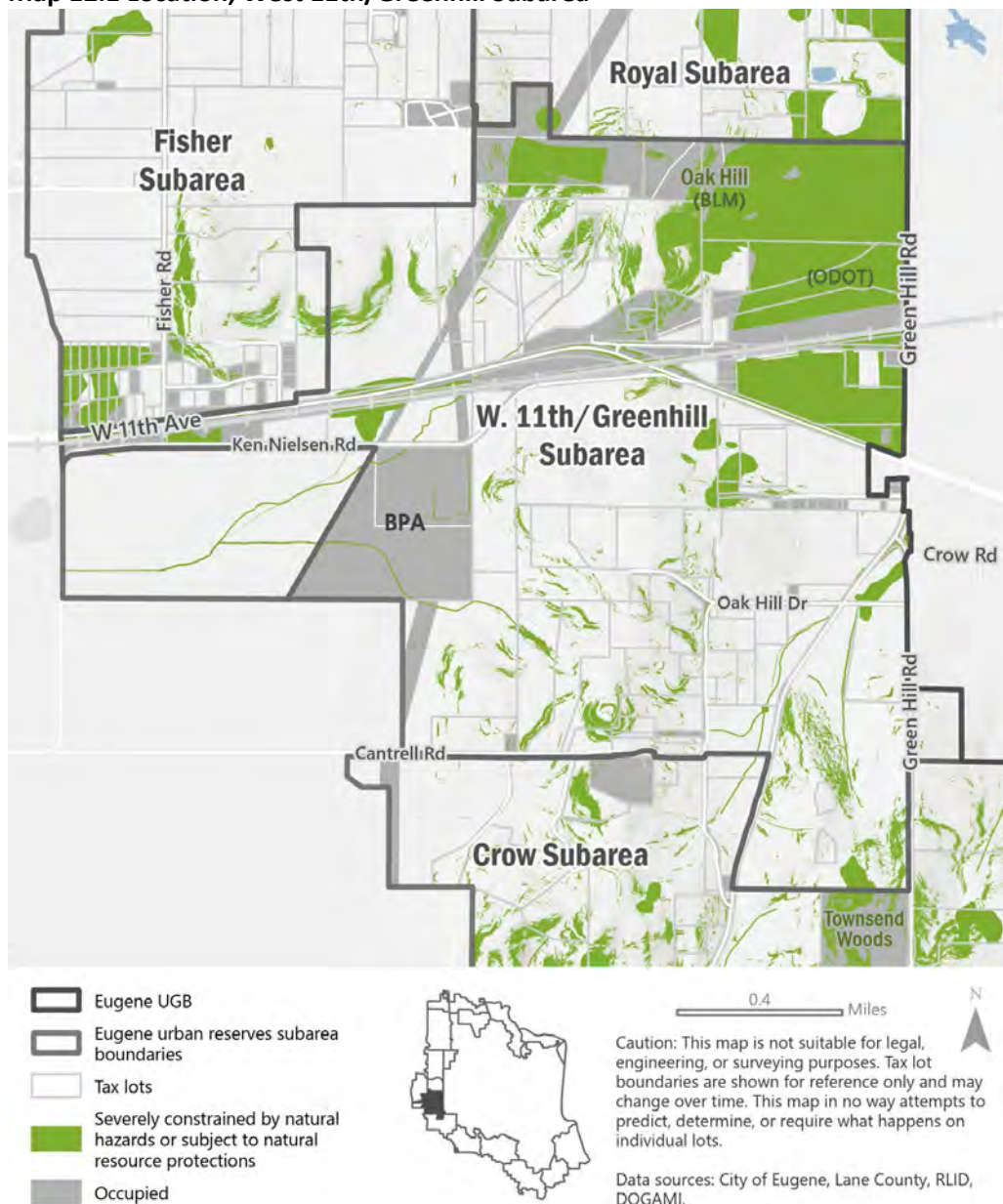
Data sources: City of Eugene, Lane County, RLID, DOGAMI.

12. Suitability Analysis – West 11th /Greenhill

I. Background

- A. **Location:** Land in the West 11th/Greenhill subarea is located to the west of Eugene adjacent to the UGB and generally includes land around West 11th Avenue/Highway 126. Green Hill Road demarcates the edge of the UGB and is the eastern boundary of this subarea. Beyond it is the Crow subarea to the south, the Fisher subarea to the west, and the Royal subarea to the north. See **Map 12.1 Location**, below, and **Maps 12.2-12.8** for additional information relevant to the subarea analysis.

Map 12.1 Location, West 11th/Greenhill Subarea



- B. Existing Land Uses:** Of the 1,404 acres of land in the subarea, only about half, 755, have potential for future residential or employment development. The remaining land in the subarea has no residential or employment development capacity (shown in gray and green on the maps). The northern boundary of land in the subarea is the 193-acre Oak Hill property, part of the West Eugene Wetlands and occupied by the Bureau of Land Management (BLM). Immediately south of the Oak Hill property is a 57-acre wetland mitigation bank owned by the Oregon Department of Transportation (ODOT). 163 acres on the western edge of land in the subarea, south of West 11th Avenue and Ken Nielson Road, is a Bonneville Power Administration (BPA) substation. There is also a BPA easement running through the northwest portion of the land in the subarea. There are rural residential homes, and some farm dwellings along West 11th Avenue. South of West 11th Avenue/Highway 126 and along Oak Hill Drive are some rural residential homes, although there are relatively few residences in the subarea. The land adjacent to Crow Road in the southeast contains a monetary as well as some grazing lands, however, is relatively unoccupied and vacant.
- C. Barriers to Development:** There are areas of Lane County Goal 5 adopted wetlands, particularly in a cluster of large lots adjacent to the UGB and immediately north of West 11th Avenue. There is a small area of wetlands near the intersection of Crow Road and Oak Hill drive, however other than that area there are no wetlands south of West 11th Avenue/Highway 126. Other land that is identified as natural resources and hazards on land in this subarea include high risk landslide areas (from Oregon Department of Geology and Mineral Industries) and areas with slope equal to or in excess of 30 percent (LiDAR data used to calculate slope). Both the landslide risk areas and areas of prohibitively steep slope are scattered throughout the land in the subarea; however, there is one large area of high landslide risk north of West 11th Avenue and immediately south of the Oak Hill property. Additionally, there is land occupied by Port of Coos Bay Railroad adjacent to West 11th Avenue/Highway 126 as well as land occupied by ODOT north of West 11th Avenue/Highway 126 formerly identified for the West Eugene Parkway and now used for ODOT storage and staging. Although the extent of Goal 5 adopted wetlands and public land in the subarea that is “undevelopable” is significant, due to its location between the UGB and developable land in the subarea, it may serve public uses, such as the extension of services for future urbanization.
- D. Surrounding Land Uses:** The surrounding land to the north and west of land in the subarea are primarily used for agricultural, residential, and occupied uses and are mainly flat. The land in the Fisher Road subarea is located to the west and there are two lots adjacent the land in the subarea on the south that are categorized as occupied—10 acres owned by EWEB and the 34-acre Townsend Woods Park owned by the City. Land within the UGB east of Green Hill Road is largely undeveloped or contains residential development on large, rural lots. Also, east of the land in the subarea are lands occupied by the West Eugene Wetlands—owned and occupied by both the City and the BLM. These lands are publicly accessible conservation and parklands. The residential, commercial, and light industrial centers on West 11th Avenue are within relatively close proximity (less than 2 miles) to the land in this subarea.
- E. Organization of this Analysis:** While there are a variety of land types, the land shares attributes relevant for Goal 14 Locational Factor analysis, so there is not a need for it to be subdivided further, as shown on **Map 12.2 Organization of Analysis**.

Map 12.2 Organization of Analysis, West 11th/Greenhill Subarea¹



II. Identify land that would be suitable for urban reserves²

A. Locational Factor 1: Efficient accommodation of identified land needs

To what extent is there ...

1. ***Developable land adjacent to or nearby (within .25 mile) of the UGB?*** The land in the West 11th/Greenhill subarea includes 1,404 acres, of which 229 are classified as developable (partially vacant or undeveloped) and located within lots³ that have a portion of their boundary within .25 miles of the UGB, as shown on **Map 12.4 Development Potential**. This is equivalent to

¹ The tax lot 170500000500, which is adjacent to Ken Nielsen Road, is owned by the Oregon International Port of Coos Bay and extends beyond the boundary of Lane County. This tax lot was segmented to align with the boundaries of adjacent tax lots included in the study area, following the approach used for transportation rights-of-ways.

² Please refer to Section II C of this Study for background on how the City is identifying land in the study area that would be “suitable,” the explanation of the prompts used for the Goal 14 Locational Factors, and specific terminology.

³ In the urban reserves study area, ‘lots’ are used for analysis purposes. See the *Eugene Urban Reserves Technical Memo*, Attachment X, for complete information.

approximately 30 percent of the developable acres within the subarea. Almost all of this land is south of West 11th Avenue/Highway 126; only two lots (4.6 acres) have development capacity north of West 11th Avenue/Highway 126 within .25 miles of the UGB. The rest of the land considered developable adjacent to or nearby the UGB is south of West 11th Avenue/Highway 126. Land that is within .25 miles of the UGB is likely to more efficiently accommodate the identified land needs than land that is further away from the UGB because of street, utility and neighborhood connections to already urbanized land.

2. ***Partially vacant developable land (that could be developed for the identified land needs)?*** The land in the West 11th/Greenhill subarea contains 1,404 acres, of which 755 are classified as developable: 601 partially vacant, and 154 undeveloped. The distribution of these tax lots is shown on the **Map 12.4 Development Potential Map**. Generally, the majority of developable land is located south of West 11th Avenue/Highway 126 and ranges from large lots along the edges of land in the subarea to smaller lots along Cantrell Road and Oak Hill Drive. Most of the developable land is partially vacant, with only 17 lots classified as undeveloped.
3. ***Developable land that is identified in the capacity analysis⁴ as potentially able to be urbanized with a mix of residential housing? How does this translate into potential dwelling units (per the capacity analysis)?*** 54 percent of the land in the subarea is identified as having capacity for residential or employment development. This developable land has capacity for 3,845 dwelling units, or an average residential density of 5.1 dwelling units per developable acre (compared to 4.8 du/developable acre for the entire study area). As shown on **Map 12.5 Potential Residential Capacity**, there is a mix of larger undeveloped lots with relatively high capacity (200-1,013 dwelling units per lot), and smaller partially vacant tax lots with enough developable land for less than five dwelling units per tax lot interspersed throughout the subarea. Additionally, the land in the West 11th/Greenhill subarea's access to existing job centers (such as the West 11th Avenue Commercial area) via key transportation corridors like West 11th Avenue/Highway 126 makes it appropriate for a mix of residential housing types.
4. ***Developable land that is identified in the capacity analysis as potentially able to be urbanized with industrial land need? How does this translate into potential industrial sites (per the capacity analysis)?*** As shown on **Map 12.6 Potential Industrial Capacity**, there are sixteen lots identified with potential capacity for urbanization with industrial land in the West 11th/Greenhill subarea⁵. They are located along the western and eastern edges of the land in the subarea, most are south of West 11th Avenue/Highway 126 and 3 are north of West 11th Avenue/Highway 126. They range from 5-9 developable acres to 20-49 developable acres. Given the proximity of these lots to the UGB and to existing job centers (such as the West 11th Avenue commercial area) and key transportation corridors (such as West 11th Avenue/Highway 126 and Crow Road), land in the West 11th/Greenhill subarea can efficiently accommodate identified industrial land need.

⁴ For information on how residential development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

⁵ For information on how residential development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

5. **Topography, steep slopes or other “undevelopable”⁶ lands that would make efficient urbanization difficult?** “Undevelopable” lands are shown as gray and green on all of the analysis maps. As shown primarily on **Map 12.4 Development Potential, and Map 12.7 Contours and Hillshade**, the land in the West 11th/Greenhill subarea generally has mildly sloped topography but contains scattered areas of steep slopes of 30 percent or greater, particularly north of the intersection of the Port of Coos Bay Railroad and West 11th Avenue/Highway 126 and at the southern edge of the subarea north of Cantrell Road. The areas that contain steep slopes and high-risk landslide areas are relatively small and the land around them has development capacity and may still be able to urbanize efficiently. These steep slopes account for 96 acres, or 7% of land in the subarea. Other undevelopable lands include adopted Goal 5 wetlands, adjacent to Greenhill Road and north of West 11th Avenue/Highway 126. The “undevelopable” lands classified as occupied on land in the West 11th/Greenhill subarea (which includes land owned by ODOT, BLM, and BPA) may be needed in the future to in order to efficiently serve adjacent developable land, due to their location adjacent to the UGB and West 11th Avenue and interspersed with land potentially suitable for future homes and jobs. These “undevelopable” lands may be used for future service and access connections through their less sensitive areas or around the edges of their property⁷

Conclusion: *As described above, the ability of the land in the **West 11th/Greenhill** subarea to efficiently accommodate identified land needs is positive. This is due to a variety of factors including: a high amount of developable land, most of which is proximate to the UGB and transportation corridors, with both residential and industrial capacity. As described above, the “undevelopable” land the West 11th/Greenhill subarea is needed in order to efficiently serve the adjacent developable land, due to its location adjacent to the UGB and interspersed with land potentially suitable for future homes and jobs.*

Efficient accommodation of identified land needs:	Positive	Mixed	Negative
Land in West 11 th /Greenhill Subarea			

B. Locational Factor 2: Orderly and economic provision of public facilities and services⁸

The information below addresses the feasibility of serving developable land in the West 11th/Greenhill subarea with public facilities and services in an orderly and economical way. It considers the capacity of the current system to serve the area and the extent of new infrastructure that would be needed to serve the area if urbanized. It includes an analysis of **wastewater, water,**

⁶ As described in section II B., land was assigned no development capacity if it falls within one of the these “undevelopable” categories: severely constrained by natural hazards or is designated or zoned to protect natural resources; or not vacant or partially vacant (i.e. the land is already occupied).

⁷ Based on conversations with landowners in Spring of 2022.

⁸The definition of “public facilities and services,” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines, is: “[p]rojects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.”

transportation, transit, stormwater, and fire/emergency services and also, to a lesser extent, it includes the provision of **electricity, schools and parks**.⁹

Before the narrative description is a table showing the **generalized serviceability** of the subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff, and a **generalized cost estimate** to address the economics of serving the subject area with public facilities and services. It reflects preliminary high-level estimates for the major components of the individual systems. Cost information is provided on a \$ to \$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$) denoting the greatest cost. The scale used to evaluate each type of service is tailored to address the fact that some services are more expensive to provide than others. For example, a \$ for wastewater does not equate to the same dollar amount as a \$ for transportation. Cost estimates do not include future maintenance costs.

West 11th/Greenhill Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Moderate	Moderate-Difficult	Easy to Moderate	Moderate	Moderate	Moderate
Generalized cost estimate	\$\$\$	\$\$\$	\$-\$\$\$	\$\$\$	\$\$\$	\$\$

1. **Wastewater:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. This is because the expansion of the system into this subarea will likely require construction of a pump station outside of the current UGB, which increases the cost of serving this area.
2. **Water:** The subarea is assigned a “moderate to difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. Most of this expense is due to the need for new pumping and storage facilities for the land in the southern portion of the subarea; however, there is potential for cost-savings if the Crow and Fisher subareas also urbanize and there are adequate connections between the subareas, such as a large loop system extending to the Royal and Fisher subareas. EWEB also owns property for water storage on Cantrell Road immediately adjacent to the subarea in the Crow subarea that is beneficial for water provision in the area.
3. **Fire:** The subarea is assigned an “easy to moderate” serviceability rating and the generalized cost estimate for improvements is \$-\$\$\$\$. This is due to the existing street network and proximity to city fire stations.
4. **Transportation:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. There are projected capacity and congestion concerns

⁹ The summarized information used in this section is based on the results of the *Urban Reserves Serviceability Analysis Report* (Findings Appendix 3). In providing information for that report, service providers considered the serviceability of the subareas in their entirety; they generally did not differentiate between areas within a subarea.

with West 11th Avenue, which runs through this subarea and is the primary connection to downtown Eugene.

5. **Transit:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. This is because EmX West is the closest route to this area, however deviating the Bus Rapid Transit system, while not feasible at this time, may be possible in over 20 years if development continues to push out past the transit line.
6. **Stormwater:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$. This is because flow controls would be needed in headwaters areas (over 500 ft in elevation) and the existing stormwater system, composed of roadside ditches and along West 11th Avenue, would need to be evaluated for capacity.
7. **Other (Parks, Schools, Electric):** Although there are no City of Eugene parks in the West 11th/Greenhill subarea, there is BLM property (Oak Hill) on the northern edge, which is part of the West Eugene Wetlands and open to the public. The West Eugene Wetlands expand to the east into the UGB and encompass more than 5,000 acres. The West Eugene Wetlands are open to the public for recreation. To the west of the subarea is the Fern Ridge Reservoir that is also publicly accessible for recreation. EWEB provides electric service to this subarea, and there is a BPA electrical sub-station that provides electricity to the metropolitan area on land at the western edge of the subarea. Regardless of whether these public facilities are included in urban reserves, they will benefit the metropolitan area. There are no schools in the subarea, however it is located within the 4J School District.
8. **Is there undeveloped land within the UGB that would be helped in its development/serviceability if this area were included in urban reserves, or is there undeveloped land within the UGB that would negatively impact the orderly and economic provision of public facilities and services?** There is a significant amount of undeveloped land within the UGB along Green Hill Road. Although there is a large amount of undeveloped land within the UGB, much of it is undeveloped because it is occupied. Generally, the land south of West 11th Avenue/Highway 126 is privately owned, developable land and land north of West 11th Avenue/Highway 126 is occupied by the West Eugene Wetlands and is undevelopable. In the West 11thGreenhill subarea, the orderly and economic provision of public facilities and services would be dependent on this land within the UGB first annexing into the City, urbanizing and receiving City services.

Conclusion: As described above, service providers gave the land in the **West 11th/Greenhill subarea** a “moderate” serviceability ranking and cost estimates. Due to the input described above, the land in the West 11th/Greenhill subarea is identified as mixed in its ability to be served in an orderly and economic manner.

Orderly and economic provision of public facilities and services:	Positive	Mixed	Negative
Land in the West 11th/Greenhill subarea			

C. Locational Factor 3: Comparative environmental, energy, economic and social consequences

1. Environmental Consequences:

- a. *Presence of natural resources: To what extent would urbanization of this area negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources?*** There is significant public land throughout land in the subarea which provides ample wildlife habitat, connectivity, and natural resource protection, including two large sites, the BLM's Oak Hill property and ODOT's wetland mitigation bank site. There could be negative environmental consequences to wetlands identified on the National Wetland Inventory mostly located north of West 11th Avenue/Highway 126 in the northeast of the land in the subarea if adjacent areas are urbanized. However, Oak Hill conservation area and the mitigation bank site are occupied and therefore have been assigned no development capacity and would not be impacted by urbanization. Future development will increase impervious surfaces such as roofs and pavement and may increase stormwater runoff and potential pollutants in waterways on land in the West 11th/Greenhill subarea, although City regulations would mitigate these impacts.
- b. *Presence of hazard areas (steep slope, landslides, floodplain): To what extent would urbanization of this area increase the potential risk of natural hazards, such as landslides, wildfire or flooding?*** The land in the West 11th/Greenhill subarea contains some hazard areas with high risk of landslide and areas of steep slopes. These areas are interspersed throughout land in the subarea, however, are more prominent on the land north of West 11th Avenue/Highway 126 and on the southern edge of land in the subarea, north of Cantrell Road. Urbanization could exacerbate the risk of these natural hazards if development is directed towards areas with mapped high landslide risk. However, land with prohibitively steep slopes accounts for only 7% of land within the subarea. The largest hazard area of high landslide risk is located north of West 11th Avenue/Highway 126 and is surrounded on three sides by land that is occupied, which is not considered developable, so it would be possible to direct future urbanization away from that particular natural hazard risk. There are no flood hazard areas on land in the subarea.
- c. *Presence of nearby public open space: To what extent would nearby public open space benefit future residents of the area?*** There is significant public open space on land in the West 11th/Greenhill subarea, which provides wildlife habitat and natural resource protection. It also will provide close-to-home recreational opportunities for the subarea's growing population, benefitting future residents by providing nearby opportunities for active recreation on the Oak Hill property site and passive recreation, such as hiking, bird watching, and nature appreciation.

Conclusion: As described above, urbanization of the land in the **West 11th/Greenhill** subarea could potentially increase the risk of natural hazards, such as landslides although there are very few and they are in an area unlikely to develop. At the same time, there is a significant amount of public land

*clustered in the subarea, providing positive environmental consequences and benefitting area residents. Focusing urbanization on less sensitive areas in the West 11th/Greenhill subarea would mitigate negative environmental consequences. Therefore, the environmental consequences of urbanizing the land in the **West 11th/Greenhill** subarea are mixed.*

Environmental Consequences:	Positive (Low)	Mixed (Medium)	Negative (High)
Land in the West 11th/Greenhill Subarea			

2. Energy Consequences (priority for lower energy usage):

- a. To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt)?** The land in the West 11th/Greenhill subarea is well-situated to co-locate a variety of housing types due to the existence of larger undeveloped and partially vacant lots throughout the subarea, adjacency to the UGB, existing street connections to West 11th Avenue/Highway 126 and Crow road, proximity to transit (including bus rapid transit) along West 11th Avenue/Highway 126, and moderate serviceability. Additionally, the terminus of the Fern Ridge multiuse path is only half a mile from the northeast corner of the subarea. These features also make it suitable for a mix of jobs and neighborhood-serving commercial. The generally flat (with some scattered sloped areas) land in the West 11th/Greenhill subarea is walkable and has good potential as a 20-minute neighborhood (where homes, jobs and services can be reached on foot within 20 minutes), limiting the need for vehicle trips and having positive energy impacts.

- b. To what extent is the area easily accessible to other services or uses (e.g., neighborhood commercial, parks, schools)?** There are very few neighborhood-serving commercial uses on land in the subarea but within the UGB there are large employment centers nearby (such as the West 11th Avenue commercial corridor less than 2 miles away), allowing local trips for some services and keeping energy usage low. Within land in the West 11th/Greenhill subarea, there are some small agricultural enterprises, and a commercial node is planned inside the UGB near the intersection of Crow Road and West 11th Avenue. Additional neighborhood-serving commercial would benefit residents both inside and outside of the UGB. Kennedy Middle School and Danebo Elementary School are the closest schools to land in this subarea and both are several miles away within the UGB. The land in the subarea is in close proximity to transit with bus rapid transit less than 2 miles away and transit routes that pass through the subarea on West 11th Avenue/Highway 126. Public land such as the Oak Hill property and the 5,000 acre West Eugene Wetlands are plentiful both throughout and adjacent to the subarea a short walk away from developable land to the north of land in the West 11th/Greenhill Subarea, lowering vehicle miles traveled and providing positive energy impacts in carbon sequestration.

- c. To what extent is the area adjacent to or nearby the UGB? (see Locational Factor 1, A.2)** As already noted in Locational Factor 1, land in the West 11th/Greenhill subarea is adjacent to the UGB, as shown on **Map 12.4 Development Potential**. Land in the West 11th/Greenhill

Subarea's location adjacent to the UGB potentially has positive energy benefits, as its proximity to existing and future neighborhoods would allow for lower vehicle miles traveled than in more distant areas.

- d. To what extent is there good multi-modal transportation access to this area?) To what extent is the area easily accessible to job centers and downtown?** The land in the West 11th/Greenhill Subarea has good transportation access, primarily because of its proximity to the UGB, West 11th Avenue/Highway 126 and Crow Road's connections to job centers such as the West 11th commercial corridor and downtown Eugene and its generally flat topography. However, West 11th Avenue/Highway 126, Crow Road, and Green Hill Road currently lack sidewalks and bike lanes in this subarea, and these improvements would need to be made to provide good multimodal access to land in this subarea. The closest transit service is currently the Bus Rapid Transit line (EmX) along West 11th Avenue, and the closest stop is two miles from the edge of land in the subarea. Other bus routes connecting Eugene to Veneta run through land in the subarea along West 11th Avenue/Highway 126. Cantrell Road also provides a valuable east-west connection and has been discussed as a future multiuse path connecting Eugene to Veneta. Additionally, the northeast corner of land in the subarea is less than half a mile from the terminus of the Fern Ridge multiuse path that connects through west Eugene and into downtown Eugene. Overall, the land in this subarea has a high potential for multimodal transportation, assuming that necessary improvements are made. The easy bus and vehicle access to Highway 126/West 11th Avenue makes the land in the West 11th/Greenhill Subarea very well located regionally and accessible to job centers.
- e. To what extent does future urbanization directly or indirectly generate energy or climate burdens (e.g., loss of open space, loss of growing lands, increased traffic, increased carbon emissions)?** Future urbanization of the land in the West 11th/Greenhill Subarea will directly and indirectly generate moderate energy and climate burdens due to increased traffic and increased carbon emissions from traffic and construction. While increased regulations, once the land in the subarea urbanizes, may have positive effects on environmental health, increased vehicle trips resulting in greenhouse gas emissions will have negative effects. Although there appears to be some feed crop farming, there are no active growing farms within land in the subarea.

Conclusion: *As described above, there are mixed energy consequences to urbanizing the developable land in the **West 11th/Greenhill** Subarea. The negative energy impacts are increased greenhouse gas emissions from vehicle traffic and construction. However, land in the subarea has good potential for co-locating a variety of housing, jobs, and services, limiting the need for vehicle trips and therefore having positive energy impacts. There is proximity to transit access to the area, the Fern Ridge multiuse path, and highway access to job centers and downtown. Throughout and adjacent to the subarea, public land is plentiful and walkable and have positive energy impacts for carbon sequestration and limiting carbon emissions.*

Energy Consequences:	Positive	Mixed	Negative
Land in the West 11th/Greenhill Subarea			

3. Economic Consequences:

- a. In general, how much economic activity would urbanization of this area bring? Ex: Additional construction opportunities?** Land in the West 11th/Greenhill Subarea contains 748 acres of developable land. Based on generalized capacity assumptions, this could accommodate 3,791 residential dwelling units. Urbanization would bring construction activity that would benefit the local economy, but given the moderate cost of future services, new development on land in the West 11th/Greenhill Subarea could be higher-cost housing. In addition, the subarea is also identified as suitable for industrial development, which would bring jobs to the subarea. The land in the subarea’s location along West 11th Avenue/Highway 126 has positive economic consequences due to its transit and major roadway access to job centers in Eugene such as the West 11th Avenue commercial corridor.
- b. Is the area appropriate for future urbanization with a variety of identified uses (not just LDR), to support connected, integrated neighborhoods? (also see Locational Factor 3B):** As noted above, the land in the West 11th/Greenhill Subarea could support future urbanization with a variety of identified uses which support connected, integrated neighborhoods, providing positive economic consequences. In addition, plans for future development inside the UGB, including a commercial node at the intersection of West 11th Avenue and Green Hill Road and housing southeast of West 11th Avenue and Green Hill Rd, also provide opportunities for development in this subarea to connect and integrate with neighborhoods inside the UGB.
- c. Are there concerns about future urbanization causing a loss of economic activity for existing and nearby uses? (also see Locational Factor 4)** There is some concern over negative economic impact to existing businesses in the subarea, particularly small farms that sell produce, if this subarea were to urbanize and those properties were to redevelop. Some of the existing rural commercial and industrial uses on land in the West 11th/Greenhill Subarea could benefit from additional residents, development opportunity and access to urban services.
- d. How cost-efficient is service provision in this area? (also see Locational Factor 3, Energy Consequences C.2.a)** As already noted, the moderate cost of servicing land in the West 11th/Greenhill Subarea makes the likelihood of efficient urbanization and its associated economic benefits mixed. However, the high potential capacity on some land in the West 11th/Greenhill Subarea may make the investment in infrastructure economical over the long term, especially if land in adjacent subareas also comes into the UGB.

Conclusion: As described above, urbanization will bring significant positive economic consequences to the land in the **West 11th/Greenhill Subarea**. The high development capacity, potential for

construction opportunities, and location of land in the West 11th/Greenhill Subarea along Highway 126/West 11th Avenue also benefits it economically.

Economic Consequences:	Positive	Mixed	Negative
Land in the West 11th/Greenhill Subarea			

4. Social Consequences: ¹⁰

- a. Will urbanization negatively impact current residents?** While urbanization may negatively impact some existing residents on land in the West 11th/Greenhill Subarea due to increased noise, traffic, and impacts to their viewshed, urbanization could also have positive social consequences by providing additional development opportunities for landowners, including housing, jobs, services, multimodal access and neighborhood commercial uses accessible to a broad range of residents.

- b. How would urbanization worsen or improve service delivery to residents in this area (e.g., adequate fire response times, access to water, parks)? (also see Locational Factor 2)** As noted in the serviceability analysis, urbanization would improve service delivery to land in the West 11th/Greenhill Subarea. The land in the subarea is currently served by Zumwalt Rural Fire Protection District which contracts with Eugene-Springfield Fire Department for emergency services. According to Fire Department staff, given the proximity to the nearest city fire stations and existing street network, it appears response times to this subarea would be acceptable, meaning a new fire station would not be needed. Future residents would benefit from the relative ease of fire protection serviceability. EWEB water service is moderate-difficult to bring into this subarea so it is identified as somewhat costly to serve, but there is the potential for cost-savings if service is expanded to a larger area and with more than one connection for water transmission. If these conditions are met, urbanization of this subarea could lead to cost-savings over a longer timeframe and benefit both current and future residents. Public land is plentiful in and adjacent to land in the West 11th/Greenhill Subarea (such as the Oak Hill property within the subarea and the West Eugene Wetlands adjacent to the subarea) and it is assumed that neighborhood parks would be included with future neighborhood development if there’s a service-level need.

- c. Will urbanization exacerbate the impacts of potential natural hazards, such as flooding, fire, and landslides? (also see Locational Factor 3, Environmental Consequences C.1.b)** There is one hazard area of mapped high landslide risk on land in the West 11th/Greenhill Subarea, between West 11th Avenue and the Oak Hill property. However, this is a relatively small hazard area that mostly falls within one lot, so the risk still appears to be relatively low. There are no identified flood hazard areas on land in the West 11th/Greenhill Subarea.

¹⁰ The definition of “social consequences” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines is: “[t]he tangible and intangible effects upon people and their relationships with the community in which they live resulting from a particular action or decision.”

- d. How might urbanization in this area impact vulnerable populations¹¹ and underserved groups currently living in the subarea? Could one segment of the population be impacted more than another (e.g. low-income households)?** There could be negative impacts to vulnerable populations such as older residents and low-income households due to the potential moderate cost of receiving urban services, such as EWEB water. Several large lots along the east and west edges of land in the subarea have been identified as potentially suitable for industrial uses, as shown on the **Map 12.6 Potential Industrial Capacity**. Vulnerable and underserved groups may be disproportionately burdened by the risks associated with industrial uses, especially if lower-cost residential development occurs near future industrial uses or if environmental risks are not properly mitigated. On the other hand, the flat areas on land in the West 11th/Greenhill Subarea could provide good locations for multi-unit and more affordable housing, providing positive social consequences.
- e. Will urbanization in this area allow for connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a):** The land in the West 11th/Greenhill Subarea could support future urbanization with a variety of identified uses which support connected, integrated neighborhoods, providing positive social consequences in the West 11th/Greenhill Subarea. This would benefit existing nearby residents who currently have few services in the area.

Conclusion: As described more fully above, urbanization of land in the **West 11th/Greenhill Subarea** would have mixed social consequences. Service delivery would improve with urbanization, however it would not come without a price; depending on individual needs and circumstances this could be a positive or negative social consequence. For example, there could be negative impacts to vulnerable populations such as older residents and low-income households due to the potential moderate cost of receiving urban services and negative impacts from industrial development. The positive social consequences of the land in this subarea are the benefits urbanization could bring to existing residents, the lesser impacts of potential natural hazards, and the ability to allow for connected, integrated neighborhoods.

Social Consequences:	Positive	Mixed	Negative
Land in the West 11th/Greenhill Subarea			

Locational Factor 3 Conclusion:

For the land in the West 11th/Greenhill subarea, the analysis under Locational Factor 3 shows that urbanization would have mixed Environmental, Energy and Social consequences, and positive Economic consequences.

¹¹ Vulnerable populations are defined as populations that identify as a non-white race or ethnicity, younger or older populations, populations with a disability, and/or single-headed households. Data is from Livability Lane, 2013 Equity and Opportunity Assessment, Social and Demographic Characteristics Map. The extent to which vulnerable populations and underserved groups currently live in the subarea is speculative.

D. Locational Factor 4: Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

1. ***How will urbanization impact agricultural and forest activities on farm and forest designated land within the subarea?*** There is both forest and agriculture designated land in the West 11th/Greenhill Subarea, as shown on **Map 12.8 Plan Designations**. However, there does not appear to be active forestry activity within the subarea. On land designated for agriculture, there is primarily grass, hay and pastureland that would be impacted by urbanization if it were to redevelop. However, due to the primarily low intensity uses on farmland in the subarea, there may be only moderate impacts from urbanization on adjacent farmland, such as increased traffic. There do not appear to be more intensive food-producing farms on land in the subarea. Therefore, urbanization of the developable land in the West 11th/Greenhill Subarea would moderately impact agricultural activities on farm-designated land within land in the subarea.

2. ***Is urbanization compatible with existing agricultural and forest uses on farm and forest designated land nearby (outside of the subarea)?*** There are significant agricultural uses outside of land in the subarea, such as active farming and grazing activities on land in the Crow subarea, Fisher subarea, and Royal subarea (all adjacent to land in the West 11th/Greenhill subarea). Increased congestion on roadways from urbanization may impact these nearby agricultural activities, especially if land in the subarea was brought into the UGB first. There are some natural barriers, such as the BLM Oak Hill property, BPA sub-station, and the Fern Ridge Wildlife Area, mitigating potential conflicts to some degree. Therefore, future urbanization in appears to be moderately compatible with existing farm practices on agriculture-designated land outside of the subarea. There are no commercial forestry uses on adjacent forest lands.

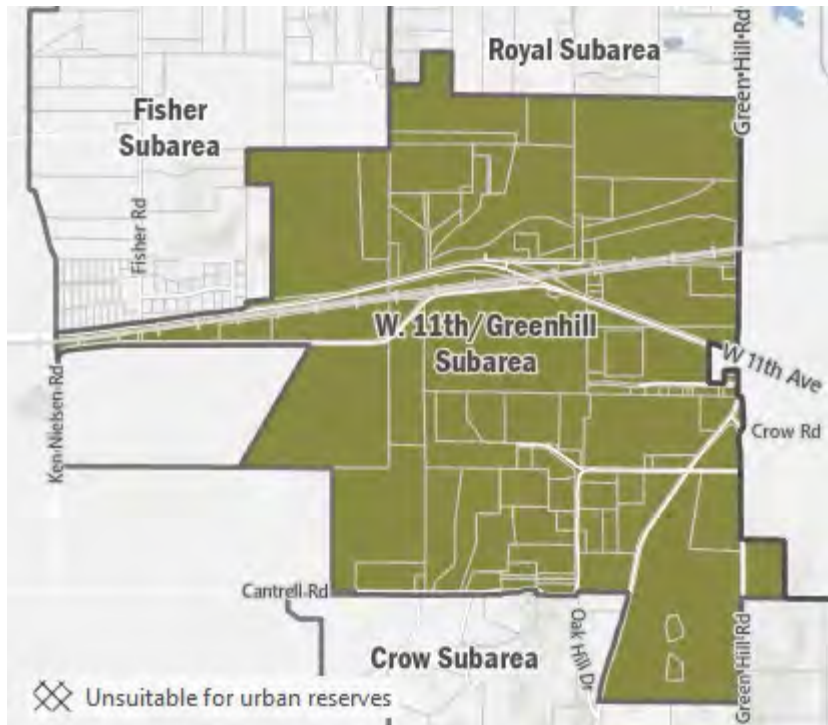
Conclusion: On land designated and used for agriculture in the **West 11th/Greenhill** subarea, there is primarily grass, hay and pastureland that would be impacted by urbanization if it were to redevelop. However, due to these primarily low intensity uses, there may be only moderate impacts from urbanization on adjacent developable land, such as from increased traffic. This could also impact nearby agricultural activities outside of the subarea, especially if land in the subarea was brought into the UGB first. There are some natural barriers, such as the BLM Oak Hill property, BPA sub-station, and the Fern Ridge Wildlife Area, mitigating potential conflicts to some degree. Therefore, compatibility of the proposed urban uses on land in the West 11th/Greenhill subarea with nearby agricultural and forest activities occurring on farm and forest land outside the UGB overall are mixed.

Compatibility with nearby agriculture and forest activities	Positive	Mixed	Negative
Land in the West 11th/Greenhill Subarea			

III. Conclusion

Considering and balancing all of the Goal 14 locational factors as analyzed above, there are some positive and some negative aspects of future urbanization of land in the West 11th/Greenhill subarea as a whole, which is why the analysis was described as laid out in this report and summarized as follows.

In evaluating the land in the West 11th/Greenhill Subarea, the conclusion of Locational Factors 2 and



3(a) were “mixed” in their findings; Locational Factors 1, 3(b), 3(c), 3(d), and 4 were rated as “positive.” The West 11th/Greenhill subarea has a high amount of developable land with both residential and industrial capacity, most of which is proximate to the UGB and main transportation corridors. Due to its location, topography and access it is moderately efficient to serve. All of the “undevelopable” land the West 11th/Greenhill subarea is needed in order to efficiently serve the adjacent developable land, due to its location adjacent to the UGB and interspersed with land potentially suitable for future

homes and jobs. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in the West 11th/Greenhill subarea result in a determination that this land is suitable for urban reserves designation.

Please see the summary table on the following page and **Map 12.3 Suitability Results**.

Summary

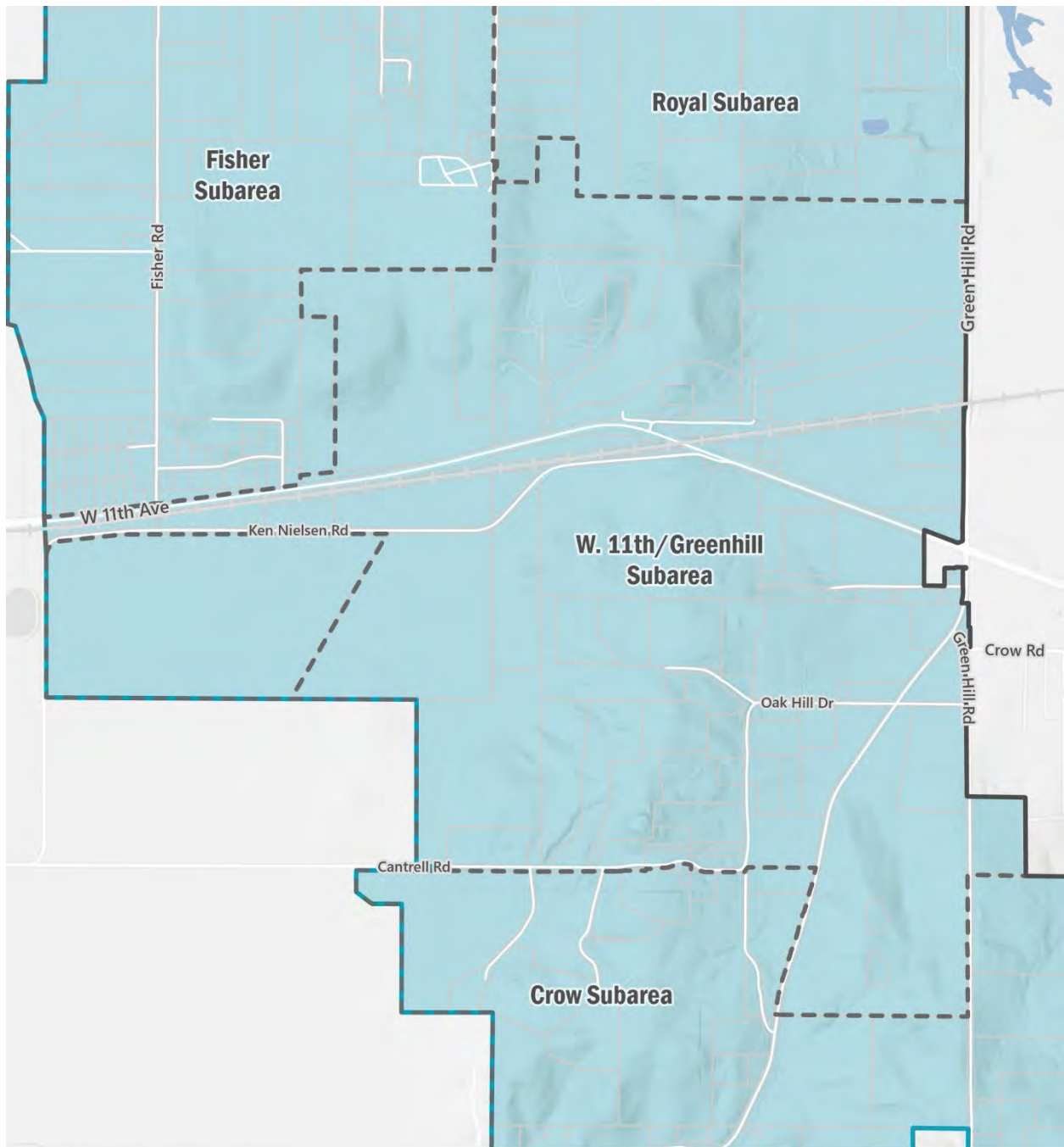
West 11th/Greenhill Subarea





Suitable for Urban Reserves Designation

Land in the West 11th/Greenhill Subarea

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Map 12.3 Suitability Results, West 11th/Greenhill Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Eugene urban reserves suitable land
-  Tax lots



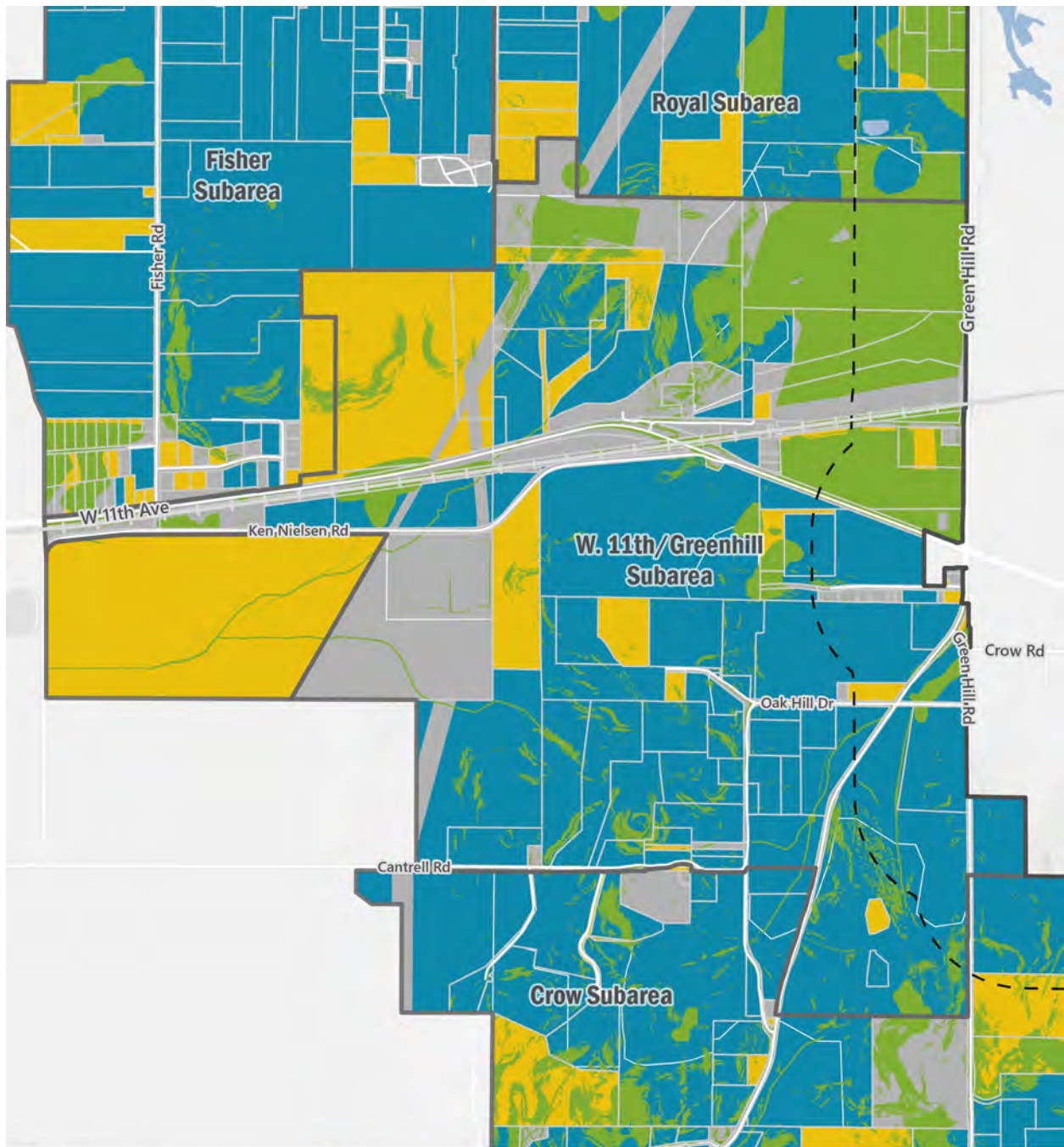
0.3 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 12.4 Development Potential, West 11th/Greenhill Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Quarter mile from Eugene UGB
- Tax lots

- Developable**
 - Partially Vacant
 - Undeveloped
- Undevelopable**
 - Severely constrained by natural hazards or subject to natural resource protections
 - Occupied



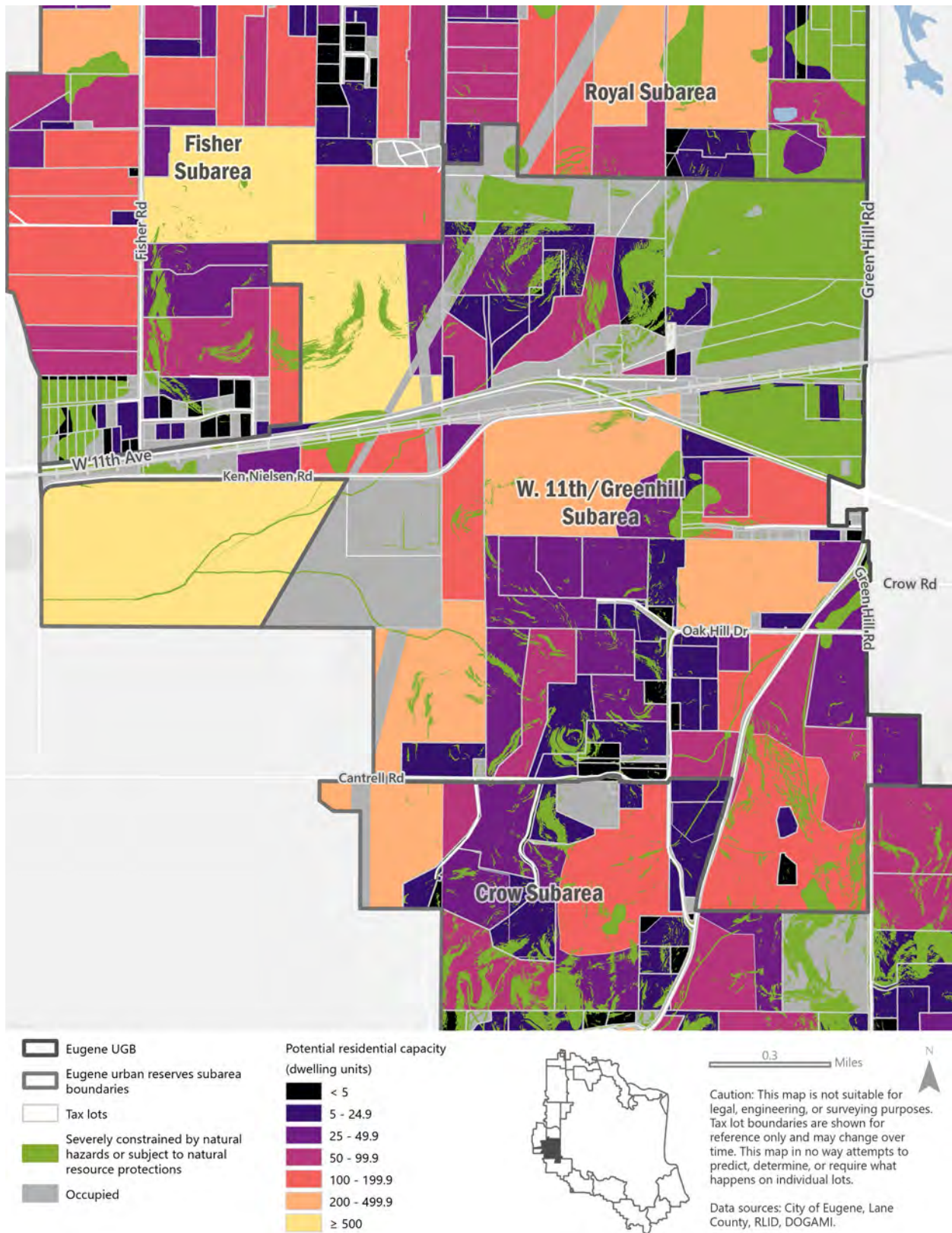
0.3 Miles



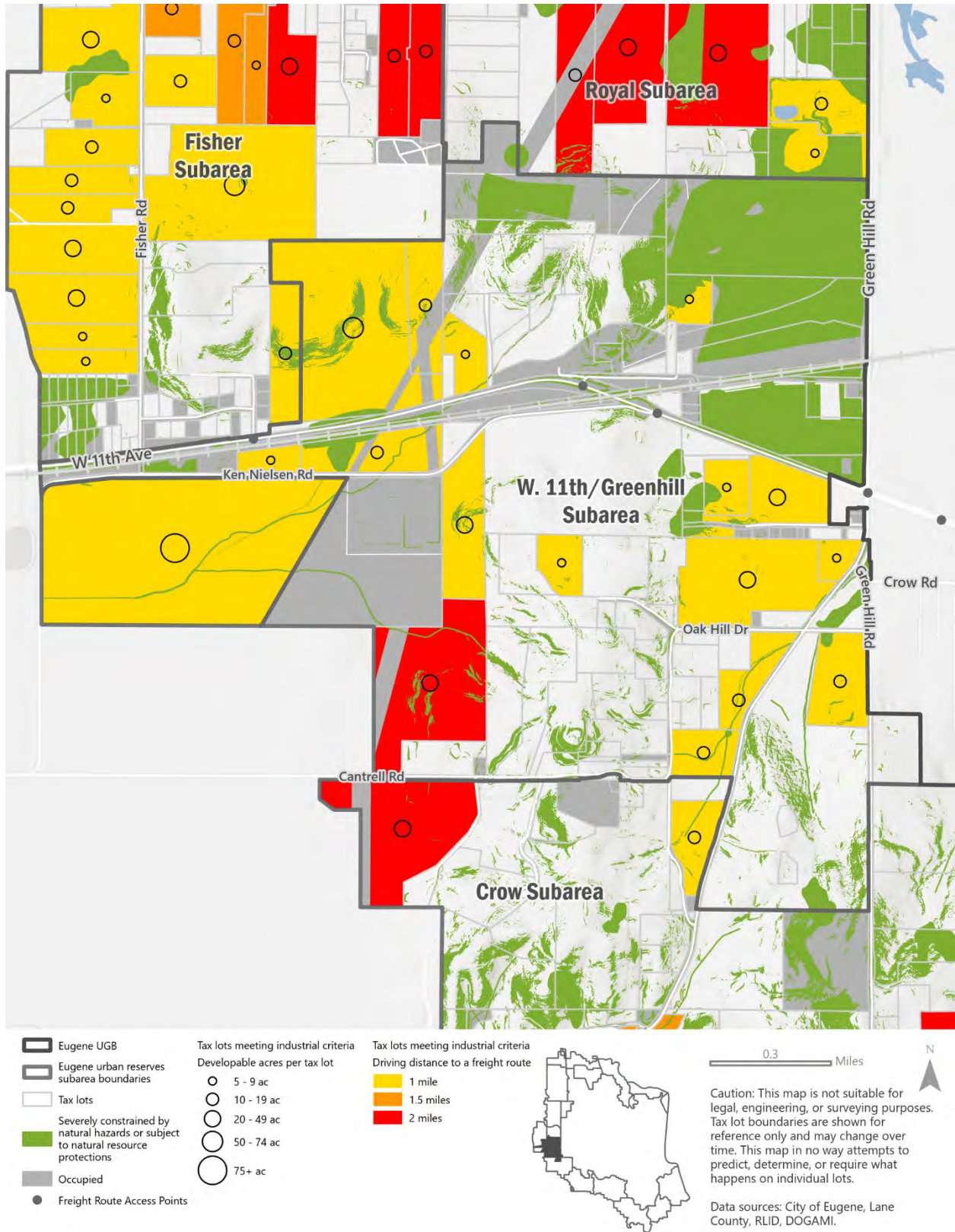
Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

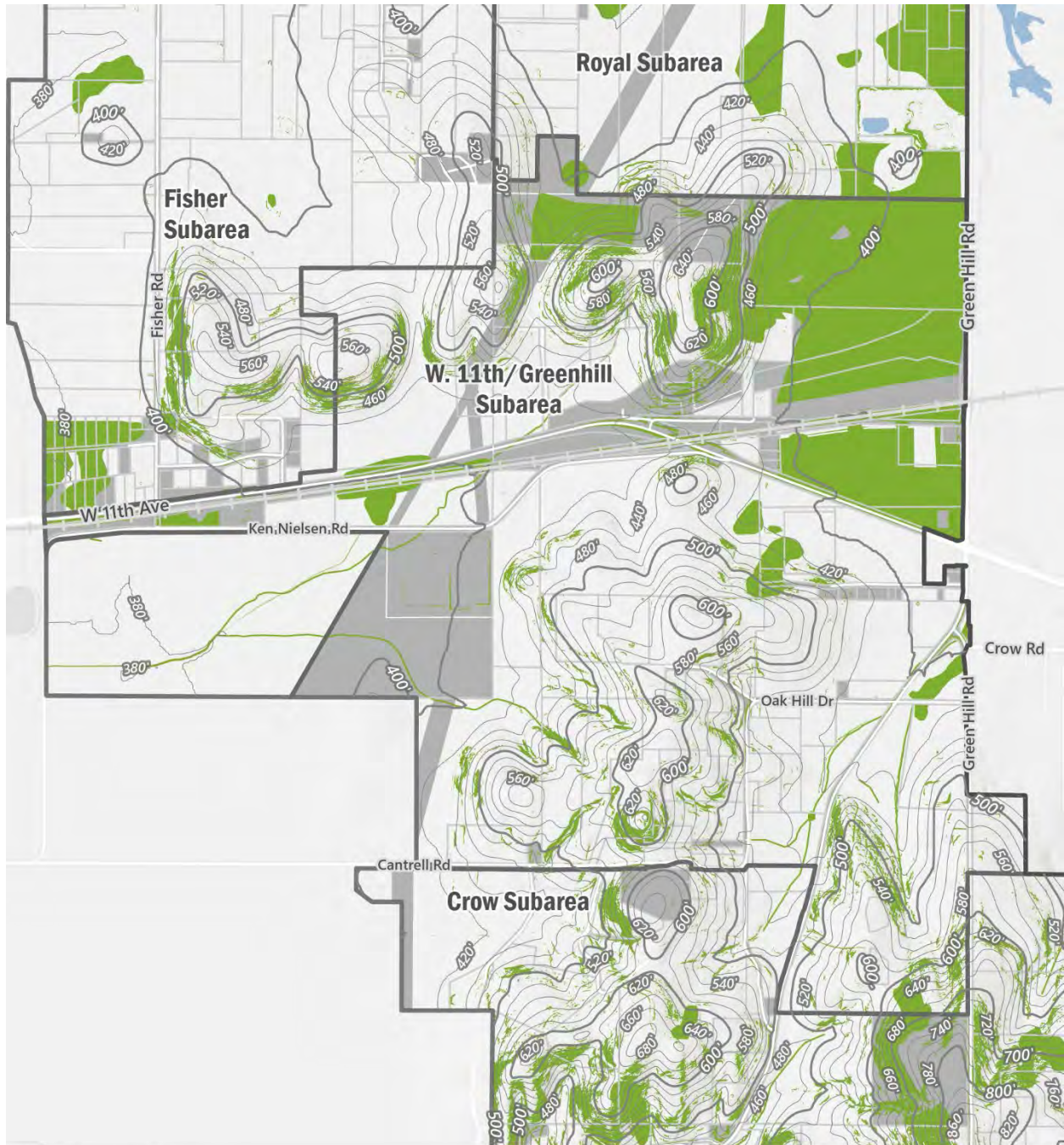
Map 12.5 Potential Residential Capacity, West 11th/Greenhill Subarea








Map 12.6 Potential Industrial Capacity, West 11th/Greenhill Subarea



Map 12.7 Contours and Hillshade, West 11th/Greenhill Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Tax lots
-  Severely constrained by natural hazards or subject to natural resource protections
-  Occupied



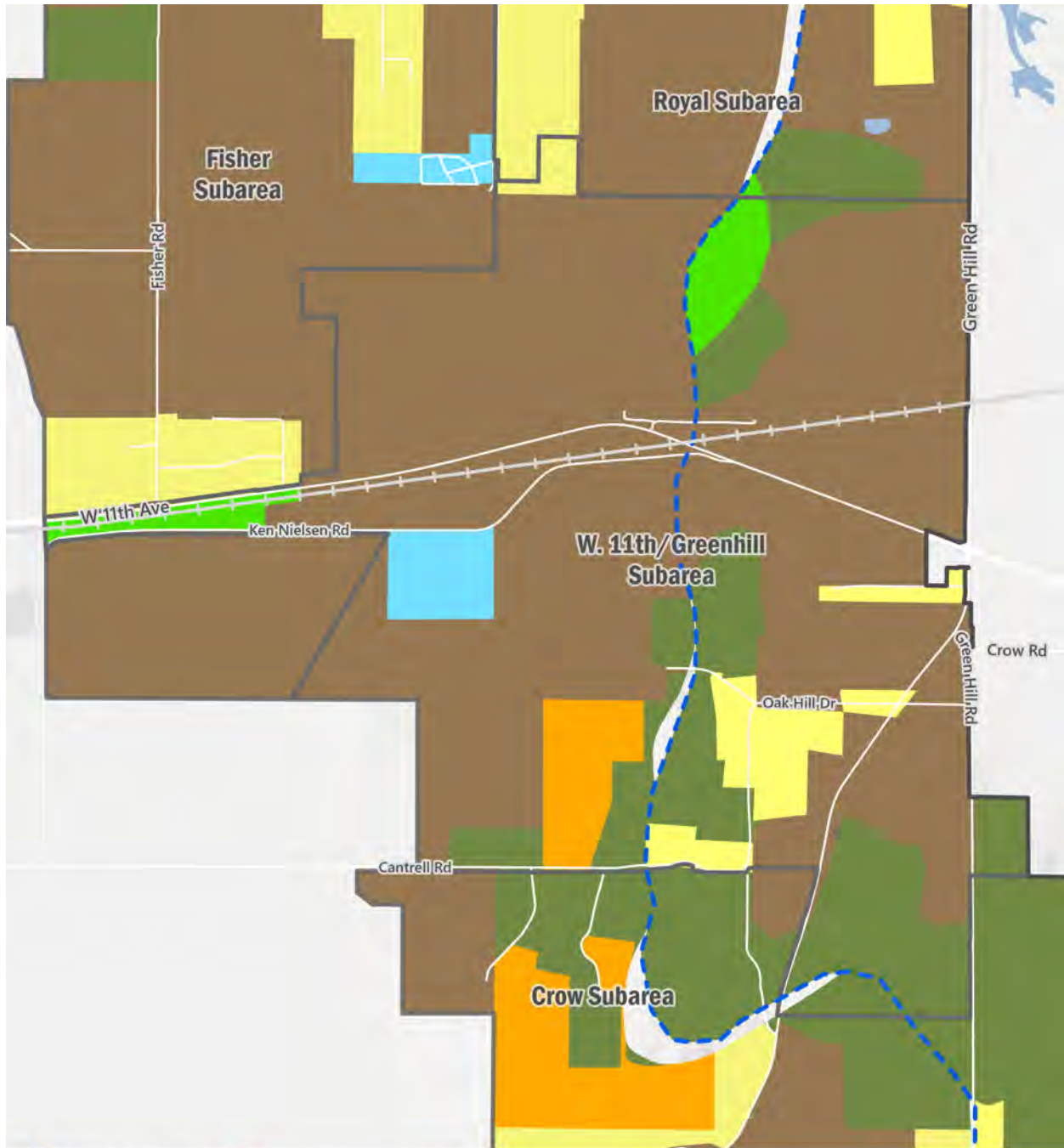
0.3 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 12.8 Plan Designations, West 11th/Greenhill Subarea



- | | | |
|---|----------------------------|------------------------|
| Metro plan boundary | Industrial | Agriculture |
| Eugene UGB | Marginal | Airport reserve |
| Eugene urban reserves subarea boundaries | Natural resource: mineral | Government & education |
| Rural comprehensive plan designation | Natural resource: wildlife | Forest land |
| Agriculture | Non resource | Natural resource |
| Airport | Parks | Parks and open space |
| Commercial | Public facility | Rural commercial |
| Forest | Residential | Rural residential |
| | | Sand and gravel |



0.3 Miles

Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

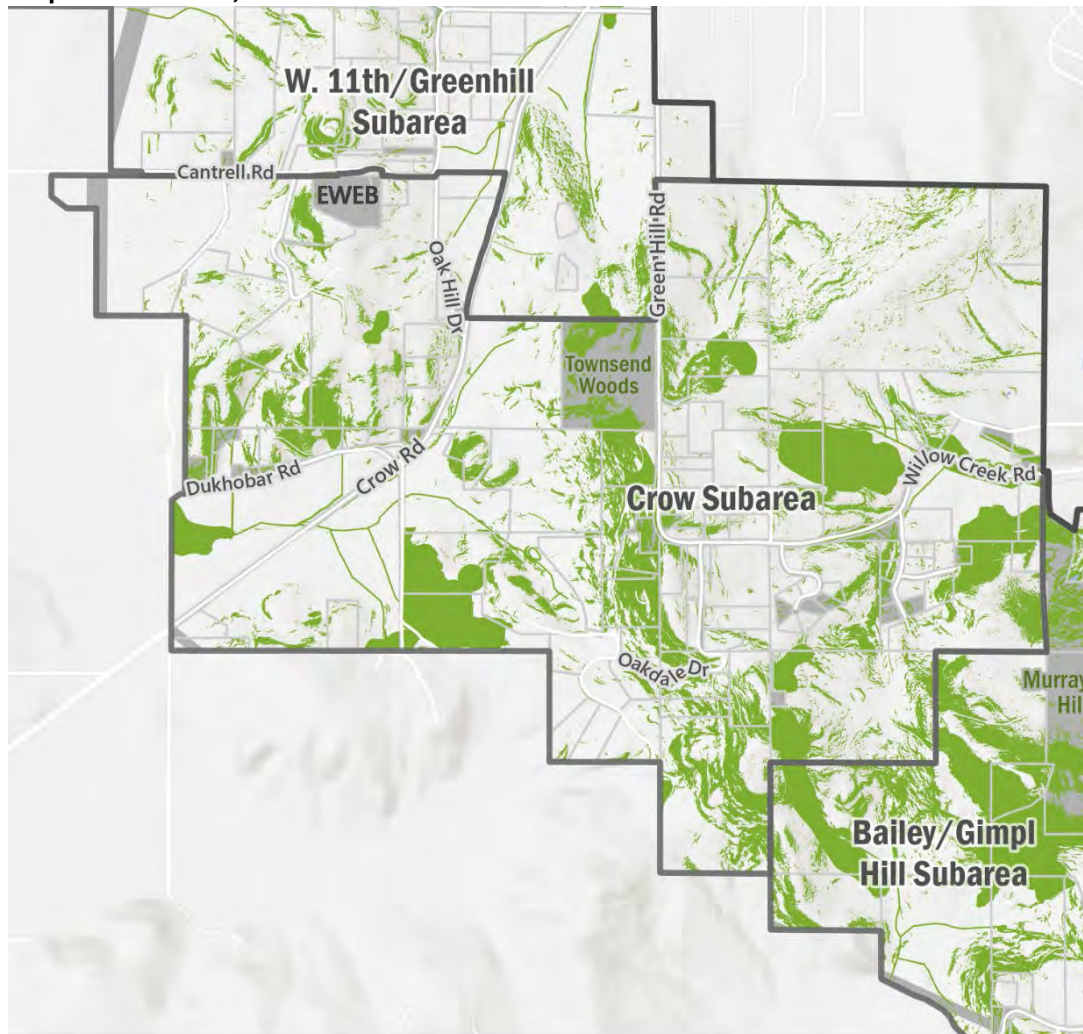
Data sources: City of Eugene, Lane County, RLID, DOGAMI.

13. Suitability Analysis – Crow

I. Background

- A. Location:** The land in the Crow subarea is to the southwest of Eugene and includes land around Willow Creek, Green Hill and Crow Roads. It is contiguous to the southwestern edge of the UGB. See **Map 13.1 Location**, below, and **Maps 13.2-13.8** for additional information relevant to the subarea analysis.

Map 13.1 Location, Crow Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied



0.4 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

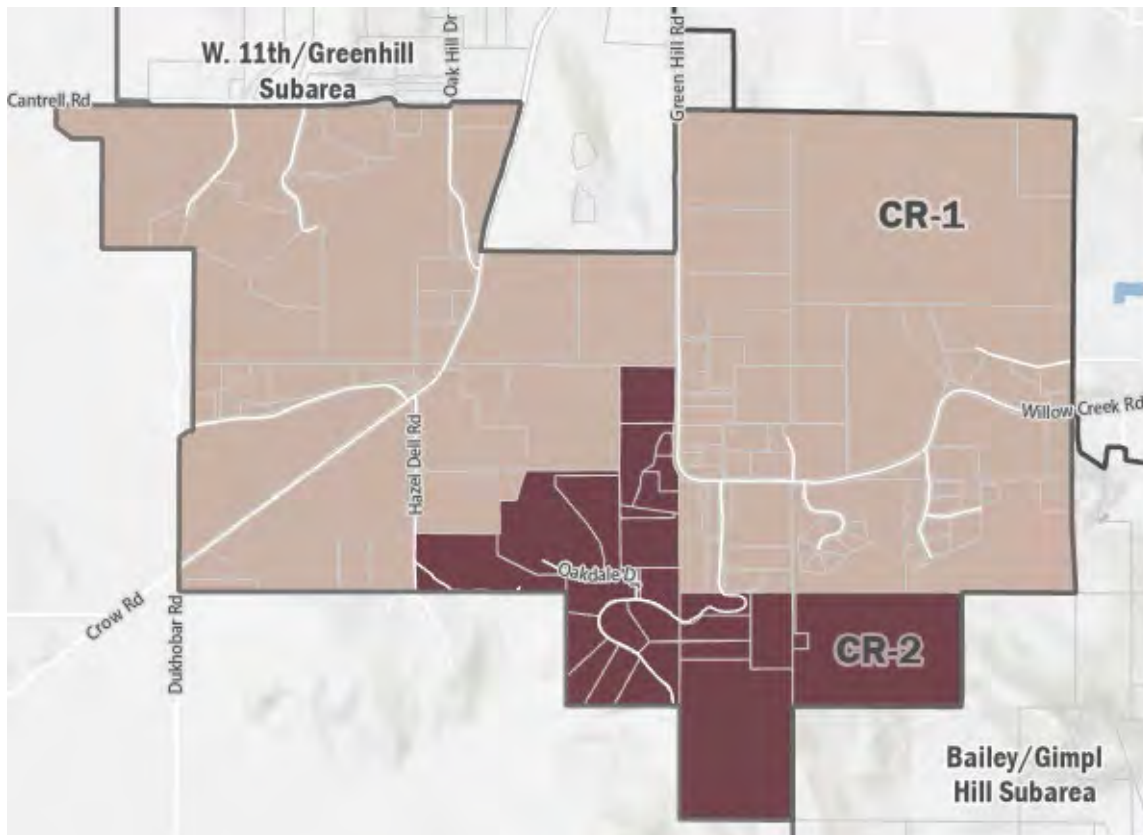
- B. Existing Land Uses:** There are 1,473 acres of land in the Crow subarea. The most predominant uses are scattered rural residential and small-scale farm and forest activities. The land in the subarea includes Townsend Woods, a public park on Greenhill Road, and utility land owned by EWEB on Cantrell Road (shown in gray on **Map 13.1 Location, Crow**). There is also a monastery along Green Hill Road, near the northern boundary of land in the subarea.
- C. Barriers to Development:** Much of the land in the subarea is characterized by the presence of slopes, with seventeen percent of land in the subarea having a slope of greater than or equal to 30 percent. These prohibitively steep slopes (30 percent or greater), high-risk landslide hazard, and wetland and riparian areas are shown in green on all maps. Additionally, an incomplete road system creates a lack of transportation access to the lands in the southeastern portion of land in the subarea.
- D. Surrounding Land Uses:** Undeveloped land is located within the UGB (and in some cases within the City limits) to the north and east of the subarea. A campus industrial employment center is located close by (2-3 miles) on Willow Creek Road, between West 18th and West 11th Avenues. A variety of services are available just east of Willow Creek Road on West 11th Avenue. The main right-of-way connections include Crow Road, Green Hill Road and Willow Creek Road. Bailey Hill School, Churchill High School, and McCornack Elementary School serve the area. Land beyond the study area's southwestern boundary is primarily agricultural and forest. The land in the subarea is nearby the Ridgeline park system to the east.
- E. Organization of this Analysis:** After an initial review, it became clear that there are different areas of land in the Crow Road subarea that share attributes relevant for Goal 14 Locational Factor analysis, therefore they have been subdivided further, as follows:

Land in **CR-1** includes 830 developable acres. It is located adjacent to the UGB and can be accessed by several roads, primarily Crow, Green Hill and Willow Creek Roads. The land in CR-1 contains a variety of land types, uses and constraints that together share similar attributes as relates to the Goal 14 locational factor analysis.

Land in **CR-2** includes 158 developable acres. It is significantly different than the land in CR-1 in that it is located farther from the UGB, lacks access to road systems, and contains steep slopes that limit efficient urbanization. The land in CR-2 contains a variety of land types, uses and constraints that together share similar attributes as relates to the Goal 14 locational factor analysis.

These circumstances enable the land in the Crow subarea to be considered in terms of the two areas shown in **Map 13.2 Organization of Analysis**.

Map 13.2, Organization of Analysis, Crow Subarea



II. Identify land that would be suitable for urban reserves¹

A. Locational Factor 1: Efficient accommodation of identified land needs

To what extent is there ...

- 1. *Developable land adjacent to or nearby (within .25 mile) of the UGB?*** In total, there are 268 developable acres with a portion of their tax lot² within .25 miles of the UGB, as shown on the **Map 13.4 Development Potential**. This is approximately 27 percent of the developable land within the subarea; all of this land is within CR-1. Land in CR-2 does not contain any land within .25 miles of the UGB. Land that is within .25 miles of the UGB is likely to more efficiently

¹ Please refer to Section II C of the Eugene Urban Reserve Study (Findings Appendix 2) for background on how the City is identifying land in the study area that would be “suitable,” the explanation of the prompts used for the Goal 14 Locational Factors, and specific terminology.

² In the urban reserves study area, ‘lots’ are used for analysis purposes. See the *Eugene Urban Reserves Technical Memo*, (Findings Appendix 4) for complete information.

accommodate the identified land needs than land that is further away from the UGB because of street, utility and neighborhood connections to already urbanized land.

2. ***Partially vacant developable land (that could be developed for the identified land needs)?*** The land in the subarea contains 987 developable acres: 608 acres located on lots classified as partially vacant, and 379 acres located on lots classified as undeveloped. The distribution of these lots is shown on the **Map 13.4 Development Potential**. Both land in CR-1 and CR-2 contain lots with a mix of development potential.
3. ***Developable land that is identified in the capacity analysis³ as potentially able to be urbanized with a mix of residential housing? How does this translate into potential dwelling units (per the capacity analysis)?*** Sixty seven percent of the land in the subarea is identified as having capacity for residential or employment development. This developable land has capacity for 3,576 dwelling units, or an average residential density of 3.6 dwelling units per developable acre. This is lower than the average residential density of the developable land overall in the urban reserve study area (4.8 dwelling units per developable acre). As shown on **Map 13.5 Potential Residential Capacity**, there are 4 larger undeveloped lots with high capacity (500-1013 dwelling units per lot) all in land in CR-1, a mix of undeveloped lots with relatively high capacity (100-499 dwelling units per lot) all in land in CR-1, and smaller partially vacant lots with enough developable land for less than 25 dwelling units per lot in both land in CR-1 and CR-2. The presence of prohibitively steep slopes and high-risk landslide areas lower the development capacity of some of the land, many of which are in land in CR-2, along the ridgeline in the southeastern edge of the subarea.
4. ***Developable land that is identified in the capacity analysis⁴ as potentially able to be urbanized with industrial land need? How does this translate into potential industrial sites (per the capacity analysis)?*** All of the land with potential industrial capacity is located on land in CR-1. As shown on **Map 13.6 Potential Industrial Capacity**, there are seven lots identified as potentially suitable for urbanization with industrial land, totaling 193 developable acres, all of which are located on land in CR-1. These range from 5-9 developable acres to 50-74 developable acres. Given their size and location near freight route access points, the identified lots on land in CR-1 may be able to accommodate identified industrial land needs if the subarea were to urbanize, depending on nearby uses.
5. ***Topography, steep slopes or other “undevelopable”⁵ lands that would make efficient urbanization difficult?*** “Undevelopable” lands are shown as gray and green on all of the analysis maps. Natural resources on land in CR-1 include adopted Goal 5 wetlands located along waterways and an adopted Goal 5 riparian area along the west fork of Willow Creek at the edge

³ For information on how residential development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

⁴ For information on how residential development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

⁵ As described in section II B of the Eugene Urban Reserve Study (Findings Appendix 2), land was assigned no development capacity if it falls within one of the these “undevelopable” categories: severely constrained by natural hazards or is designated or zoned to protect natural resources; or not vacant or partially vacant (i.e. the land is already occupied).

of the UGB. As shown on **Map 13.7 Contours and Hillshade**, there is land with prohibitively steep slopes and high-risk landslide hazard areas throughout the subarea but primarily on land in CR-2 west of Green Hill Rd and to the southeast of Willow Creek Road. Steep topography and hazard areas make efficient urbanization difficult due to the higher cost of developing around these areas and their lack of development capacity.

Conclusion: *The ability of the land in CR-1 to efficiently accommodate identified land needs is mixed, due to its positive and negative characteristics. The positive attributes of the land in CR-1 include the existing road system, which provides a good basis for future development; developable land adjacent to the UGB and existing city limits, which enables efficient connections to existing developable land; and a mix of partially vacant and undeveloped lots with a variety of lot sizes suitable for both residential and industrial development. At the same time, there are some lots throughout CR-1 that contain prohibitively steep slopes and high-risk landslide hazard areas, which could make efficient urbanization more difficult and costly than on flat land. It is dependent on the land in the West 11th Greenhill subarea urbanizing first. Despite this, on balance, all of the land in CR-1 can efficiently accommodate identified land needs.*

The more remote land in CR-2 has a negative rating, as it would not be able to efficiently accommodate identified land needs due primarily to its high elevation along or beyond the ridgeline, profusion of steep slopes and high-risk landslide hazard areas, lack of transportation access and low development capacity.

Efficient accommodation of identified land needs:	Positive	Mixed	Negative
Land in CR-1			
Land in CR-2			

B. Locational Factor 2: Orderly and economic provision of public facilities and services⁶

The information below addresses the feasibility of serving developable land in the Crow subarea with public facilities and services in an orderly and economical way. It considers the capacity of the current system to serve the area and the extent of new infrastructure that would be needed to serve the area if urbanized. It includes an analysis of **wastewater, water, transportation, transit, stormwater, and fire/emergency services** and also, to a lesser extent, it includes the provision of **electricity, schools and parks.**⁷

Before the narrative description is a table showing the **generalized serviceability** of the subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff, and a **generalized cost estimate** to address the economics of serving the subject area with public

⁶ The definition of “public facilities and services,” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines, is: “[p]rojects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.”

⁷ The summarized information used in this section is based on the results of the *Urban Reserves Serviceability Analysis Report* (Findings Appendix 3). In providing information for that report, service providers considered the serviceability of the subareas in their entirety; they generally did not differentiate between areas within a subarea.

facilities and services. It reflects preliminary high-level estimates for the major components of the individual systems. Cost information is provided on a \$ to \$\$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$\$) denoting the greatest cost. The scale used to evaluate each type of service is tailored to address the fact that some services are more expensive to provide than others. For example, a \$ for wastewater does not equate to the same dollar amount as a \$ for transportation. Cost estimates do not include future maintenance costs.

Crow Road Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Easy	Difficult	Moderate-Difficult	Moderate	Moderate	Moderate-Difficult
Generalized cost estimate	\$\$	\$\$\$	\$\$\$-\$\$\$\$\$	\$\$\$	\$\$\$	\$\$\$

1. **Wastewater:** The subarea is assigned an “easy” serviceability rating and the generalized cost estimate for improvements is \$\$\$. This is because there are no capacity issues with the existing wastewater system and land in the subarea can be served by gravity to the existing system. No new pump stations would need to be built, which makes the subarea easier to serve.
2. **Water:** The subarea is assigned a “difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. This is because additional water storage and pumping capacity will be needed for all land with elevations above 500 feet. A distribution system would have to connect to Highway 126. Three separate pressure zones would be required to serve the subarea, one reservoir and two pump stations would be required, and additional property would have to be acquired. EWEB also owns property for water storage on Cantrell Road that is beneficial for water provision in the area.
3. **Fire:** The subarea is assigned a “moderate to difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$ - \$\$\$\$\$. This is due to response time and service delay concerns in the areas farther from the UGB, due to the topography and the existing road system and distance from fire stations. Also, there is potential wildfire risk due to steep slopes, forested areas, wildland-urban interface conditions, and water supply/fire flow concerns.
4. **Transportation:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. Beyond necessary road system improvements in the subarea, there are also projected capacity and congestion concerns along West 11th Avenue, and possibly along portions of West 18th Avenue, which serve as the main connections to downtown Eugene.
5. **Transit:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. This is because EmX West on West 11th Avenue is the closest route to this subarea. The subarea could be served by a connector route, or through deviating an existing route, but it would be challenging to do efficiently.
6. **Stormwater:** The subarea is assigned a “moderate to difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. This is because sites over 500 feet in elevation would need to meet current headwater flow control requirements (i.e. maintaining

peak flows at pre-development rates). Soils are likely to be less suitable for infiltration, making meeting the current flow control requirements moderately challenging. Flow controls would be needed for steep-sloped areas. There is a potential need for detention facilities due to steep slopes and hydric soils. Stormwater development standards would need to be met also for pollution reduction, and potentially expanded future flow control requirements.

- 7. Other (Parks, Schools, Electric):** The 34-acre Townsend Woods Park is located off Green Hill Rd in the subarea in **CR-1**. To the east of the subarea is the City of Eugene Ridgeline trail and parks system. In the city limits along Bailey Hill Road are Eugene School District 4J elementary, middle and high schools. Lane Electric Cooperative currently provides service to most of the subarea, and EWEB already provides electric service to the northern portion of the subarea (in CR-1).
- 8. Is there undeveloped land within the UGB that would be helped in its development/serviceability if this area were included in urban reserves, or is there undeveloped land within the UGB that would negatively impact the orderly and economic provision of public facilities and services?** The land within the UGB that is adjacent to the subarea would likely benefit from the inclusion of this area within Urban Reserves, as it could all potentially benefit from sharing the cost of extending services to the area.

Conclusion: While service providers analyzed the developable land in the subarea as a whole, in looking at the different characteristics of the land in **CR-1** and **CR-2**, there are some differences in the provision of public facilities and services that stand out. As a whole, only wastewater could be easily and inexpensively be provided to the land in the Crow Road subarea in an orderly and economic manner if it were to urbanize. The land in the subarea would be moderately difficult to difficult to serve with urban-levels of water, stormwater, transportation and fire service, and moderately- to very costly due primarily to the presence of steep slopes and significant infrastructure needed to serve the area.

*The land in **CR-1** is mixed in its ability to be served in an orderly and economic manner as it contains some steep slopes; even though services could be extended to the edge of the property, orderly and economic service provision would be unlikely based on its inability to efficiently accommodate identified land needs, as found in Locational Factor 1.*

*The land in **CR-2** cannot be served in an orderly and economic manner as the developable land is farther from the UGB, scattered throughout and negatively impacted by the extent and location of the surrounding land that is severely constrained by natural hazards.*

Orderly and economic provision of public facilities and services:	Positive	Mixed	Negative
Land in CR-1			
Land in CR-2			

C. Locational Factor 3: Comparative environmental, energy, economic and social consequences

1. Environmental Consequences:

- a. *Presence of natural resources: To what extent would urbanization of this area negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources?*** Urbanization could negatively impact riparian areas and wetlands found in both land in CR-1 and CR-2. There are several creeks in the subarea: Willow Creek, Dead Cow Creek, and a side channel of Coyote Creek. Future development will increase impervious surfaces such as roofs and pavement which could increase stormwater runoff and potential pollutants in waterways, however, development would be subject to the city's stormwater standards, which would mitigate these impacts.
- b. *Presence of hazard areas (steep slope, landslides, floodplain): To what extent would urbanization of this area increase the potential risk of natural hazards, such as landslides, wildfire or flooding?*** There are high-risk landslide areas and steep slopes throughout the subarea (shown on the maps in green) on land in both CR-1 and CR-2. Seventeen percent of the land within the subarea contain steep slopes (slopes 30 percent or higher). The majority of these prohibitively steep slopes are on lands in CR-2. Additionally, high-risk landslide areas, identified by DOGAMI, are present in the subarea on land in both CR-1 and CR-2. There is heavily forested land in both land in CR-1 and CR-2. Urbanization of the land in this subarea would potentially increase the risk of natural hazards, such as landslides and wildfire, especially in the land in CR-2 that is more remote and contains more hazard areas and is more difficult to access by utilities due to lacking looped street connections.
- c. *Presence of nearby public open space: To what extent would nearby public open space benefit future residents of the area?*** As noted previously, the 34-acre Townsend Woods is a public park located off Green Hill Rd on land in CR-1, and additional public parkland is located nearby, immediately east of the subarea, providing significant wildlife habitat and natural resource protection. It also will provide close-to-home recreational opportunities for the land in the subarea's growing population, benefitting future residents by providing nearby opportunities for active and passive recreation, such as hiking, bird watching and nature appreciation. The parkland is proximate to land in both CR-1 and CR-2.

Conclusion: *As described above, urbanization of the land in CR-1 could potentially increase the risk of natural hazards, such as landslides and wildfire. At the same time, there is a significant amount of parkland adjacent to land in CR-1, providing positive environmental consequences and benefitting area residents. Focusing urbanization on less sensitive areas on land in CR-1 would mitigate negative environmental consequences. Therefore, the environmental consequences of urbanizing the land in CR-1 are mixed.*

Urbanization of the land in CR-2 could potentially increase the risk of natural hazards, such as landslides and wildfire, as it is heavily forested and contains a ridgeline of prohibitively steep slopes making utility and emergency access to the area difficult. The location and presence of natural hazard land in CR-2 is inopportune to mitigate negative environmental consequences. Therefore, the environmental consequences of urbanizing land in CR-2 are negative (high).

Environmental Consequences:	Positive (Low)	Mixed (Medium)	Negative (High)
Land in CR-1			
Land in CR-2			

2. Energy Consequences (priority for lower energy usage):

- a. To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt)?** On land in CR-1, the lower, flatter area closer the UGB could be moderately well-situated to co-locate a variety of housing (low to high density residential) due to the existence of large undeveloped and partially vacant parcels immediately adjacent to the UGB, existing looped street connections, water service, schools and open space. This flatter and therefore more walkable land in CR-1 has potential as a 20-minute neighborhood (where homes, jobs and services can be reached on foot within 20 minutes), limiting the need for vehicle trips and having positive energy impacts, especially when the adjacent land inside the city limits develops. However, for land in CR-2, topography, distance from the UGB, lot sizes or existing roads are likely to keep multi-modal access as well as average residential capacity relatively low. Because of this, future development would likely rely on automobile access and would increase vehicle miles traveled having negative energy consequences.

- b. To what extent is the area easily accessible to other services or uses (e.g., neighborhood commercial, parks, schools)?** There are no neighborhood-serving commercial uses or job centers in the subarea in either land in CR-1 or CR-2. East of the subarea adjacent to land in CR-1 are schools within the UGB along Bailey Hill Road. 34-acre Townsend Woods Park is located on Green Hill Rd on land in CR-1, and additional public parkland is located immediately east of land in the subarea. Also as noted, some of the land in CR-1 is adjacent to the UGB, and the Highway 126/West 11th commercial corridor and the Willow Creek industrial park are both less than a mile away. Both areas provide good access to jobs, commercial/retail and services from the land in CR-1. As the land in CR-2 is encumbered by prohibitively steep slopes, due to topography and road systems constraints, it lacks easy access to nearby services or uses.

- c. To what extent is the area adjacent to or nearby the UGB? (see Locational Factor 1, A.2)** As already noted in Locational Factor 1, the Crow Road subarea is adjacent to the UGB, and includes 268 developable acres with a portion of their tax lot within .25 miles of the UGB, all in land in CR-1, as shown on the **Map 13.4 Development Potential**, or approximately 27 percent of the developable acres within the subarea. Developable land adjacent or nearby the UGB is

presumed to be more efficient to serve, to provide access to and connect to neighborhoods in the UGB. Land in CR-2 does not contain any land within .25 miles of the UGB.

- d. To what extent is there good multi-modal transportation access to this area? To what extent is the area easily accessible to job centers and downtown?** Multi-modal transportation access to this subarea is mixed. Transit service would need to be extended to this subarea, as there are no existing transit routes on land in CR-1 or CR-2. However, LTD’s bus rapid transit runs along West 11th Avenue, accessed less than a mile away, and connects passengers to job centers and downtown. The Willow Creek Industrial Park provides job opportunities immediately east of land in CR-1 inside the city limits, accessed from Willow Creek Road. Steep slopes and relatively narrow roadways throughout the subarea create challenges for safe bicycle and pedestrian access. Roadway improvements, including bike lanes and sidewalk improvements, would need to be added to accommodate all users. These challenges extend into the UGB, as Green Hill Road is a steep climb to the edge of the study area on land in CR-1.
- e. To what extent does future urbanization directly or indirectly generate energy or climate burdens (e.g. loss of open space, loss of growing lands, loss of solar access, increased traffic, increased carbon emissions)?** Future urbanization of land in the subarea will, directly and indirectly generate moderate energy and climate burdens due to the loss of forest (and to a lesser extent agricultural) lands, and increased vehicle traffic resulting in increased carbon emissions.

Conclusion: *As described above, there are mixed energy consequences to urbanizing the developable land in CR-1. The flatter areas near the UGB have potential for co-locating a variety of housing, jobs, and services, limiting the need for vehicle trips and therefore having positive energy impacts. There is access to transit and job centers along West 11th Avenue and along Willow Creek Road. While there are some topography and steep slopes constraints on land in CR-1, combined with the considerations above, there would be mixed impacts on energy usage, with potential for multi-modal access, less infrastructure needed, and more multifamily housing opportunities.*

On land in CR-2, topography, lot sizes and high-risk landslide areas are likely to keep average residential density low. Additionally, the land in CR-2 lacks easy access and is farther away from existing neighborhood services and uses within the UGB. Therefore, urbanization would have negative impacts on energy usage (with potentially more driving, more infrastructure needed and less multifamily housing opportunities).

Energy Consequences:	Positive	Mixed	Negative
Land in CR-1			
Land in CR-2			

3. Economic consequences:

- a. In general, how much economic activity would urbanization of this area bring? Ex: Additional construction opportunities?** The land in the Crow Road subarea contains 987 acres of developable land; most of these developable acres (830 acres) are on land in CR-1. Based on generalized capacity assumptions, the full subarea could accommodate 3,576 residential dwelling units. Given the estimated cost of serviceability, new development in this subarea would likely be expensive, and as the land in CR-2 is generally steeper and more constrained, it has fewer development opportunities. Nonetheless, urbanization would bring construction activity that would benefit the local economy. The City's tax base would increase with urbanization, but the cost of services (capital and ongoing) may outweigh the increased revenue. The land in CR-1 accesses looped street connections and proximity to employment centers along Willow Creek and West 11th Avenue, providing economic benefits for future residents.
- b. Is the area appropriate for future urbanization with a variety of identified uses (not just LDR), to support connected, integrated neighborhoods? (also see Locational Factor 3, energy Consequences C.2a):** As noted previously, the flatter, closer-in land in CR-1 could support future urbanization with a variety of identified uses which support connected, integrated neighborhoods. The land in CR-2 is encumbered by prohibitively steep slopes, high-risk landslide hazard areas, lacks connection to looped road systems, and therefore could not support connected, integrated neighborhoods.
- c. Are there concerns about future urbanization causing a loss of economic activity for existing and nearby uses? (also see Locational Factor 4)** The developable land within the subarea (land in both CR-1 and CR-2) is mainly forested and includes scattered large-lot rural residential homes. There is some agricultural land along Crow Road and Cantrell Road on land in CR-1, that's current use appears to be grass or hay farming and may be impacted by adjacent urbanization. However, given that most of the uses on land in CR-1 and CR-2 are primarily rural residential, there is relatively little concern about future urbanization causing a loss of economic activity for existing and nearby uses.
- d. How cost-efficient is service provision in this area? (also see Locational Factor 2)** As already noted, the relative high cost of serving the land in the Crow Road subarea makes the likelihood of efficient urbanization and its associated economic benefits mixed. While the potential capacity on some lots on land in CR-1 may optimize the investment in infrastructure over the long term, this assumes development occurring in anticipated (or greater) densities. In land in CR-1, larger lots, lots with flatter topography, and lots with access to the looped road system would likely be more economically feasible for urbanization. On land in CR-2, there are primarily lots with steeper topography, less developable land, without access to a looped road system that would not be economically feasible for urbanization.

Conclusion: As described above, urbanization will bring positive economic consequences to the land in CR-1, but primarily due to the high cost of service provision, the likelihood of efficient urbanization and its associated economic benefits are lessened, and consequences are mixed. The location of the land in CR-1, with access to looped road connections to West 11th Avenue and Willow Creek employment centers, benefits it economically.

The land in CR-2 is steeper, more remote and difficult to build on and serve with public utilities, making it less affordable and unable to support connected, integrated neighborhoods. Therefore, the economic consequences of urbanization are negative.

Economic Consequences:	Positive	Mixed	Negative
Land in CR-1			
Land in CR-2			

4. Social Consequences:⁸

- a. Will urbanization negatively impact current residents?** While urbanization may burden some existing residents on land in CR-1 and CR-2 due to increased noise, traffic, and impacts to their viewshed, it could also provide housing, services and neighborhood commercial uses accessible to a broad range of residents. Residents would benefit from the opportunity to connect to urban services, such as water, wastewater, fire and emergency services and improvements to the roadway system.

- b. How would urbanization worsen or improve service delivery to residents in this area (e.g. adequate fire response times, access to water, parks)? (also see Locational Factor 2):** Service delivery to land in CR-1 and CR-2 would improve with urbanization, however the provision of services is generally costly, as discussed in Locational Factor 2. There is already potential wildfire risk in this subarea due to the urban interface with rural forest lands; the risks increase if urbanization occurs on the farther-out and steep land in CR-2. Fire safety and emergency response would be improved if urban services were extended, but additional fire infrastructure would likely be needed. Given the current locations of the city fire stations and existing street network, there are response time/service delay concerns. Urbanization would also lessen water and fire flow concerns as the urbanized area would be served by EWEB water. This would benefit properties with drinking water concerns due to wells running dry, but significant distribution and transmission systems would have to be extended to provide full service to the subarea. In general, urban-level services would benefit existing and future residents of the subarea on land in both CR-1 and CR-2. It is assumed that neighborhood parks would be developed as neighborhoods urbanize to meet the City’s service standards.

- c. Will urbanization exacerbate the impacts of potential natural hazards, such as flooding, fire, and landslides? (also see Locational Factor 3, Environmental Consequences C.1.b)** Urbanization of land in the Crow subarea could increase landslide risk on steep slopes, however, high-risk landslide areas are categorized as undevelopable, with no development capacity forecast on them, mitigating potential impacts. The majority of the prohibitively steep slopes are located on land in CR-2, making development on that land potentially more hazardous. As noted above, large portions of the subarea on land in both CR-1 and CR-2 are forested, making it at risk for wildfire, which may increase over time with climate change. However, urban levels of fire and water services will help mitigate that risk.

⁸ The definition of “social consequences” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines is: “[t]he tangible and intangible effects upon people and their relationships with the community in which they live resulting from a particular action or decision.”

- d. How might urbanization in this area impact vulnerable populations⁹ and underserved groups currently living in the subarea? Could one segment of the population be impacted more than another (e.g. low-income households)?** There could be negative impacts to vulnerable and underserved groups due to the high cost of development particularly on land in CR-2. Providing affordable housing in this subarea, especially on more distant and steep land in CR-2 would be challenging due to the probable high cost of development. Steep slopes and high elevation make using alternative modes of transportation difficult and hinder the creation of a system that could accommodate all users. There may be increased safety hazards for transportation users like bicyclists and pedestrians. The land in CR-1 has fewer prohibitively steep slopes and access to looped road systems, resulting in potentially lower cost housing and fewer safety hazards for transportation users. If transit service is extended to this subarea, it would benefit all residents, but the cost and challenges of doing so, especially land in CR-2, would be significant.
- e. Will urbanization in this area allow for connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a):** As discussed previously, some of the closer-in land in the subarea (in CR-1) could support future urbanization with a variety of identified uses which support connected, integrated neighborhoods, providing positive social consequences. The land in CR-2 would now allow for connected, integrated neighborhoods due to its topography and remoteness.

Conclusion: As described more fully above, urbanization of land in **CR-1** would have mixed social consequences. Service delivery would improve with urbanization, however it would not come without a price; depending on individual needs and circumstances there could be a positive or negative social consequence. For example, there could be negative impacts to vulnerable populations such as older residents and low-income households due to the potential high cost of receiving urban services, such as drinking water. However, the ability to extend EWEB water throughout land in CR-1 would benefit properties currently dependent on wells that are running dry. Urbanization could increase the chance of wildfire for development in the wildland urban interface, but urban levels of fire and water services will help mitigate that risk.

The land in CR-2 is steeper, more remote and difficult to build on; the potential hazards and cost of development are greater, making the social consequences of urbanization negative.

Social Consequences:	Positive	Mixed	Negative
Land in CR-1			
Land in CR-2			

Locational Factor 3 Conclusion:

For the land in **CR-1**, the analysis under Locational Factor 3 shows that urbanization would have mixed Environmental, Energy, Economic and Social consequences.

⁹ Vulnerable populations are defined as populations that identify as a non-white race or ethnicity, younger or older populations, populations with a disability, and/or single-headed households. Data is from Livability Lane, 2013 Equity and Opportunity Assessment, Social and Demographic Characteristics Map. The extent to which vulnerable populations and underserved groups currently live in the subarea is speculative.

For the land in **CR-2**, the analysis under Locational Factor 3 shows that urbanization would have negative Environmental, Energy, Economic and Social consequences.

D. Locational Factor 4: Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

1. ***How will urbanization impact agricultural and forest activities on farm and forest designated land within the subarea?*** There is does not appear to be commercially managed forest activities on Forest-designated land within CR-1 or CR-2. There is some active farming and grazing on Agriculture-designated land along the southwest and west edge of the subarea on land in CR-1 that may be negatively impacted by adjacent neighborhoods and increased congestion on roadways from urbanization, mitigated by the fact that they are mostly near the edge of the subarea and appear to be lower-intensity operations such as grass, hay or cattle grazing. There is no agricultural land in CR-2.

2. ***Is urbanization compatible with existing agricultural and forest uses on farm and forest designated land nearby (outside of the subarea)?*** Surrounding land that is designated Forest does not appear to be used for commercial forestry, however there is some active farming and grazing on Agriculture-designated land outside of the subarea, primarily along Crow Road and Cantrell Road. The farmland north of Cantrell Road is in the West 11th/Greenhill urban reserves subarea and therefore may also be urbanized. This farmland may be marginally impacted by nearby urbanization on land in CR-1; land in CR-2 is more separated from active farming and if urbanized would not have an impact.

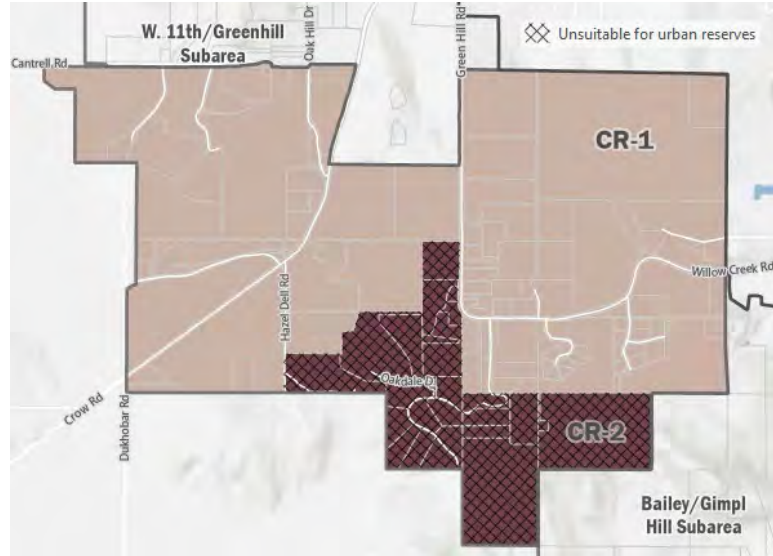
Conclusion: Because there are no active forest activities occurring on forest land in the subarea and minimal active farming on agricultural land in the subarea in **CR-1**, it appears that urbanization in CR-1 and CR-2 would be mostly compatible with agricultural and forest activities on agriculture and forest-designated land within the subarea and outside of the UGB.

Compatibility with nearby agriculture and forest activities	Positive	Mixed	Negative
Land in CR-1			
Land in CR-2			

III. Conclusion

Considering and balancing the Goal 14 Locational Factors as analyzed above, there would be some positive and some negative aspects of future urbanization of the Crow Road subarea as a whole, which is why the analysis was described as laid out in this report and summarized as follows:

Land CR-1 includes 830 developable acres. It is located adjacent to the UGB and can be accessed by several roads, primarily Crow, Green Hill and Willow Creek Roads. As shown in this report, in evaluating the land in CR-1, the Locational Factor conclusions were mostly “mixed” in their findings: Locational Factor 4 was positive; and Locational Factors 1, 2, 3(a), 3(b), 3(c), and 3(d) were all mixed. The land in CR-1 includes constraints such as a steep slope to access the land



from the UGB, but it is also near existing uses and services, and is accessible to connected street systems, which are necessary for service provision and the efficient accommodation of identified land needs. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in CR-1 result in a determination that land in CR-1 is suitable for urban reserves designation.

The land in **CR-2** includes 158 developable acres. It is significantly different than the land in CR-1 in that it is located farther from the UGB, lacks access to road systems, and contains steep slopes that limit efficient urbanization. In evaluating the land in CR-2, the Locational Factor conclusions were mostly “negative” in their findings: Locational Factor 4 was positive; and Locational Factors 1, 2, 3(a), 3(b), 3(c), and 3(d) were all negative. This is because the land is significantly encumbered by steep slopes and high landslide risk, is far from existing uses and services within the UGB and lacks access to public street connections. It has lower capacity for future jobs or homes and the developable land cannot be efficiently urbanized. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in CR-2 result in a determination that it is not suitable for urban reserves designation at this time

Please see the summary tables on the following page and **Map 13.3 Suitability Results**.

Summary

Crow Road Subarea

Suitable for Urban Reserves Designation

Land in CR-1

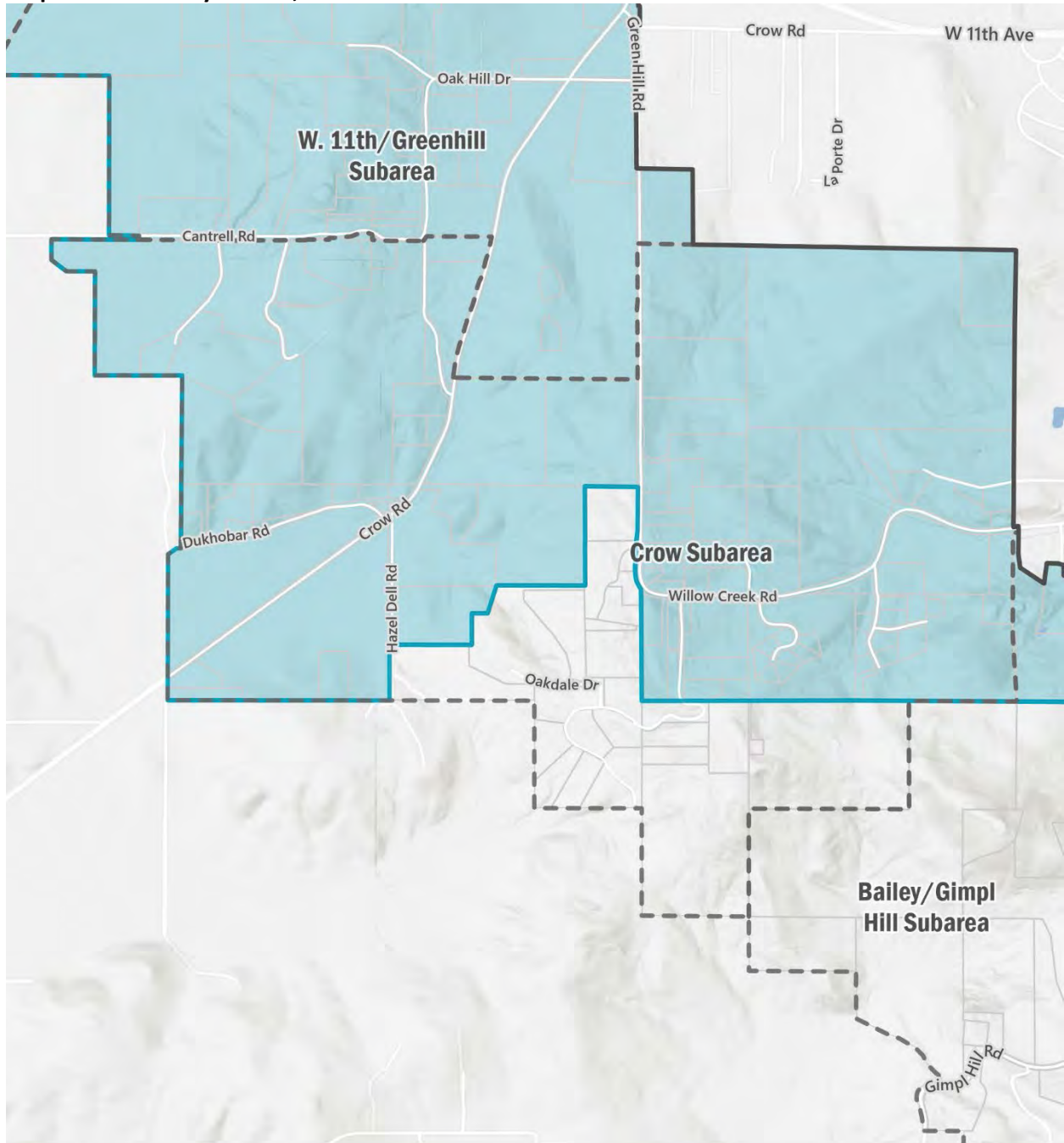
	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Not Suitable for Urban Reserves Designation

Land in CR-2

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Map 13.3 Suitability Results, Crow Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Eugene urban reserves suitable land
- Tax lots



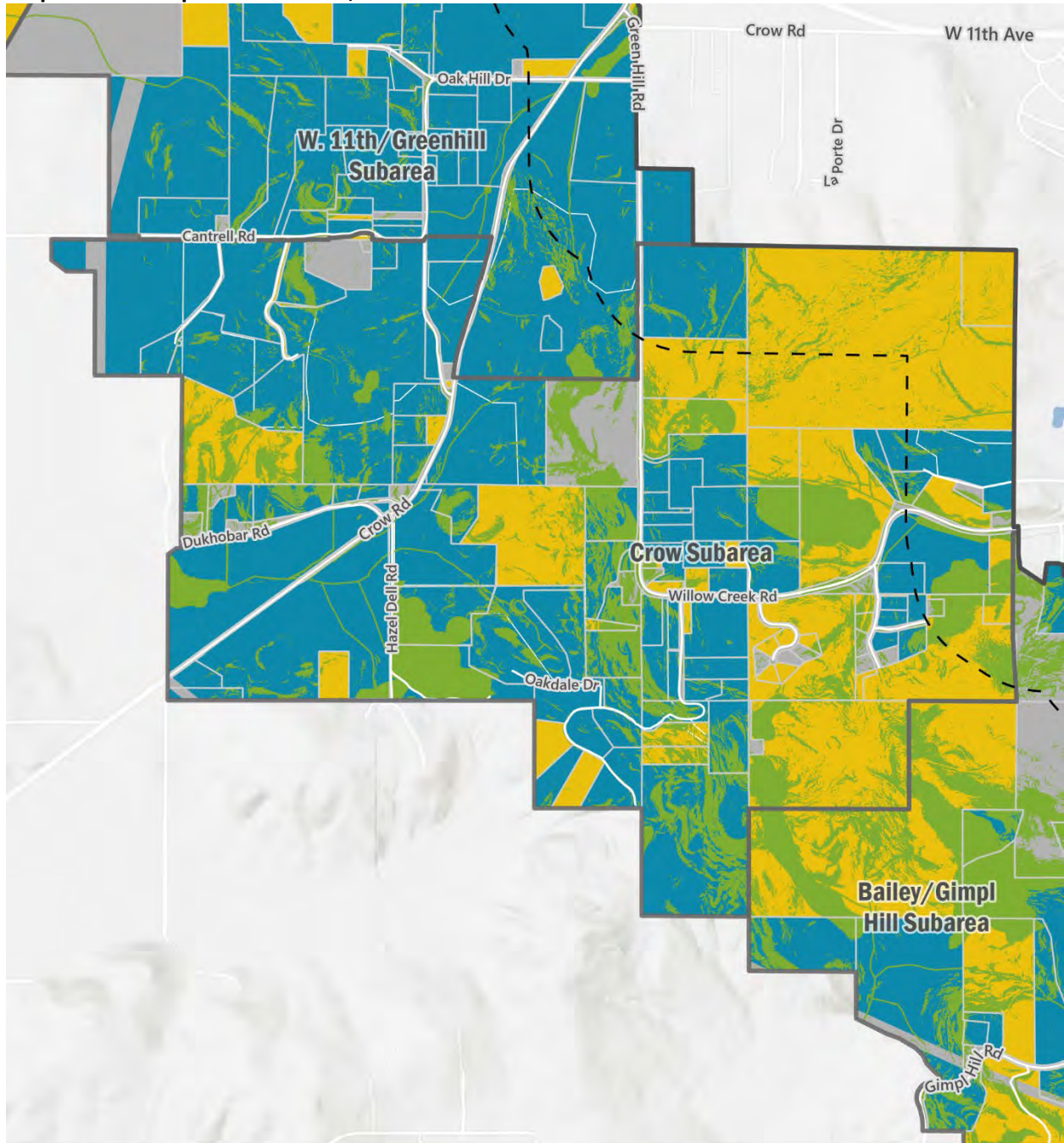
0.3 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 13.4 Development Potential, Crow Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Quarter mile from Eugene UGB
- Tax lots

- Developable**
- Partially Vacant
- Undeveloped
- Undevelopable**
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied

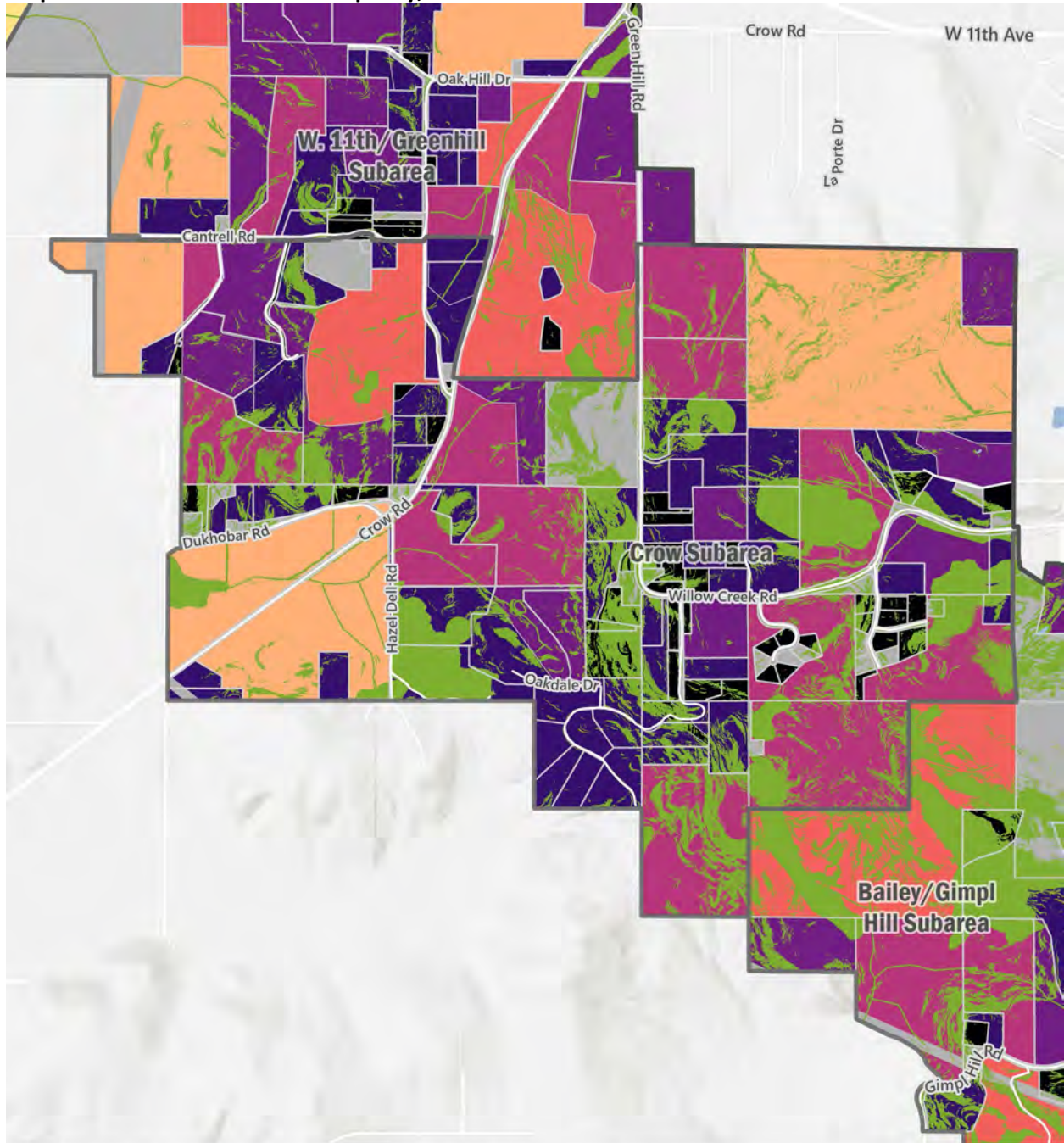


0.3 Miles

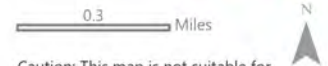
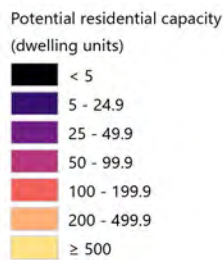
Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 13.5 Potential Residential Capacity, Crow Subarea



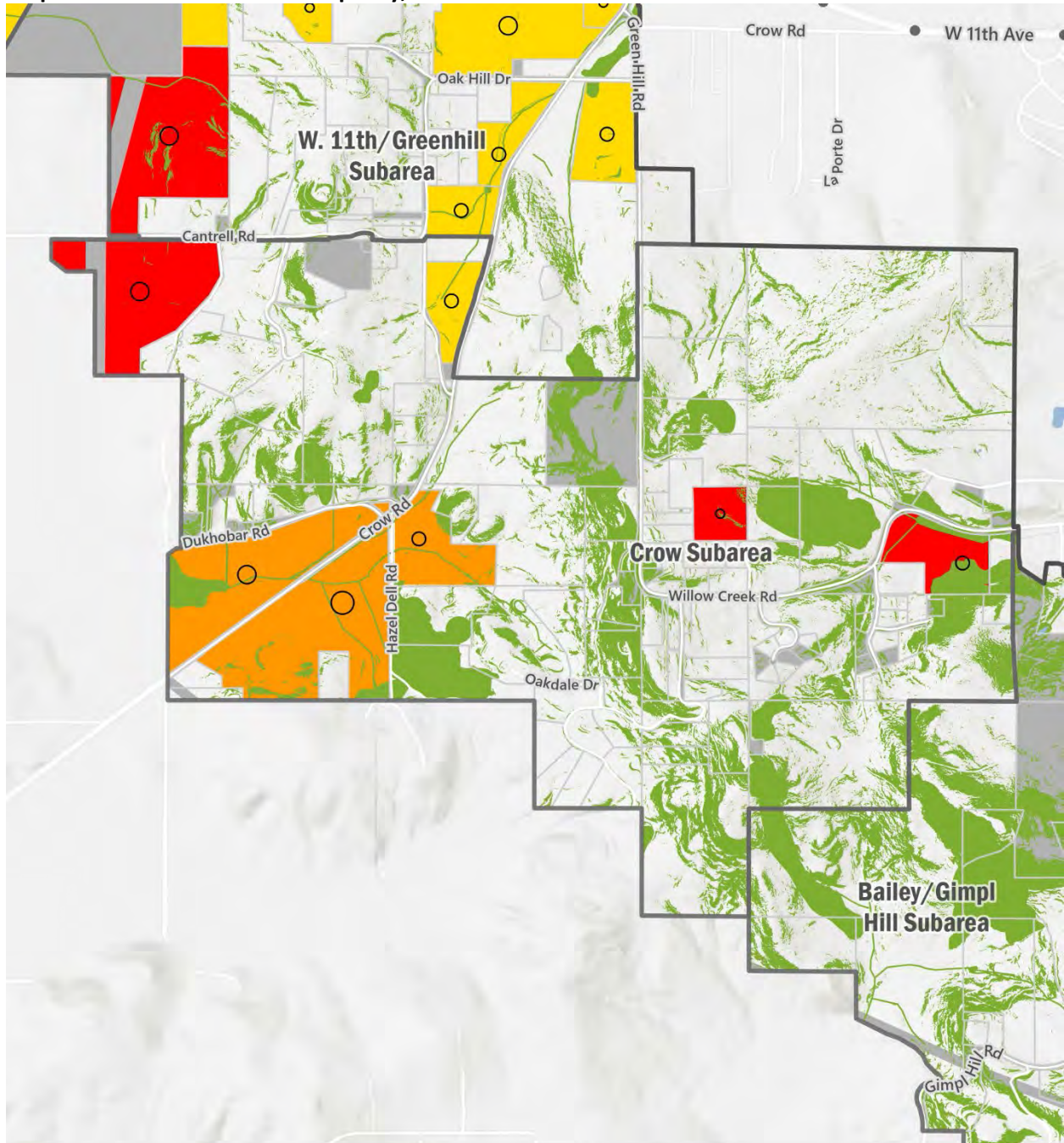
- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

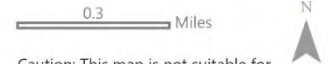
Map 13.6 Potential Industrial Capacity, Crow Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied
- Freight Route Access Points

- Tax lots meeting industrial criteria
 Developable acres per tax lot
- 5 - 9 ac
 - 10 - 19 ac
 - 20 - 49 ac
 - 50 - 74 ac
 - 75+ ac

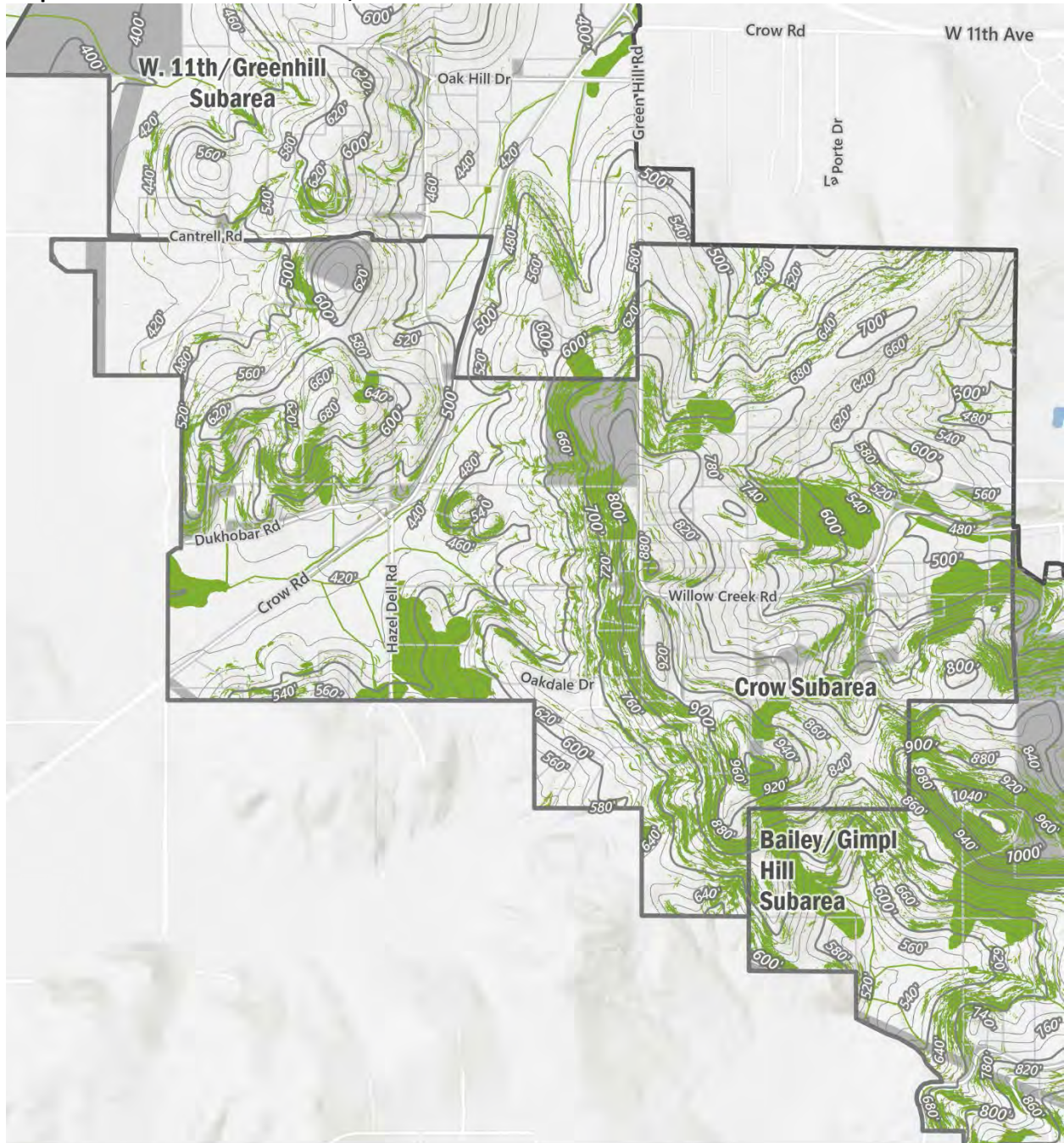
- Tax lots meeting industrial criteria
 Driving distance to a freight route
- 1 mile
 - 1.5 miles
 - 2 miles








Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 13.7 Contours and Hillshade, Crow Subarea



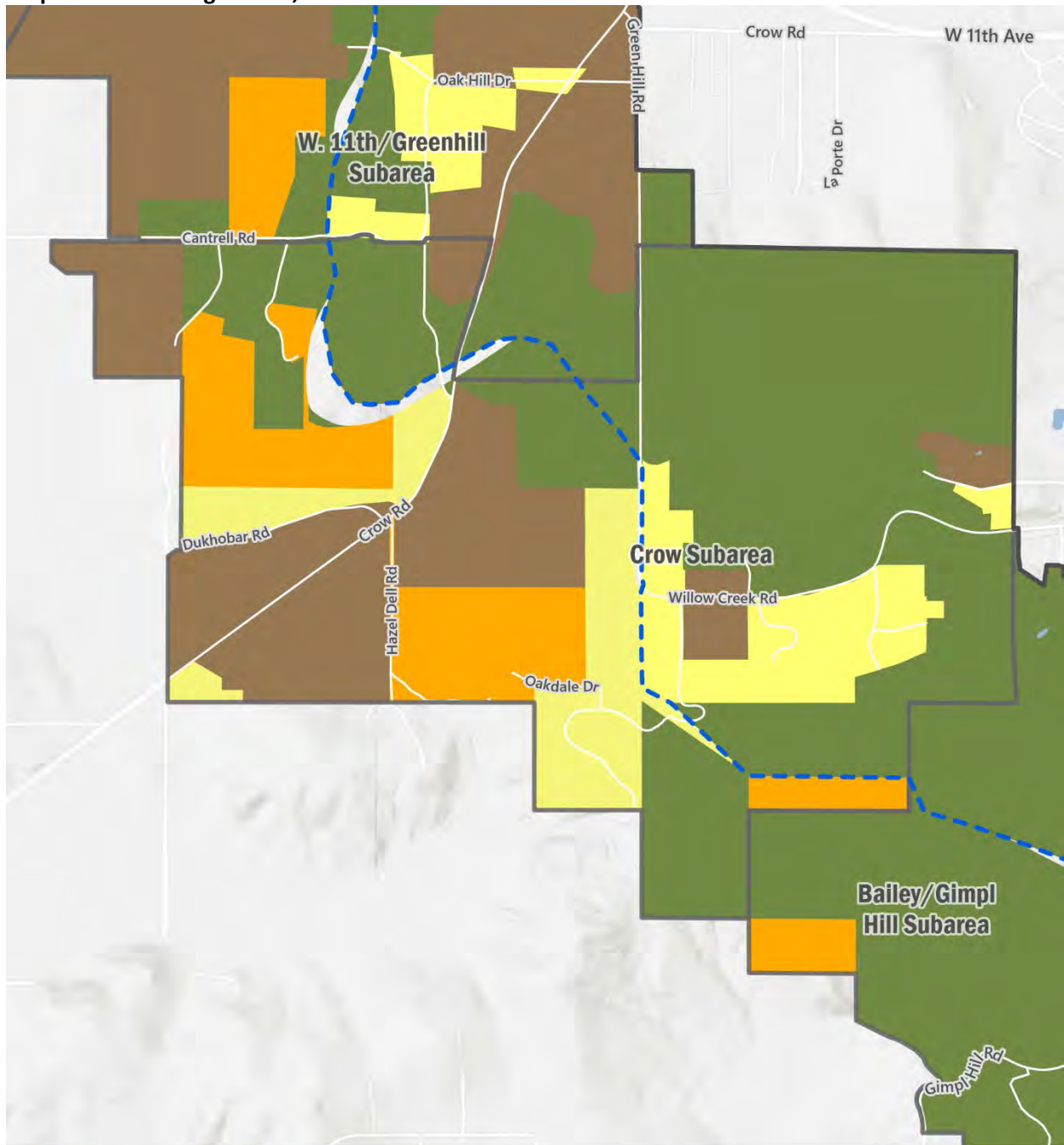
-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Tax lots
-  Severely constrained by natural hazards or subject to natural resource protections
-  Occupied



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 13.8 Plan Designations, Crow Subarea



- | | | |
|---|----------------------------|------------------------|
| Metro plan boundary | Industrial | Agriculture |
| Eugene UGB | Marginal | Airport reserve |
| Eugene urban reserves subarea boundaries | Natural resource: mineral | Forest land |
| Rural comprehensive plan designation | Natural resource: wildlife | Government & education |
| Agriculture | Non resource | Natural resource |
| Airport | Parks | Parks and open space |
| Commercial | Public facility | Rural commercial |
| Forest | Residential | Rural industrial |
| | | Rural residential |
| | | Sand and gravel |



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

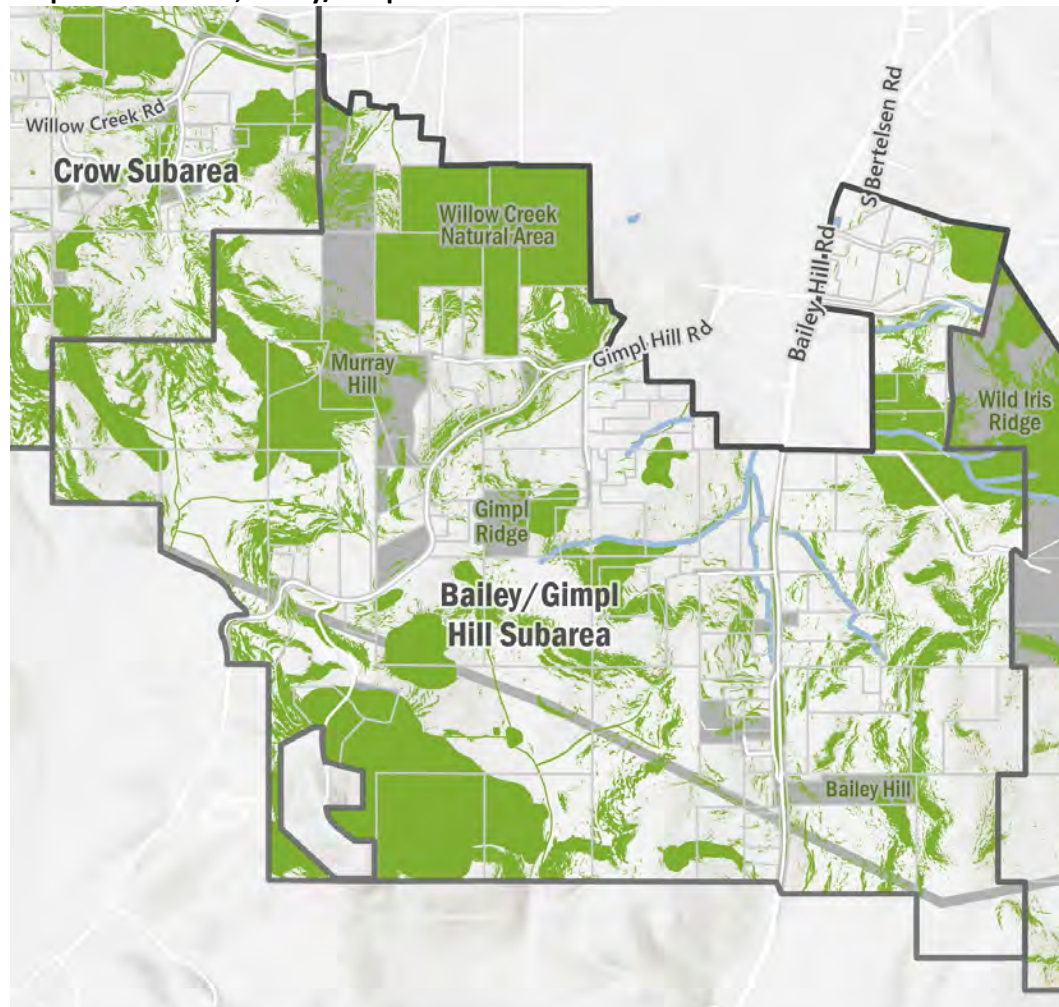
Data sources: City of Eugene, Lane County, RLID, DOGAMI.






14. Suitability Analysis – Bailey/Gimpl Hill

I. Background

- A. Location:** The land in the Bailey/Gimpl Hill subarea is located to the southwest of Eugene contiguous to the southwestern edge of the UGB, and generally includes land around Gimpl Hill Road and Bailey Hill Road. Land in the Crest Chambers subarea is directly to the east and land in the Crow subarea is directly to the northwest. See **Map 14.1 Location**, below, and **Maps 14.2-14.8** for additional information relevant to the subarea analysis.

Map 14.1 Location, Bailey/Gimpl Hill Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Tax lots
-  Severely constrained by natural hazards or subject to natural resource protections
-  Occupied



0.4 Miles

Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

- B. Existing Land Uses:** Of the 1,742 acres of land in this subarea, 902 acres, or 52 percent, have potential for future residential or employment development. The land in the subarea contains numerous lots with rural residential development concentrated around both Gimpl Hill Road and Bailey Hill Road. The largest share of the developable land is designated forest land (742 acres) and is used for large-lot rural housing and possibly small-scale commercial forestry. The remaining land in the subarea has no residential or employment development capacity (shown in gray and green on the map). The gray land includes public park land. The public Murray Hill Park accounts for 77 acres of land and Bailey Hill Park and Gimpl Ridge Park (28 acres total) are also located on land in this subarea and are part of the City's Ridgeline Trail system. The Nature Conservancy owns three lots on the northern boundary of the subarea, near Rathbone Road, that total 97 acres and is a designated natural area on the Oregon State Register of Natural Heritage Resources. There is also a Bonneville Power Administration power line easement that runs through the southern portion of land in the subarea.
- C. Barriers to Development:** Almost half (thirty-eight percent) of the area is categorized as natural hazard or natural resource land and much of the land in the subarea is characterized by the presence of steep slopes. Twenty-three percent of the land within the subarea has a slope of 30 percent or greater and the land in the subarea contains areas with a high risk of shallow or deep landslide, as mapped by the Oregon Department of Geology and Mineral Industries (DOGAMI). These prohibitively steep slopes (30 percent or greater) and high-risk landslide hazard areas are shown in green on all maps. Also, in green are Statewide Planning Goal 5 protected wetlands which are located on the northern edge of the land in the subarea, between Bailey Hill Road and Gimpl Hill Road. A few small creeks run through the land in the subarea.
- D. Surrounding Land Uses:** The public Wild Iris Ridge Park is immediately east of land in this subarea and at least two trails access it from the land in the Bailey/Gimpl Hill subarea. The land adjacent to this area within the UGB is made up of predominantly partially vacant residential lots. Most of the adjacent land within the UGB is not annexed nor does it have City services. The Willow Creek Natural Area, which is owned by the Nature Conservancy, extends into this subarea north of Gimpl Hill Road. The Nature Conservancy owns a significant amount of the nearby land within the UGB south of 18th Avenue—two lots immediately within the UGB alone total 103 acres. There is an area of industrial development within the UGB to the north of land in this subarea, on West 18th Avenue, that is in close proximity but not easily accessible by neighborhood streets. A residential neighborhood, which includes a mix of existing development types, is within the UGB and in proximity to land in this subarea though it is separated by undeveloped land along the UGB. Land to the south of this subarea is primarily forested, but also includes a mix of agricultural uses and dispersed residential development.
- E. Organization of this Analysis:** After an initial review, it became clear that within the land in this subarea, there are different areas of land that share attributes that are relevant for Goal 14 Locational Factor analysis. Therefore, they have been subdivided further, as follows:

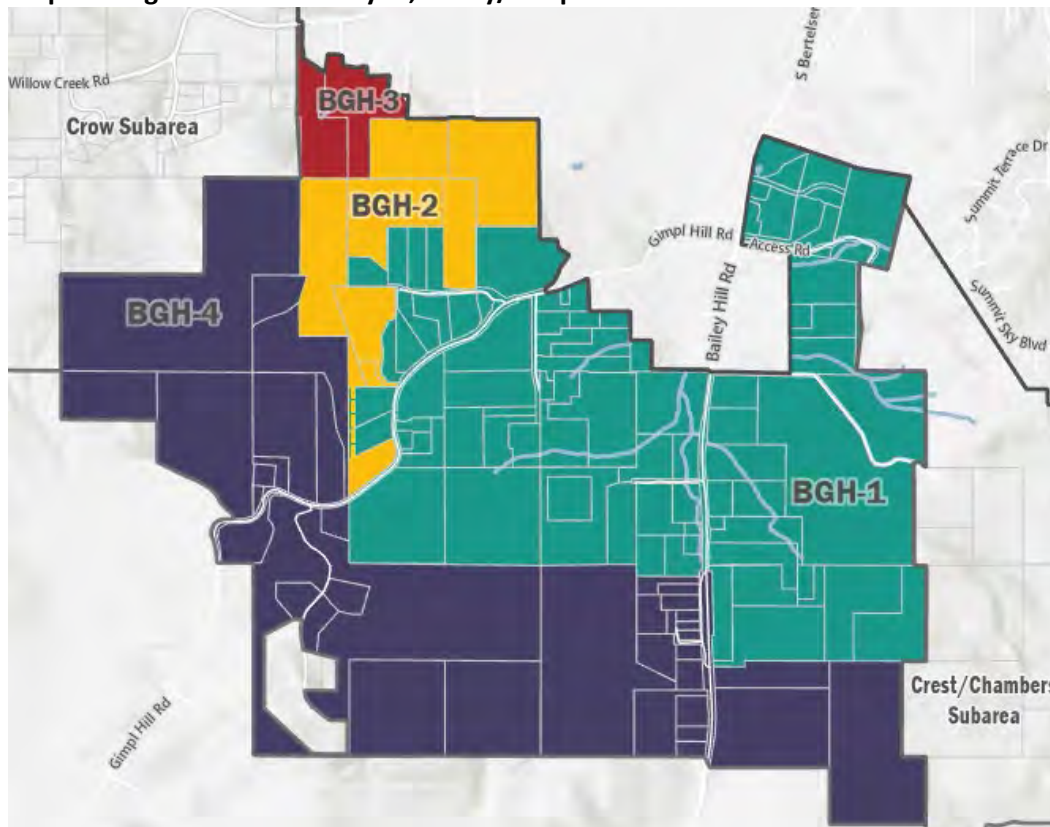
Land in **BGH-1** includes 491 developable acres. It is composed of land located closer to the UGB that can be accessed by Bailey Hill Road and Gimpl Hill Road. The land in BGH-1 typically contains smaller lot sizes and a variety of land types, uses and constraints that together share similar attributes as relates to the Goal 14 locational factor analysis, described further below.

Land in **BGH-2** does not have any developable acres. It is comprised entirely of park land located in the northwestern portion of the subarea. This land is owned by the City of Eugene and The Nature Conservancy and it is not assumed to develop or to aid in the urbanization of surrounding properties if brought into the UGB. The land owned by the Nature Conservancy is part of the Willow Creek Natural Area which extends inside the UGB. It is a designated natural area on the Oregon State Register of Natural Heritage Resources and is subject to natural resource protections.

Land in **BGH-3** includes 16 developable acres. It is located in the northwestern portion of the subarea and is adjacent to the UGB. It contains two taxlots, one of which is owned by the City of Eugene for park land. Land in BGH-3 is accessible by Willow Creek Road.

Land in **BGH-4** includes 395 developable acres. It is adjacent to the southern boundary of the subarea and abuts the Crow subarea to the northwest and the Crest Chambers subarea to the southeast. It is farther from the UGB, typically has larger lot sizes, and contains steep slopes and landslide hazard areas that limit efficient urbanization. A BPA easement runs through the land in BGH-4 and there are a few lots owned by the City of Eugene for parkland near Bailey Hill Road. As described further in the analysis, the land in BGH-4 contains land types, uses and constraints that together share similar attributes as relates to the Goal 14 locational factor analysis.

Map 2.2 Organization of Analysis, Bailey/Gimpl Hill Subarea



II. Identify land that would be suitable for urban reserves¹

A. Locational Factor 1: Efficient accommodation of identified land needs

To what extent is there...

- 1. *Developable land adjacent to or nearby (within .25 mile) of the UGB?*** The land in the Bailey/Gimpl Hill subarea includes a moderate amount of developable land (partially vacant or undeveloped) that is adjacent to or nearby (within .25 mile) the UGB, as shown on **Map 14.4 Development Potential**. In total, there are 285 developable acres with a portion of their lot within .25 miles of the UGB. Most of this land is within BGH-1, with a small amount also located in BGH-3. There is no developable land within .25 miles of the UGB in BGH-2 or BGH-4. Land that is within .25 miles of the UGB is likely to more efficiently accommodate the identified land needs than land that is further away from the UGB because of street, utility, and neighborhood connections to already urbanized land.
- 2. *Partially vacant developable land (that could be developed for the identified land needs)?*** Within the land in the subarea there are 902 developable acres. 544 developable acres are on lots classified as partially vacant and 359 developable acres are on lots classified as undeveloped. Land in BGH-1, BGH-3, and BGH-4 have development capacity. BGH-2 is completely occupied and has no development capacity. The distribution of these lots is shown on the **Map 14.4 Development Potential Map**.
- 3. *Developable land that is identified in the capacity analysis² as able to be urbanized with a mix of residential housing? How does this translate into potential dwelling units (per the capacity analysis)?*** The land in the subarea has capacity for 2,413 dwelling units, which gives it an average capacity of 2.67 dwelling units/developable acres (compared to 4.8 dwelling units/developable acre for the entire study area) as shown on **Map 14.5 Potential Residential Capacity**. Land in BGH-1 and in a portion of BGH-3, adjacent to the UGB, may be able to be urbanized with a mix of residential housing primarily because of its proximity to the UGB and existing services, and existing transportation connections. While land in BGH-4 has higher capacity for residential development, due to larger lots, the distance from the UGB and the presence of prohibitively steep slopes and high-risk landslide areas make efficient urbanization with a mix of residential housing unlikely. BGH-2 is comprised entirely of occupied land and is assigned no development capacity.
- 4. *Developable land that is identified in the capacity analysis³ as potentially able to be urbanized with industrial land? How does this translate into potential industrial sites (per the capacity***

¹ Please refer to Section II C of the Eugene Urban Reserve Study (Findings Appendix 2) for background on how the City is identifying land in the study area that would be “suitable,” the explanation of the prompts used for the Goal 14 Locational Factors, and specific terminology.

² For information on how residential development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

³ For information on how industrial development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

analysis)? As shown on **Map 14.6 Potential Industrial Capacity**, there are no lots identified in the capacity analysis as potentially suitable for urbanization with industrial land need.

5. **Topography, steep slopes or other “undevelopable”⁴ lands that would make efficient urbanization difficult?** As shown on **Map 14.7 Contours and Hillshade**, land in the Bailey/Gimpl Hill subarea contains steep slopes, and 23 percent of the land within the subarea has a slope of 30 percent or greater. Steep topography, high-risk landslide hazard areas, and wetlands would make efficient urbanization difficult, especially along road frontages, making it challenging to reach land with development capacity and in the farther-out reaches of BGH-4. While land in BGH-1 does contain steep slopes and high landslide risk, especially to the east near Wild Iris Ridge Park (located in the Crest Chambers subarea), this land is adjacent to the UGB and is more easily accessible than land in BGH-4. In BGH-2 and BGH-3 there is land adjacent to the UGB that is occupied and contains natural resource and natural hazard land, which presents a challenge to efficient urbanization. This land (in BGH-2) constrains the utility and transportation connections that could be established from the UGB to the developable land within the subarea. This makes the western portion of land in the subarea (in BGH-4) especially difficult to urbanize efficiently, meaning it could not efficiently accommodate identified land needs. However, the occupied parkland in BGH-3 is owned by the City and has access to Willow Creek Road which may aid in the efficient urbanization of surrounding areas.

Conclusion: *As described above, the land in **BGH-1**, which is adjacent to the UGB and accessed from Bailey Hill Road and Gimpl Hill Road, is mixed in its ability to efficiently accommodate identified land needs. The positive attributes of the land in BGH-1 are that it is close to the UGB, existing development, services and job centers, and contains rural residential use. Even so, dwelling units per developable acre are low, given the presence of small lots, steep topography, and high elevation.*

*Land in **BGH-2** is comprised entirely of undevelopable land and has no development capacity. It would not aid in the efficient accommodation of identified land needs. It therefore has a negative rating.*

*Land in **BGH-3**, adjacent to the UGB and accessed from Willow Creek Road, is mixed in its ability to efficiently accommodate identified land needs. Land in BGH-3 is close to the UGB, existing development, services, and job centers. The land in BGH-3 contains existing rural residential use, however, it is small in size and has limited development potential.*

*Land in **BGH-4** has a negative rating due to the presence of steep slopes, high-risk landslide areas, elevation and distance from the UGB which significantly limit the potential residential capacity. Based on these factors it would not aid in the efficient accommodation of identified land needs.*

⁴ As described in section II B of the Eugene Urban Reserve Study (Findings Appendix 2), land was assigned no development capacity if it falls within one of the these “undevelopable” categories: severely constrained by natural hazards or is designated or zoned to protect natural resources; or not vacant or partially vacant (i.e. the land is already occupied).

Efficient accommodation of identified land needs:	Positive	Mixed	Negative
Land in BGH-1			
Land in BGH-2			
Land in BGH-3			
Land in BGH-4			

B. Locational Factor 2: Orderly and economic provision of public facilities and services⁵

The information below is meant to answer how easy or difficult it is to serve the developable land in the Bailey/Gimpl Hill subarea, including the capacity of the current system and new infrastructure needed to serve the area if urbanized: It includes an analysis of **wastewater, water, transportation, transit, stormwater, and fire/emergency services** and also, to a lesser extent, it includes provision of **electricity, schools and parks.**⁶

Before the narrative description is a table showing the **general serviceability** of the subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff. Also included is a **generalized cost estimate**, which represents preliminary estimates for the major components of the individual systems. Cost information is provided on a \$ to \$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$) denoting the greatest cost. The scale used for each type of service varies and is not comparable to other utilities or services. For example, a \$ for wastewater does not equate to a \$ for transportation. Cost estimates do not include future maintenance costs.

Bailey/Gimpl Hill Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Difficult	Moderate	Moderate	Moderate-Difficult	Moderate	Moderate-Difficult
Generalized cost estimate	\$\$\$\$\$	\$\$\$	\$-\$-\$	\$\$\$	\$\$	\$\$\$

- 1. Wastewater:** The subarea is assigned a “difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. This is due to lack of services immediately within the UGB and the need to build a pump station.
- 2. Water:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. This is because additional water storage and pumping capacity is necessary. Extension of water service to this area is problematic because it does not provide an opportunity to have a looped distribution system which results in poor water quality and lower reliability to customers on a single feed system. To get infrastructure to new

⁵ The definition of “public facilities and services,” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines, is: “[p]rojects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.”

⁶ The summarized information used in this section is based on the results of the Urban Reserves Serviceability Analysis Report (Findings Appendix 3). In providing information for that report, service providers considered the serviceability of the subareas in their entirety; they generally did not differentiate between areas within a subarea.

expansion areas, infrastructure has to be extended from the current city limits (or the nearest place where capacity exists to extend) to the expansion area regardless of development that may or may not occur within the current UGB. Bringing service to this subarea requires going around the Willow Creek natural area that is located within the UGB, which does not need to be served, which increases the cost of improvements.

3. **Fire:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$-\$\$\$\$. The majority of this area is currently served by the Bailey-Spencer Rural Fire Protection District, except for a portion in the northwest that is served by Zumwalt Rural Fire Protection District. Given the proximity to nearest city fire stations, it appears response times to this area would be acceptable; however, there are wildland urban interface conditions and water supply/fire flow concerns per EWEB.
4. **Transportation:** The subarea is assigned a “moderate to difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. There are capacity and congestion concerns at both West 11th and West 18th Avenue, as well as along Bailey Hill Road between West 11th Avenue and West 18th Avenue. These areas of concern are within the UGB but serve as the main connections from this subarea.
5. **Transit:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. This is because there is moderate access to this area given the steep topography and limited street connectivity. However, it is challenging to provide efficient transit service to areas such as this that are isolated from both other routes and areas of dense development. There are no existing routes in the immediate vicinity and the nearest route is on West 18th Avenue at Bertelsen Road and Bailey Hill Road.
6. **Stormwater:** The subarea is assigned a “moderate to difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. Capacity of the east branch of Willow Creek was evaluated using 1998 Metro Plan land use designations (rural residential), and one culvert deficiency was identified. Any sites over 500 feet in elevation would be in the “headwaters area” and would need to meet current headwater flow control requirements (i.e. maintaining peak flows at pre-development rates). Soils are likely to be less suitable for infiltration, making meeting the current flow control requirements moderately challenging. Flow controls would be needed for steep-sloped areas. There is a potential need for detention facilities due to steep slopes and hydric soils.
7. **Other (Parks, Schools, Electric):** This area contains a number of park lands. The 526-acre Willow Creek natural area is mostly inside the UGB but extends into this subarea. Within the Crow subarea and adjacent to Willow Creek is the 77-acre Murray Hill Park. The 13-acre Bailey Hill park is adjacent to Bailey Hill Road in the east portion of the subarea. Gimpl Ridge park is two separate pockets which total 15 acres and are part of the City’s Ridgeline Trail system. Land in BGH-1 abuts Wild Iris Ridge Park, which is located in the Crest Chambers subarea, but could benefit future residents not only for open space but potentially also for connections to urban services. This subarea is completely within the Eugene 4J School District. Lane Electric

Cooperative provides electrical service to the majority of this area with EWEB serving the remaining area.

- 8. Is there undeveloped land within the UGB that would be helped in its development/serviceability if this area were included in urban reserves, or is there undeveloped land within the UGB that would negatively impact the orderly and economic provision of public facilities and services?** The Nature Conservancy owns a significant amount of nearby land within the UGB that is a designated as a natural area on the Oregon State Register of Natural Heritage Resources and not assumed to develop, which could potentially make service connections difficult. There is adjacent undeveloped land within the UGB but outside of city limits that is currently not served with wastewater or EWEB water that would potentially benefit in its future development and serviceability if land in this subarea were included in urban reserves. However, it is not expected to reduce costs significantly because of its low projected development capacity.

Conclusion: While service providers analyzed the developable land in the subarea as a whole, in looking at the different characteristics of the land in BGH-1 through BGH-4, there are some differences in the provision of public facilities and services that stand out. Due to the Bailey/Gimpl Hill subarea’s steep terrain and the significant infrastructure needed, wastewater, water, stormwater, transportation and fire service would be moderately difficult to difficult to serve with urban-levels of service and moderately- to very costly. The subarea is also dependent on land inside of the UGB urbanizing first.

While land in **BGH-1** and **BGH-3**, contains steep slopes, it is mixed in its ability to be served in an orderly and economic manner as it abuts the UGB and existing development. Land in BG-1 is well connected to Bailey Hill and Gimpl Hill Roads, and land in BGH-3 is well-connected to Willow Creek Road, which is a loop roadway system and will aid in service provision.

Land in **BGH-2** is entirely occupied and contains natural resource and natural hazard land. While services could be extended to the edge of the City owned property, orderly and economic service provision would be unlikely based on its inability to efficiently accommodate identified land needs, as found in Locational Factor 1.

Land in **BGH-4** is more forested and contains prohibitively steep slopes. The land is difficult to serve given its high elevation and steep topography on the backside of the South Hills ridgeline; the existing steep and winding streets leading to and through the subarea and a lack of secondary roadway connections; and extremely limited options for service connections due to the steep topography and other physical constraints withing the subarea.

Orderly and economic provision of public facilities and services:	Positive	Mixed	Negative
Land in BGH-1			
Land in BGH-2			
Land in BGH-3			
Land in BGH-4			

C. Locational Factor 3. Comparative environmental, energy, economic and social consequences

1. Environmental consequences:

- a. *Presence of natural resources: To what extent would urbanization of this area negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources?*** Urbanization could negatively impact protected natural resources such as the Willow Creek natural area located on land in BGH-2, and its connectivity to other natural areas. The Willow Creek natural area is categorized as natural resource and natural hazard land, so urbanization is not assumed on it, however, adjacent development could negatively impact these areas. Willow Creek flows through land in the subarea and there are adopted Goal 5 identified wetlands throughout land in the subarea on land in BGH-1, BGH-2, BGH-3, and BGH-4 which may be impacted by urbanization. There is significant public parkland throughout the land in the subarea, especially in BGH-2, which provides ample wildlife habitat, connectivity, and natural resource protection. While urbanization of land in the subarea would decrease open space and wildlife habitat on privately owned land, additional opportunities for public open space acquisition and connections to the Ridgeline Trail system could be possible with interested property owners and sensitive site design. Land in BGH-3 contains public parkland that is easily accessible from Willow Creek Road and which could provide positive environmental consequences and benefit area residents. There is public parkland in BGH-4, however it is farther from the UGB and may be more difficult for area residents to access.
- b. *Presence of hazard areas (steep slope, landslides, floodplain): To what extent would urbanization of this area increase the potential risk of natural hazards, such as landslides, wildfire or flooding?*** There are high risk landslide areas and steep slopes throughout land in the subarea (shown on the maps in green), particularly on land in both BGH-1 and BGH-4 increasing the risk to future residents by urbanization. The largest concentration of high-risk landslide areas are on land in BGH-4, to the east of Gimpl Hill Road. Additionally, on land in BGH-4, there are steep slopes present to the east near Bailey Hill Road that may limit accessibility. There is heavily forested land throughout land in the subarea. Urbanization of the land in this subarea would potentially increase the risk of natural hazards, such as landslides and wildfire, especially in the land in BGH-4 that is more remote and contains more hazard areas and is more difficult to access by utilities due to steep slopes and lacking looped street connections.
- c. *Presence of nearby public open space: To what extent would nearby public open space benefit future residents of the area?*** As noted previously, there is a significant amount of parkland on land in **BGH-2, BGH-3, and BGH-4**, and additional public parkland is located nearby on land in the Crest Chambers subarea, immediately east of land in BGH-1, which provides significant wildlife habitat and natural resource protection. It also will provide close-to-home recreational opportunities for the subarea's growing population, benefitting future residents by providing nearby opportunities for active and passive recreation, such as hiking, bird watching and nature appreciation.

Conclusion: *As described above, urbanization of land in the entire subarea would increase the risk of natural hazards, such as landslides and wildfire. Focusing urbanization on land in the **BGH-1** portion of the subarea and excluding many of the higher risk and distant areas from urban reserves consideration would have mixed environmental consequences.*

*There is a significant amount of parkland within **BGH-2**, providing positive environmental consequences and benefitting area residents. However, this land is not needed for the efficient urbanization of surrounding developable areas and if urbanization of this area were to occur it could negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources.*

*Land in **BGH-3** contains public parkland that is easily accessible from Willow Creek Road and which could provide positive environmental consequences and benefit area residents. Urbanization near the parkland could impact wildlife habitat, wetlands, riparian areas, or other natural resources. Given its adjacency to Willow Creek Road and the UGB, urbanization of it would have mixed environmental consequences.*

*The land in **BGH-4** contains prohibitively steep slopes. Additionally, the parkland contained within **BGH-4** is more difficult to access lessening the benefit to area residents. Urbanization could potentially increase the risk of natural hazards, such as landslides and wildfire. Therefore, the environmental consequences of urbanization on the land in **BGH-4** are greater, and the area receives a negative rating.*

Environmental Consequences:	Positive (Low)	Mixed (Medium)	Negative (High)	No Consequences
Land in BGH-1				
Land in BGH-2				
Land in BGH-3				
Land in BGH-4				

2. Energy Consequences (priority for lower energy usage):

- a. ***To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt)?*** Land closer to the UGB, in BGH-1 and BGH-3, may be more suitable for a 20-minute neighborhood (where homes, jobs and services can be reached on foot within 20 minutes), limiting the need for vehicle trips and having positive energy impacts, especially when the adjacent land inside the city limits develops. Land in BGH-1 and BGH-3 has potential for the development of a complete neighborhood because it has better transportation connections, is easier to extend public services to, and the topography is less sloped than land in BGH-4. While the subarea’s proximity to the UGB is an asset, the steep topography, relatively difficult serviceability, and existing development patterns do not make the more distant areas, such as land in BGH-4, appropriate for a mix of residential housing, commercial and medium to higher density neighborhood uses. Areas with steeper topography and limited connections are more dependent on vehicular travel and more likely to increase vehicle miles traveled. 20-minute neighborhoods do not appear to be feasible on land in BGH-4 nor in BGH-2 which is comprised entirely of natural resource and natural hazard land due to

limited transportation connections, distance to existing job centers, steep topography, relatively difficult serviceability, and existing development patterns.

- b. *To what extent is the area easily accessible to other services or uses (e.g., neighborhood commercial, parks, schools)?*** Kennedy Middle School and Churchill High School are located near land in this subarea within the UGB and there are numerous parks and open space nearby. As noted previously, the Willow Creek Preserve extends into the UGB, encompassing 425 acres within the UGB. 94 acres of the Willow Creek Preserve are located in BGH-2. Within BGH-3, the City owns parkland accessible from Willow Creek Road which extends into BGH-2. The parkland in BGH-3 could be developed with a trailhead for easier public access and could potentially aid in the service provision of nearby developable land. The nearest commercial use is a local market at the intersection of Bailey Hill Road and Gimpl Hill Road that is adjacent to the subarea closest to land in BGH-1. There are very few commercial uses within the subarea which include several home-based businesses and a garden supply store. Urbanization with neighborhood-serving commercial would benefit future and current residents of this subarea, but given the low potential for residential capacity, commercial development would be unlikely.
- c. *To what extent is the area adjacent to or nearby the UGB? (see Locational Factor 1, A.2)*** As already noted, land in BGH-1, BGH-2 and BGH-3 is adjacent to the UGB. There are 285 developable acres located in lots that have a portion of their boundary within .25 miles of the UGB, as shown on **Map 14.4 Development Potential**. However, much of the land adjacent to or nearby (within .25 mile) the UGB is not developable (it is protected natural area such as all the land in BGH-2) or has low development capacity. This limits opportunities for future urbanization of 20-minute neighborhoods in these areas.
- d. *To what extent is there good multi-modal transportation access to this area? To what extent is the area easily accessible to job centers and downtown?*** There is moderate transportation access to land in this area. Transportation access to land in BGH-1, BGH-2 and BGH-4 relies primarily on Bailey Hill Road or Gimpl Hill Road, and then 18th Avenue and 11th Avenue for access to downtown, Eugene’s main job center. The land in BGH-3 is primarily accessible by Willow Creek Road. Transit service would need to be extended to this area, and roadway improvements, including bike lanes and sidewalk improvements, would be needed to accommodate all users. Local street access from this subarea to existing neighborhoods within the UGB would need to be developed. Bailey Hill Road appears to be most suitable for multimodal transportation, due to its relatively flatter slope, direct connection to major transportation corridors, and existing pedestrian improvements within the UGB. However, the width of Bailey Hill Road and the sloped land adjacent to it may make bicycle and pedestrian improvements challenging and costly. Bailey Hill Road north of Bailey Hill Loop, on land in BGH-1, appears more suitable for multimodal transportation than in BGH-4 due to roadway width and steep slopes. The low likelihood of efficient transit service to land in this subarea means that future residents would likely rely on private vehicles to get to downtown Eugene and other job centers, further increasing vehicle miles traveled and carbon emissions.

e. To what extent does future urbanization directly or indirectly generate energy or climate burdens (e.g. loss of open space, loss of growing lands, increased traffic, increased carbon emissions)? Future urbanization of land in the Bailey/Gimpl Hill subarea will directly and indirectly generate energy and climate burdens due primarily to the conversion of forest land, increased vehicle traffic, lack of alternative transportation options, low potential for a variety of housing types, jobs and services, and increased carbon emissions from additional development in increased vehicle miles traveled. Urbanization of land in BGH-1 and BGH-3 may generate less energy or climate burdens due to existing development patterns. Land in BGH-2 and BGH-4 is primarily forested and contains more undeveloped land which if developed

Conclusion: As described above, there are mixed energy consequences to urbanizing the developable land in **BGH-1**. The flatter areas near the UGB have potential for co-locating a variety of housing, jobs, and services, limiting the need for vehicle trips and therefore having positive energy impacts, however, steep topography, (insert adjective} lot sizes and {adjective} configuration are likely to keep average capacity relatively low. In addition, the low likelihood of efficient transit service in this subarea means that future residents would likely rely on private vehicles to get to downtown Eugene and other job centers, further increasing vehicle miles traveled and carbon emissions. Loss of forest land associated with urbanization may also create negative energy consequences as timber would need to be sourced from farther away leading to an increase in carbon emissions.

The land in **BGH-2** has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. As such, there would be no energy consequences of including this land in urban reserves.

Land in **BGH-3** is accessible from Willow Creek Road and is adjacent to the UGB. There are mixed energy consequences to urbanizing the developable land in BGH-3. The developable land has potential for co-locating a variety of housing, jobs, and services, limiting the need for vehicle trips, and therefore having positive energy impacts, however, the steep topography and loss of forest land may create negative energy burdens.

Urbanization of land in **BGH-4** would result in negative energy consequences due to loss of forest land, poor suitability for multi-modal transportation, steep topography, high-risk landslide areas, and limited road access are which are likely to keep average density relatively low, which would have negative impacts on energy usage (with potentially more driving, more infrastructure needed and less multifamily housing opportunities).

Energy Consequences:	Positive	Mixed	Negative	No Consequences
Land in BGH-1				
Land in BGH-2				
Land in BGH-3				
Land in BGH-4				

3. Economic consequences:

- a. ***In general, how much economic activity would urbanization of this area bring? Ex: Additional construction opportunities?*** The land in the Bailey/Gimpl Hill subarea contains 902 acres of developable land. Based on generalized capacity assumptions, the suitable land could accommodate 1,394 residential dwelling units. This is an average capacity of 2.75 du/developable acre. Given the area's residential capacity analysis, it is only low-to-moderately suitable for future urbanization with a variety of residential uses. Land in BGH-4 contains large tax lots, including two tax lots that contain 65 acres of developable land each, however, this portion of the subarea is the least suitable for urbanization due to steep slopes, high landslide risk, and more limited access to roads. Urbanization of the developable land in BGH-1 and BGH-3 would bring construction activity that would benefit the local economy. The City's tax base would increase with urbanization, but the cost of services (capital and ongoing) may outweigh the increased revenue. The land proximity of land in BGH-1 and BGH-3 to employment centers along Willow Creek and 18th Avenue, could provide economic benefits for future residents. Land in BGH-2 has no development capacity and therefore is not expected to generate economic activity. The land in the subarea is not suitable for urbanization with industrial uses, as shown on **Map 14.6 Potential Industrial Capacity**, limiting the positive economic impacts of urbanizing in this subarea.
- b. ***Is the area appropriate for future urbanization with a variety of identified uses (not just LDR), to support connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a)*** As noted previously, the flatter, closer-in land in BGH-1 and BGH-3 could support future urbanization with a variety of identified uses which support connected, integrated neighborhoods. The land in BGH-4 is encumbered by prohibitively steep slopes, high-risk landslide hazard areas, lacks connection to looped road systems, and therefore could not support connected, integrated neighborhoods. Land in BGH-2 contains no developable land as it is entirely composed of parkland and therefore would remain in current use whether inside or outside the UGB.
- c. ***Are there concerns about future urbanization causing a loss of economic activity for existing and nearby uses? (also see Locational Factor 4)*** The developable land within the subarea is mainly forested and includes scattered large-lot rural residential homes. Given adjacent uses being primarily forest, residential, and open space, there is relatively little concern about future urbanization causing a loss of economic activity for existing and nearby uses. There are several home-based businesses on land in BGH-1, including a recording studio and a garden supply store which could potentially benefit from an increase in additional residents if the area were to urbanize. On land in BGH-1 and BGH-4 it appears that some areas of land are being used for small scale agriculture, pastureland, and vineyards which could be at risk of displacement if the area were to urbanize. There appear to be no existing businesses on land in BGH-3 and therefore there are no concerns that urbanization of the area will cause a loss of economic activity. Overall, there is not significant existing economic activity within land in the subarea. Land in BGH-2 is entirely composed of parkland and therefore would remain in current use whether inside or outside the UGB.

- d. How cost-efficient is service provision in this area? (also see Locational Factor 2)** As noted above, land in the Bailey/Gimpl Hill subarea is moderate to very difficult for ease of serviceability. Water service is difficult to bring to much of this subarea because of the barrier created by Willow Creek Preserve inside the UGB, so the northwestern portion BGH-4 that is separated from the UGB by Willow Creek Preserve and not well-connected to the street system is especially challenging and costly to serve. The relatively high cost of servicing the area makes the likelihood of urbanization and its associated economic benefits lower. While greater capacity may optimize the investment in infrastructure over the long term, there is a risk of financial loss if development does not occur at the already low anticipated densities.

Conclusion: As described above, urbanization could bring positive economic consequences, particularly to the land in **BGH-1**, but primarily due to the high cost of service provision, the likelihood of efficient urbanization and its associated economic benefits, consequences are mixed. The location of **BGH-1**, adjacent to the UGB, is better suited for potential neighborhood-serving commercial development and a mix of housing types. The location of the land in **BGH-1**, with access to 18th Avenue employment centers, benefits it economically.

The land in **BGH-2** has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. As such, there would be no economic consequences of including this land in urban reserves.

As described above, urbanization will bring positive economic consequences to the land in **BGH-3**, but primarily due to the high cost of service provision, the likelihood of efficient urbanization and its associated economic benefits are lessened, and consequences are mixed. The location of the land in **BGH-3**, with access to Willow Creek employment centers, benefits it economically.

The land in **BGH-4** is more steep, remote and difficult to build on and serve with public utilities, making it less affordable and unable to support connected, integrated neighborhoods. Therefore, the economic consequences of urbanization are negative.

Economic Consequences:	Positive	Mixed	Negative	No Consequences
Land in BGH-1				
Land in BGH-2				
Land in BGH-3				
Land in BGH-4				

4. Social Consequences:

- a. Will urbanization negatively impact current residents?** If land in the subarea urbanizes, increased vehicle traffic and noise could negatively impact current residents within BGH-1, BGH-3, and BGH-4. However, urbanization could also have positive social consequences by providing additional development opportunities for landowners, including additional housing, services and neighborhood commercial uses. Additionally, residents would benefit from the opportunity to

connect to urban services, such as water, wastewater, fire and emergency services and improvements to the roadway system.

- b. *How would urbanization worsen or improve service delivery to residents in this area (e.g. adequate fire response times, access to water, parks)? (also see Locational Factor 2)*** Service delivery to land in BGH-1, BGH-3 and BGH-4 would improve with urbanization, however the provision of services is generally costly, as discussed in Locational Factor 2, and there are concerns around the wildland-urban interface and water flow issues. The majority of this subarea is currently served by the Bailey-Spencer Rural Fire Protection District, except for a portion in the northwest that is served by Zumwalt Rural Fire Protection District. According to Eugene-Springfield Fire Department staff, given the current locations of the city fire stations and existing street network, it appears that response times to this subarea would be acceptable. Providing EWEB water service to this subarea would be costly due to the need for pumping and storage facilities, inability to provide a looped system, and the need to extend service through undeveloped areas within the UGB that are currently not annexed. Residents within the UGB who are not currently served would benefit from the potential cost-savings of expanding service to a larger number of dwelling units. However, costly public services make development more expensive in this subarea and may impact the affordability of future homes and commercial spaces. There is plentiful access to open space in this subarea, such as land in BGH-2, and it is assumed that neighborhood parks would be developed as neighborhoods urbanize to meet the City's service standards.
- c. *Will urbanization exacerbate the impacts of potential natural hazards, such as flooding, fire, and landslides for residents? (also see Locational Factor 3, Environmental Consequences C.1.b)*** As noted in Locational Factor 3, Environmental Consequences, there are significant hazard areas throughout land in the subarea, including areas with prohibitively steep slopes (30 percent or greater), and areas with high risk of shallow and deep landslides, as shown in green on the analysis maps. They are especially present in the southwestern portion of land in BGH-4 and in the northeast corner of land in BGH-1. Urbanization of land in the subarea could exacerbate the impacts of landslides. These landslide risk areas are categorized as natural resource and natural hazard land, with no development capacity forecast on them. However, a future landslide could have negative impacts on areas outside of the high-risk areas mapped by DOGAMI and damage infrastructure that residents and businesses rely on, therefore decreasing the overall resiliency of the subarea. The largest concentration of mapped landslide risk is in the southwestern corner of the subarea, on land in BGH-4, to the east of Gimpl Hill Road, which increases the vulnerability of that portion of the subarea and makes it less suitable for future urbanization. Large portions of land in the subarea, particularly on land in BGH-4, are forested, and urbanization would increase the wildland urban interface and increase the risk of wildfire.
- d. *How might urbanization in this area impact vulnerable populations⁷ and underserved groups currently living in the subarea? Could one segment of the population be impacted more than***

⁷ Vulnerable populations are defined as populations that identify as a non-white race or ethnicity, younger or older populations, populations with a disability, and/or single-headed households. Data is from Livability Lane, 2013

another (e.g. low-income households)? Land in this subarea is not identified as suitable for industrial uses, so the risks associated with those uses would not be disproportionately borne by vulnerable populations on land in this subarea. The only businesses on land in the subarea appear to be home-based, including a recording studio and a garden pond supply store, so there is a low risk of local businesses being displaced as urbanization occurs. The existing steep topography makes creating a system that would accommodate all users, difficult and there may be increased safety hazards for transportation users like bicyclists and pedestrians. Providing affordable housing on land in this subarea, especially on more distant and steep land in BGH-4 would be challenging due to the probable high cost of development. The land in BGH-1 and BGH-3 has fewer prohibitively steep slopes and access to looped road systems, resulting in potentially lower cost housing and fewer safety hazards for transportation users. Overall, there is a relatively low chance that urbanization of this subarea would negatively impact vulnerable and underserved groups.

- e. **Will urbanization in this area allow for connected, integrated neighborhoods? (also see Locational Factor 3, C 2 a)** As described further in Locational Factor 3, Energy Consequences, the benefits of urbanization could be broadly accessible if land in the subarea were to develop as a 20-minute neighborhood with a variety of housing types and neighborhood-serving commercial amenities—but this is not likely to occur throughout land in the subarea. Developable land in BGH-1 and BGH-3 that has flatter topography and easy access to Bailey Hill Road and Gimpl Hill Road is more suitable for development of a complete neighborhood. However, this is unlikely due to the high cost of service provision likely increasing the cost of development and an existing residential development pattern that is unlikely to redevelop within the urban reserves planning period. Land in BGH-4 is less suitable for development of a complete neighborhood.

Conclusion: *Urbanization of land in **BGH-1** and **BGH-3** would have mixed social consequences. Residents would benefit from improved service delivery but much of the subarea would not likely develop as a 20-minute neighborhood with a variety of housing types at all price ranges. Additionally, there could be negative impacts to vulnerable populations such as older residents and low-income households due to the potential high cost of receiving urban services, such as drinking water. Urbanization could increase the chance of wildfire for development in the wildland urban interface, but urban levels of fire and water services will help mitigate that risk.*

*The land in **BGH-2** has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. As such, there would be no social consequences of including this land in urban reserves.*

*Urbanization of the land in **BGH-4** would have negative social consequences due to the increased risk of natural hazards. Because of topography, elevation and existing development patterns, urbanization of land in BGH-4 could increase the wildland urban interface and exacerbate the risk of wildfire for current and future residents of the subarea. The high cost of providing public services to land in BGH-4 would*

Equity and Opportunity Assessment, Social and Demographic Characteristics Map. The extent to which vulnerable populations and underserved groups currently live in the subarea is speculative.

make future development costly, making it less likely that the benefits of urbanization would be accessible to residents of all income levels.

Social Consequences:	Positive	Mixed	Negative	No Consequences
Land in BGH-1				
Land in BGH-2				
Land in BGH-3				
Land in BGH-4				

Locational Factor 3 Conclusion:

For the land in **BGH-1**, the analysis under Locational Factor 3 shows that urbanization would have mixed Environmental, Energy, Economic and Social consequences.

The land in **BGH-2** has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. As such, there would be no Environmental, Energy, Economic and Social consequences of including this land in urban reserves.

For the land in **BGH-3**, the analysis under Locational Factor 3 shows that urbanization would have mixed Environmental, Energy, Economic and Social consequences.

For the land in **BGH-4**, the analysis under Locational Factor 3 shows that urbanization would have negative Environmental, Environmental, Economic and Social consequences.

4. Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

1. *How will urbanization impact agricultural and forest activities on farm and forest designated land within the subarea?* The majority of the land in the subarea is designated forest land (as shown on **Map 14.8 Comprehensive Plan Designation**). Within BGH-1 there is land designated for agriculture. Most of the land in the subarea, aside from the parkland in BGH-2, appears to be used primarily for rural residential. There appear to be few agricultural activities within or nearby the subarea. In BGH-4 there are some small-scale vineyards and pastureland and there may be some commercially farmed forest land in the southeast of land in BGH-4. Increased congestion on roadways from urbanization may impact nearby forest activities.

2. *Is urbanization compatible with existing agricultural and forest uses on farm and forest designated land nearby (outside of the subarea)?* Surrounding land that is designated Forest, to the east is land in the Crest/ Chambers subarea, to the northwest is land in the Crow subarea, and to the south, does not appear to be used for commercial forestry. There is some active farming and grazing on Agriculture-designated land outside of land in the subarea, primarily along Bailey Hill Road and Gimpl Hill Road. This farmland may be marginally impacted if nearby urbanization were to occur on land in BGH-4; the developable land in BGH-1 and BGH-3 is more separated from active farming and if urbanized would not have an impact. Additionally, the ridgeline along the land in

BGH-4 helps provide a buffer between future urbanization of land in BGH-1 and BGH-3 and these farm uses towards the south, therefore urban uses would be compatible.

Conclusion: *Because of the location and topography of BGH-1 and BGH-3 providing natural buffers from surrounding uses (bordered by the ridgeline and public land), and that there appear to be no commercial farm or forest activities occurring on farm and forest designated land in the subarea, it appears that urbanization of land in **BGH-1** and **BGH-3** would be compatible with surrounding agricultural and forest activities outside of the UGB.*

*The land in **BGH-2** has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. As such, it also would be compatible with surrounding agricultural and forest activities outside of the UGB.*

*If land in **BGH-4** were to urbanize, impacts to nearby commercial farm and forest activities could be negative, and new neighborhoods could have mixed compatibility with nearby forest activities occurring on forest land outside of the UGB. Urbanization of land in BGH-4 may negatively impact commercial forest operations which may be occurring on land in BGH-4 and nearby on forest designated land. However, the land's location on the edge of the subarea mitigates potential impacts to a degree, and the topography of the subarea may provide some natural buffer from surrounding uses. Because of this, it appears that urbanization of land in BGH-4 would be only somewhat compatible (shown as mixed, below) with agricultural and forest activities outside of the UGB.*

Compatibility with nearby agriculture and forest activities	Positive	Mixed	Negative	No Consequences
Land in BGH-1				
Land in BGH-2				
Land in BGH-3				
Land in BGH-4				

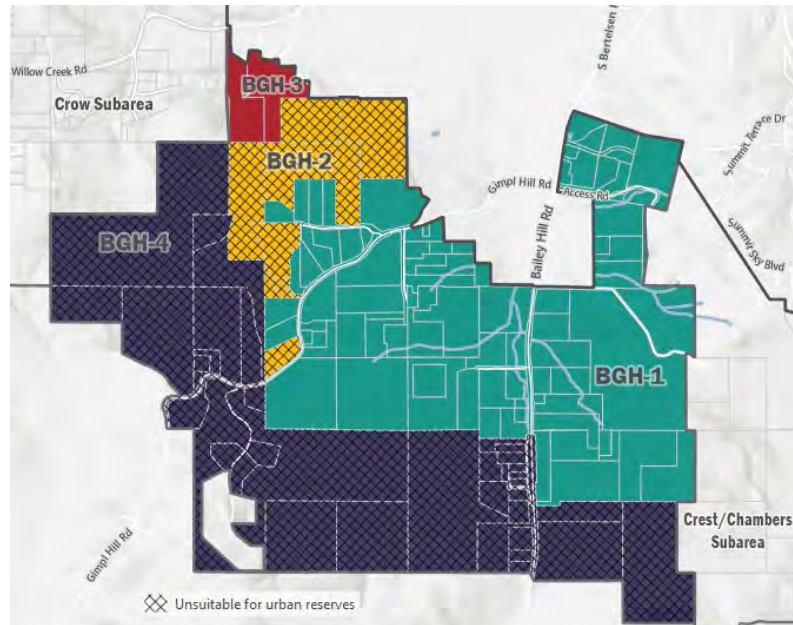
III. Conclusion:

Considering and balancing all of the Goal 14 locational factors as analyzed above, there are some positive and some negative aspects of future urbanization of the Bailey/Gimpl Hill subarea as a whole, which is why the analysis was described as laid out in this report and summarized as follows:

Land in **BGH-1** includes 491 developable acres. It is composed of land located adjacent to the UGB accessed by Bailey Hill, Gimpl Hill Roads, which provide necessary access for service provision to land in the area. The land in BGH-1 includes a mix of lot sizes and a variety of land types, constraints and uses. In evaluating the land in BGH-1, the conclusion of Locational Factors 1-3 were “mixed” in their findings; only Locational Factor 4 was rated as “positive.” This is due to a variety of factors including: steep slopes, Goal 5 wetlands and high-risk landslide hazard areas which contribute to a low average residential density. The positive attributes of the land in BGH-1 are that it is close to existing job centers, educational opportunities and key transportation corridors, and contains land suitable for residential development. Therefore,

based on these factors and the complete analysis described in this report, when balanced and considered together, the consequences with respect to the land in BGH-1 result in a determination that this land is suitable for urban reserves designation.

The land in **BGH-2** has no capacity for future jobs or homes, and due to its location, it is not now needed for the efficient urbanization, or orderly and economic provision of services, of the developable



land in the subarea. In evaluating the land in BGH-2, the conclusion of Locational Factors 1-2 were “negative” in their findings; and Locational Factors 3 and 4 were “No consequences.” This land is classified as “undevelopable” and it is not needed for service connections to developable land. Its remaining out of urban reserves will not affect the developable land nearby and it will not affect how the land will be used. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in BGH-2 result in a determination that it is not suitable for urban reserves designation at this time.

Land in **BGH-3** contains 16 developable acres. It is adjacent to the UGB and includes public parkland accessed from Willow Creek Road. In evaluating the land in BGH-3, the Locational Factor conclusions were mostly “mixed” in their findings: Locational Factor 4 was positive, Locational Factors 1, 2, 3(a), 3(c), 3(d) were mixed, and Locational Factor 3(b) was negative. The occupied land in BGH-3 (the public parkland) is needed in order to access urban services in the future and to efficiently serve the adjacent developable land, due to its location adjacent to the UGB, Willow Creek Road and developable land. The inclusion of land in BGH-3 would aid in the efficient accommodation of identified land needs. Therefore, based on these factors and the complete analysis described in this report, when balanced and considered together, the consequences with respect to the land in BGH-3 result in a determination that this land is suitable for urban reserves designation.

Land in **BGH-4** includes 394 developable acres. The land in BGH-4 is encumbered by steep slopes and landslide risk, is farther from existing uses and services within the UGB and lacks access to looped street connections. In evaluating the land in BGH-4, the Locational Factor conclusions were almost all “negative” in their findings: only Locational Factor 4 was mixed while Locational Factors 1, 2, 3(a), 3(b), 3(c), 3(d) were negative. Land in BGH-4 has lower capacity for future jobs

or homes and cannot provide efficient urbanization or orderly and economic provision of public facilities and services, due primarily to the steep topography, areas of high landslide risk, and access constraints. Urbanization has negative environmental, energy, economic and social consequences on the land in BGH-4. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in BGH-4 result in a determination that it is not suitable for urban reserves designation at this time.

Please see the summary tables on the following pages, and **Map 14.3 Suitability Results**.

Summary
Bailey/Gimpl Hill Subarea
Suitable for Urban Reserves Designation
Land in BGH-1

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Land in BGH-3

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Not Suitable for Urban Reserves Designation

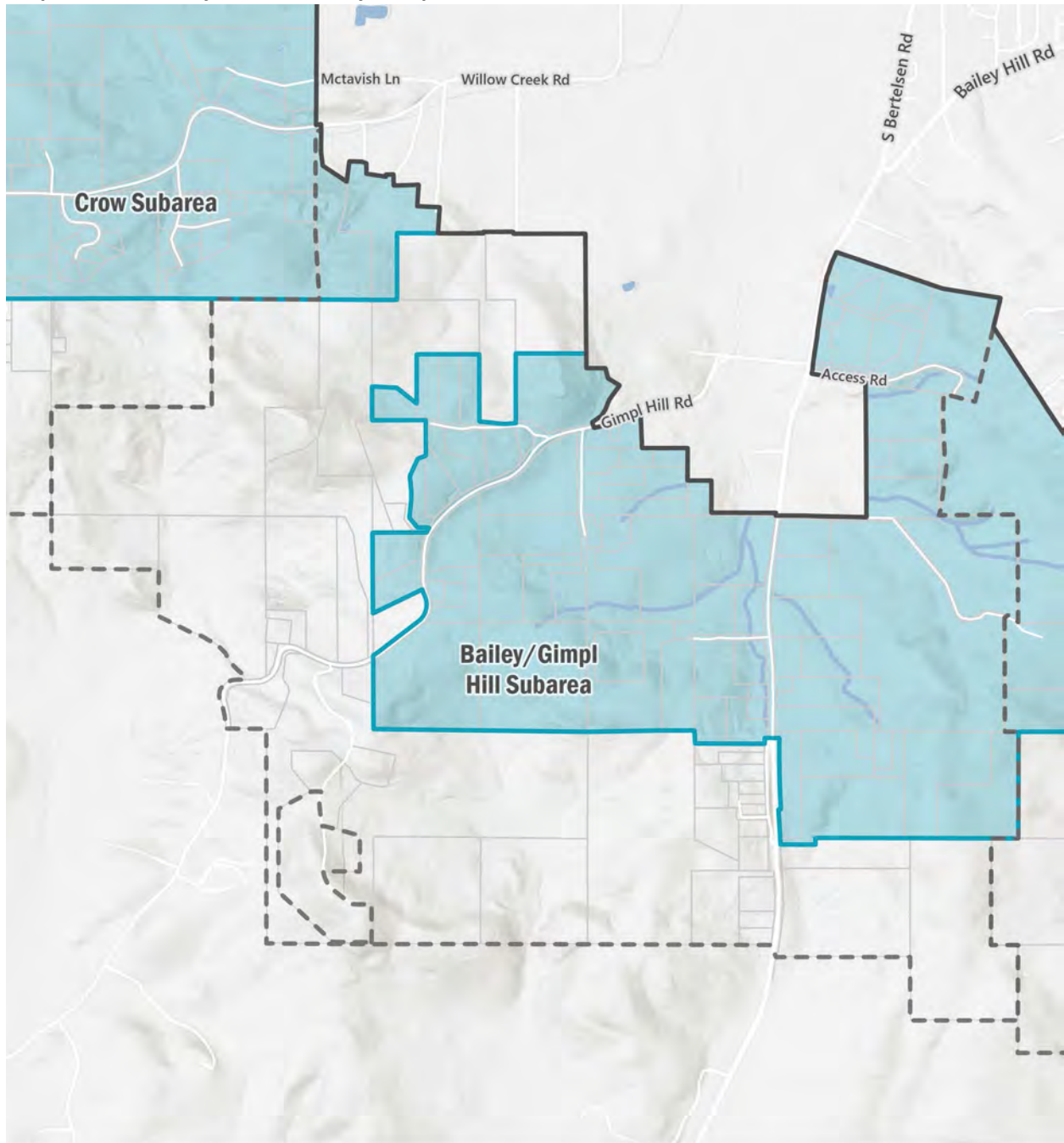
Land in BGH-2





	Goal 14 Locational Factors	Positive	Mixed	Negative	No Consequences
1.	Efficient accommodation of identified land needs:				
2.	Orderly and economic provision of public facilities and services:				
3. (a)	Environmental Consequences:				
(b)	Energy Consequences:				
(c)	Economic Consequences:				
(d)	Social Consequences:				
4.	Compatibility with nearby ag and forest activities				

Land in BGH-4

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs:			
2.	Orderly and economic provision of public facilities and services:			
3. (a)	Environmental Consequences:			
(b)	Energy Consequences:			
(c)	Economic Consequences:			
(d)	Social Consequences:			
4.	Compatibility with nearby ag and forest activities			

Map 14.3 Suitability Results, Bailey/Gimpl Hill Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Eugene urban reserves suitable land
-  Tax lots



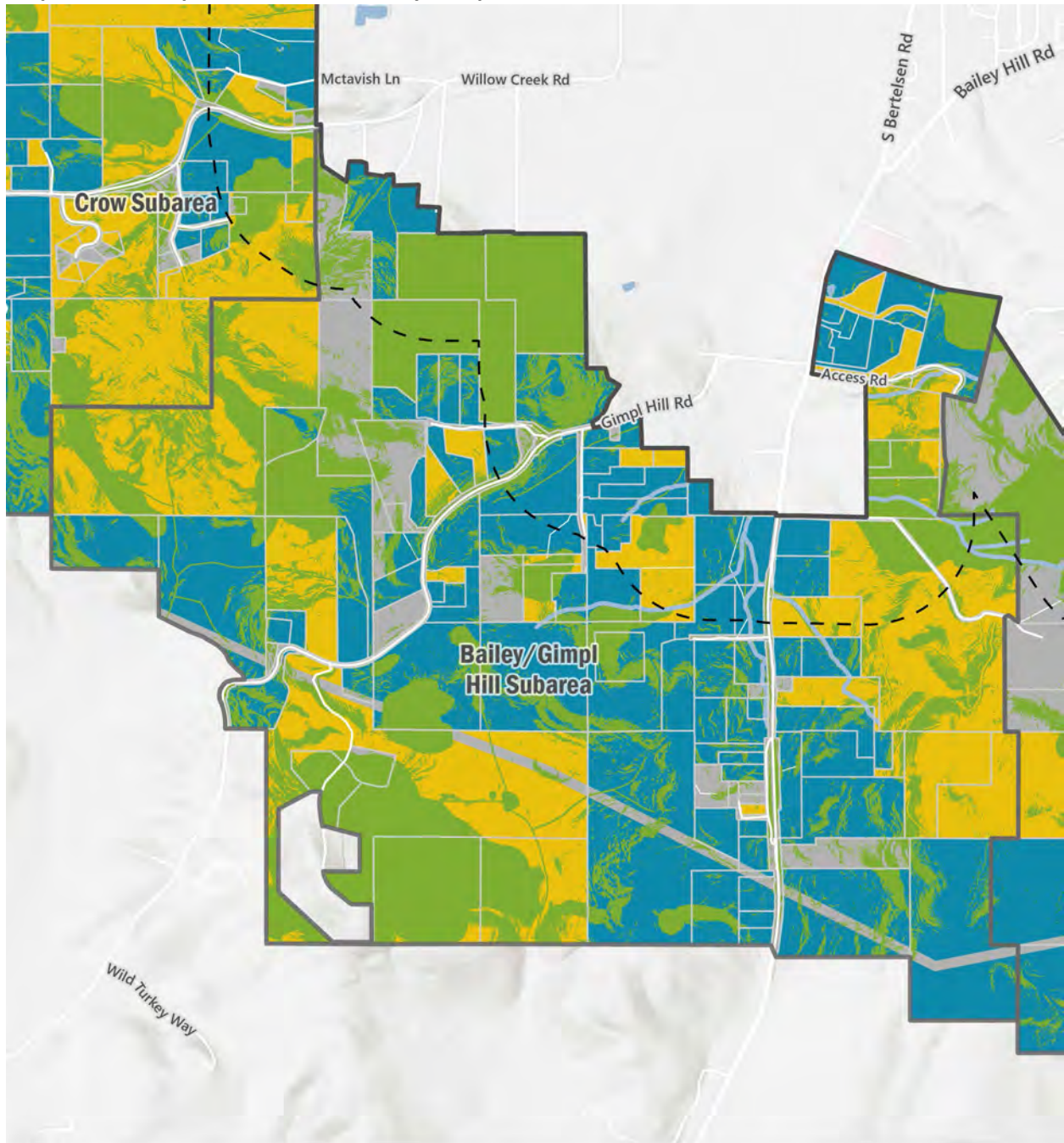
0.3 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 14.4 Development Potential, Bailey/Gimpl Hill Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Quarter mile from Eugene UGB
- Tax lots

- Developable**
- Partially Vacant
- Undeveloped
- Undevelopable**
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied

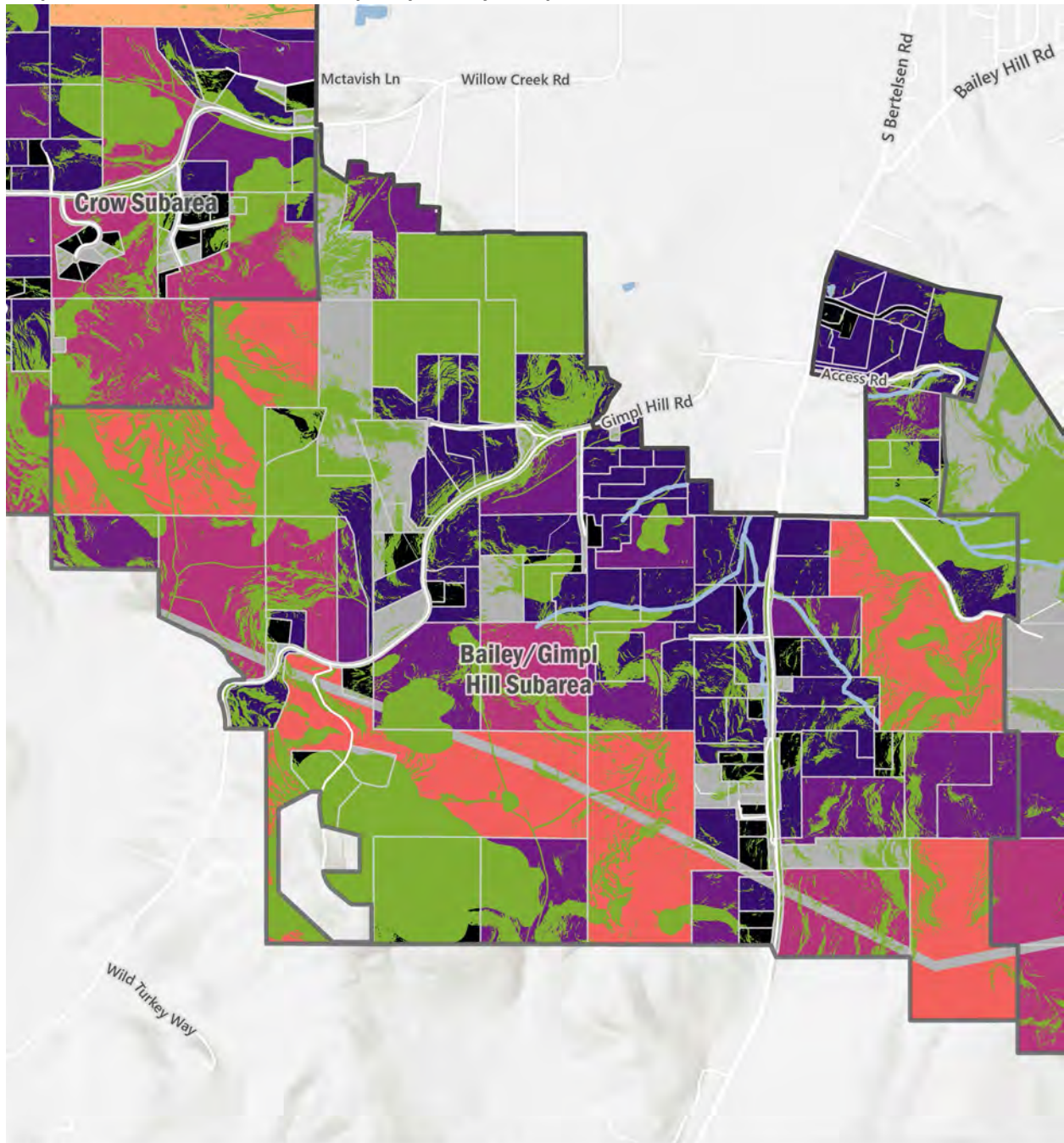


0.3 Miles

Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 14.5 Potential Residential Capacity, Bailey/Gimpl Hill Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied

- Potential residential capacity (dwelling units)
- < 5
 - 5 - 24.9
 - 25 - 49.9
 - 50 - 99.9
 - 100 - 199.9
 - 200 - 499.9
 - ≥ 500

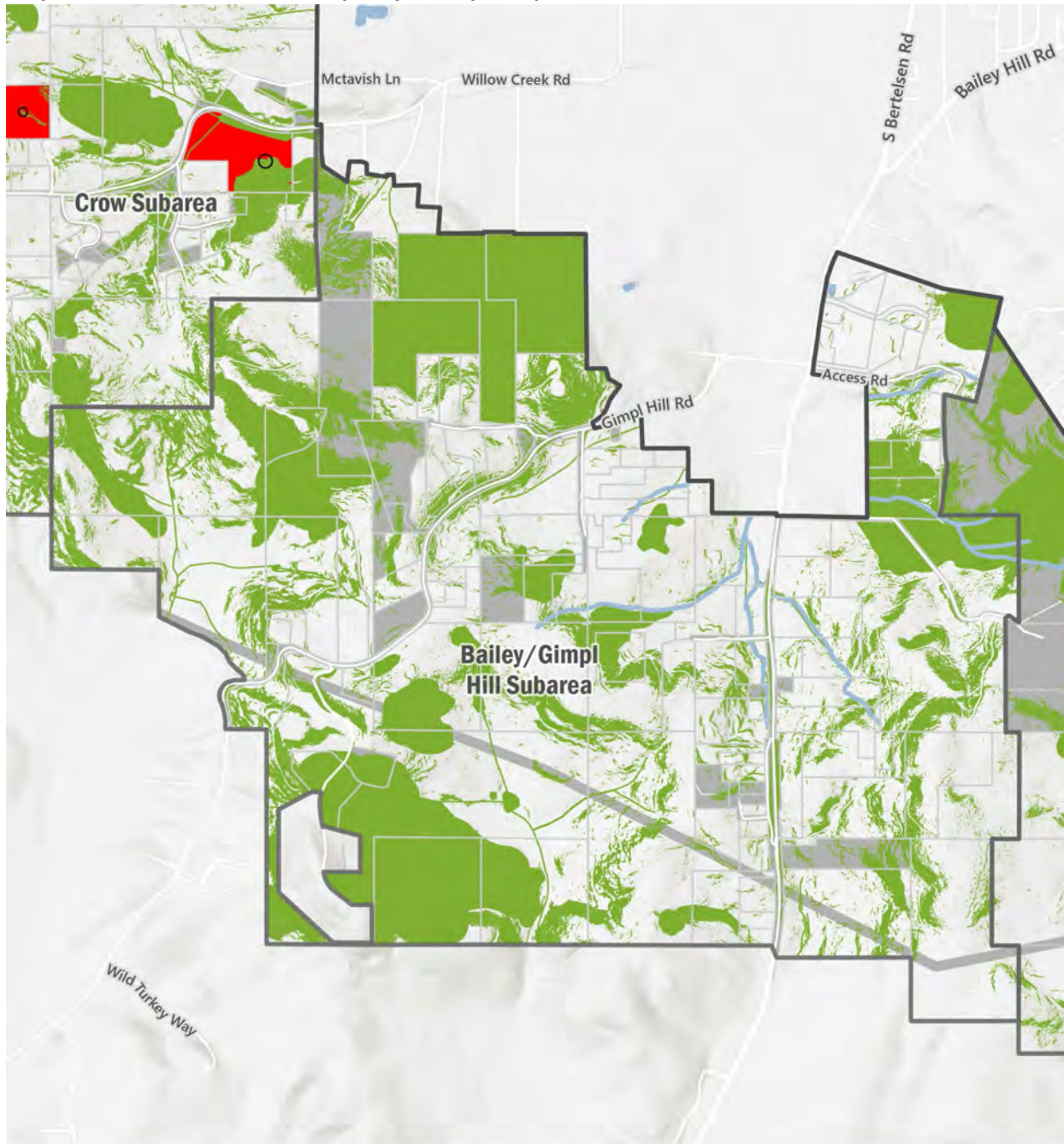


0.3 Miles

Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 14.6 Potential Industrial Capacity, Bailey/Gimpl Hill Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied
- Freight Route Access Points

- Tax lots meeting industrial criteria
- Developable acres per tax lot
- 5 - 9 ac
 - 10 - 19 ac
 - 20 - 49 ac
 - 50 - 74 ac
 - 75+ ac

- Tax lots meeting industrial criteria
- Driving distance to a freight route
- 1 mile
 - 1.5 miles
 - 2 miles



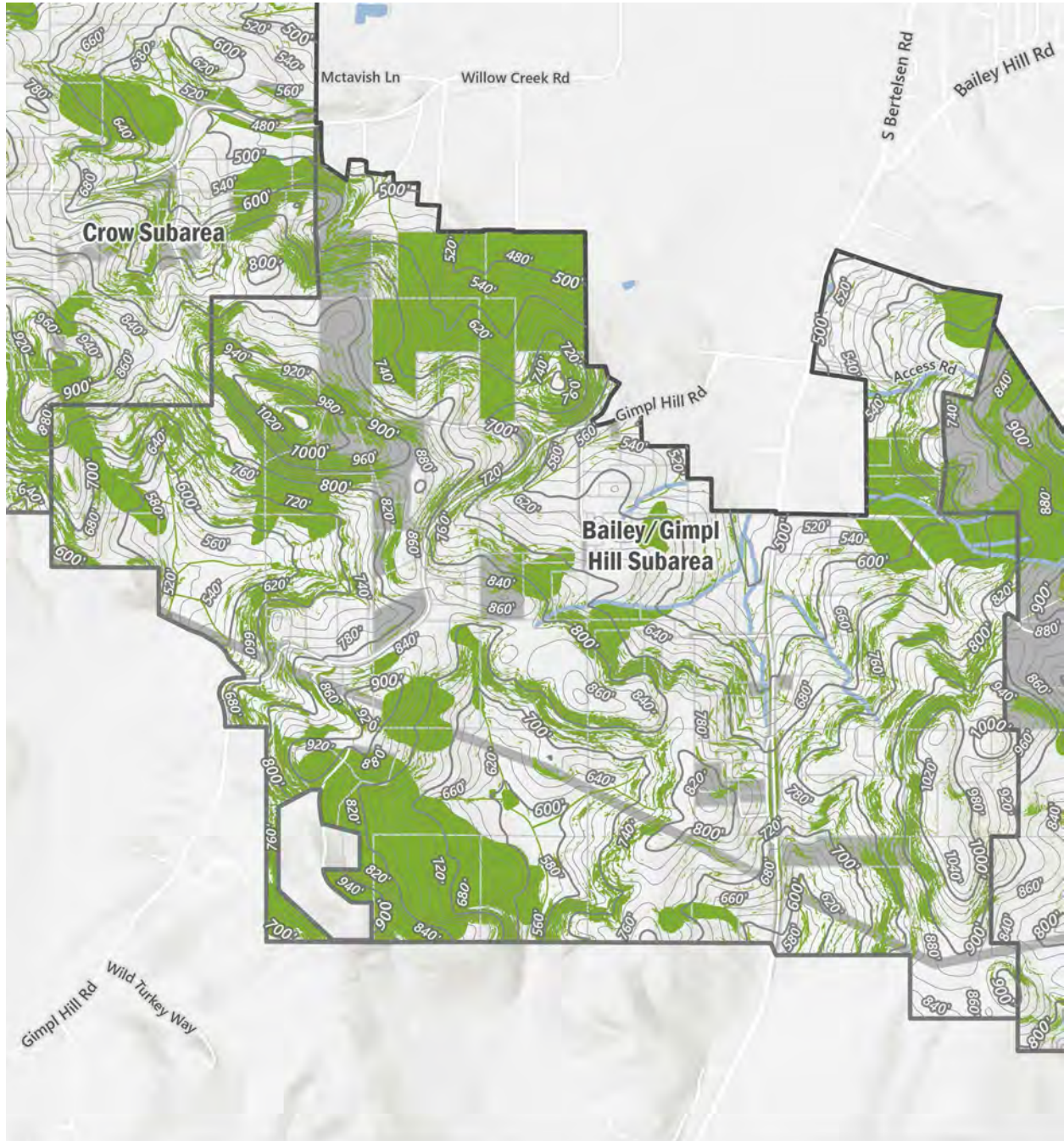
0.3 Miles








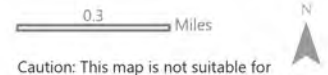
Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 14.7 Contours and Elevation, Bailey/Gimpl Hill Subarea



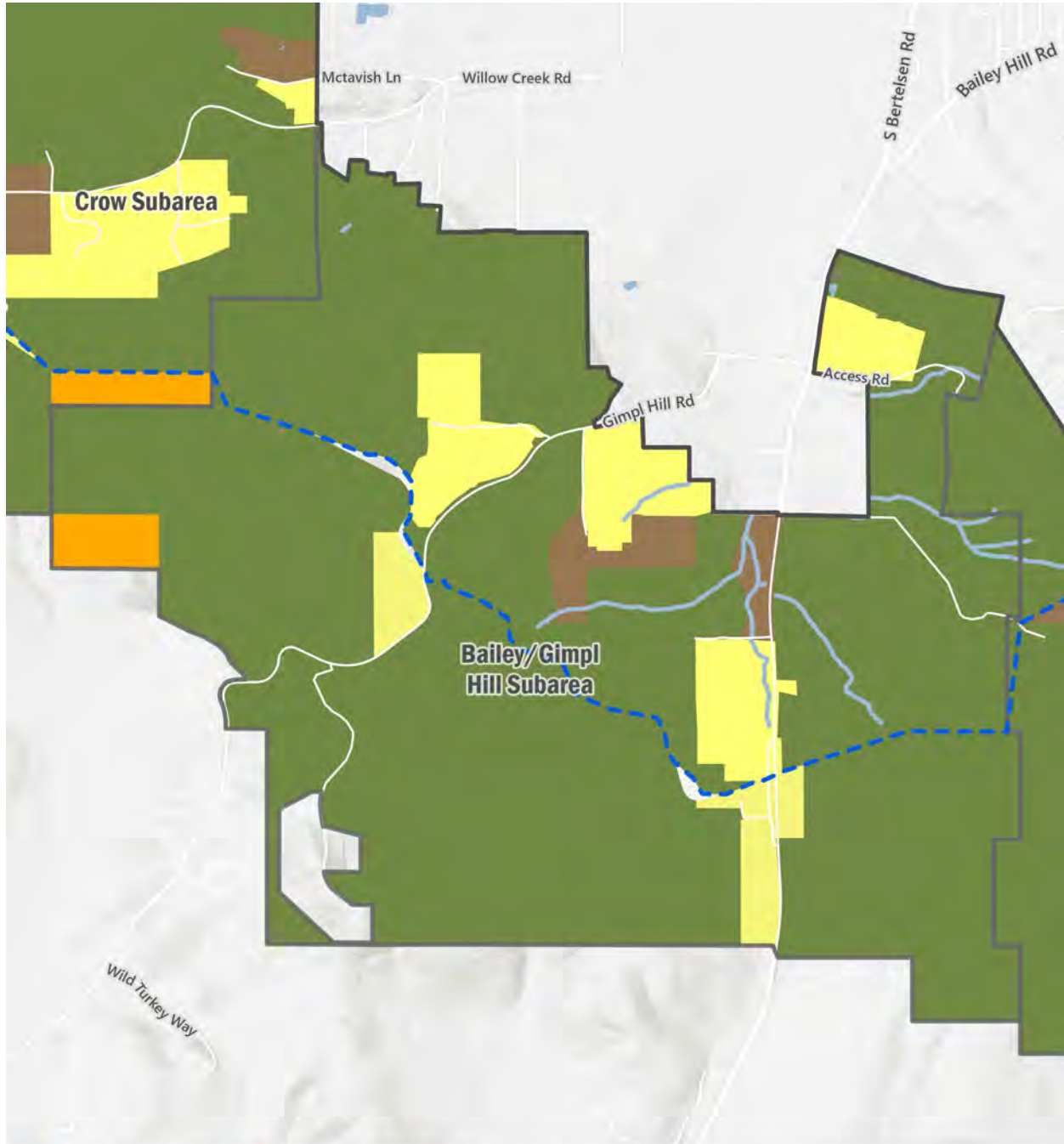
-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Tax lots
-  Severely constrained by natural hazards or subject to natural resource protections
-  Occupied



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 14.8 Plan Designations, Bailey/Gimpl Hill Subarea



Metro plan boundary	Industrial	Agriculture
Eugene UGB	Marginal	Airport reserve
Eugene urban reserves subarea boundaries	Natural resource: mineral	Forest land
Rural comprehensive plan designation	Natural resource: wildlife	Government & education
Agriculture	Non resource	Natural resource
Airport	Parks	Parks and open space
Commercial	Public facility	Rural commercial
Forest	Residential	Rural industrial
		Rural residential
		Sand and gravel



0.3 Miles

Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

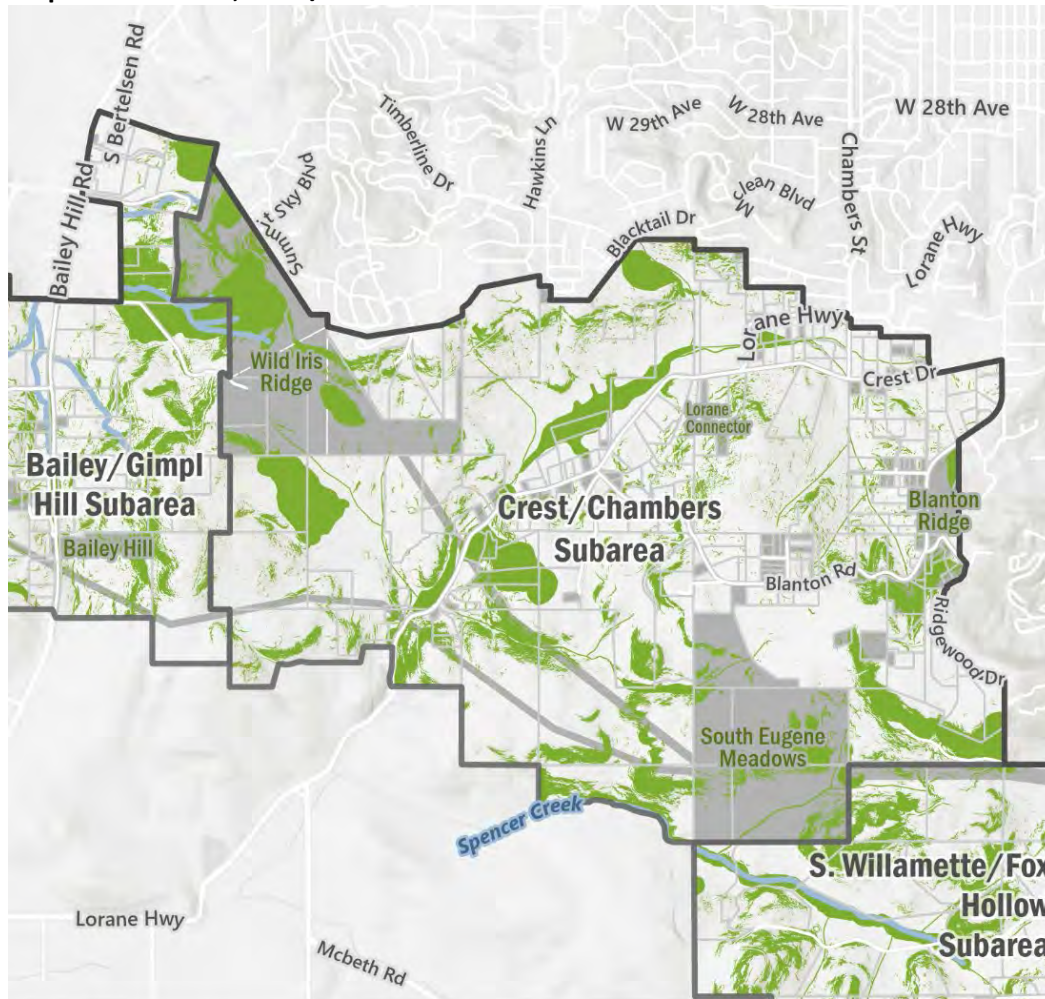
Data sources: City of Eugene, Lane County, RLID, DOGAMI.

15. Suitability Analysis – Crest/Chambers

I. Background

- A. Location:** The land in the Crest/Chambers subarea is located to the south of Eugene adjacent to the UGB. It includes land on both sides of Crest Drive, Lorane Highway and Blanton Road. The 250-acre City-owned Wild Iris Ridge Park is included on land in the subarea on its northwestern edge and the 193-acre City-owned South Eugene Meadows Park is included on land in the subarea on its southeastern edge. See **Map 15.1 Location**, below, and **Maps 15.2-15.8** for additional information relevant to the subarea analysis.

Map 15.1 Location, Crest/Chambers



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied



0.6 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

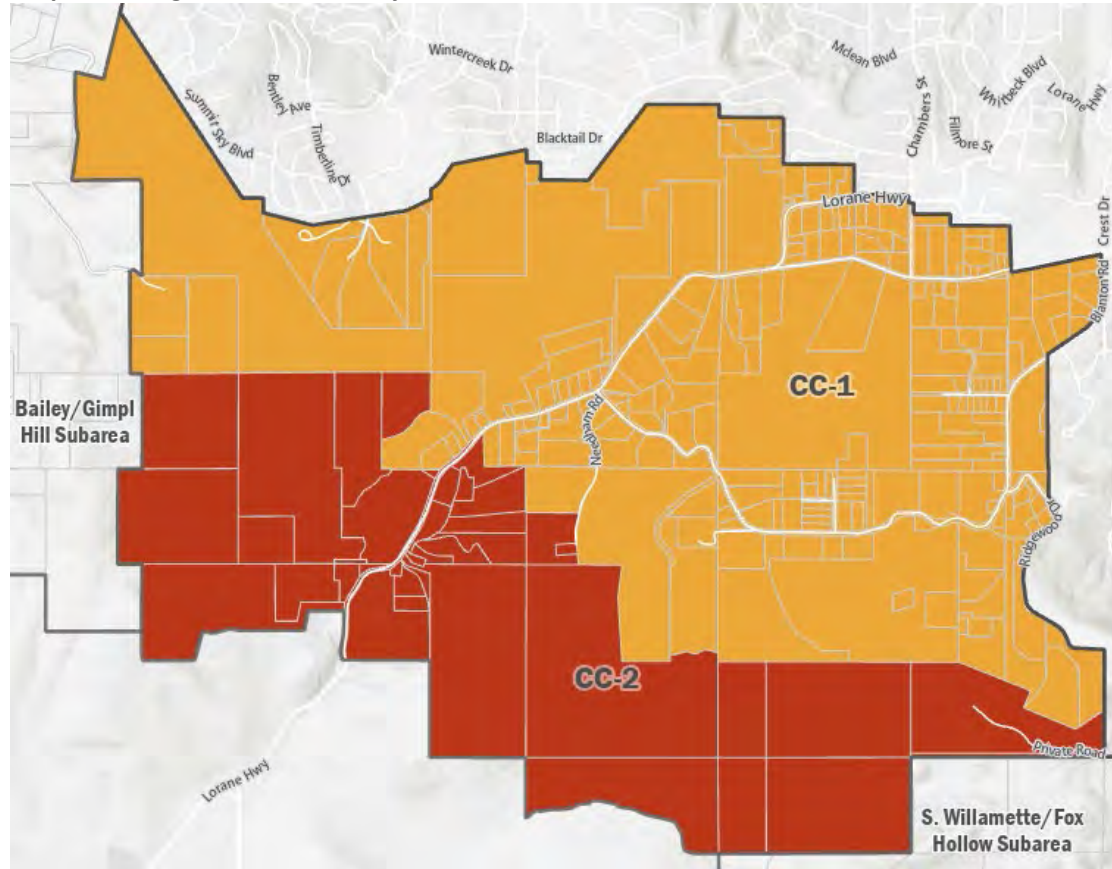
Data sources: City of Eugene, Lane County, RLID, DOGAMI.

- B. Existing Land Uses:** Of the 2,381 acres of land in this subarea, 1,302 acres (55 percent) have potential for future residential or employment development. The land in the subarea contains numerous lots with rural residential development concentrated around Lorane Highway, Crest Drive, and Blanton Road. Along Lorane Highway there are a few existing commercial uses and a number of television and radio stations which operate off of Blanton Road within land in the subarea. The largest share of the developable land is designated Forest Land (416 acres) and is used primarily for large-lot rural housing and possibly small-scale commercial forestry. 274 acres are designated for agriculture and there appear to be some small-scale active farming operations along Lorane Highway. The remaining land in the subarea has no residential or employment development capacity (shown in gray and green on the map). The gray land includes park land owned by the City which is plentiful (the 250-acre Wild Iris Ridge, the 193-acre South Eugene Meadows, and two smaller Ridgeline Trail properties) and land owned by Bonneville Power Administration (BPA) for power lines.
- C. Barriers to Development:** Twenty-two percent of land in the subarea is categorized as natural hazard or natural resource land and much of land in the subarea is characterized by the presence of steep slopes. Fifteen percent of the land within the subarea has a slope of greater than or equal to 30 percent. These prohibitively steep slopes (30 percent or greater) and high-risk landslide hazard areas are shown in green on all maps. Also, in green are waterways such as Spencer Creek, which runs through the subarea on the west side of Lorane Highway and Lane County adopted Goal 5 wetlands.
- D. Surrounding Land Uses:** At the north and east edge of land in the subarea, immediately adjacent to the UGB and within the City Limits, is existing residential development. Both residential development and City-owned open space extends to the edge of the UGB adjacent to land in the subarea. There are a few dead-end streets within the UGB which could be potential future right of way connections from the neighborhoods to the adjacent undeveloped and partially vacant properties on land in the subarea. The main right-of-way connections include Chambers Street, Crest Drive, and Blanton Road. The former Crest Elementary School, owned by School District 4J and home to the Family School, is at the corner of Storey Drive and Crest Drive, and is accessible to land in the subarea. Land beyond the land in the study subarea to the south is primarily agricultural and forest. East and west of land in the subarea is land in the Bailey/Gimpl Hill and South Willamette/Fox Hollow study areas.
- E. Organization of this Analysis:** After an initial review, it became clear that most of the land in this subarea shares the attributes that are relevant to much of the Goal 14 Locational Factor analysis. These circumstances enable the land in the Crest/Chambers subarea to be considered in terms of the two areas shown in the map below, and therefore they have been subdivided further, as follows:

Land in **CC-1** consists of 865 developable acres and is adjacent to the UGB, from Wild Iris Ridge Park to the eastern boundary shared with the South Willamette/ Fox Hollow Subarea. Land in CC-1 contains the northern lot of South Eugene Meadows which is accessible by Blanton Road. The land in CC-1 contains a variety of land types, uses and constraints that together share similar attributes as relates to the Goal 14 locational factor analysis.

Land in **CC-2** consists of 436 developable acres and contains land that is significantly different; it is located farther from the UGB, lacks access to a road system, and contains steep slopes and ridges that limit efficient urbanization. It is along the southern boundary of land in the subarea and contains a large BPA easement and the southern portion of South Eugene Meadows Park. The division between land in CC-1 and CC-2 at Lorane Highway was made as prohibitively steep slopes and landslide risk become significant adjacent to the roadway in the northern portion of land in CC-2. The land in CC-2 shares its western boundary with land in the Bailey/Gimpl Hill subarea and its eastern boundary with land in the South Willamette/Fox Hollow subarea.

Map 15.2, Organization of Analysis, Crest/Chambers Subarea



II. Identify developable land that would be suitable for urban reserves¹

A. Locational Factor 1: Efficient accommodation of identified land needs

To what extent is there...

1. **Developable land adjacent to or nearby (within .25 mile) of the UGB?** In total, there are 655 developable acres (partially vacant or undeveloped) with a portion of their lot within .25 miles of the UGB, as shown on the **Map 15.4 Development Potential**, or approximately fifty percent

¹ Please refer to Section II C of the Eugene Urban Reserve Study (Findings Appendix 2) for background on how the City is identifying land in the study area that would be “suitable,” the explanation of the prompts used for the Goal 14 Locational Factors, and specific terminology.

of the developable acres within the subarea. Land that is within .25 miles of the UGB is likely to more efficiently accommodate the identified land needs than land that is further away from the UGB because of street, utility and neighborhood connections to already urbanized land. Most of this land is within CC-1 (633 developable acres), with a small amount also located on land in CC-2 (22 developable acres).

- 2. *Partially vacant developable land (that is suitable for urbanization of identified land needs)?***
The land in subarea contains 1,302 developable acres, of which 764 acres are located on lots classified as partially vacant and 537 acres are on lots classified as undeveloped. The distribution of these lots is shown on the **Map 15.4 Development Potential Map**. Land in both CC-1 and CC-2 contain lots with a mix of development potential.
- 3. *Developable land that is identified in the capacity analysis² as potentially suitable for urbanization with a mix of residential housing? How does this translate into potential dwelling units (per the capacity analysis)?*** Fifty-five percent of the land in the subarea is identified as having capacity for residential development. This developable land has capacity for 3,636 dwelling units, or an average residential density of 2.79 dwelling units (du) per developable acre (compared to 4.8 du/developable acre for the entire study area) as shown on **Map 15.5 Potential Residential Capacity**. Only a portion of land in the Crest/Chambers subarea, land in the CC-1 area adjacent to the UGB, around Lorane Highway and Blanton Road, is potentially appropriate for a mix of residential housing as it is located near existing housing adjacent to the UGB, the topography is less sloped, it is closer to services, and has existing and easier access to transportation connections. Two streets (West 40th Avenue and Blanton Heights Road) both dead-end into a large lot with frontage on Lorane Highway. That lot alone has capacity for 249 dwelling units. Land in the full northern area (CC-1) contains 865 acres, with capacity for 2,521 dwelling units, at an average density of 2.91 dwelling units per developable acre. While land in CC-2 has higher capacity for residential development, the distance from the UGB and the presence of prohibitively steep slopes and high-risk landslide areas make efficient urbanization with a mix of residential housing unlikely.
- 4. *Developable land that is identified in the capacity analysis³ as potentially suitable for urbanization with industrial land need? How does this translate into potential industrial sites (per the capacity analysis)?*** As shown on **Map 15.6 Potential Industrial Capacity**, no lots within land in the subarea are identified as potentially suitable for urbanization with industrial land.
- 5. *Topography, steep slopes or other “undevelopable”⁴ lands that would make efficient urbanization difficult?*** “Undevelopable” lands classified as “occupied” include parks, schools,

² For information on how residential development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

³ For information on how industrial development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

⁴ As described in section II B of the Eugene Urban Reserve Study (Findings Appendix 2), land was assigned no development capacity if it falls within one of the these “undevelopable” categories: severely constrained by

water utility, rights of way, etc. They are shown as gray on all of the analysis maps. The public park, Wild Iris Ridge, located in the northwestern portion in CC-1, adjacent to the UGB, is needed in order for adjacent developable land to have access to urban services in the future and to efficiently serve the adjacent developable land, due to its location near the UGB and adjacent to developable land in CC-1 and on land in BGH-1 in the Bailey/Gimpl Hill subarea. However, the southern portion of South Eugene Meadows park, located within CC-2, is not needed for the efficient urbanization due to its location (farther from the UGB and services) and use. The use of this land will stay the same regardless of whether it is included in urban reserves, and it is not needed to access nearby developable land. As shown in green on all the maps and on **Map 15.7 Contours and Hillshade**, there is land with prohibitively steep slopes and high-risk landslide hazard areas throughout the subarea, but primarily in CC-2. While land in CC-1 does contain some steep slopes and high landslide risk, this land is adjacent to the UGB and is more easily accessible. 365 acres (15% of land in the subarea) contain prohibitively steep slopes of 30 percent or greater. Steep topography, high-risk landslide hazard areas, and wetlands would make efficient urbanization in CC-2 difficult, especially where they are along road frontages, making it more challenging to reach land with development capacity (e.g. along Lorane Highway and Blanton Road).

Conclusion: *As described above, the land in CC-1, which is adjacent to the UGB and accessed from Crest Drive, Lorane Highway and Blanton Road, is mixed in its ability to efficiently accommodate identified land needs. The positive attributes of the land in CC-1 are that it is close to the UGB, existing development, services and job centers, with roadway access, and much of it is already in residential use. Even so, dwelling units/developable acres are relatively low, given the presence of small lots, steep topography, high elevation and the presence of natural resources. Wild Iris Ridge Park is classified as “undevelopable” land but will aid in the efficient accommodation of identified land needs for the adjacent developable land.*

The more isolated land in CC-2 has a negative rating due to the greater presence of steep slopes, high-risk landslide areas, and distance from the UGB and major roads (Lorane Hwy and Blanton Rd). Based on these factors, urbanization of this land would not be able to efficiently accommodate identified land needs. Therefore, the “undevelopable” land in the southern portion of South Eugene Meadows Park is not needed for the efficient urbanization of the adjacent developable land due to its location and the constraints on surrounding developable land which make it not able to efficiently accommodate identified land needs.

Efficient accommodation of identified land needs:	Positive	Mixed	Negative
Land in CC-1			
Land in CC-2			

natural hazards or is designated or zoned to protect natural resources; or not vacant or partially vacant (i.e. the land is already occupied).

B. Locational Factor 2: Orderly and economic provision of public facilities and services⁵

The information below addresses the feasibility of serving the developable land in the Crest/Chambers subarea with public facilities and services in an orderly and economical way. It considers the capacity of the current system to serve the area and the extent of new infrastructure that would be needed to serve the area if urbanized. It includes an analysis of **wastewater, water, transportation, transit, stormwater, and fire/emergency services** and also, to a lesser extent, it includes the provision of **electricity, schools and parks**.⁶

Before the narrative description is a table showing the **generalized serviceability** of the subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff, and a **generalized cost estimate** to address the economics of serving the subject area with public facilities and services. It reflects preliminary high-level estimates for the major components of the individual systems. Cost information is provided on a \$ to \$\$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$\$) denoting the greatest cost. The scale used to evaluate each type of service is tailored to address the fact that some services are more expensive to provide than others. For example, a \$ for wastewater does not equate to the same dollar amount as a \$ for transportation. Cost estimates do not include future maintenance costs.

Crest/Chambers Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Difficult	Moderate-Difficult	Difficult	Difficult	Difficult	Moderate-Difficult
Generalized cost estimate	\$\$\$\$\$	\$\$\$	\$\$\$\$-\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$	\$\$\$\$

1. **Wastewater:** The subarea is assigned a “difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. This is due to capacity issues with the existing system and the need for new infrastructure.
2. **Water:** The subarea is assigned a “moderate” to “difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$. A portion of area is already served by EWEB. There is potentially sufficient capacity in existing facilities, however, there may be a need to increase capacity. The cost to serve the subarea will impact both the public and private costs of new development in the subarea.
3. **Fire:** The subarea is assigned a “difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$-\$\$\$\$\$. Given the current locations of city fire stations and existing

⁵The definition of “public facilities and services,” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines, is: “[p]rojects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.”

⁶ The summarized information used in this section is based on the results of the more comprehensive *Urban Reserves Serviceability Analysis Report* (Findings Appendix 3). In providing information for that report, service providers considered the serviceability of the subareas in their entirety; they generally did not differentiate between areas within a subarea.

street network, there are response time and service delay concerns. It is assumed a new fire station would be needed to serve the subarea. In addition, there is potential wildfire risk due to the increased interface with rural forest lands.

4. **Transportation:** The subarea is assigned a “difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. This is due to a lack of good multimodal access for residential uses, given the topography and street connectivity.
5. **Transit:** The subarea is assigned a “difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. This is due to the challenges in providing efficient bus service given the existing street system, much of which is unsafe for use by existing transit vehicles because of sharp curves, lack of shoulder and road width, and steepness.
6. **Stormwater:** The subarea is assigned a “moderate” to “difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. This area is located in the headwaters of the Spencer Creek watershed and drains to Fern Ridge Reservoir and the Long Tom River via Spencer Creek and Coyote Creek. If developed to urban densities, urban runoff would flow through downstream agricultural and forested lands before discharging to Spencer Creek which has not been evaluated for capacity as the City primarily drains to the north. Soils may be less suitable for infiltration, making meeting the current flow control requirements moderately challenging. Stormwater development standards would need to be met for pollution reduction, and potentially expanded flow control requirements.
7. **Other (Parks, Schools, Electric):** The Southeast portion of this subarea contains South Eugene Meadows, a 193-acre undeveloped park (split between CC-1 and CC-2). The northwest corner of this subarea (in CC-1) contains the 250-acre Wild Iris Ridge Park, which is also part of the ridgeline park system. This subarea is completely within the Eugene 4J School District. Lane Electric provides electrical service to the western portion of this area, and EWEB provides service to the eastern portion.
8. ***Is there undeveloped land within the UGB that would be helped in its development/serviceability if this area were included in urban reserves, or is there undeveloped land within the UGB that would negatively impact the orderly and economic provision of public facilities and services?*** There is a small amount of undeveloped land within the UGB that is adjacent to the subarea which would likely benefit from the inclusion of this area within Urban Reserves, as it could all potentially benefit from sharing the cost of extending services to the area.

Conclusion: *As described above, input from service providers indicates that the land in the Crest/Chambers subarea cannot easily be served in an orderly and economic manner. Providing facilities and services in the subarea would range from moderate to difficult and moderate to very expensive in cost due primarily to the presence of steep slopes, high-risk landslide areas and low development capacity. Only water could moderately serve the area efficiently, as EWEB already provides water to part of CC-1.*

Due to the fact that the land in CC-1 abuts the UGB and includes major streets (Crest Drive, Lorane Highway, and Blanton Road) which serve as a loop system, and EWEB already provides water service to some of the land in CC-1, it is identified as mixed in its ability to be served in an orderly and economic manner, despite the cost and complexity.

The land in CC-2 is located farther away from the UGB and contains more extensive prohibitively steep slopes along with high-risk landslide hazard areas. Therefore, the land CC-2 is identified as negative in its ability to be served in an orderly and economic manner.

Orderly and economic provision of public facilities and services:	Positive	Mixed	Negative
Land in CC-1			
Land in CC-2			

C. Locational Factor 3: Comparative environmental, energy, economic and social consequences

1. Environmental consequences:

- a. Presence of natural resources: To what extent would urbanization of this area negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources?** There is significant public parkland throughout the land in the subarea, in both land in CC-1 and CC-2, which provides ample wildlife habitat, connectivity, and natural resource protection. Urbanization could negatively impact adopted Goal 5 wetlands that are present in this subarea, primarily on land in CC-1 west of Lorane Highway. Goal 5 wetlands are categorized as areas subject to natural resource protections, so urbanization on them is not assumed but, adjacent development could negatively impact these areas and make efficient urbanization more challenging, especially in those areas along street frontages, such as where Spencer Creek flows directly adjacent to Lorane Highway. Future development may increase impervious surfaces such as roofs and pavement and increase the stormwater runoff and potential pollutants in waterways. However, if land in CC-1 or CC-2 urbanizes, development would be subject to the City’s stormwater standards, which are intended to minimize runoff and treat pollutants.
- b. Presence of hazard areas (steep slope, landslides, floodplain): To what extent would urbanization of this area increase the potential risk of natural hazards, such as landslides, wildfire or flooding?** There are high-risk landslide areas and steep slopes throughout land in the subarea (shown on the maps in green) on land in both CC-1 and CC-2. 365 acres (fifteen percent of land in the subarea) contain steep slopes. In addition, there are at least five areas of high-risk deep landslide areas identified by DOGAMI on private property. As hazard areas are “undevelopable” with no development capacity assumed on them, the potential risk due to urbanization is minimized, although adjacent urbanization could still increase risks. Urbanization of land in this subarea would potentially increase the potential risk of natural hazards, such as

landslides and wildfire. Large portions of land in the subarea (particularly on land in CC-2) are forested, making it at risk for wildfire, which may increase over time with climate change. There are no flood hazards areas on land in either CC-1 or CC-2.

- c. Presence of nearby public open space: To what extent would nearby public open space benefit future residents of the area?** There is significant public parkland throughout land in the subarea, which provides ample wildlife habitat, connectivity, and natural resource protection. CC-1 contains Wild Iris Ridge Park and the northern portion of South Eugene Meadows. CC-2 contains the southern portions of South Eugene Meadows. Urbanization of land in the subarea would decrease open space and wildlife habitat on privately owned land. If only land in CC-1 were to be urbanized, significant opportunities for open space and habitat connections would remain, potentially connecting Wild Iris Ridge with South Eugene Meadows. The existing public open space is significant on land in this subarea and will provide close-to-home recreational opportunities for the land in the subarea’s growing population, benefitting future residents by providing nearby opportunities for active and passive recreation, such as hiking, bird watching, mountain biking and nature appreciation.

Conclusion: *As described above, urbanization of the entire subarea could potentially increase the risk of natural hazards, such as landslides and wildfire. Focusing urbanization in the CC-1 portion of the subarea and excluding many of the higher risk and distant areas from urban reserves consideration would have mixed environmental consequences. There is a significant amount of parkland within CC-1, providing positive environmental consequences and benefitting area residents. Focusing urbanization on less sensitive areas in CC-1 would mitigate negative environmental consequences. Therefore, the environmental consequences of urbanizing the land in CC-1 are mixed.*

The land in CC-2 is heavily forested and contains prohibitively steep slopes. The parkland contained within CC-2 is more difficult to access and will remain in current use regardless of inclusion in urban reserves. Urbanization of surrounding developable land could potentially increase the risk of natural hazards, such as landslides and wildfire and decrease forested wildlife habitat. Therefore, the environmental consequences of urbanization on the land in CC-2 are greater, and the area receives a negative rating.

Environmental Consequences:	Positive (Low)	Mixed (Medium)	Negative (High)
Land in CC-1			
Land in CC-2			

2. Energy Consequences (priority for lower energy usage):

- a. To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt)?** Land in CC-1 that is closer to the UGB could be moderately well-situated to co-locate a variety of housing due to existing street connections, easier water service, schools, open space and undeveloped and partially vacant parcels immediately adjacent to the UGB. This flatter and more walkable land in CC-1 has potential as a

20-minute neighborhood (where homes, jobs and services can be reached on foot within 20 minutes), limiting the need for vehicle trips and having positive energy impacts. However, moving further south into land in the subarea, on land in parts of CC-1 and all of CC-2, steeper topography, limited access to streets, distance from the UGB and irregular lot configurations are likely to keep average capacity and multi-modal access relatively low which would have negative impacts on energy usage (with potentially more driving, more infrastructure needed and lower density housing).

- b. To what extent is the area easily accessible to other services or uses (e.g., neighborhood commercial, parks, schools)?** There are no neighborhood-serving commercial uses or job centers on land in the subarea or nearby, requiring significant vehicular travel for services or work. In CC-1, on the edge of the subarea, is a 4J public elementary school. There is a public park adjacent to the school and nearby open space is plentiful. It appears that there may be a small farm operation on Lorane Highway. The land in the subarea's suitability for jobs and neighborhood-serving commercial is less likely, given the land in the subarea's topography and surrounding uses. At the same time, very few services currently exist in the neighborhoods at the edge of the UGB, and small-scale neighborhood-serving commercial would benefit residents both inside and outside of the UGB. The land in CC-2 lacks easy access to nearby services or uses as it is encumbered by prohibitively steep slopes, due to topography and road systems constraints.
- c. To what extent is the area adjacent to or nearby the UGB? (see Locational Factor 1, A.2)** As already noted in Locational Factor 1, land in the Crest/Chambers subarea includes both very small and larger lots adjacent to or nearby (within .25 mile) the UGB, as shown on **Map 15.4 Development Potential**. Most of this land is located within CC-1 (633 developable acres), with a small amount also located on land in CC-2 (22 developable acres). The north edge of land in the subarea is along the ridgeline (at 900-1,000 ft in elevation and steep) so connections to existing streets in those areas may be difficult due to city standards of street slopes of not more than 20% slope.
- d. To what extent is there good multi-modal transportation access to this area? To what extent is the area easily accessible to job centers and downtown?** Multi-modal transportation access to land in this subarea is poor. Transit service would need to be extended to land in this subarea, and roadway improvements, including bike lanes and sidewalk improvements would be needed to be added to accommodate all users. Steep slopes and relatively narrow roadways are challenging for good bicycle and pedestrian access. The challenges extend into the UGB, as Chambers Street is a steep climb to the edge of the study area. In CC-1, the area around Crest Drive/Lorane Highway/Blanton Road serves as a loop and allows for more efficient transportation options than the outlying areas, although Lorane Highway and Crest Drive are narrow and winding with limited pedestrian facilities.
- e. To what extent does future urbanization directly or indirectly generate energy or climate burdens (e.g., loss of open space, loss of growing lands, increased traffic, increased carbon emissions)?** Future urbanization of land in the Crest/Chambers subarea will directly and

indirectly generate energy and climate burdens due to the loss of growing lands, both forest and agricultural, increased vehicle traffic, and increased carbon emissions.

Conclusion: As described above, there are mixed energy consequences to urbanizing the developable land in **CC-1**. The flatter areas near the UGB have good potential for co-locating a variety of housing, jobs, and services, limiting the need for vehicle trips and therefore having positive energy impacts. In **CC-1**, there is some topography and steep slopes, however larger lot sizes with greater average density and access to looped road systems have mixed impacts on energy usage (with potentially more walking, less infrastructure needed, and more multifamily housing opportunities).

In **CC-2**, steep topography, small lot sizes and high-risk landslide areas are also likely to keep average density relatively low, which would have negative impacts on energy usage (with potentially more driving, more infrastructure needed and less multifamily housing opportunities).

Energy Consequences:	Positive	Mixed	Negative
Land in CC-1			
Land in CC-2			

3. Economic consequences:

- a. **In general, how much economic activity would urbanization of this area bring? Ex: Additional construction opportunities?** The land in the Crest/Chambers subarea contains 1,302 acres of developable land. Based on generalized capacity assumptions, this land could accommodate 3,636 residential dwelling units (du), or 2.79 du/developable acre. The relatively low density is due to the size, slope and elevation of existing developable lots. Given that it also is rated low in serviceability, development on land in this subarea would likely be very expensive. While it would bring construction activity that would benefit the local economy and the base would increase, the cost of services (capital and ongoing) may outweigh the increased revenue.

- b. **Is the area appropriate for future urbanization with a variety of identified uses (not just LDR), to support connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a)** As noted previously, land in the Crest/Chambers subarea has a low likelihood of urbanizing with a variety of uses due to steep slopes and high-risk landslide hazard areas. The closer-in land in **CC-1** could more likely support future urbanization with a variety of identified uses. Land in **CC-2** is encumbered by prohibitively steep slopes, high-risk landslide hazard areas, lacks connection to looped road systems, and therefore could not support connected, integrated neighborhoods.

- c. **Are there concerns about future urbanization causing a loss of economic activity for existing and nearby uses? (also see Locational Factor 4)** The developable land within the subarea is mainly forested and includes scattered large-lot rural residential homes. Given adjacent uses being primarily forest, residential, and open space, there is relatively little concern about future urbanization causing a loss of economic activity for existing and nearby uses. There are several home-based businesses in **CC-1**, including a preschool, textile business, and sign shop, which

could potentially benefit from an increase in additional residents if land in the area were to urbanize.

- d. How cost-efficient is service provision in this area? (also see Locational Factor 2)** Water service, which EWEB already provides to a portion of land in the subarea, may be the easiest service to provide to land in the subarea, but it is still identified as moderate to difficult to serve. The relative high cost of servicing land in the subarea makes the likelihood of efficient urbanization and its associated economic benefits relatively low. While greater capacity may optimize the investment in infrastructure over the long term, there is a risk of financial loss if development does not occur at the already low anticipated densities.

Conclusion: As described above, urbanization will bring positive economic consequences, particularly to the land in CC-1, but primarily due to the high cost of service provision, the likelihood of efficient urbanization and its associated economic benefits, consequences are mixed. The location of CC-1, with access to looped road connections and adjacency to the UGB, is better suited for potential neighborhood-serving commercial development and a mix of housing types.

The land in CC-2 has prohibitively steep slopes with constrained access, making it difficult and expensive to build on and serve with public utilities, and unable to support connected, integrated neighborhoods. Therefore, the economic consequences of urbanization are negative.

Economic Consequences:	Positive	Mixed	Negative
Land in CC-1			
Land in CC-2			

4. Social Consequences:⁷

- a. Will urbanization negatively impact current residents?** As the land in the subarea urbanizes, increased noise and vehicle traffic could negatively impact current residents of land in CC-1 and CC-2, however, improvements to the roadway system and utilities could bring benefits. Residents would benefit from the opportunity to connect to urban services, such as water, wastewater, fire and emergency services and improvements to the roadway system.
- b. How would urbanization worsen or improve service delivery to residents in this area (e.g. adequate fire response times, access to water, parks)? (also see Locational Factor 2)** Service delivery to land in CC-1 and CC-2 would improve with urbanization, however the provision of services is generally costly, as discussed in Locational Factor 2, and there are concerns around the wildland-urban interface and water flow issues. The land in the subarea will be difficult to serve for fire protection and emergency services, but safety would be improved if services were extended. Given the current locations of the City fire stations and existing street network, there

⁷ The definition of “social consequences” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines is: “[t]he tangible and intangible effects upon people and their relationships with the community in which they live resulting from a particular action or decision.”

are response time and service delay concerns, especially for land in CC-2 which is more isolated and encumbered by steep slopes. Water and fire flow service would improve when developable lands connect to EWEB. This would also benefit properties with wells that are running dry. As noted in Locational Factor 2, water service is already provided to some land within the subarea located in CC-1 but improvements may be complicated and costly to increase service. Even if land in the subarea urbanizes and additional streets are developed, given the topography, good connectivity will still be challenging. The land in the subarea is completely within the Eugene 4J School District, and there is an elementary school within walking distance of the closer-in portion of the subarea (assuming streets are improved with sidewalks and crosswalks). Public open space is plentiful. It is assumed that neighborhood parks would be developed as neighborhoods urbanize to meet the City's service standards.

- c. Will urbanization exacerbate the impacts of potential natural hazards, such as flooding, fire, and landslides? (also see Locational Factor 3, Environmental Consequences C.1.b)** As noted in Locational Factor 3, Environmental Consequences, there are significant hazard areas throughout land in the subarea, including areas with prohibitively steep slopes (30 percent or greater), and areas with high risk of shallow and deep landslides, as shown in green on the analysis maps. Urbanization of land in the subarea could increase landslide risk on steep slopes. However, high-risk landslide areas are severely constrained by natural hazards, with no development capacity forecast on them, and risks would not be unduly burdening to vulnerable populations. There is potential increased wildfire risk due to urban interface with rural forest lands. However, urbanization may improve water and fire service as urbanized areas will be connected to EWEB water.
- d. How might urbanization in this area impact vulnerable populations⁸ and underserved groups currently living in the subarea? Could one segment of the population be impacted more than another (e.g. low-income households)?** There could be negative impacts to vulnerable and underserved groups due to the high cost of development of land in this subarea. Housing would likely be expensive due to the high cost of serving land in the subarea and topography; providing affordable housing on land in this subarea would be challenging without public subsidy. If transit service is extended, it would benefit all residents, but the cost and challenges of doing so would be significant. The existing topography makes creating a system that would accommodate all users difficult and there may be increased safety hazards for transportation users like bicyclists and pedestrians.
- e. Will urbanization in this area allow for connected, integrated neighborhoods? (also see Locational Factor 3, C 2 a)** As noted several times above, the likelihood of developing complete 20-minute neighborhoods, with a variety of housing types and neighborhood-serving commercial amenities is low, but it could potentially occur in areas of land in CC-1 that are

⁸ Vulnerable populations are defined as populations that identify as a non-white race or ethnicity, younger or older populations, populations with a disability, and/or single-headed households. Data is from Livability Lane, 2013 Equity and Opportunity Assessment, Social and Demographic Characteristics Map. The extent to which vulnerable populations and underserved groups currently live in the subarea is speculative.

located close to the UGB and existing development. While urbanization won't unduly burden existing residents, it also will be challenged to become inclusive and accessible to a broad range of residents, given the cost and challenges of development in the subarea.

Conclusion: *As described above, urbanization of land in CC-1 would have mixed social consequences. Residents would benefit from improved service delivery but much of the subarea would not likely develop as a 20-minute neighborhood with a variety of housing types at all price ranges. Additionally, there could be negative impacts to vulnerable populations such as older residents and low-income households due to the potential high cost of receiving urban services, such as drinking water. However, the ability to extend EWEB water throughout CC-1 would benefit properties who desire urban water service. Urbanization could increase the chance of wildfire for development in the wildland urban interface, but urban levels of fire and water services will help mitigate that risk.*

Urbanization of the land in CC-2 would have negative social consequences due to the increased risk of natural hazards. Because of the steep topography and existing development patterns, urbanization of land in CC-2 could increase the wildland urban interface and exacerbate the risk of wildfire for current and future residents of the subarea. The high cost of providing public services to land in CC-2 would make future development costly, making it less likely that the benefits of urbanization would be accessible to residents of all income levels.

Social Consequences:	Positive	Mixed	Negative
Land in CC-1			
Land in CC-2			

Locational Factor 3 Conclusion:

For the land in **CC-1**, the analysis under Locational Factor 3 shows that urbanization would have mixed Environmental, Energy, Economic and Social consequences.

For the land in **CC-2**, the analysis under Locational Factor 3 shows that urbanization would have negative Environmental, Energy, Economic and Social consequences.

D. Locational Factor 4: Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

- 1. How will urbanization impact agricultural and forest activities on farm and forest designated land within the subarea?** The largest share of the land in CC-1 and CC-2 is designated forest (as shown on **Map 15.8 Plan Designations**) but appears to be used primarily for rural residential. There appear to be few agricultural activities within or nearby land in the subarea. There may be some commercially farmed forest land in CC-2, south of Wild Iris Ridge Park. Increased congestion on roadways from urbanization may impact nearby forest activities. Within land in CC-1, there does not appear to be significant commercially farmed forest or agricultural lands in the nearby area that would be negatively impacted by residential development. However, urbanization of land in CC-2 may negatively impact the forest management of land within and to the south of land in CC-2.

2. Is urbanization compatible with existing agricultural and forest uses on farm and forest designated land nearby (outside of the subarea)? Future residential urbanization of land in CC-1 appears to be compatible with existing surrounding uses, which are primarily rural residential and parks and open space. Most of the land is designated Forest but not used for commercial forestry. The ridgeline and Lorane Highway provide a buffer from other farm and forest uses; therefore, urban uses would be compatible.

Conclusion: *Because there are minimal forest or farming activities occurring on forest or agricultural land nearby or within land in CC-1, it appears that urbanization of the land in CC-1 would be compatible with farm and forest activities outside of the UGB.*

If land in CC-2 were to urbanize, impacts to nearby forest activities would be greater, and new neighborhoods could have mixed compatibility with nearby forest activities occurring on forest land outside of the UGB. It appears that there may be commercially farmed forest activities occurring within land in CC-2 and to the south. If so, these forest-related businesses and operations on land in and surrounding land in CC-2 may experience negative impacts or be at risk of displacement if the subarea urbanizes particularly with residential development, which could be incompatible with the surrounding forest operations. The land’s location on the edge of the subarea mitigates potential impacts to a degree, and the topography of the subarea may provide some natural buffer from surrounding uses. Because of this, it appears that urbanization of land in CC-2 would be only somewhat compatible (shown as mixed, below) with agricultural and forest activities outside of the UGB.

Compatibility with nearby agriculture and forest activities	Positive	Mixed	Negative
Land in CC-1			
Land in CC-2			

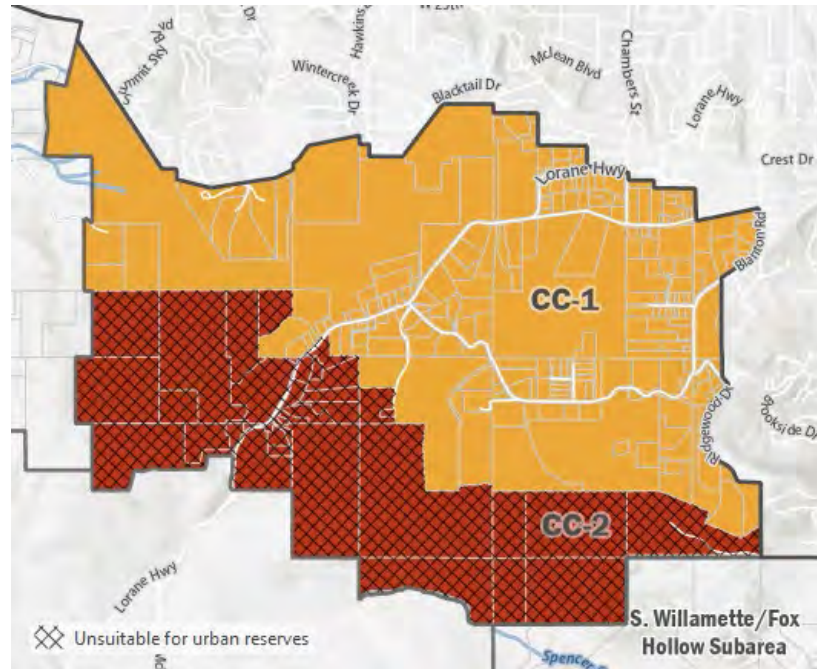
III. Conclusion

Considering and balancing all of the Goal 14 locational factors as analyzed above, there are some positive and some negative aspects of future urbanization of land in the Crest/Chambers subarea as a whole, which is why the analysis was described as laid out in this report and summarized as follows:

Land in **CC-1** includes 865 developable acres. It is composed of land located adjacent to the UGB that can be accessed by Crest Drive, Chambers Street and Blanton Road. In evaluating the land in CC-1, the conclusions of Locational Factors 1-3 were “mixed” in their findings; only Locational Factor 4 was rated as “positive.” This is due to a variety of factors including: steep slopes, Goal 5 wetlands and high-risk landslide hazard areas which contribute to a low average residential density. The positive attributes of the land in CC-1 are that it is close to existing job centers, educational opportunities and key transportation corridors, and contains looped road

connections beneficial for service provision and transportation access, as well as land suitable for residential development. Therefore, based on these factors and the complete analysis described in this report, when balanced and considered together, the consequences with respect to the land in CC-1 result in a determination that this land is suitable for urban reserves designation.

Land in **CC-2** includes 436 developable acres. It includes land located in the southern portion of the Crest/Chambers subarea that is farther from existing uses and services within the UGB and encumbered by steep slopes and areas of high landslide risk. Most of the developable land is located along the southwest edge of the subarea isolated from the existing UGB. In evaluating the land in CC-2, the Locational Factor conclusions were almost all “negative” in



their findings: only Locational Factor 4 was mixed, while Locational Factors 1, 2, 3(a), 3(b), 3(c), and 3(d) were negative. Due to steep slopes, high-risk landslide areas, and/or poor transportation connections, there are significant barriers for this area to efficiently urbanize and for public facilities and services to be provided in an orderly and economic manner. Its remaining out of urban reserves will not affect the developable land nearby. Neither the land east or west of CC-2 in the Bailey/Gimpl Hill subarea or in the South Willamette/Fox Hollow subarea were identified as suitable for urban reserves. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in CC-2 result in a determination that it is not suitable for urban reserves designation at this time.

Please see the summary tables on the following pages, and **Map 15.3 Suitability Results**.

Summary

Crest/Chambers Subarea

Area Suitable for Urban Reserves Designation

Land in CC-1

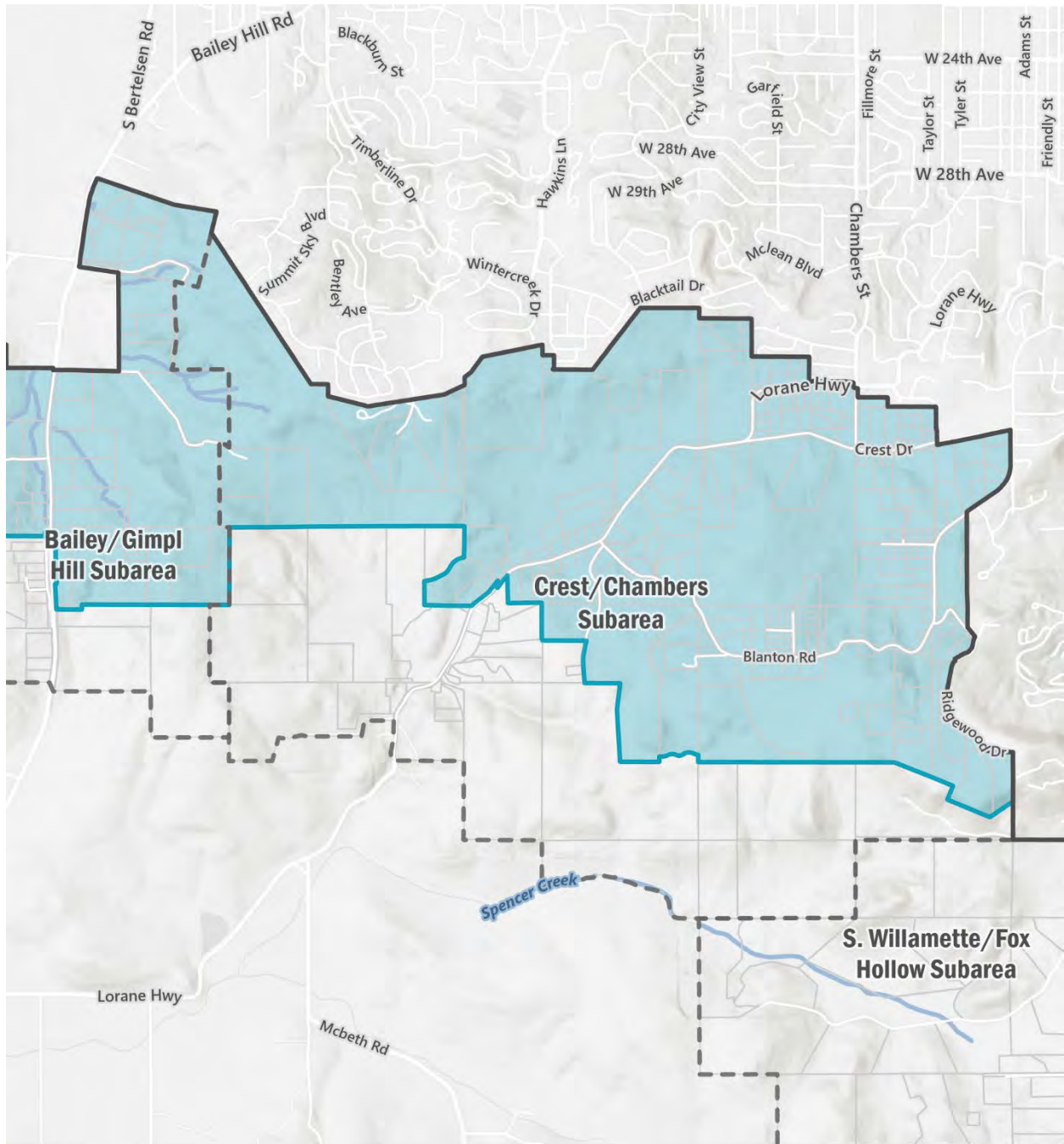
	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			

Area Not Suitable for Urban Reserves Designation

Land in CC-2

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs:			
2.	Orderly and economic provision of public facilities and services:			
3. (a)	Environmental Consequences:			
(b)	Energy Consequences:			
(c)	Economic Consequences:			
(d)	Social Consequences:			
4.	Compatibility with nearby ag and forest activities			

Map 15.3 Suitability Results, Crest/Chambers Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Eugene urban reserves suitable land
- Tax lots



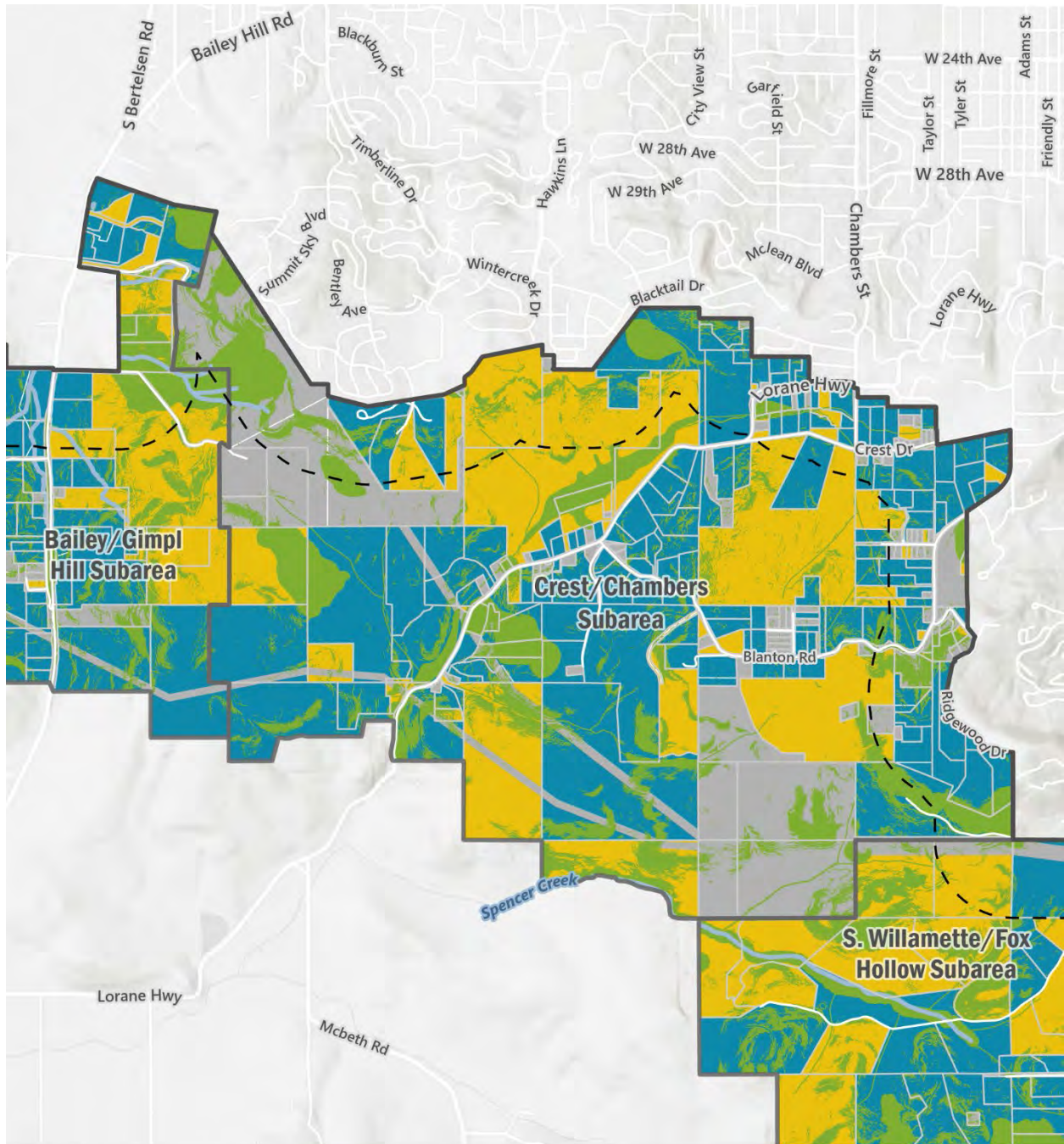
0.45 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 15.4 Development Potential, Crest/Chambers Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Quarter mile from Eugene UGB
- Tax lots

- Developable**
 - Partially Vacant
 - Undeveloped
- Undevelopable**
 - Severely constrained by natural hazards or subject to natural resource protections
 - Occupied

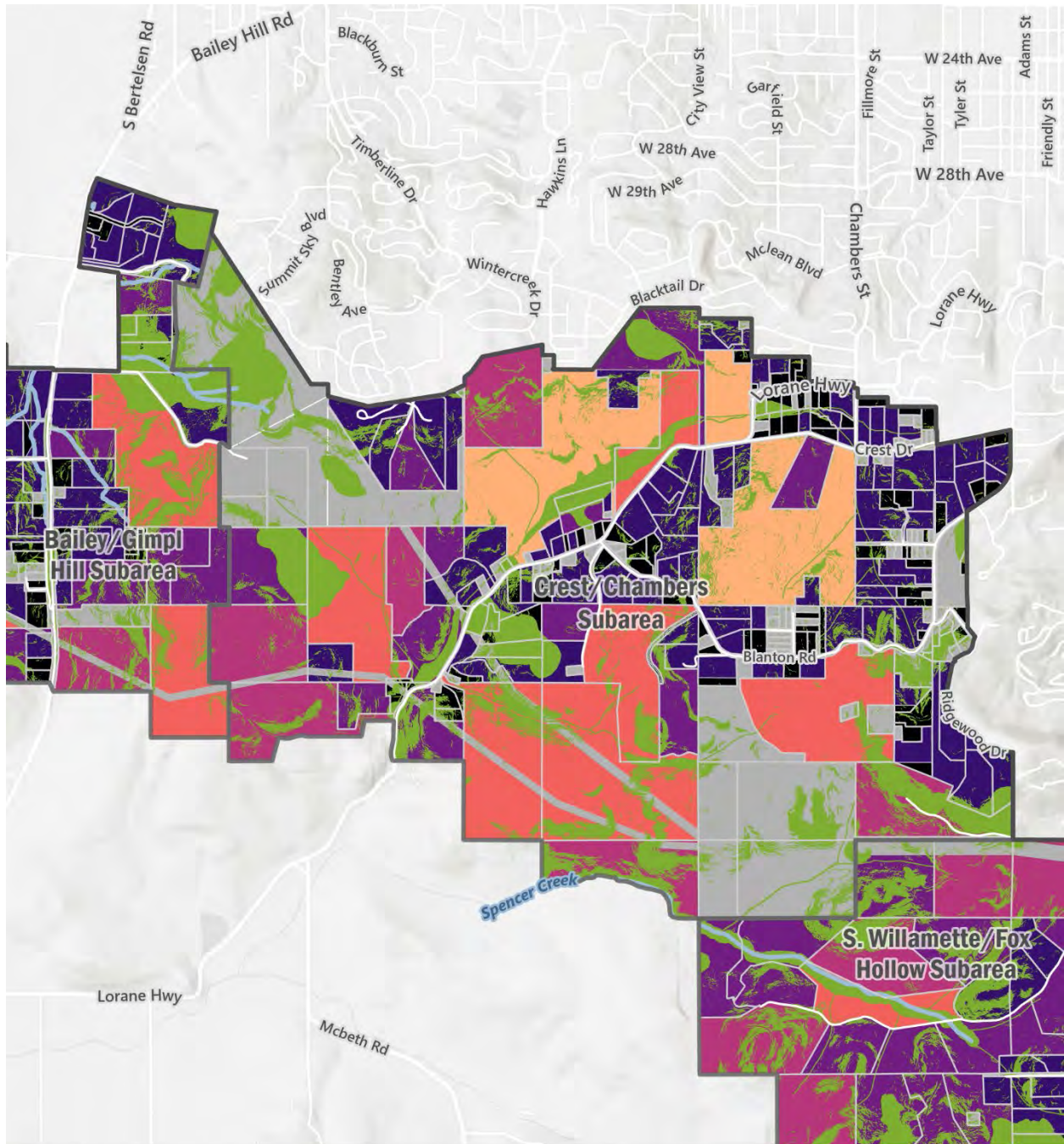


0.45 Miles

Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 15.5 Potential Residential Capacity, Crest/Chambers Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied

Potential residential capacity (dwelling units)

	< 5
	5 - 24.9
	25 - 49.9
	50 - 99.9
	100 - 199.9
	200 - 499.9
	≥ 500



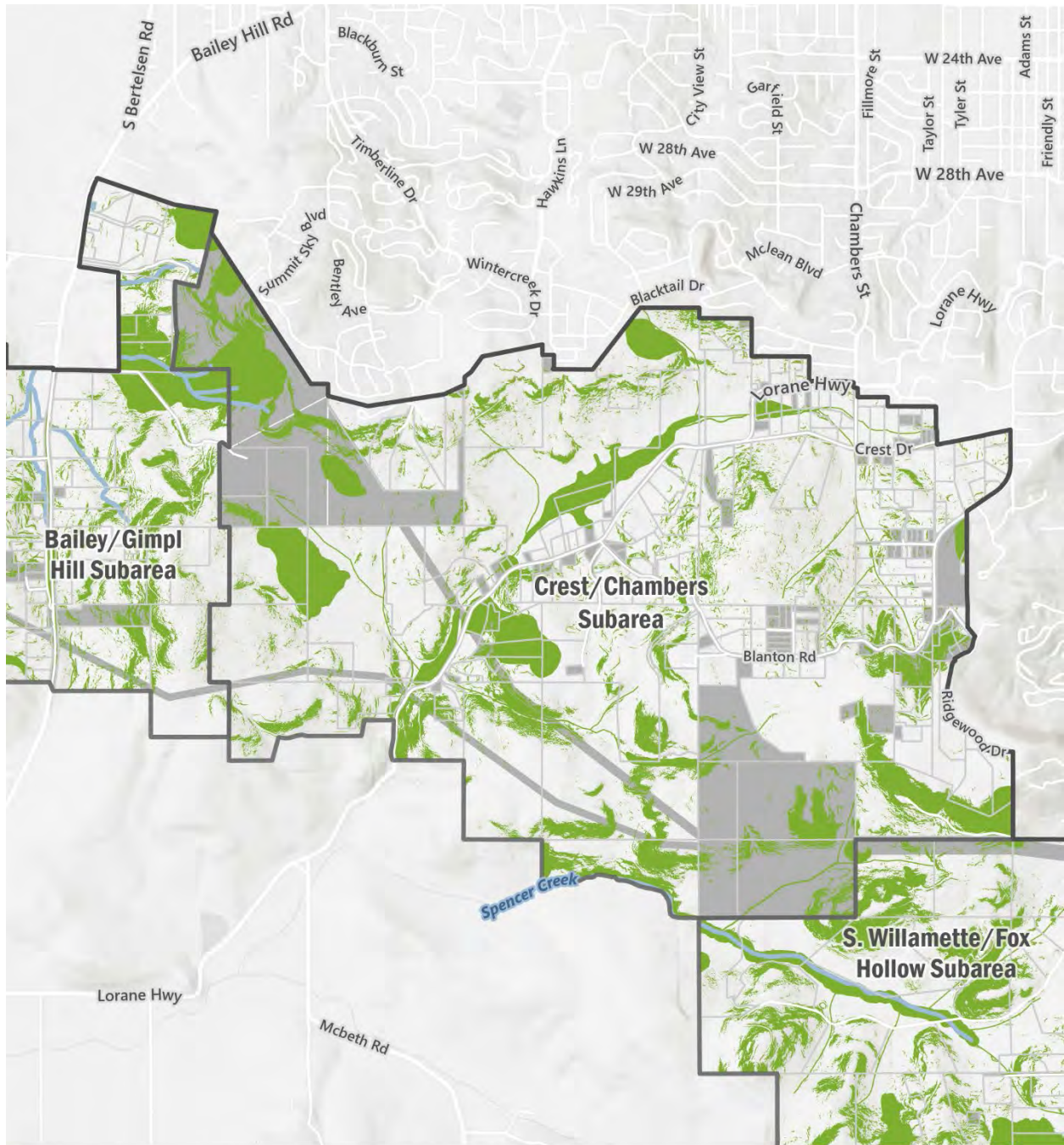
0.45 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 15.6 Potential Industrial Capacity, Crest/Chambers Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied
- Freight Route Access Points

- Tax lots meeting industrial criteria
 Developable acres per tax lot
- 5 - 9 ac
 - 10 - 19 ac
 - 20 - 49 ac
 - 50 - 74 ac
 - 75+ ac

- Tax lots meeting industrial criteria
 Driving distance to a freight route
- 1 mile
 - 1.5 miles
 - 2 miles



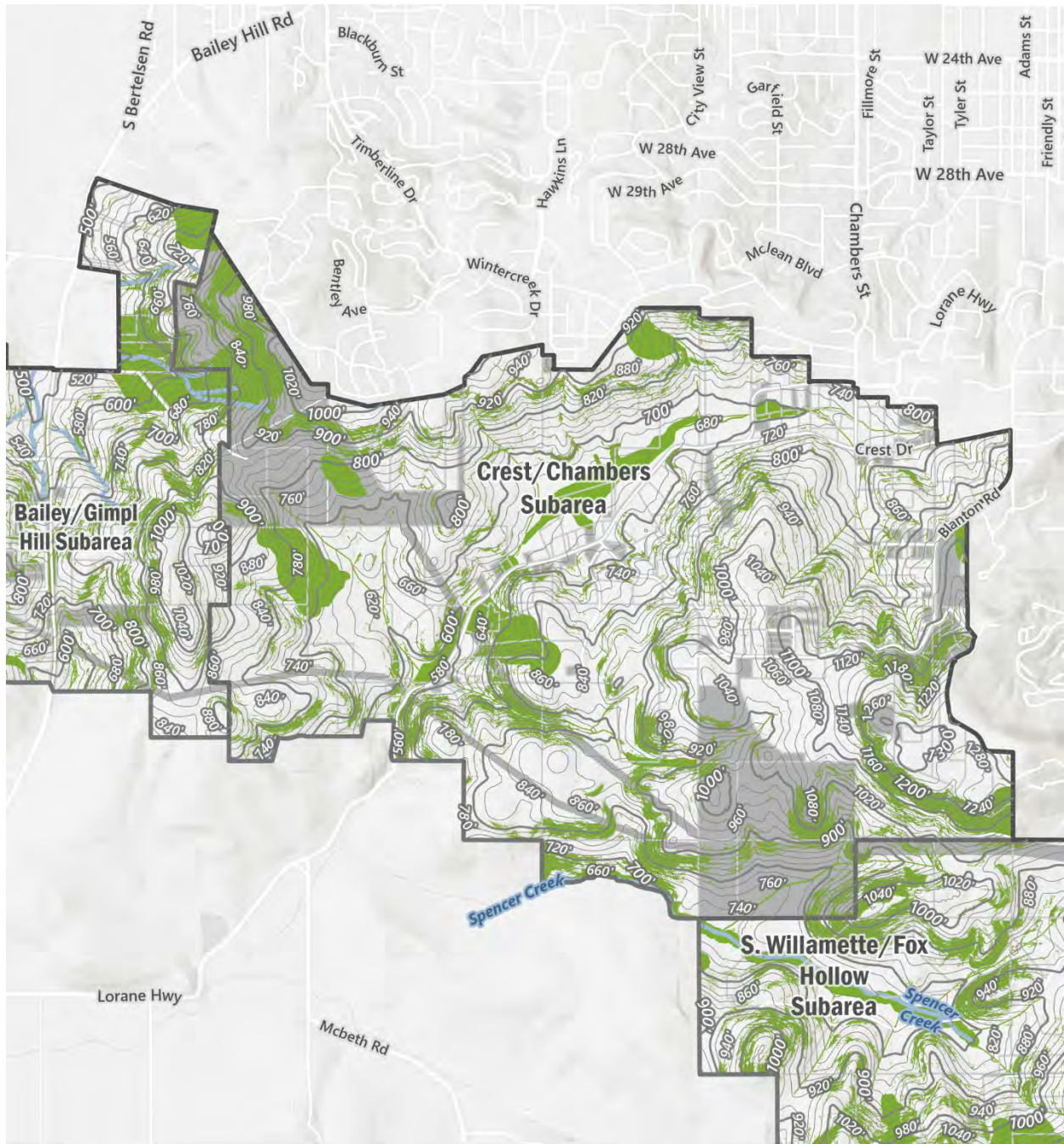
0.45 Miles








Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.


Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 15.7 Contours and Hillshade, Crest/Chambers Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Tax lots
-  Severely constrained by natural hazards or subject to natural resource protections
-  Occupied

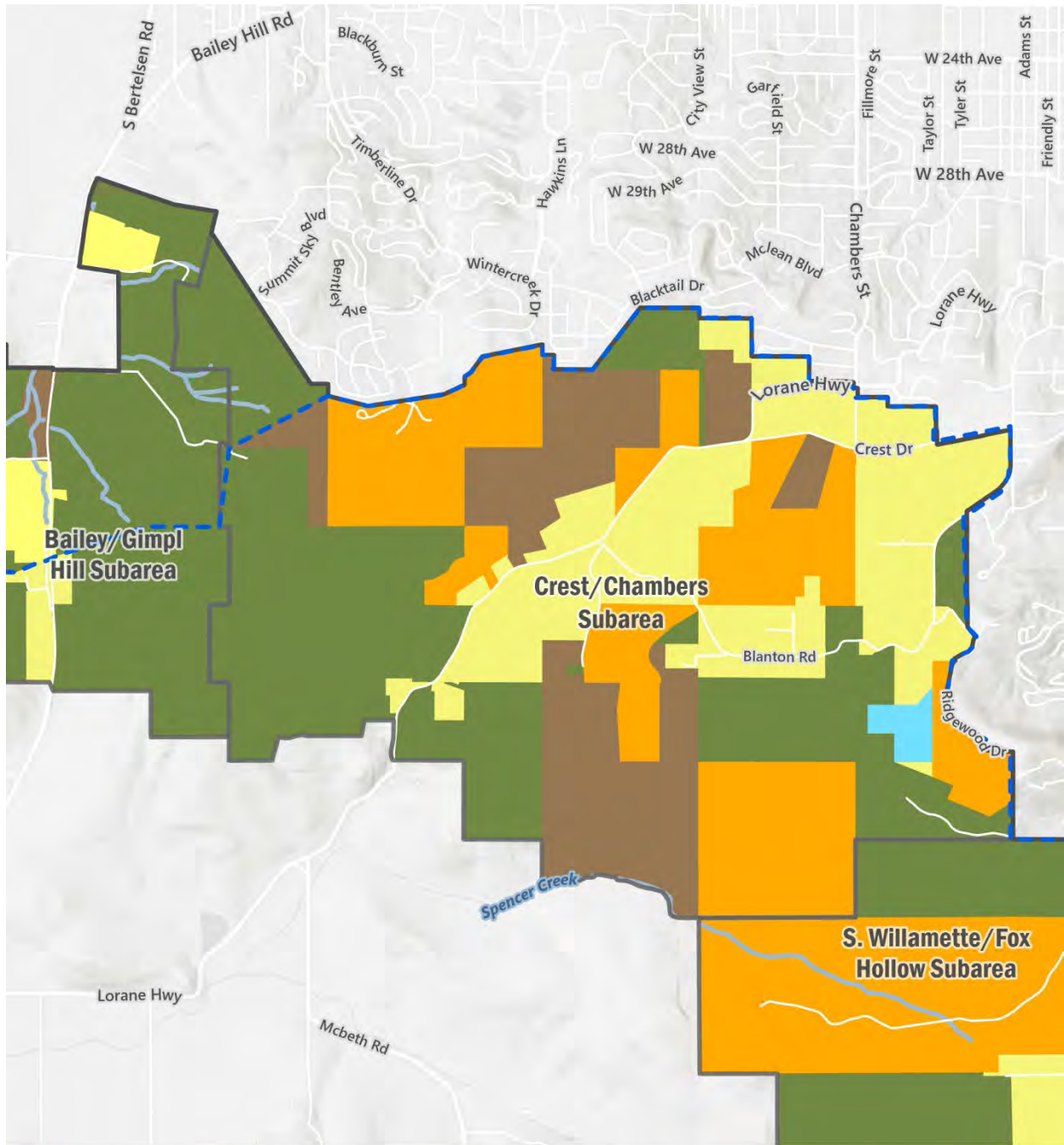


0.45 Miles 

Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 15.8 Plan Designations, Crest/Chambers Subarea



- | | | |
|--|----------------------------|------------------------|
| Metro plan boundary | Industrial | Agriculture |
| Eugene UGB | Marginal | Airport reserve |
| Eugene urban reserves subarea boundaries | Natural resource: mineral | Forest land |
| Eugene urban reserves subarea boundaries | Natural resource: wildlife | Government & education |
| Rural comprehensive plan designation | Non resource | Natural resource |
| Agriculture | Parks | Parks and open space |
| Airport | Public facility | Rural commercial |
| Commercial | Residential | Rural industrial |
| Forest | | Rural residential |
| | | Sand and gravel |



0.45 Miles

N

Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

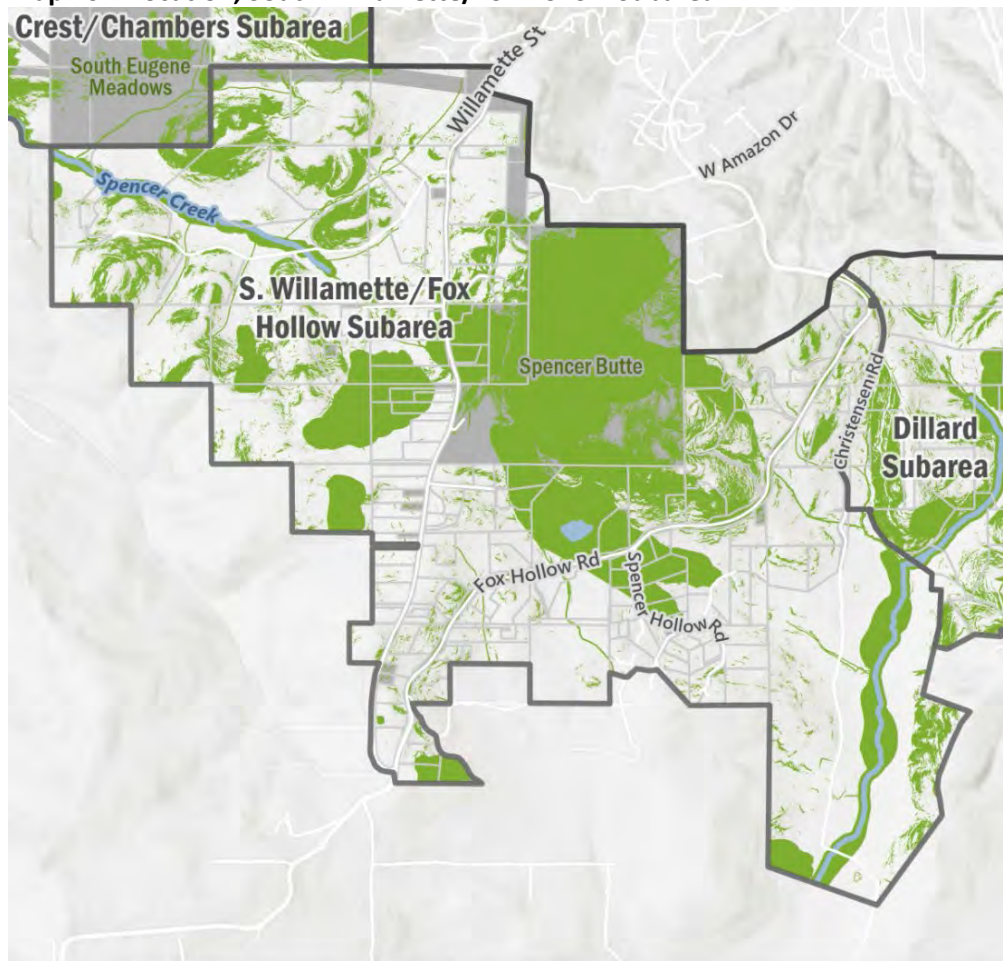
Data sources: City of Eugene, Lane County, RLID, DOGAMI.

16. Suitability Analysis – South Willamette/Fox Hollow

I. Background

- A. Location:** The South Willamette/Fox Hollow subarea includes land around South Willamette Street and Fox Hollow Road extending to where they meet, approximately 2.5 miles south of the UGB. The subarea is bounded on the north by the UGB and the South Hills, much of which is part of the City’s Ridgeline Park system. Spencer Butte Park is in the center of this subarea, with trail access from South Willamette Street and Fox Hollow Road. See **Map 16.1 Location**, below, and **Maps 16.2-16.8** for additional information relevant to the subarea analysis.

Map 16.1 Location, South Willamette/Fox Hollow Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied



0.55 Miles

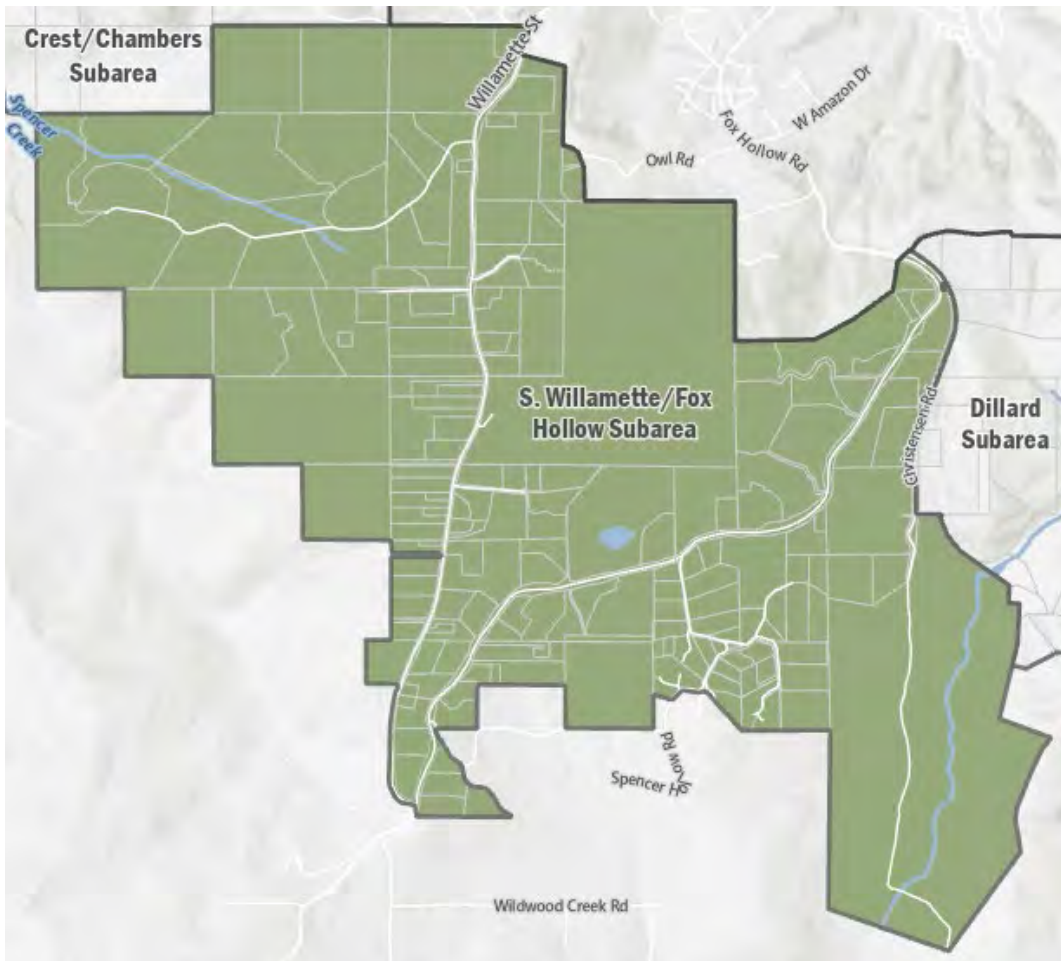
Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

- B. Existing Land Uses:** The land in this subarea is comprised of 2,427 acres; it is characterized by steep slopes and is mostly large lot residential development on forest, marginal and rural residential designated County land. Five- to 20-acre lots with residential development are concentrated around South Willamette Street and Fox Hollow Road. As shown in **Map 16.5 Potential Residential Capacity** this equates to very low average residential density (2.5 du/developable acre) due to the smaller lots, steep slopes and high elevation.¹ Beyond residential use, there is also a large cattle and sheep ranch, the Cascades Raptor Center, and the most prominent use of land in the subarea is Spencer Butte Park. At 386 acres, it reaches an elevation of 2,058 feet. Eugene’s signature park is accessed from three different trailheads on South Willamette Street and Fox Hollow Road, two of which also connect east and west to the City’s Ridgeline Trail system. Other public land in the subarea includes a Bonneville Power Administration easement.
- C. Barriers to Development:** Almost half (forty five percent) of land in the subarea is classified as undevelopable, shown in gray and green on the maps. This includes 435 acres of occupied land, the vast majority of which is Spencer Butte Park. Thirty six percent of land in the subarea is made up of land that is severely constrained by natural hazards or subject to natural resource protections; most of which is high-risk landslide areas and steep slopes. There are areas at high risk of shallow or deep landslide, as mapped by the Oregon Department of Geology and Mineral Industries (DOGAMI) on and surrounding Spencer Butte Park. Twenty two percent of land in the subarea has slopes at or above 30 percent. Also present in the subarea are wetlands and two prominent Goal 5 adopted riparian corridors, Spencer Creek and the (unofficially named) North Fork of Camas Swale. The biggest barrier to development is the high elevation and steep topography of land in the subarea creating costly service connections, inefficient urbanization (low average residential density) and safety concerns (further documented in Locational Factor 2) and as shown on **Map 16.7 Contours and Hillshade**.
- D. Surrounding Land Uses:** To the north of land in the subarea, adjacent to the UGB, is a residential subdivision on South Willamette Street. Most of the immediately surrounding land inside the UGB is either undeveloped residential land or parkland. Farther north, along both South Willamette and Fox Hollow are areas of residential dwellings. These include the Forest Village and Woodleaf Village apartments off Fox Hollow Road and the Highlands Condominiums along Willamette Street. There are also two schools, Edgewood Elementary School and Spencer Butte Middle School approximately 1.5 miles from land in the subarea. There is very little commercially developed land surrounding land in the subarea. The nearest commercial center is approximately 2.5 miles away from the Spencer Butte trailhead. To the south of land in the subarea is mostly agriculture and forest land with rural residential along main roadways.
- E. Organization of this Analysis:** After an initial review, it became clear that within the South Willamette/Fox Hollow subarea, while there are a variety of land types, the land shares attributes relevant for Goal 14 Locational Factor analysis, so there is not a need for it to be subdivided further, as shown on **Map 16.2, Organization of Analysis**.

¹ Factors such as lot size, slope and elevation are used to estimate residential capacity, based on actual development patterns inside the UGB. For more information on how residential development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

Map 16.2 Organization of Analysis, South Willamette/Fox Hollow Subarea



II. Identify land that would be suitable for urban reserves²

A. Locational Factor 1: Efficient accommodation of identified land needs

To what extent is there ...

1. ***Developable land adjacent to or nearby (within .25 mile) of the UGB?*** The land in the South Willamette/Fox Hollow subarea has 1,341 acres of developable land, of which 251 are located within lots³ that have a portion of their boundary within .25 miles of the UGB, as shown on **Map 16.4 Development Potential**. Because the UGB is coterminous with the South Hills ridgeline on land in the subarea, and much of it is parkland (including Spencer Butte) future development would be difficult to connect to existing neighborhoods within the UGB. Where there isn't public

² Please refer to Section II C of the Eugene Urban Reserve Study (Findings Appendix 2) for background on how the City is identifying land in the study area that would be "suitable," the explanation of the prompts used for the Goal 14 Locational Factors, and specific terminology.

³ In the urban reserves study area, 'lots' are used for analysis purposes. See the Eugene Urban Reserves Technical Memo, (Findings Appendix 4) for complete information.

parkland, there is a large BPA corridor south of West 52nd Avenue. Therefore, even though there is some developable land adjacent to the UGB on the east and west edges of land in the subarea along South Willamette and Fox Hollow, for the reasons noted above, this land is not well-suited for efficient urbanization.

2. ***Partially vacant developable land (that could be developed for the identified land needs)?*** The land in the subarea includes 2,427 acres of land, of which 1,341 are classified as developable; 954 acres are located on lots classified as partially vacant and 388 acres are on lots classified as undeveloped. The distribution of these lots is shown on the **Map 16.4 Development Potential**.
3. ***Developable land that is identified in the capacity analysis⁴ as potentially able to be urbanized with a mix of residential housing? How does this translate into potential dwelling units (per the capacity analysis)?*** According to the residential capacity analysis, land in the subarea has capacity for 3,346 dwelling units, or 2.5 dwelling units/developable acre (considerably lower than the 4.8 du/developable acre for the entire study area overall). There is capacity for 577 dwelling units on the largest lot of land in the subarea, located at the southern terminus of Christensen Road, which is an active ranch with difficult access and a sensitive riparian area. As shown on **Map 16.5 Potential Residential Capacity**, despite the land in the subarea's size and proximity to the UGB along its northern edge, the land in the subarea's high elevation, steep slopes, high landslide risk areas, small lots and existing development patterns significantly limits the average residential density and potential residential capacity, precluding efficient urbanization.
4. ***Developable land that is identified in the capacity analysis⁵ as potentially able to be urbanized with industrial land need? How does this translate into potential industrial sites (per the capacity analysis)?*** There are no lots of land in the subarea identified in the capacity analysis as potentially suitable for urbanization with industrial land need, as shown on **Map 16.6 Potential Industrial Capacity**.
5. ***Topography, steep slopes or other "undevelopable"⁶ lands that would make efficient urbanization difficult?*** Forty five percent of land in the subarea is characterized as "undevelopable" because it is severely constrained by natural hazards or subject to natural resource protections or land that is occupied. "Undevelopable" lands are shown as gray and green on all analysis maps. This includes steep slopes (30 percent or greater), areas at high risk

⁴ For information on how residential development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4). Factors such as lot size, slope, and elevation impact average residential density, based on actual development patterns within the UGB.

⁵ For information on how industrial capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

⁶ As described in section II B of the Eugene Urban Reserve Study (Findings Appendix 2), land was assigned no development capacity if it falls within one of the these "undevelopable" categories: severely constrained by natural hazards or is designated or zoned to protect natural resources; or not vacant or partially vacant (i.e. the land is already occupied).

of shallow or deep landslide, as mapped by the Oregon Department of Geology and Mineral Industries (DOGAMI), Goal 5 wetlands and two Goal 5 riparian corridors (Spencer Creek and the North Fork of Camas Swale). “Undevelopable” land also includes the 385-acre Spencer Butte Park at the center of land in the subarea. While steep slopes and landslide hazard areas are predominant on Spencer Butte, these natural hazards as well as wetlands and riparian areas are throughout land in the subarea, as shown on **Map 16.7 Contours and Hillshade**. Because of the abundance of land constrained by natural hazards or subject to natural resource protections, efficient urbanization and future roadway connections would be difficult on lots with these features and others that are impacted by the features.

Conclusion: *As described above, land in the South Willamette/Fox Hollow subarea could not efficiently accommodate identified land needs. There are no lots of land in the subarea identified in the capacity analysis as potentially suitable for urbanization with industrial land. The average residential capacity of 2.5 dwelling units/developable acre is considerably lower than the 4.8 du/developable acre for the entire study area overall. The UGB is generally coterminous with the South Hills ridgeline or with parkland (Spencer Butte Park and other portions of the City’s Ridgeline Park system), meaning future development would be difficult to connect to existing neighborhoods within the UGB due to costs associated with extending services to areas with high elevation and steep slope, discussed further in Locational Factor 2. The land in the subarea’s existing development pattern, predominance of Spencer Butte Park, steep slopes, high elevation, high-risk landslide areas and sensitive natural areas on both sides of South Willamette and Fox Hollow significantly limit the potential residential capacity, precluding the efficient accommodation of identified land needs in the subarea.*

Efficient accommodation of identified land needs:	Positive	Mixed	Negative
Land in the South Willamette / Fox Hollow subarea			

B. Locational Factor 2: Orderly and economic provision of public facilities and services⁷

The information below addresses the feasibility of serving the developable land in the South Willamette/Fox Hollow subarea with public facilities and services in an orderly and economical way. It considers the capacity of the current system to serve the area and the extent of new infrastructure that would be needed to serve the area if urbanized. It includes an analysis of **wastewater, water, transportation, transit, stormwater, and fire/emergency services** and also, to a lesser extent, it includes the provision of **electricity, schools and parks**.⁸

⁷The definition of “public facilities and services,” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines, is: “[p]rojects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.”

⁸ The summarized information used in this section is based on the results of the *Urban Reserves Serviceability Analysis Report* (Findings Appendix 3). In providing information for that report, service providers considered the serviceability of the subareas in their entirety; they generally did not differentiate between areas within a subarea.

Before the narrative description is a table showing the **generalized serviceability** of the subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff, and a **generalized cost estimate** to address the economics of serving the subject area with public facilities and services. It reflects preliminary high-level estimates for the major components of the individual systems. Cost information is provided on a \$ to \$\$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$\$) denoting the greatest cost. The scale used to evaluate each type of service is tailored to address the fact that some services are more expensive to provide than others. For example, a \$ for wastewater does not equate to the same dollar amount as a \$ for transportation. Cost estimates do not include future maintenance costs.

South Willamette/ Fox Hollow	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Difficult	Difficult-Very Difficult	Difficult	Moderate-Difficult	Difficult	Moderate-Difficult
Generalized cost estimate	\$\$\$\$\$	\$\$\$\$-\$\$\$\$\$	\$\$\$\$-\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$	\$\$\$\$

1. **Wastewater:** The subarea is assigned a “difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. There appears to be about 4,400 feet of downstream pipe in the existing system that will not be able to handle the additional load of development in this subarea. Additionally, serving the subarea would likely require the construction of at least one pump station to connect new wastewater lines to existing lines inside the UGB because of the high elevation and steep topography of the South Hills ridgeline at the edge of the UGB, as well as the need to go around Spencer Butte Park (see **Map 16.7 Contours and Hillshade** for reference).

2. **Water:** The subarea is assigned a “difficult-very difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$-\$\$\$\$\$. Infrastructure would have to be extended over the South Hills ridgeline at the edge of the UGB which adds cost and complexity. (For reference, the approximate elevation at the UGB on South Willamette Street is 940 ft and at Fox Hollow Road it is 1,000 ft). Serving this subarea will require significant infrastructure due to the steep topography, including new pump stations and reservoirs on land which would need to be acquired. It could also require significant upgrades in the existing system, as well as a significant amount of new piping. South Willamette/Fox Hollow has a looped roadway system, which is beneficial for providing efficient water service, but it is extremely long (approximately 5 miles) which adds significant cost.

3. **Fire:** The subarea is assigned a “difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$-\$\$\$\$\$. This subarea is currently served by Eugene Rural Fire Protection District. Given the current locations of city fire stations and the existing street network, there are response time and service delay concerns. Additionally, there are fire flow concerns and potential wildfire risk due to wildland urban interface conditions. Adding an

additional fire station would be costly and would have poor economy of scale due to the low projected residential capacity of the subarea.

4. **Transportation:** The subarea is assigned a “moderate-difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. South Willamette Street and Fox Hollow Road provide the main connections from this subarea into Eugene; Christensen Road on the eastern edge dead-ends south of the subarea and does not connect to an existing roadway system. Both roads are steep and winding as they extend south from Eugene. Mapped high-risk landslide areas cross areas of South Willamette Street and Fox Hollow Road, and are present throughout the subarea, making slope stability a concern with improving the roadway network in the subarea. The steep slopes and sensitive natural areas present in the subarea also contribute to the difficulty and expense of future roadway improvements. Bicycle and pedestrian access is difficult due to steep grades and improvements would be challenging.
5. **Transit:** The subarea is assigned a “difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. The subarea could be accessed with transit only along South Willamette St and Fox Hollow Road. This would be difficult due to the steep topography of the subarea and its distance from development within the city limits. The low average residential density of the subarea would make the extension of transit services a challenge.
6. **Stormwater:** The subarea is assigned a “moderate-difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. This area is located in the headwaters of the Spencer Creek watershed and drains to Fern Ridge Reservoir and the Long Tom River via Spencer Creek and Camas Swale. If developed to urban densities, runoff would flow through downstream agricultural and forested lands before discharging to Spencer Creek and Camas Swale, which have not been evaluated for capacity as the City primarily drains to the north. These creeks themselves are not particularly steep but are located above 500 feet in elevation; meaning that future urban development would need to meet current headwater flow control requirements (i.e. maintaining peak flows at pre-development rates). Soils may be less suitable for infiltration, making meeting the current flow control requirements moderately challenging. Regulatory aspects of stormwater management would be more complex, as the City would be included in any TMDLs (total maximum daily loads) associated with urban runoff within the Spencer Creek watershed.
7. **Other (Parks, Schools, Electric):** The subarea contains the 385-acre Spencer Butte Park, which is located between South Willamette Street and Fox Hollow Road. It also contains connecting portions of the city’s Ridgeline Park system on its east and west edges. The subarea area is within the Eugene 4J School District. Currently, EWEB and Lane Electric provide electric service to the study area.
8. **Is there undeveloped land within the UGB that would be helped in its development/serviceability if this area were included in urban reserves, or is there undeveloped land within the UGB that would negatively impact the orderly and economic provision of public facilities and services?** There is a small area of unannexed land within the UGB west of Fox Hollow Road that may be more able to receive services if this subarea were

included in Urban Reserves. The City’s Ridgeline Park system lies between most developed neighborhoods in the UGB and developable land in the subarea. It’s presence and location, would add cost to the extension of services to the subarea, negatively impacting the orderly and economic provision of public facilities and services.

Conclusion: *Based on the input from service providers, it would be difficult and costly to provide urban levels of public facilities and services to land in the South Willamette/Fox Hollow subarea. Although this subarea is adjacent to the UGB, the land is difficult to serve given its high elevation and steep topography on the backside of the South Hills ridgeline and Spencer Butte Park; the existing steep and winding streets leading to and through the subarea and a lack of secondary roadway connections; and extremely limited options for service connections due to the steep topography and other physical constraints within the land in the subarea. Given these conditions, public facilities and services cannot be provided in an orderly and economic manner to land in the South Willamette/Fox Hollow subarea.*

Orderly and economic provision of public facilities and services:	Positive	Mixed	Negative
Land in the South Willamette / Fox Hollow subarea			

C. Locational Factor 3: Comparative environmental, energy, economic and social consequences

1. Environmental consequences:

- a. *Presence of natural resources: To what extent would urbanization of this area negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources?*** The land in the subarea features the regional landmark Spencer Butte, which at 2,058 feet, is the highest point along Eugene’s Ridgeline Park system. If land in the subarea urbanizes around it, future residents will benefit from the presence of this 385-acre park, accessed from three different trailheads within land in the subarea. However, urbanization could also negatively impact open space connectivity and wildlife habitat, as most of the surrounding private land is forested and urbanization would require significant tree removal. The land in the subarea also includes Spencer Creek and the North Fork of Camas Swale, which are both Goal 5 adopted riparian corridors that drain south on private land from the subarea. There are also a number of wetlands in low drainages within land in the subarea. Urbanization on surrounding land could negatively impact these natural areas. Although urban development would have to meet City regulations, urbanization would increase impervious surfaces such as roofs and pavement and increase the stormwater runoff and potential pollutants in waterways.

- b. *Presence of hazard areas (steep slope, landslides, floodplain): To what extent would urbanization of this area increase the potential risk of natural hazards, such as landslides, wildfire or flooding?*** There are significant hazard areas throughout land in the subarea, including areas with prohibitively steep slopes (30 percent or greater), and areas with high

risk of shallow and deep landslides, as shown in green on the analysis maps. The risk to future residents would be increased by urbanization on parcels with these features and others that are impacted by the features. Road failures are also a concern in areas where South Willamette Street and Fox Hollow Road cross high-risk landslide areas. There is no floodplain on land in the subarea. Large portions of land in the subarea are forested, and urbanization would increase the wildland urban interface and increase the risk of wildfire. Based on input from the serviceability analysis, access for fire trucks to land in the subarea is difficult and it appears that further development would increase the amount of structures and people at wildfire risk unless emergency services, road access and provision of water were significantly improved.

- c. Presence of nearby public open space: To what extent would nearby public open space benefit future residents of the area?** As noted above, future residents would benefit from the presence of the 385-acre Spencer Butte park and the City’s 2,250-acre Ridgeline Park system accessed from three different trailheads within land in the subarea.

Conclusion: *Urbanization would have negative environmental consequences on land in the subarea, due to the potential impacts to lands subject to natural resource protections and risks from lands severely constrained by natural hazards, as documented above. There are two Goal 5 riparian areas and several Goal 5 wetlands on private property that could be negatively impacted by urbanization. In addition, there are significant areas throughout land in the subarea with prohibitively steep slopes (30 percent or greater), and areas with high risk of shallow and deep landslides. Risk to future residents would be increased by urbanization on lots with these features and others that are impacted by the features. In addition, as noted in Locational Factor 2, urban levels of development would increase the amount of structures and people at wildfire risk unless emergency services, road access and provision of water were significantly improved. Therefore, urbanization would have negative (high) environmental consequences on land in the South Willamette/Fox Hollow subarea.*

Environmental Consequences:	Positive (Low)	Mixed (Medium)	Negative (High)
Land in the South Willamette / Fox Hollow subarea			

2. Energy Consequences (priority for lower energy usage):

- a. To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled?** Land in this subarea is not well-situated to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled given several factors: the prevalence of steep slopes, high-risk landslide hazard areas, and high elevation (which directly affects water, stormwater, and sewer serviceability), and a lack of neighborhood street connections. The combination of steep slopes and the lack of street connections would make multi-modal transportation very difficult. Because of this, future development in this area may rely on single vehicle occupancy and increase vehicle miles

traveled. Further, the subarea's high cost to serve with utilities would likely increase the cost of development, limiting lower-cost and more accessible housing opportunities.

- b. To what extent is the area easily accessible to other services or uses (e.g., neighborhood commercial, parks, schools)?** The only services within land in the subarea are parks, namely the City's Ridgeline Park system. There are no neighborhood-serving commercial uses or schools; both require significant vehicular travel. The closest commercial area is the Edgewood Shopping Center at 40th and Donald Streets, and the closest schools are Edgewood Elementary and Spencer Butte Middle School; all are between 1.5 – 2.5 miles from land in the subarea.
- c. To what extent is the area adjacent to or nearby the UGB? (see Locational Factor 1, A.2)** While land in the subarea has 1,341 acres of developable land, only 251 are located within lots that have a portion of their boundary within .25 miles of the UGB, as shown on **Map 16.4 Development Potential**. As the UGB is along the South Hills ridgeline, and much of it is parkland (including Spencer Butte in the center of the subarea) future development would be difficult to connect to existing neighborhoods within the UGB, thereby increasing costs and decreasing its energy efficiency.
- d. To what extent is there good multi-modal transportation access to this area? To what extent is the area easily accessible to job centers and downtown?** Willamette Street and Fox Hollow Road serve as a direct connection to downtown and the University of Oregon, Eugene's main employment centers. However, the presence of land that is severely constrained by natural hazards and protected natural resources, distance from development within the City limits and low average residential density make creating a transportation system that would accommodate all users very difficult. Bus service, bike lanes and sidewalks would need to be extended to and through the subarea. The steep topography, natural hazards, and difficulty creating a connected grid street system would make it challenging to build compactly, increasing the costs for multi-modal transportation improvements. The low likelihood of efficient transit service to land in this subarea means that future residents would likely rely on private vehicles to get to downtown Eugene and other job centers, further increasing vehicle miles traveled and carbon emissions.
- e. To what extent does future urbanization directly or indirectly generate energy or climate burdens (e.g. loss of open space, loss of growing lands, increased traffic, increased carbon emissions)?** Future urbanization of land in the South Willamette/Fox Hollow subarea will directly and indirectly generate energy and climate burdens due to the conversion of forest land, the loss of farm/ranch land, lack of alternative transportation options, low potential for a variety of housing types, jobs and services, and increased carbon emissions from additional development and increased vehicle miles traveled.

Conclusion: *Urbanization of land this subarea would result in negative energy consequences. As noted above, land in this subarea is not well-situated to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled given the prevalence of steep slopes, high-risk landslide*

hazard areas and high elevation (which directly affects water, stormwater, and sewer serviceability), and a lack of neighborhood street connections. Currently, parks (as in the City’s Ridgeline Park system) are the only service easily accessible for people living in the subarea. Steep topography, smaller lot sizes and configuration are likely to keep average density low (2.5 dwelling units per developable acre). In addition, the low likelihood of efficient transit service to land in this subarea means that future residents would likely rely on private vehicles to get to downtown Eugene and other job centers, further increasing vehicle miles traveled and carbon emissions. Overall, future urbanization of the land in the subarea will directly and indirectly generate energy and climate burdens due primarily to the conversion of forest land, lack of alternative transportation options, low potential for a variety of housing types, jobs and services, and increased carbon emissions from additional development. Therefore, urbanization of the land in the South Willamette/Fox Hollow subarea would result in negative energy consequences.

Energy Consequences:	Positive	Mixed	Negative
Land in the South Willamette / Fox Hollow subarea			

3. Economic Consequences:

- a. In general, how much economic activity would urbanization of this area bring? Ex: Additional construction opportunities?** The land in the South Willamette/Fox Hollow subarea contains 1,341 acres of developable land. Based on generalized capacity assumptions, this land could accommodate 3,346 residential dwelling units at 2.5 dwelling units per developable acre. While this is a significant number of dwelling units, significant economic activity from construction opportunities is not guaranteed. Most of the land in the subarea is constrained by steep topography, high elevation and a limited roadway system. There is one large-lot rural subdivision off South Willamette Street with larger, newer residential homes and a Goal 5 riparian area (Spencer Creek) that is not likely to redevelop at urban levels. There is one large lot with capacity for 577 dwelling units, however it is an active working ranch, so if it were to redevelop, that economic activity would be lost. There are no lots suitable for urbanization for industrial uses, as shown on **Map 16.6 Potential Industrial Capacity**, further limiting the potential economic activity of urbanizing this subarea.

- b. Is the area appropriate for future urbanization with a variety of identified uses (not just LDR), to support connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a)** The land in the subarea is not suitable for future urbanization with a variety of identified uses to support connected, integrated neighborhoods. A lack of transit service, steep topography, natural hazards, and difficulty creating a connected grid street system would make it challenging to build compactly, use alternative transportation and access services within the subarea. Further, the land in the subarea’s high cost to serve with utilities would affect the extent to which land in the subarea would be able to co-locate a variety of housing and jobs.

- c. Are there concerns about future urbanization causing a loss of economic activity for existing and nearby uses? (also see Locational Factor 4)** In addition to rural residential development along South Willamette and Fox Hollow primarily, existing and nearby uses include public parks, the Cascades Raptor Center, commercial timber on forest-designated land and a 342 acre private ranch. There is concern about future urbanization causing a loss of economic activity for uses that provide an experience enhanced by isolation from urbanization (e.g. Cascades Raptor Center, ranching operations, forestry).
- d. How cost-efficient is service provision in this area? (also see Locational Factor 2)** As described in more detail in Locational Factor 2, service provision to land in the South Willamette/Fox Hollow subarea is not cost efficient; it will be difficult and expensive to provide public services to land in the subarea. The prohibitively high cost of servicing the subarea makes the likelihood of urbanization and its associated economic benefits low.

Conclusion: *Urbanization of land in the South Willamette/Fox Hollow subarea would result in negative economic consequences. While urbanization would provide opportunities for additional housing construction which would support the construction industry, the average residential capacity in the subarea is low, and the cost of extending services to the subarea is high. In addition, there are no lots suitable for urbanization for industrial uses, further limiting the potential economic activity of urbanizing this subarea. Because of the low expectations for development and the high costs for extending services to this area, urbanization would result in negative economic consequences. These costs would outweigh any positive economic impact of urbanization.*

Economic Consequences:	Positive	Mixed	Negative
Land in the South Willamette / Fox Hollow subarea			

4. Social Consequences:

- a. Will urbanization negatively impact current residents?** If land in the subarea urbanizes, increased traffic and noise could negatively impact current residents. Tree-cutting to make way for additional development will impact some existing residents; some residents may be more impacted than others by urbanization, such as forestry and agriculture/ranching operations as well as wildlife rescue operations (i.e. the Raptor Center). Urbanization could also have positive social consequences by providing additional development opportunities for landowners, including housing, services and neighborhood commercial uses. Improvements to the roadway system would benefit all users.
- b. How would urbanization worsen or improve service delivery to residents in this area (e.g. adequate fire response times, access to water, parks)? (also see Locational Factor 2)** Service delivery would improve with urbanization but it would come with a significant cost. According to Eugene-Springfield Fire Department staff, given the current locations of the City fire stations and existing street network, there may be response time/service delay issues for emergency coverage if the subarea urbanizes without the addition of a new fire

station. Adding an additional fire station would be costly and would have poor economy of scale due to the low projected residential capacity of the subarea. Additionally, there are fire flow concerns and potential wildfire risk due to wildland urban interface conditions. EWEB water service is available in the City adjacent to land in this subarea, but connections would have to be extended over the South Hills ridgeline which would require significant infrastructure due to the steep topography and high elevation, including new pump stations and reservoirs. Access to Spencer Butte Park and the Ridgeline Trail system would remain, but usage could increase significantly. It is assumed that with new residential development neighborhood parks would be added according to the City's level of service standards.

- c. Will urbanization exacerbate the impacts of potential natural hazards, such as flooding, fire, and landslides? (also see Locational Factor 3, Environmental Consequences C.1.b)** As noted in Locational Factor 3, Environmental Consequences, there are significant hazard areas throughout land in the subarea, including areas with prohibitively steep slopes (30 percent or greater), and areas with high risk of shallow and deep landslides, as shown in green on the analysis maps. The risk to future residents would be increased by urbanization on parcels with these features and others that are impacted by the features. Road failures are also a concern in areas where South Willamette Street and Fox Hollow Road cross high-risk landslide areas. There is no floodplain on land in the subarea. Large portions of land in the subarea are forested, and urbanization would increase the wildland urban interface and increase the risk of wildfire. Based on input from the serviceability analysis, access for fire trucks to land in the subarea is difficult and further development would increase the amount of structures and people at wildfire risk unless emergency services, road access and provision of water were significantly improved.
- d. How might urbanization in this area impact vulnerable populations⁹ and underserved groups currently living in the subarea? Could one segment of the population be impacted more than another (e.g. low-income households)?** There could be negative impacts to vulnerable populations such as older residents and low-income households due to the potential high cost of receiving urban services, such as water and wastewater. However, the ability to extend these services throughout land in the subarea would benefit residents currently dependent on wells and septic tanks. The high cost of servicing land in the subarea could increase the negative impacts to vulnerable and underserved groups as new housing would likely be expensive and providing affordable housing in this subarea would be challenging. If transit service is extended to land in this subarea, it would benefit all residents, but the cost and challenges of doing so would be significant, as previously noted, due to the steep slopes, high elevation, distance from the UGB and poor economy of scale due to the low residential capacity. A lack of transit service to land in this subarea could

⁹ Vulnerable populations are defined as populations that identify as a non-white race or ethnicity, younger or older populations, populations with a disability, and/or single-headed households. Data is from Livability Lane, 2013 Equity and Opportunity Assessment, Social and Demographic Characteristics Map. The extent to which vulnerable populations and underserved groups currently live in the subarea is speculative.

disproportionately impact vulnerable populations such as the elderly and people with disabilities and those economically disadvantaged.

- e. Will urbanization in this area allow for connected, integrated neighborhoods? (also see Locational Factor 3, C. 2 .a):** No. As described in Energy Consequences, land in the subarea is poorly-suited for connected, integrated neighborhoods for a variety of reasons including the prevalence of steep slopes, landslide hazard areas, and high elevation (which directly affects water, stormwater, transportation and sewer serviceability) and the location of the land in the subarea on the backside of Spencer Butte and the ridgeline. These constraints would make it challenging to create a connected grid street system, build compactly, and access services within the subarea. Further, the land in the subarea’s low projected average residential capacity (at 2.49 dwelling units per developable acre) combined with the high cost to serve the land in the subarea with utilities, would affect the extent to which the subarea would be able to co-locate a variety of housing and jobs and create connected, integrated neighborhoods.

Conclusion: *Urbanization of the land in the South Willamette/Fox Hollow subarea would have negative social consequences due to the increased risk of natural hazards, and unequal distribution of benefits from urbanization. Due to topography, elevation and development patterns, urbanization of land in the subarea could increase the wildland urban interface and exacerbate the risk of wildfire for current and future residents of the subarea. The high cost of providing public services to land in the subarea and the low projected residential development capacity would make future development costly, making it less likely that the benefits of urbanization would be accessible to residents of all income levels.*

Social Consequences:	Positive	Mixed	Negative
Land in the South Willamette / Fox Hollow subarea			

Locational Factor 3 Conclusion:

For the land in the South Willamette/Fox Hollow subarea, the analysis under Locational Factor 3 shows that urbanization would have negative Environmental, Energy, Economic and Social consequences.

D. Locational Factor 4: Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

- 1. How will urbanization impact agricultural and forest activities on farm and forest designated land within the subarea?** There is land designated for forest and agriculture in the subarea, as shown on **Map 16.8 Plan Designations**. There is scattered residential development on most of the forest-designated lots of land in the subarea. Besides two vacant 40-acre parcels owned by a commercial forestry corporation near the UGB, there appears to be no other commercial forestry activity within the subarea, so impacts to forest activities on forest designated lands are relatively minor. However, there is one 342-acre lot designated for agricultural use at the end of

Christensen Road that operates as an active ranch with cattle, sheep and chickens. The property also includes the Goal 5 North Fork of Camas Swale. The property is currently isolated from nearby development; future urbanization of land in the subarea surrounding it could negatively impact these farming operations. This is somewhat mitigated by the fact that the property is on the southeast edge of land in the subarea.

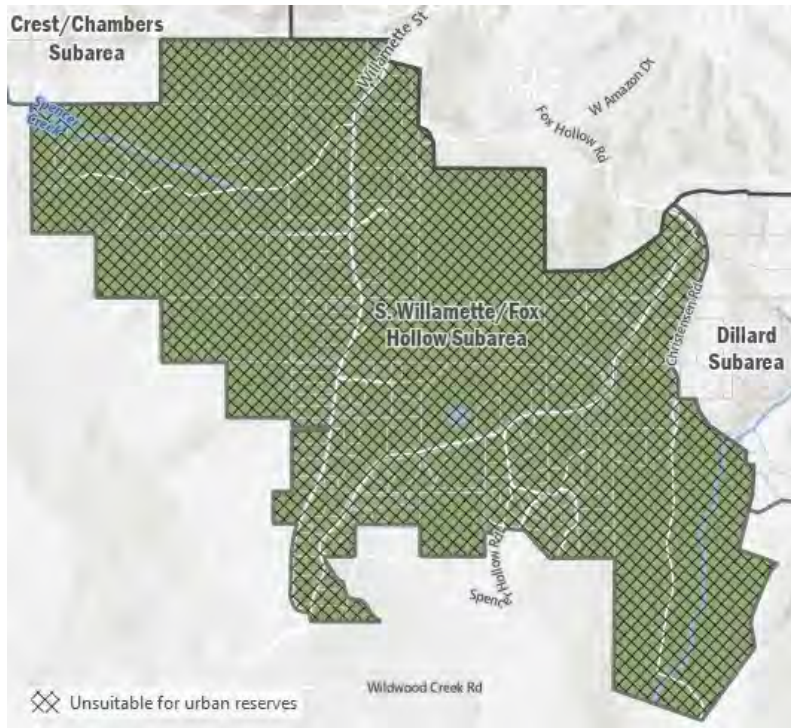
2. Is urbanization compatible with existing agricultural and forest uses on farm and forest designated land nearby (outside of the subarea)? Future urbanization could negatively impact existing farm uses on agriculture -designated land outside of land in the subarea. Immediately adjacent to the large ranch on land in the subarea is another ranch, the 1,600 Creswell Oaks property. In 2019 a conservation easement permanently protected one of the largest blocks of oak habitat and grassland in the Willamette Valley on this working cattle ranch adjacent to land in the subarea. The property includes sensitive habitat for priority species. Directing urbanization on lands immediately surrounding this property could negatively impact its habitat and farming operations, although it extends quite a distance south of land in the subarea. There appears to be some forestry operations on forest-designated land surrounding land in the subarea that could be negatively impacted by urbanization, but most of the clearing appears to be related to rural residential development.

Conclusion: *While there are not many farm and forest activities on farm or forest designated land in or surrounding land in the subarea, there are two properties with significant farming activities both in and adjacent to land in the subarea. Urbanization of the land in the South Willamette/Fox Hollow subarea could negatively impact these large active ranching operations which currently benefit from their isolation. However, their location on the edge of land in the subarea mitigates potential impacts to a degree, and the topography of land in the subarea may provide some natural buffer from surrounding uses. Because of this, it appears that urbanization of land in the South Willamette/Fox Hollow subarea would be moderately compatible (shown as mixed, below) with agricultural and forest activities outside of the UGB.*

Compatibility with nearby agriculture and forest activities	Positive	Mixed	Negative
Land in the South Willamette / Fox Hollow subarea			

III. Conclusion

Considering and balancing all the Goal 14 locational factors as analyzed above, there are mostly negative aspects of future urbanization of land in the South Willamette/Fox Hollow subarea, as detailed in the above analysis, summarized below, and shown in the summary tables on the following pages:



Land in the **South Willamette/Fox Hollow subarea** includes 1,341 developable acres. It is located around South Willamette Street and Fox Hollow Road extending to where they meet, approximately 2.5 miles south of the UGB. In evaluating the land in the subarea, the conclusion of Locational Factors 1-3 was “negative” in their findings; only Locational Factor 4 was rated as “mixed.” In summary, the subarea’s constrained topography, including high elevation, steep slopes, high risk landslide areas, and existing development patterns significantly limit the potential residential capacity, precluding the efficient accommodation of

identified land needs. Given these physical constraints, plus poor transportation connections, public facilities and services could not be provided in an orderly and economic manner to land in the subarea. Further, urbanization of the land in the subarea would have negative environmental, energy, economic and social consequences as described in this report. The only “mixed” finding is that urbanization of land in the subarea would be somewhat compatible with surrounding agricultural and forest activities outside of the UGB.

Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in the South Willamette/Fox Hollow subarea result in a determination that this land is not suitable for urban reserves designation at this time.

Please see the summary table on the following page and **Map 16.3 Suitability Results**

Summary

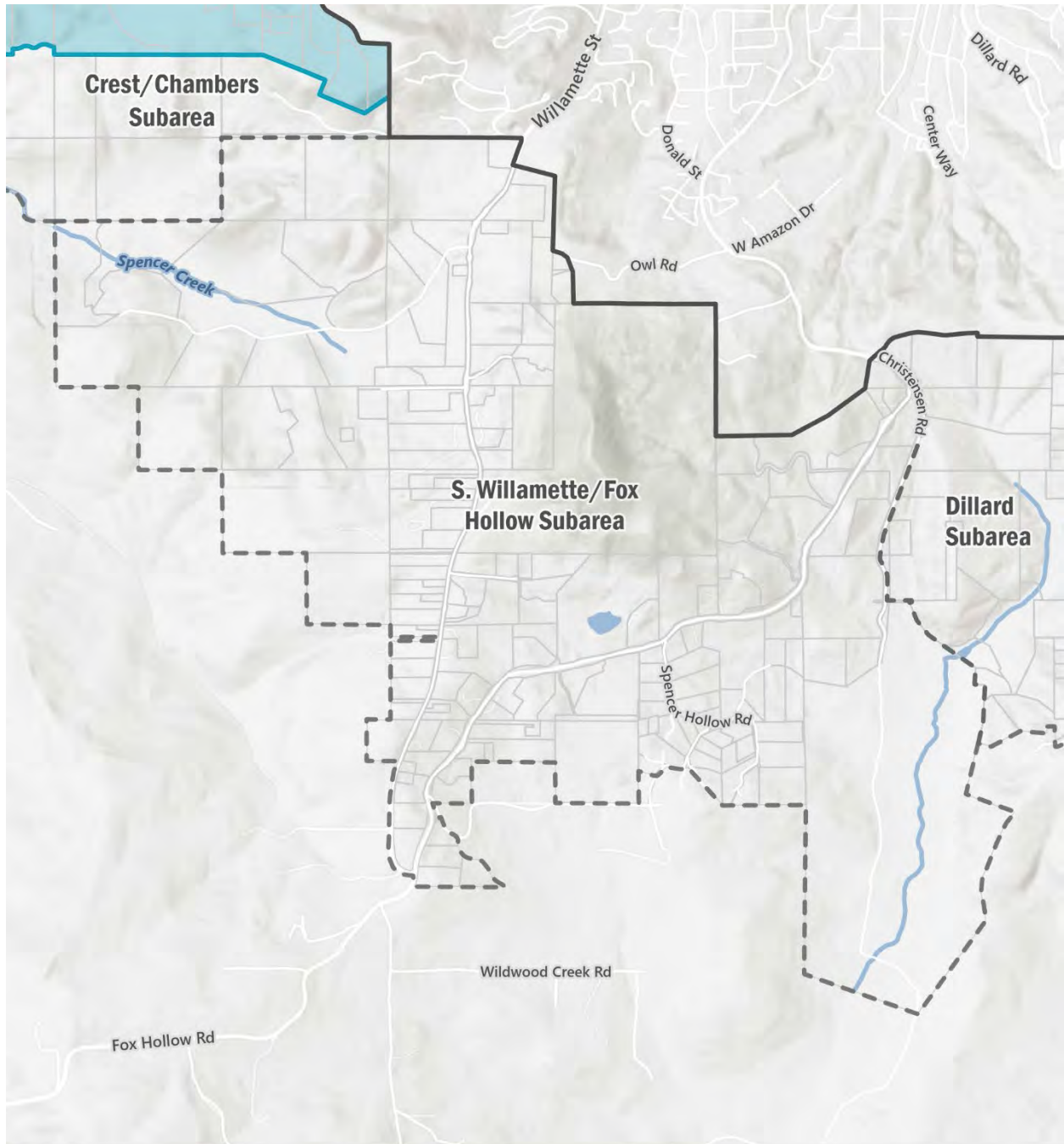
South Willamette/Fox Hollow Subarea





Not Suitable for Urban Reserves Designation

Land in the South Willamette/Fox Hollow Subarea

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs:			
2.	Orderly and economic provision of public facilities and services:			
3. (a)	Environmental Consequences:			
(b)	Energy Consequences:			
(c)	Economic Consequences:			
(d)	Social Consequences:			
4.	Compatibility with nearby ag and forest activities			

Map 16.3 Suitability Results, South Willamette/Fox Hollow Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Eugene urban reserves suitable land
-  Tax lots



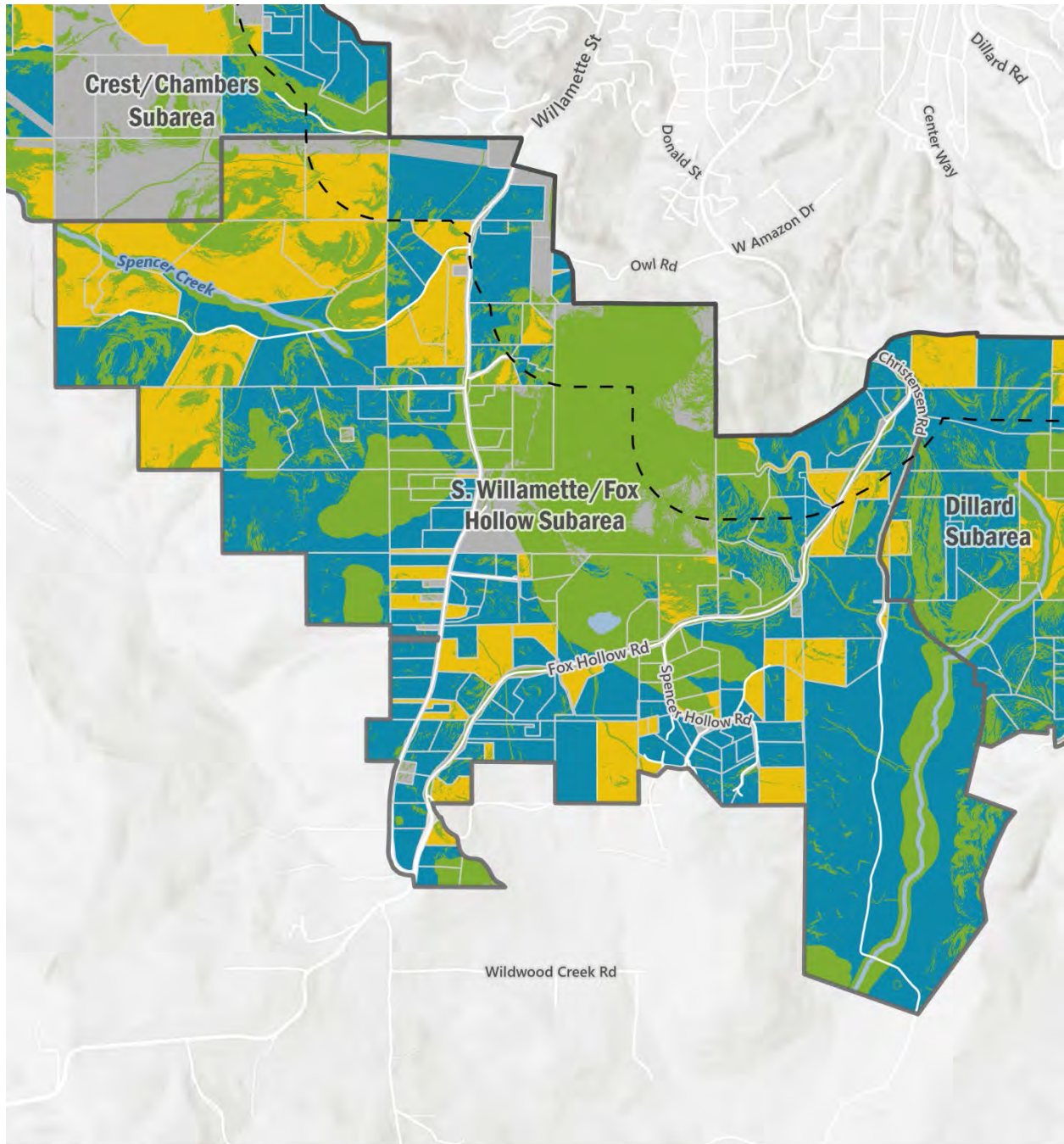
0.4 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 16.4 Development Potential, South Willamette/Fox Hollow Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Quarter mile from Eugene UGB
- Tax lots

- Developable**
 - Partially Vacant
 - Undeveloped
- Undevelopable**
 - Severely constrained by natural hazards or subject to natural resource protections
 - Occupied



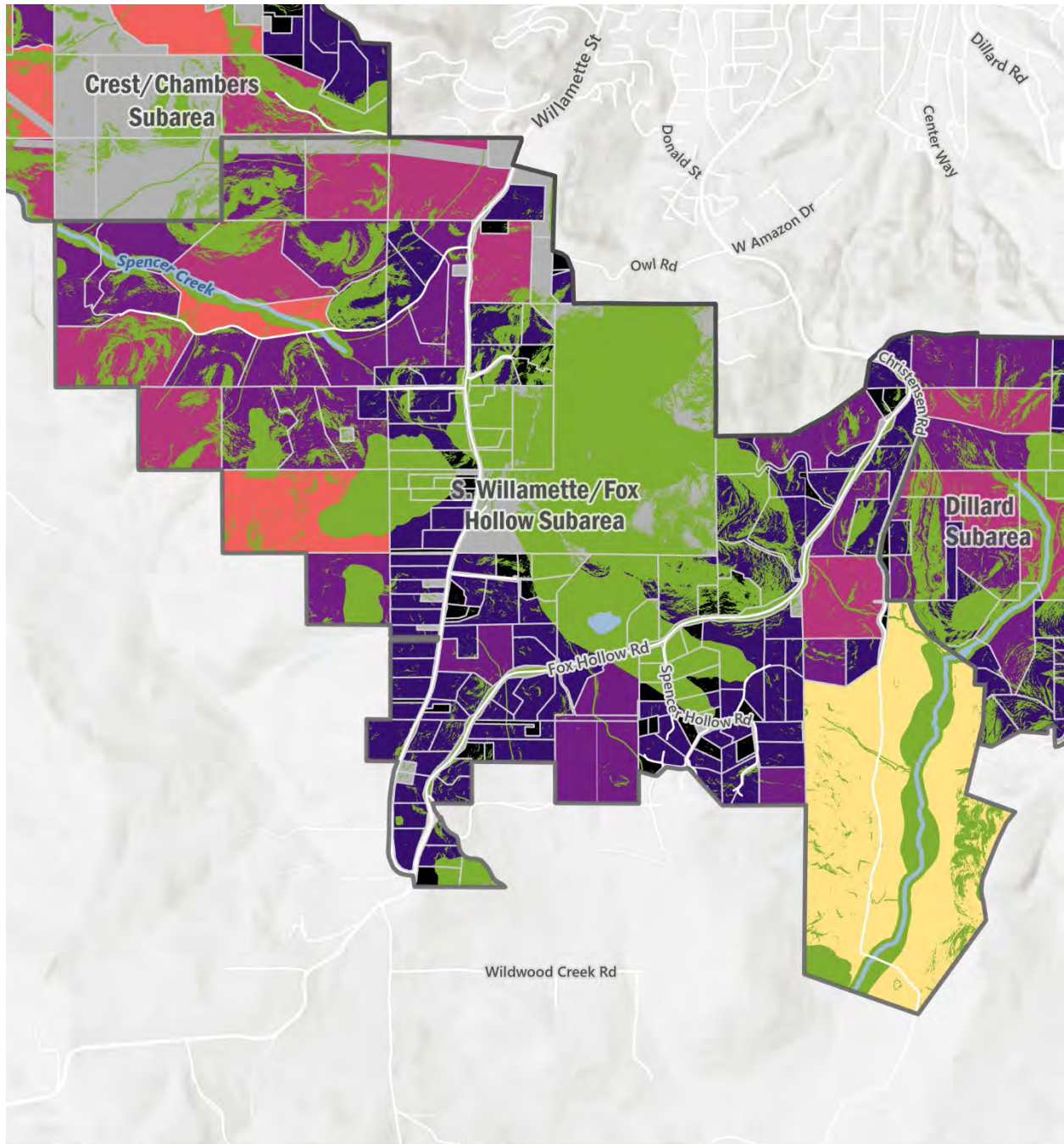
0.4 Miles



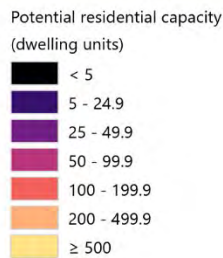
Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 16.5 Potential Residential Capacity, South Willamette/Fox Hollow Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied

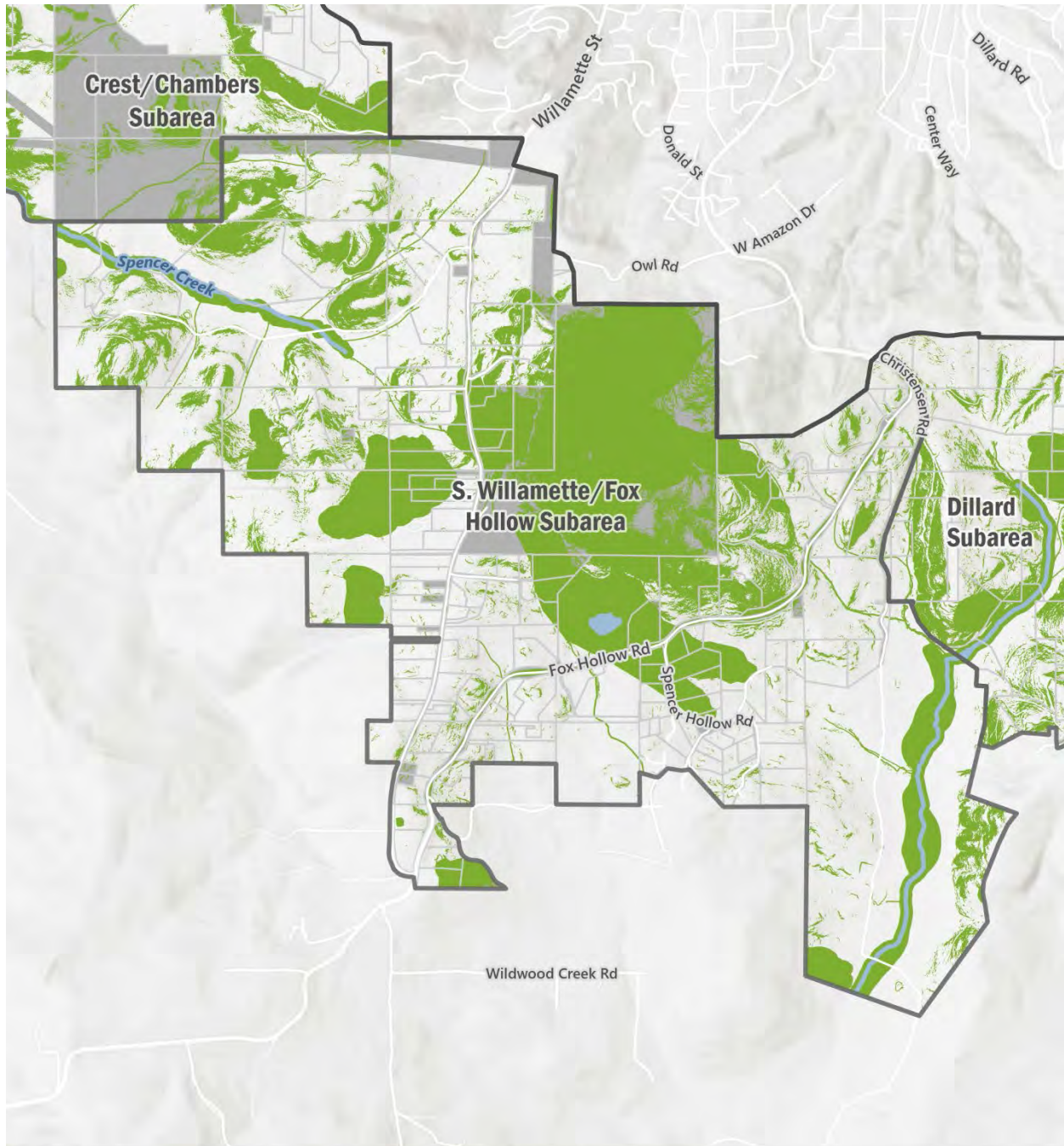


0.4 Miles

Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 16.6 Potential Industrial Capacity, South Willamette/Fox Hollow Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied
- Freight Route Access Points

- Tax lots meeting industrial criteria
 Developable acres per tax lot
- 5 - 9 ac
 - 10 - 19 ac
 - 20 - 49 ac
 - 50 - 74 ac
 - 75+ ac

- Tax lots meeting industrial criteria
 Driving distance to a freight route
- 1 mile
 - 1.5 miles
 - 2 miles



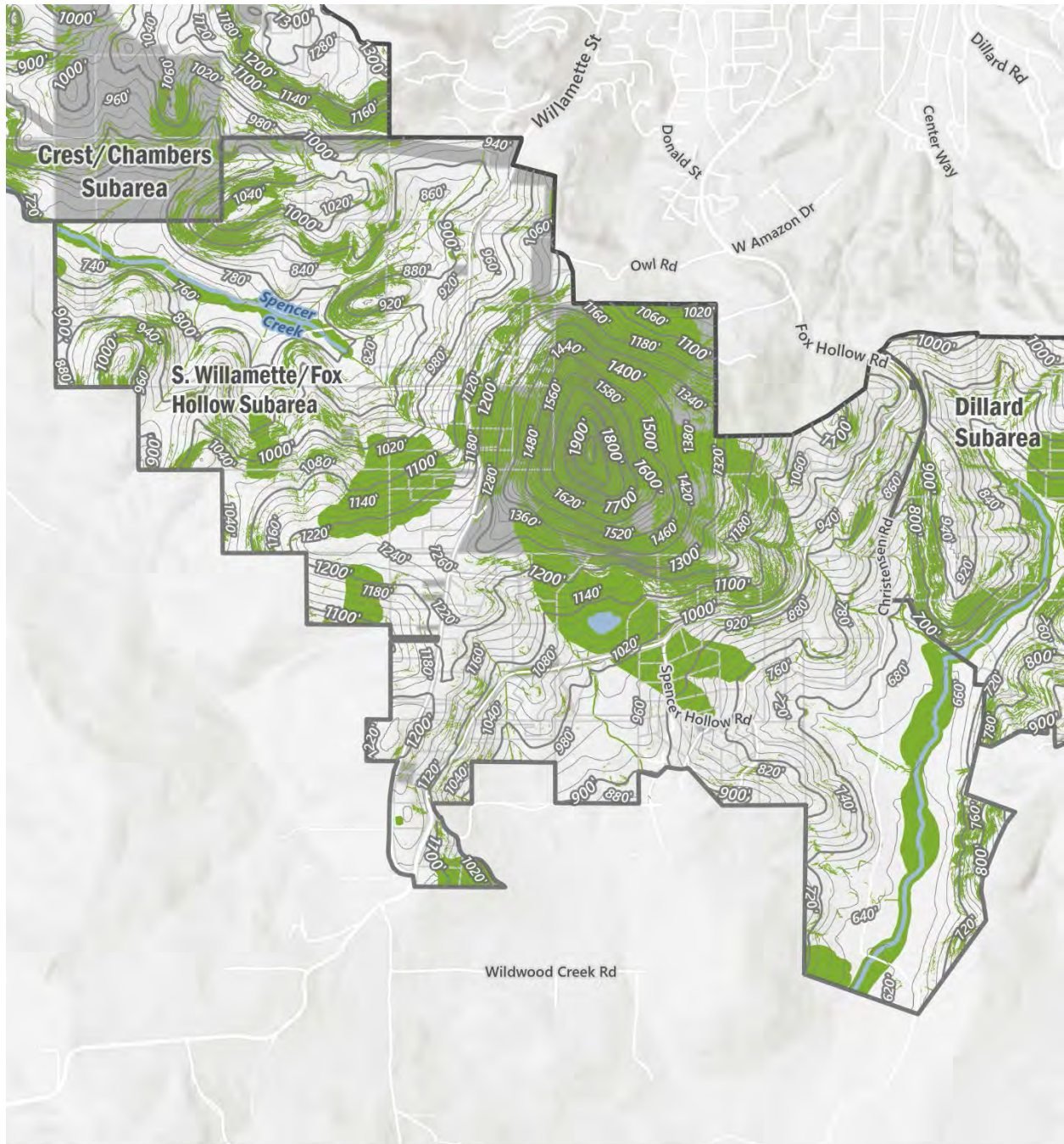
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Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 16.7 Contours and Hillshade, South Willamette/Fox Hollow Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Tax lots
-  Severely constrained by natural hazards or subject to natural resource protections
-  Occupied



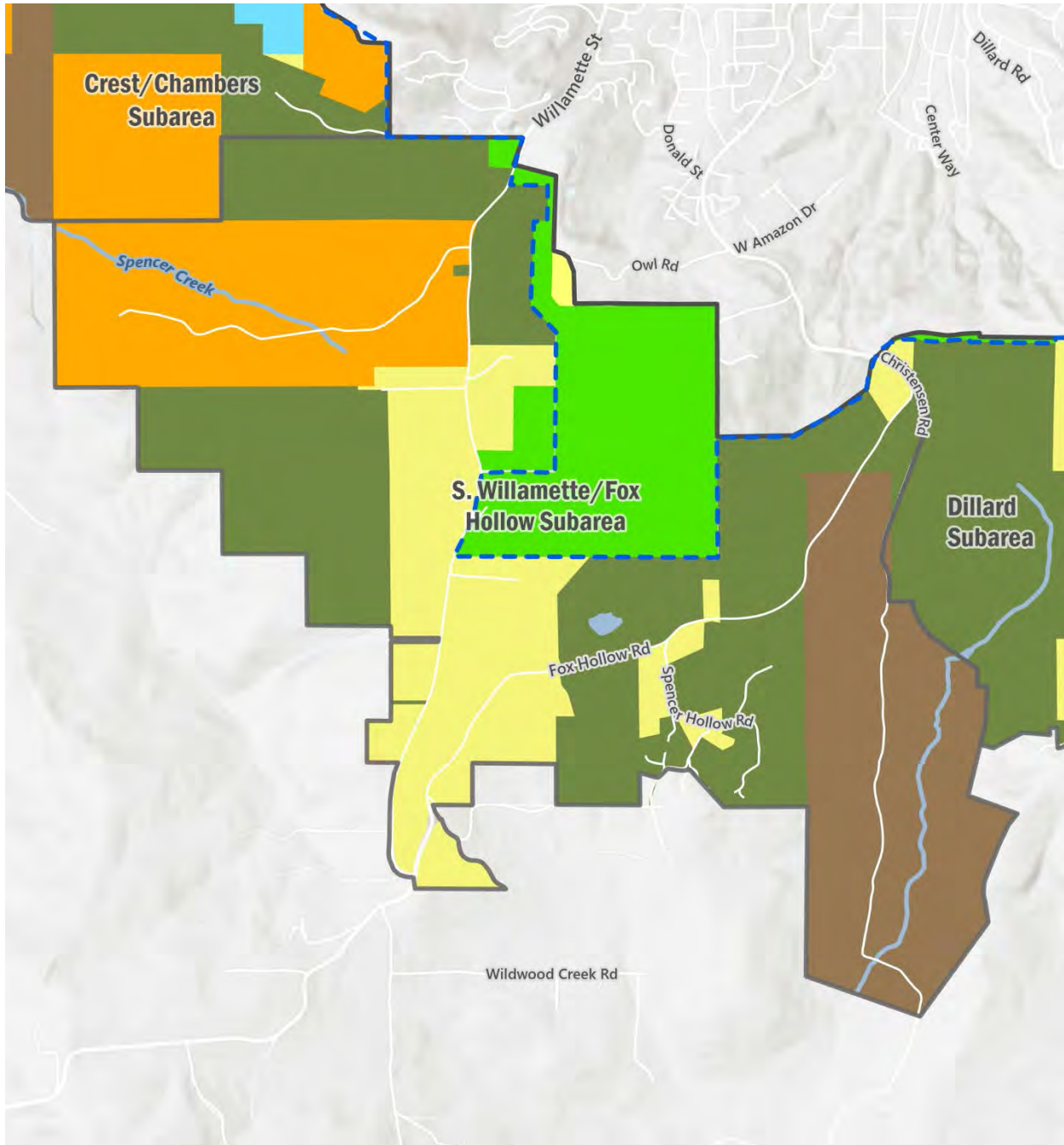
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Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 16.8 Plan Designations, South Willamette/Fox Hollow Subarea



- | | | |
|---|----------------------------|------------------------|
| Metro plan boundary | Industrial | Agriculture |
| Eugene UGB | Marginal | Airport reserve |
| Eugene urban reserves subarea boundaries | Natural resource: mineral | Government & education |
| Rural comprehensive plan designation | Natural resource: wildlife | Natural resource |
| Agriculture | Non resource | Parks and open space |
| Airport | Parks | Rural commercial |
| Commercial | Public facility | Rural industrial |
| Forest | Residential | Rural residential |
| | | Sand and gravel |



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

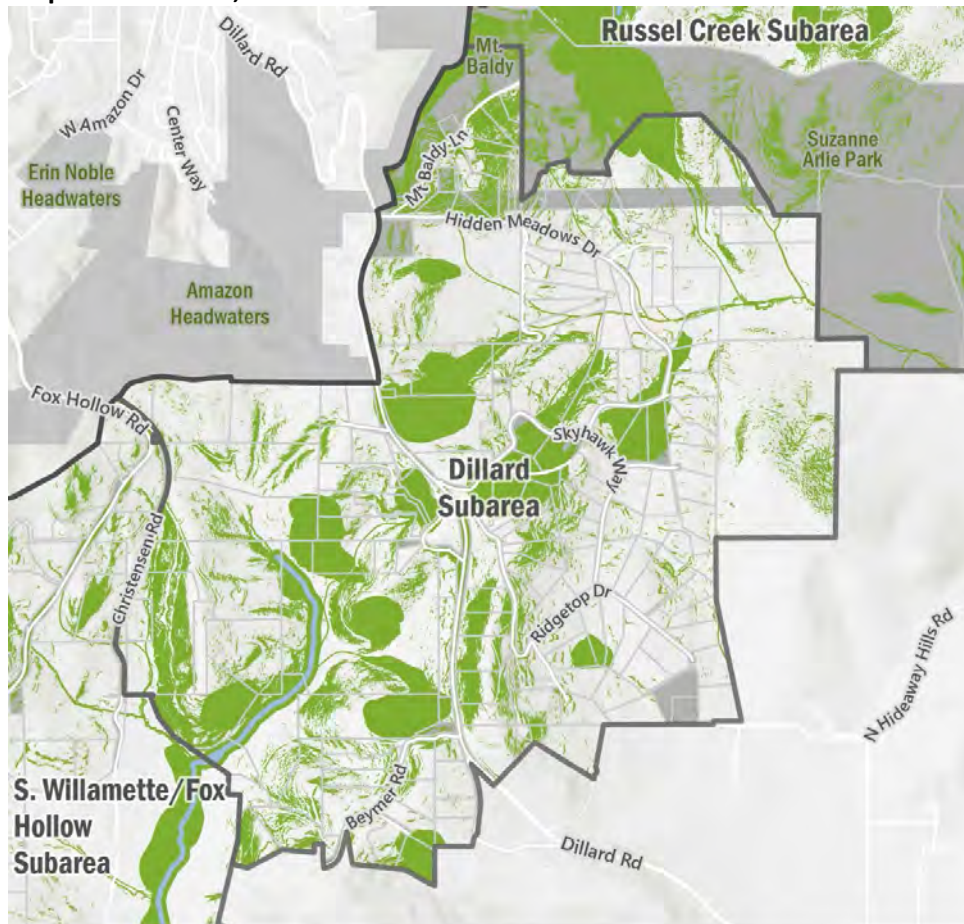
Data sources: City of Eugene, Lane County, RLID, DOGAMI.

17. Suitability Analysis – Dillard

I. Background

- A. Location:** The land in the Dillard subarea is located to the southeast of Eugene and includes the area on both sides of Dillard Road. The land in this area is bounded on the north by the UGB and public park land. Within the subarea, along Dillard Road, is the Mt. Baldy section of the public Ridgeline Trail system. The western boundary of the subarea approximately follows Christensen Road and extends south approximately to Dillard Loop Road. See **Map 17.1 Location**, below, and **Maps 17.2-17.8** for additional information relevant to the subarea analysis.

Map 17.1 Location, Dillard Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied



0.4 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

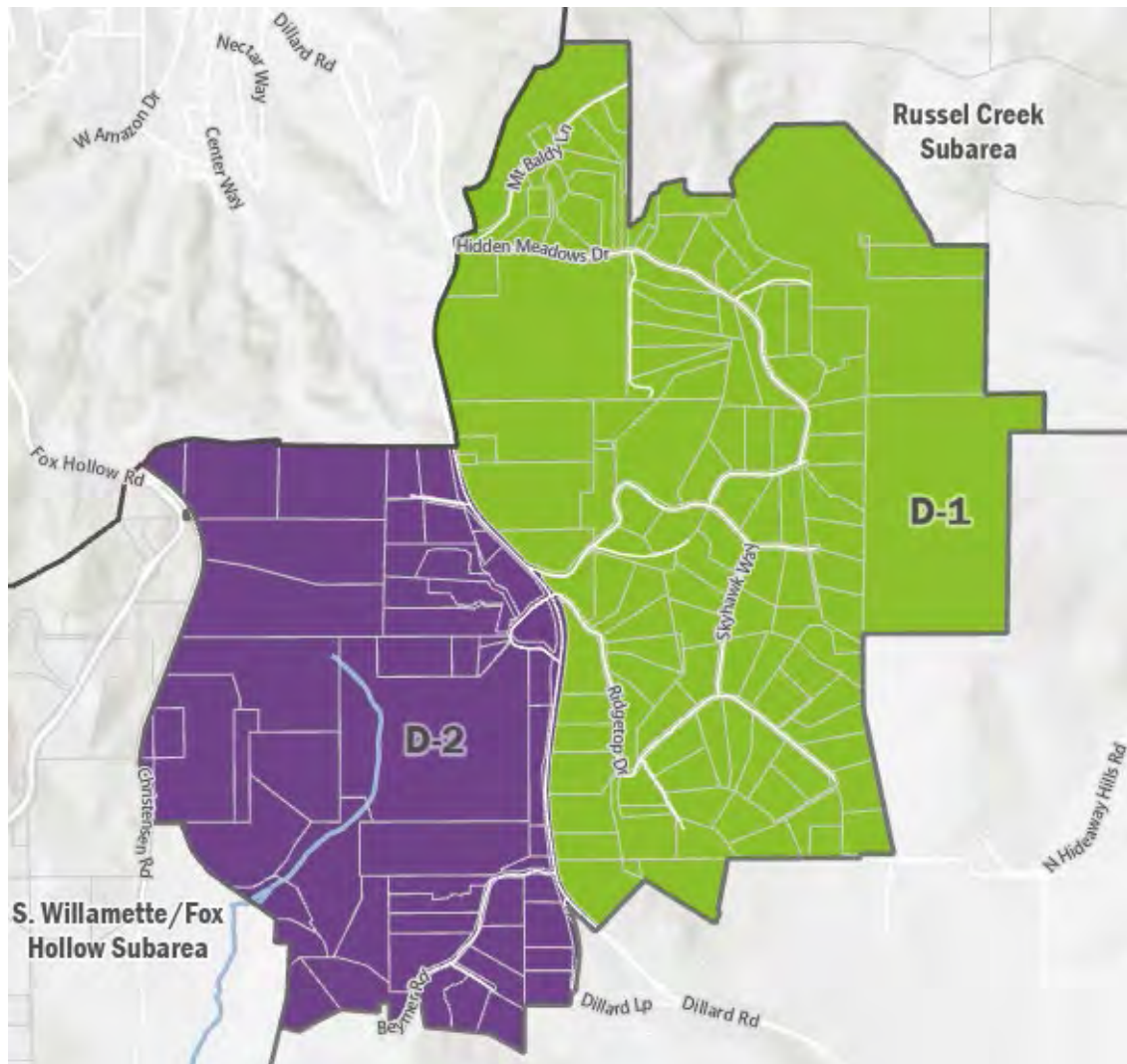
- B. Existing Land Uses:** The land in the subarea is mostly large lot residential development on forest, non-resource and residential designated land. It includes 1,508 acres of land, 893 of which are classified as developable for residential use. Five-acre lots with residential development are concentrated around Dillard Road, primarily in the subdivision to the east, around Hidden Meadows Drive, Skyhawk Way, and Ridgetop Drive. As shown in **Map 17.4 Potential Residential Capacity** these residential areas have low development capacity, due to their small lot size, steep slopes and high elevation.¹ Beyond residential use, there is also a vineyard, several home-based businesses and a Buddhist priory. At the northern edge of the subarea there is a trailhead for Mt. Baldy, which is part of the Ridgeline Trail system and is 1,233 feet in elevation at the summit. Other public land in the subarea includes a Bonneville Power Administration easement, and utility land owned by Northwest Pipeline, Lane Electric Coop, EWEB, and PacifiCorp (PP&L).
- C. Barriers to Development:** 41 percent of land in the subarea is “undevelopable” because it is severely constrained by natural hazards or subject to natural resource protections, or land that is occupied. Most of the land that is severely constrained by natural hazards or subject to natural resource protections are high-risk landslide areas and steep slopes. There are areas at high risk of shallow or deep landslide, as mapped by the Oregon Department of Geology and Mineral Industries (DOGAMI) throughout land in the subarea. Twenty percent of the land in the subarea is at or above 30 percent slope. Also present on land in the subarea are wetlands and a Goal 5 riparian corridor. The biggest barrier to development is the high elevation and steep topography of land in the subarea, creating costly service connections, inefficient urbanization and safety concerns (further documented in Locational Factor 2): One of the highest points is where Dillard Road enters the subarea at the UGB (at approximately 1,000 ft elevation), after a steep and winding ascent leading into the subarea. Just to the east is Mt. Baldy, at over 1,200 feet. There are several other ridges on land in the subarea, including east of Christensen Road, east of Dillard Road (along Ridge Top Drive) and at the southern edge of the subarea near Beymer Road, all between 940 and 1040 in elevation, as shown on **Map 17.7 Contours and Hillshade**.
- D. Surrounding Land Uses:** The 515-acre Suzanne Arlie Park is adjacent to the subarea to the northeast, connecting to Mt. Baldy Park in the subarea, both of which are part of the City’s Ridgeline Trail park system. Amazon Headwaters Park borders the UGB west of Dillard Road. Adjacent land within the UGB is heavily forested and undeveloped, and is primarily public parkland, except for a row of lots along Dillard Road with residential use. Inside the UGB, the closest public school is on East Amazon Drive approximately 2 miles away from the edge of land in the subarea, and the closest grocery store is approximately 3 miles away. As Dillard Road continues beyond land in this subarea towards Interstate 5 and Goshen, land around it becomes flatter and primarily used for agriculture.
- E. Organization of this Analysis:** After an initial review, it became clear that within land in the Dillard subarea, there are different areas of land that share attributes relevant for Goal 14 Locational Factor analysis, therefore they have been subdivided further, as follows:

¹ Factors such as lot size, slope and elevation are used to estimate residential capacity, based on actual development patterns inside the UGB. For more information on how residential development capacity was estimated for the Eugene urban reserves. See the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

Land in **D-1** includes 572 developable acres. It is east of Dillard Road and made up of primarily five-acre lots with large homes in subdivisions around Mt Baldy Lane, Hidden Meadows Drive, Skyhawk Way, and Ridge Top Drive. The land in D-1 is primarily partially vacant residential, with an improved street system, and a few larger undeveloped forested parcels on the eastern edge not connected to the residential area.

Land in **D-2** includes 320 developable acres. It is west of Dillard Road and extends to the subarea’s western edge at Christiansen Road. Like the land in RC-1, most of the lots are partially vacant; however, the development pattern is different, with 5-acre lots closer to Dillard Road and larger forest-designated lots with residential development elsewhere and a lack of roadway connections. There is also a Buddhist priory and a vineyard. The land slopes down from Dillard Road to a low point then rises to another ridge before Christensen Road, with the north fork of Camas Swale in between.

Map 17.2 Organization of Analysis, Dillard Subarea



II. Identify land that would be suitable for urban reserves²

A. Locational Factor 1: Efficient accommodation of identified land needs

To what extent is there ...

1. ***Developable land adjacent to or nearby (within .25 mile) of the UGB?*** The Dillard subarea includes 893 developable acres, of which 198 are located within lots³ that have a portion of their boundary within .25 miles of the UGB, as shown on **Map 17.4 Development Potential**. The developable lots adjacent to the UGB to the west of Dillard Road on land in D-2 have limited road connections and the adjacent land within the UGB is protected parkland along the South Hills ridgeline, making connections to existing neighborhoods more difficult. Developable land adjacent to the UGB to the east of Dillard Road (in D-1) has better roadway access, but contains areas of high landslide risk, steep slopes, and very high elevation, making service connections from within the UGB costly and difficult (see Locational Factor 2). The UGB is along the South Hills ridgeline on land in both D-1 and D-2, meaning future development would be very difficult and costly to connect to existing neighborhoods within the UGB. Therefore, even though there is developable land adjacent to the UGB, for the reasons noted above, this land is not well suited for efficient urbanization.
2. ***Partially vacant developable land (that could be developed for the identified land needs)?*** The land in the subarea contains 1,508 acres of which 893 are classified as developable; 552 acres are located on lots classified as partially vacant and 341 acres are on lots classified as undeveloped. The distribution of these lots is shown on the **Map 17.4 Development Potential**.
3. ***Developable land that is identified in the capacity analysis⁴ as potentially able to be urbanized with a mix of residential housing? How does this translate into potential dwelling units (per the capacity analysis)?*** According to the residential capacity analysis, land in the subarea has capacity for 2,478 dwelling units or 2.78 dwelling units per developable acre (compared to 4.8 du/developable acre for the entire study area). The land in the subarea's high elevation, steep slopes, high landslide risk areas, small lots and existing development patterns (particularly on land in D-1) significantly limits the average residential density and potential residential capacity, as shown on **Map 17.5 Potential Residential Capacity**. Most of the land to the east of Dillard Road on land in D-1 has already been subdivided into 5-acre lots with existing residences. These lots were subdivided in a way that precludes efficient urbanization by spreading out the development instead of clustering it, and by only providing access from winding roads that preclude future street connections. Land in D-2 has limited roadway connections and is

² Please refer to Section II C of the Eugene Urban Reserve Study (Findings Appendix 2) for background on how the City is identifying land in the study area that would be "suitable," the explanation of the prompts used for the Goal 14 Locational Factors, and specific terminology.

³ In the urban reserves study area, 'lots' are used for analysis purposes. See the Eugene Urban Reserves Technical Memo, (Findings Appendix 4), for complete information.

⁴ For information on how residential development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo (Findings Appendix 4). Factors such as lot size, slope, and elevation impact average residential density, based on actual development patterns within the UGB.

constrained by considerable steep slopes and high-risk landslide areas, also precluding efficient urbanization.

4. ***Developable land that is identified in the capacity analysis⁵ as potentially able to be urbanized with industrial land need? How does this translate into potential industrial sites (per the capacity analysis)?*** As shown on **Map 17.6 Potential Industrial Capacity**, there are no lots identified in the capacity analysis as potentially suitable for urbanization with industrial land need. This is due to the land in D-1 and D-2's topography and distance from freight routes.
5. ***Topography, steep slopes or other "undevelopable"⁶ lands that would make efficient urbanization difficult?*** "Undevelopable" lands are shown as gray and green on all analysis maps. As shown primarily on **Map 17.4 Development Potential, and Map 17.7 Contours and Hillshade**, 41 percent of land in the subarea is "undevelopable" because it is severely constrained by natural hazards or subject to natural resource protections, or land that is occupied. On land in D-1, this includes steep slopes (30 percent or greater), landslide hazard areas and wetlands. On land in D-2, this includes steep slopes, landslide hazard areas, wetlands and a Goal 5 riparian corridor. Efficient urbanization would be difficult on lots with these features and others that are impacted by the features. The presence of steep slopes and high-risk landslide areas on both sides of Dillard Road on land in D-1 and D-2 presents challenges to efficient urbanization and makes roadway improvements more difficult. "Undevelopable" land also includes steep public parkland on the northern edge of D-1 which is part of the City's Ridgeline Trail system; it in and of itself would not make urbanization difficult, but the steep topography and high elevation of the land would make extending services through it difficult and costly, negatively impacting the efficient urbanization of the land in D-1.

Conclusion: As described above, land in the Dillard subarea could not efficiently accommodate identified land needs. There are no lots in **D-1** or **D-2** identified in the capacity analysis as potentially suitable for urbanization with industrial land need. The average residential capacity of 2.78 dwelling units/developable acre is considerably lower than the 4.8 du/developable acre for the entire study area overall. The UGB is coterminous with a ridgeline on the northern edge of the subarea, meaning future development would be very difficult to connect to existing neighborhoods within the UGB. The presence of steep slopes and high-risk landslide areas on both sides of Dillard Road on land in **D-1** and **D-2** presents challenges to efficient urbanization and makes roadway improvements more difficult. Land also in **D-2** has limited roadway connections further hindering efficient urbanization. The subarea's high elevation, steep slopes, high landslide risk areas, small lots and existing development patterns (particularly on land in **D-1**) significantly limits the potential residential capacity, precluding the efficient accommodation of identified land needs on land in **D-1** and **D-2**.

⁵ For information on how industrial capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

⁶ As described in section II B of the Eugene Urban Reserve Study (Findings Appendix 2), land was assigned no development capacity if it falls within one of the these "undevelopable" categories: severely constrained by natural hazards or is designated or zoned to protect natural resources; or not vacant or partially vacant (i.e. the land is already occupied).

Efficient accommodation of identified land needs:	Positive	Mixed	Negative
Land in D-1			
Land in D-2			

B. Locational Factor 2: Orderly and economic provision of public facilities and services⁷

The information below addresses the feasibility of serving the developable land in the Dillard subarea with public facilities and services in an orderly and economical way. It considers the capacity of the current system to serve the area and the extent of new infrastructure that would be needed to serve the area if urbanized. It includes an analysis of **wastewater, water, transportation, transit, stormwater, and fire/emergency services** and, to a lesser extent, it includes the provision of **electricity, schools and parks.**⁸

Before the narrative description is a table showing the **generalized serviceability** of the subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff, and a **generalized cost estimate** to address the economics of serving the subject area with public facilities and services. It reflects preliminary high-level estimates for the major components of the individual systems. Cost information is provided on a \$ to \$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$) denoting the greatest cost. The scale used to evaluate each type of service is tailored to address the fact that some services are more expensive to provide than others. For example, a \$ for wastewater does not equate to the same dollar amount as a \$ for transportation. Cost estimates do not include future maintenance costs.

Dillard Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Very Difficult	Difficult	Difficult	Difficult	Difficult	Moderate-Difficult
Generalized cost estimate	\$\$\$\$	\$\$\$	\$\$\$-\$\$\$\$	\$\$\$\$	\$\$\$	\$\$\$

1. **Wastewater:** The subarea is assigned a “very difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. This is due to the subarea being located on the backside of a ridge with an east to west ridge running through approximately the middle of it. The high elevation and steep topography add considerable design constraints to any wastewater infrastructure. It is estimated that two pump stations would be needed, along with 19,000 feet of force main. The pump stations would be large and therefore costly. The impact on the

⁷The definition of “public facilities and services,” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines, is: “[p]rojects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.”

⁸ The summarized information used in this section is based on the results of the *Urban Reserves Serviceability Analysis Report* (Findings Appendix 3). Service providers analyzed subareas in their entirety; they generally did not differentiate between areas within a subarea.

downstream infrastructure is unknown at this time but the initial analysis indicates that there is about 9,500 feet of downstream pipe that will be unable to serve the additional load if this area is developed. Development of this magnitude would likely require a new parallel gravity system to an existing pump station.

2. **Water:** The subarea is assigned a “difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. The subarea has steep slopes and high elevation and infrastructure would have to be extended over the ridge. It is a long distance from the existing distribution system, the streets are not well connected and significant infrastructure, including a new water reservoir and pump station on existing EWEB property, would be required to serve the area. Serving this area could also require significant upgrades in the existing system that extends into the Amazon Basin. In addition, extension of water service to this area is problematic, because it does not provide an opportunity to have a looped distribution system, which results in poor water quality and lower reliability to customers.
3. **Fire:** The subarea is assigned a “difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$-\$\$\$\$\$. Fire protection is ranked as difficult because there are response time concerns due to the location of city fire stations and location of the subarea over a steep ridge, poor existing street networks, fire flow concerns, and potential wildfire risk due to urban interface with rural forest lands. Adding an additional fire station would be costly and would have poor economy of scale due to the low projected residential capacity of the subarea.
4. **Transportation:** The subarea is assigned a “difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. Dillard Road currently provides the main connection from this subarea into Eugene; Christensen Road on the western edge dead-ends south of the subarea and does not connect to an existing roadway system. This is problematic due to Dillard Road’s sharp curves and steep slope. Significant and costly upgrades would be needed to provide safe multi-modal access to this subarea; without such transportation improvements safety would be a serious concern. The sloped terrain and street configuration also pose significant challenges to bicyclists and pedestrians, including safety hazards on Dillard Road, without costly improvements future residents would rely exclusively on vehicle access. There are projected capacity and connectivity concerns with Dillard Road as it could not support such an increase in traffic. A larger roadway network would be needed, however, there are slope stability concerns with expanding the roadway network in this subarea due to the topography.
5. **Transit:** The subarea is assigned a “difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. The study area is accessed from the city primarily by Dillard Road, and secondarily by Christensen Road. This would present challenges for bus travel given Dillard’s narrow, extremely curvy nature in this area, and that Christensen Road is a dead-end. There are no existing routes in the immediate vicinity so significant re-routing would be necessary, and the low average residential density of the subarea would make the extension of transit services a challenge.
6. **Stormwater:** The subarea is assigned a “moderate-difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. The subarea is outside of the City’s

stormwater basins, draining to the south and east. Current impervious surface area is low. There are very steep sites, located above 500 feet in elevation; development would need to meet current headwater flow control requirements (i.e. maintaining peak flows at pre-development rates). Soils may be less suitable for infiltration (assuming they are similar to the south end of the Amazon Basin), making meeting the current flow control requirements moderately challenging to difficult.

7. **Other (Parks, Schools, Electric):** Parkland is plentiful around the subarea. The Mt. Baldy portion of the city’s Ridgeline Trail System is on the northern edge of the subarea on land in D-1. The Ridgeline Trail travels just inside the UGB along the northern edge of the subarea from Dillard Road to Christensen Road, and beyond. The 244-acre Amazon Headwaters Park is connected to the Ridgeline property. To the northeast of the subarea (in the Russel Creek subarea) is the 515-acre Suzanne Arlie park. The majority of this area, including all of the land in D-2, is served by the Eugene 4J School District. There is land adjacent to Dillard Road in D-1 that is served by the Creswell School District. There is also a smaller area of land in D-1 that is served by the Springfield School District. Lane Electric provides electrical service to the subarea.

8. **Is there undeveloped land within the UGB that would be helped in its development/serviceability if this area were included in urban reserves, or is there undeveloped land within the UGB that would negatively impact the orderly and economic provision of public facilities and services?** As **Map 17.1 Location** shows, almost all the land within the UGB adjacent to the subarea (land in both D-1 and D-2) is parkland. Its presence between developed neighborhoods and the subarea would add cost to the extension of services to the subarea, negatively impacting the orderly and economic provision of public facilities and services.

Conclusion: *Based on the input from service providers, it would be costly and difficult to provide urban levels of public facilities and services to land in the Dillard subarea. Although land in this subarea is adjacent to the UGB, both land in D-1 and D-2 is difficult to serve given its high elevation and steep topography on the backside of a ridgeline (which adds significant engineering and cost to extending public facilities, such as wastewater and water systems); the existing street system leading to land in the subarea (which includes a steep ascent and several hairpin turns on Dillard Road causing safety issues for the public as well as emergency responders); a lack of roadway connections in D-2; and a lack of alternate routes for transportation and utility connections due to the steep topography of land in the subarea. Given these significant physical constraints, public facilities and services are costly and difficult to extend to land in the subarea and cannot be provided in an orderly and economic manner to land in D-1 or D-2.*

Orderly and economic provision of public facilities and services:	Positive	Mixed	Negative
Land in D-1			
Land in D-2			

C. Locational Factor 3: Comparative environmental, energy, economic and social consequences

1. Environmental consequences:

- a. ***Presence of natural resources: To what extent would urbanization of this area negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources?*** The land in the Dillard subarea is heavily forested, and urbanization would require significant tree removal which would impact wildlife habitat. There are Goal 5 wetlands on land in D-1 and D-2 and a Goal 5 riparian corridor (the north fork of Camas Swale) on land in D-2. Urbanization surrounding these areas could negatively impact them to some degree, although no development is assumed on them. The City's Ridgeline Trail system on the north edge of land in the subarea provides excellent open space connectivity that would not be significantly impacted by urbanization of land in D-1 or D-2.
- b. ***Presence of hazard areas (steep slope, landslides, floodplain): To what extent would urbanization of this area increase the potential risk of natural hazards, such as landslides, wildfire or flooding?*** Throughout land in the subarea on land in both D-1 and D-2 there are areas with prohibitively steep slopes (30 percent or greater), and areas with high risk of shallow and deep landslides, as shown in green on **Map 17.7 Contours and Hillshade**. The risk to future residents would be increased by urbanization on parcels with these features and others that are impacted by the features. There is no floodplain on land in the subarea. Urbanization of land in D-1 and D-2 could increase the wildland urban interface and exacerbate the risk of wildfire. On both sides of Dillard Road, there is an existing residential development pattern of 5- to 10-acre lots which has already created a large amount of wildland urban interface. Combined with the fact there are limited roadways constrained by elevation and topography, access for fire trucks to the subarea is difficult and it appears that further development would increase the amount of structures and people at wildfire risk unless emergency services, road access and provision of water were significantly improved.
- c. ***Presence of nearby public open space: To what extent would nearby public open space benefit future residents of the area?*** The land in the Dillard subarea abuts the City's public Ridgeline Trail system. The Mt Baldy section of the Ridgeline Trail is at the north edge of land in the subarea on land in D-1. Two large public park properties connect to it, adjacent to land in the subarea, Suzanne Arlie Park to the east and the Amazon Headwaters and the Ridgeline Trail system to the west. Future residents would benefit from the adjacent plentiful open space, but more accessible neighborhood parks would need to be developed as land in the subarea urbanizes.

Conclusion: Urbanization would have negative environmental consequences on land in **D-1** and **D-2**, primarily due to the risk of natural hazard impacts in this subarea as documented above. This is due to the fact that throughout land in the subarea on land in both **D-1** and **D-2** there are significant areas with prohibitively steep slopes (30 percent or greater), and areas with high risk of shallow and deep landslides. The risk to future residents would be increased by urbanization

on lots with these features and others that are impacted by the features. In addition, urban levels of development would increase the amount of structures and people at wildfire risk unless emergency services, road access and provision of water were significantly improved. Therefore, urbanization would have negative (high) environmental consequences on land in D-1 and D-2.

Environmental Consequences:	Positive (Low)	Mixed (Medium)	Negative (High)
Land in D-1			
Land in D-2			

2. Energy Consequences (priority for lower energy usage):

- a. ***To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt)?*** Land in D-1 and D-2 is poorly-suited to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled, given several factors: highly constrained transportation connections into Eugene, distance from job centers, the high cost of service provision likely increasing the cost of development, and an existing residential development pattern that is unlikely to redevelop within the Urban Reserves planning period. Steep topography, lot sizes and configuration are likely to keep average capacity relatively low (2.78 dwelling units per developable acre). Because of this, future development in this area may rely on single-vehicle occupancy and increase vehicle miles traveled.

- b. ***To what extent is the area easily accessible to other services or uses (e.g., neighborhood commercial, parks, schools)?*** Currently, parks are the only service easily accessible for people living on land in the subarea on land within D-1 or D-2. Inside the UGB, the closest public school is on East Amazon Drive approximately 2 miles away from the edge of land in the subarea, and the closest grocery store is approximately 3 miles away. Lane Community College is within a relatively close distance, as the crow flies, but the topography and lack of neighborhood street connections requires access from 30th Avenue or Interstate 5. Urbanization with neighborhood-serving commercial would benefit future and current residents of land in this subarea, but the low projected residential capacity makes it unlikely that commercial services would locate nearby.

- c. ***To what extent is the area adjacent to or nearby the UGB? (see Locational Factor 1, A.2)*** As already noted, land in both D-1 and D-2 is adjacent to the UGB. There are 198 developable acres located in lots that have a portion of their boundary within .25 miles of the UGB, as shown on **Map 17.4 Development Potential**. However, as noted previously, much of the adjacent land within the UGB is parkland or difficult to develop, so future urbanization would not connect to existing neighborhoods, increasing the cost of serviceability to the subarea and lowering energy efficiency.

- d. **To what extent is there good multi-modal transportation access to this area? To what extent is the area easily accessible to job centers and downtown?** There is extremely limited transportation access to land in this subarea. Dillard Road provides the primary connection from land in D-1 and D-2 into Eugene. However, Dillard Road is very steep and has several sharp curves, making it unsafe for multimodal transportation. Christensen Road serves the west edge of land in the subarea; it is a rural dead-end road that connects to Fox Hollow Road at the UGB. Improvements such as bike lanes and sidewalks would be needed to make the subarea accessible to all users, but the topography, adjacent landslide hazard areas, and existing street configuration would make these improvements very difficult. Additionally, the public street system within the subarea in D-2 is very limited. In D-1 the looping street pattern precludes local neighborhood connectors. If transit service was extended to this subarea it would rely on Dillard Road, which would be challenging and costly for the reasons described above. The low likelihood of efficient transit service to land in this subarea means that future residents would likely rely on private vehicles to get to downtown Eugene and other job centers, further increasing vehicle miles traveled and carbon emissions.
- e. **To what extent does future urbanization directly or indirectly generate energy or climate burdens (e.g. loss of open space, loss of growing lands, increased traffic, increased carbon emissions)?** Future urbanization of the land in D-1 and D-2 will, directly and indirectly generate energy and climate burdens due primarily to the conversion of forest land, lack of alternative transportation options, low potential for a variety of housing types, jobs and services, and increased carbon emissions from additional development and increased vehicle miles traveled.

Conclusion: *Urbanization of land in this subarea would result in negative energy consequences. As noted above, the land in D-1 and D-2 is poorly-suited to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt), given several factors: highly constrained transportation connections into Eugene, distance from job centers, and an existing residential development pattern that is unlikely to redevelop within the Urban Reserves planning period. Currently, parks are the only service easily accessible for people living on land in the subarea. Steep topography, small lot sizes and irregular lot configurations are likely to keep average capacity low (2.78 dwelling units per developable acre). In addition, the low likelihood of efficient transit service in this subarea means that future residents would likely rely on private vehicles to get to downtown Eugene and other job centers, further increasing vehicle miles traveled and carbon emissions. Overall, future urbanization of the land in D-1 and D-2 will, directly and indirectly generate energy and climate burdens due primarily to the conversion of forest land, increased vehicle traffic, lack of alternative transportation options, low potential for a variety of housing types, jobs and services, and increased carbon emissions from additional development. Therefore, urbanization of the land in D-1 and D-2 would result in negative energy consequences.*

Energy Consequences:	Positive	Mixed	Negative
Land in D-1			
Land in D-2			

3. Economic Consequences:

- a. ***In general, how much economic activity would urbanization of this area bring? Ex: Additional construction opportunities?*** The land in the Dillard subarea contains 893 acres of developable land. Based on generalized capacity assumptions, this land could accommodate 2,478 residential dwelling units, which comes out to an average residential capacity of 2.78 dwellings per developable acre. While this is a significant number of dwelling units, significant economic activity from construction opportunities is not likely. Much of the land in D-1 is already developed in a rural subdivision with relatively large residential homes on 5 acre lots; they are less likely to redevelop and create construction jobs and economic activity. Additionally, the land in D-2 is constrained by steep topography and an extremely limited roadway system. There are no lots suitable for urbanization for industrial uses, as shown on **Map 17.6 Potential Industrial Capacity**, further limiting the potential economic activity of urbanizing this subarea.

- b. ***Is the area appropriate for future urbanization with a variety of identified uses (not just LDR), to support connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a)*** The land in the subarea is poorly suited for future urbanization with a variety of uses (beyond housing), so it is not likely that complete, connected neighborhoods would develop on land in D-1 or D-2. In addition, the high cost of service provision would likely increase the cost of development on land in this subarea and makes it unlikely that future urbanization would create housing for all income levels.

- c. ***Are there concerns about future urbanization causing a loss of economic activity for existing and nearby uses? (also see Locational Factor 4)*** There is relatively little concern about future urbanization causing a loss of economic activity for existing and nearby uses, which are primarily forest, residential and parks. There are a few existing businesses within land in the subarea, including a vineyard on land in D-2, in the western portion of land in the subarea, and scattered home-based businesses. These existing businesses may benefit from the additional development opportunities if land in this subarea was to urbanize, but operations such as a vineyard may also need to adjust some practices if land is urbanized immediately adjacent.

- d. ***How cost-efficient is service provision in this area? (also see Locational Factor 2)*** As described in more detail in Locational Factor 2, it will be difficult and expensive to provide public services to land in D-1 and D-2. The prohibitively high cost of servicing land in the subarea makes the likelihood of urbanization and its associated economic benefits low.

Conclusion: *Urbanization of land in D-1 and D-2 would result in negative economic consequences. As noted in Locational Factor 1, the land in the subarea has capacity for 2,478 dwelling units or 2.78*

dwelling units per developable acre (compared to 4.8 du/developable acre for the entire study area). While this would provide opportunities for additional housing construction which would support the construction industry, the average residential capacity of land in the subarea is low, and the cost of extending services to land in the subarea is high. In addition, there are no lots suitable for urbanization for industrial uses, further limiting the potential economic activity of urbanizing land in this subarea. Because of the low expectations for development in terms of density, and the high costs for extending services to this area, urbanization would result in negative economic consequences. The high cost of development would outweigh positive economic impacts of urbanization.

Economic Consequences:	Positive	Mixed	Negative
Land in D-1			
Land in D-2			

4. Social Consequences:

- a. **Will urbanization negatively impact current residents?** If land in D-1 and D-2 urbanizes, increased vehicle traffic, tree removal and noise could negatively impact current residents. However, urbanization could also have positive social consequences by providing additional development opportunities for landowners, including additional housing, services and neighborhood commercial uses.

- b. **How would urbanization worsen or improve service delivery to residents in this area (e.g. adequate fire response times, access to water, parks)? (also see Locational Factor 2)** The high cost of providing public services to land in D-1 and D-2 would make future development costly, making it less likely that the benefits of urbanization would be accessible to residents of all income levels. The lack of transportation options on land in this subarea limits how broadly accessible any benefits of urbanization would be. As described in Locational Factor 2, extending transit to land in this subarea is challenging and costly, making it likely that future residents would have to rely on private vehicles to get to downtown Eugene and other job centers. There are fire response time concerns due to the location of city fire stations and fire flow (water) concerns due to the location of land in the subarea over a steep ridge, poor existing street networks, and potential wildfire risk due to urban interface with rural forest lands. Extending EWEB water service to this subarea would benefit current and future residents who rely on wells and would help address fire department staff's concerns regarding adequate fire flow if a wildfire were to occur on land in this subarea. It is assumed that neighborhood parks would be developed as neighborhoods urbanize to meet the City's service standards, and open space is already plentiful on land in this subarea.

- c. **Will urbanization exacerbate the impacts of potential natural hazards, such as flooding, fire, and landslides? (also see Locational Factor 3, Environmental Consequences C.1.b)** Urbanization of land in D-1 and D-2 could exacerbate the impacts of landslides as noted in Locational Factor 3, Environmental Consequences. These hazard areas are categorized as

“undevelopable” land with no development forecast on them, but there may still be a risk to adjacent land, especially if a landslide impacted Dillard Road or other infrastructure. Urbanization of land in D-1 and D-2 could increase the wildland urban interface and exacerbate the risk of wildfire. As described in Locational Factor 2, extending fire protection to land in D-1 and D-2 is projected to be difficult because there are response time concerns due to the location of existing city fire stations and location of land in the subarea over a steep ridge, poor existing street networks, and fire flow concerns. Further, adding an additional fire station would be costly and would have poor economy of scale due to the low projected residential capacity of land in the subarea.

- d. ***How might urbanization in this area impact vulnerable populations⁹ and underserved groups currently living in the subarea? Could one segment of the population be impacted more than another (e.g. low-income households)?*** As described above, it is unlikely that future urbanization of land in this subarea would create housing for all income levels, meaning that vulnerable and low-income residents would likely be excluded from the benefits of urbanization. Additionally, this area is considered difficult for transit to serve due to the existing steep topography and roadway system. A lack of transit service to land in this subarea could disproportionately impact vulnerable populations such as the elderly and people with disabilities and those economically disadvantaged.
- e. ***Will urbanization in this area allow for connected, integrated neighborhoods? (also see Locational Factor 3, C 2 a):*** As described further in Locational Factor 3, Energy Consequences, land in D-1 and D-2 is poorly-suited for connected, integrated neighborhoods given several factors: highly constrained transportation connections into Eugene, distance from job centers, the high cost of service provision likely increasing the cost of development, and an existing residential development pattern that is unlikely to redevelop within the urban reserves planning period. Steep topography, small and irregular lot sizes and configuration are likely to keep average capacity relatively low (2.78 dwelling units per developable acre) and the cost of services will likely make new development inaccessible for a variety of income levels.

Conclusion: Urbanization of the land in **D-1** and **D-2** would have negative social consequences due to the increased risk of natural hazards, and unequal distribution of benefits from urbanization. Due to response time concerns (based on the location of existing city fire stations and location of the subarea over a steep ridge and poor existing street networks), water (fire flow) concerns, and low-density development patterns, urbanization of land in **D-1** and **D-2** could increase the wildland urban interface and exacerbate the risk of wildfire for current and future residents of land in the subarea. The high cost of providing public services to land in **D-1** and **D-2** would make future development

⁹ Vulnerable populations are defined as populations that identify as a non-white race or ethnicity, younger or older populations, populations with a disability, and/or single-headed households. Data is from Livability Lane, 2013 Equity and Opportunity Assessment, Social and Demographic Characteristics Map. The extent to which vulnerable populations and underserved groups currently live in the subarea is speculative.

costly, making it less likely that the benefits of urbanization would be accessible to residents of all income levels.

Social Consequences:	Positive	Mixed	Negative
Land in D-1			
Land in D-2			

Locational Factor 3 Conclusion:

For the land in **D-1** and **D-2**, the analysis under Locational Factor 3 shows that urbanization would have negative Environmental, Energy, Economic and Social consequences.

D. Locational Factor 4: Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

1. ***How will urbanization impact agricultural and forest activities on farm and forest designated land within the subarea?*** There is land designated forest but not agriculture in D-1 and D-2 as shown on **Map 17.8 Comprehensive Plan Diagram**. However, there does not appear to be active forestry activity on these lands. Instead, there is scattered residential development on many of the forest-designated lots. On land in D-1 there are larger lots of undeveloped forest land on the far side of land in the subarea, adjacent to residential uses but not connected to an existing roadway system. On land in D-2 there is one large lot that is undeveloped and designated forest, but there does not appear to be active forestry practices on the property; there is also a vineyard on land designated forest. Due to the lack of forestry activity on any of the forest-designated lots in D-1 or D-2, there would be no consequences of urbanization.

2. ***Is urbanization compatible with existing agricultural and forest uses on farm and forest designated land nearby (outside of the subarea)?*** Future urbanization appears to be compatible with existing farm or forest uses on agriculture or forest-designated land outside of land in the subarea. The forest -designated land to the north of land in D-1 is the 515-acre Suzanne Arlie Park that is part of the City’s Ridgeline Trail system, and not in active forestry use. There are farm-related uses on lower-elevation land designated for agriculture south and east of land in the subarea that would likely not be impacted from urbanization of land in the subarea, such as ranches, and equestrian- and alpaca-related businesses accessed off of Dillard Road towards Interstate 5. These uses are separated by steep topography, ridges and forest from land in the subarea, which provides a buffer between uses. While they feel more separated than they are by distance alone, they could potentially be negatively impacted if Dillard Road became a more heavily-used connection to Interstate 5.

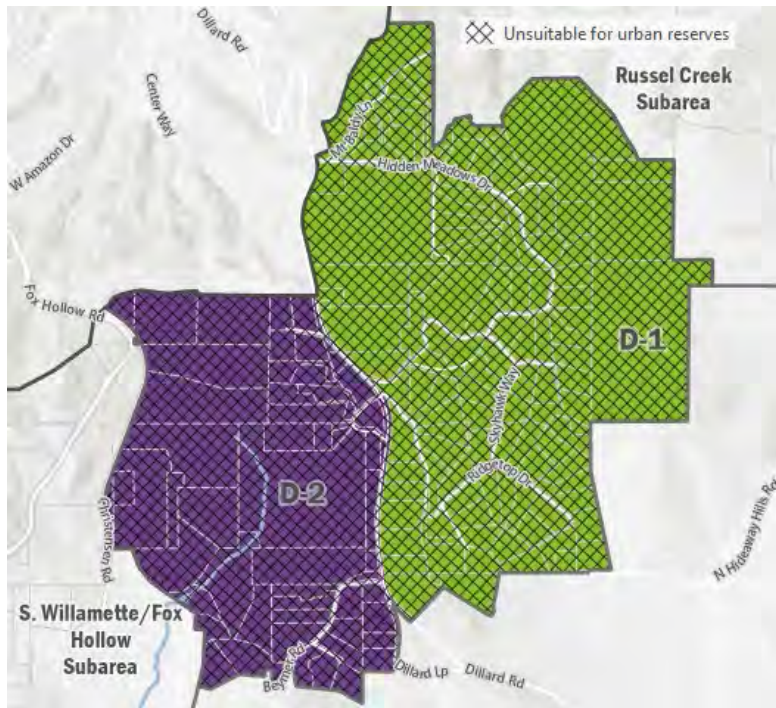
Conclusion: *Because of the location and steep topography of land in the Dillard Road subarea providing natural buffers from surrounding uses (separated by steep topography, ridges and public land), and that there are no commercial farm or forest activities occurring on farm and forest*

*designated land in the subarea, it appears that urbanization of land in **D-1 and D-2** would be compatible with surrounding agricultural and forest activities outside of the UGB.*

Compatibility with nearby agriculture and forest activities	Positive	Mixed	Negative
Land in D-1			
Land in D-2			

III. Conclusion:

Considering and balancing all the Goal 14 locational factors as analyzed above, there are mostly negative aspects of future urbanization of the Dillard Road subarea, as detailed in the above analysis, summarized below and shown in the summary tables on the following pages:



Land in **D-1** includes 572 developable acres. It is located east of Dillard Road. In evaluating the land in D-1, the conclusion of Locational Factors 1-3 was “negative” in their findings; only Locational Factor 4 was rated as “positive.” In summary, the subarea’s high elevation on the back side of a ridge, steep slopes, high-risk landslide areas, small and irregular shaped lots and existing development patterns significantly limit the potential residential capacity, precluding the efficient accommodation of identified land needs. Given these physical constraints, plus poor transportation connections, public facilities and services could not be provided in an

orderly and economic manner to land in D-1. Further, urbanization of the land in D-1 would have negative environmental, energy, economic and social consequences as described in this report. The only positive finding is that urbanization of land in D-1 would be compatible with surrounding agricultural and forest activities outside of the UGB. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in D-1 result in a determination that land in D-1 is not suitable for urban reserves designation at this time.

Land in **D-2** includes 320 developable acres. It is located west of Dillard Road. In evaluating the land in D-2, the conclusion of Locational Factors 1-3 was “negative” in their findings; only Locational Factor 4 was

rated as “positive.” In summary, land in D-2 has very few roadway connections and is constrained by high elevation, considerable steep slopes and high-risk landslide areas, precluding efficient urbanization. Given these significant physical constraints, plus poor transportation connections, public facilities and services cannot be provided in an orderly and economic manner to land in D-2. Further, urbanization of the land in D-2 would have negative environmental, energy, economic and social consequences as described in this report. The only positive finding is that urbanization of land in D-2 would be compatible with surrounding agricultural and forest activities outside of the UGB. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in D-2 result in a determination that this land is not suitable for urban reserves designation at this time.

Please see the summary tables on the following pages, and **Map 17.3 Suitability Results**.

Summary

Dillard Subarea

Not Suitable for Urban Reserves Designation

Land in D-1





	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs:			
2.	Orderly and economic provision of public facilities and services:			
3. (a)	Environmental Consequences:			
(b)	Energy Consequences:			
(c)	Economic Consequences:			
(d)	Social Consequences:			
4.	Compatibility with nearby forest and ag activities			

Land in D-2

	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs:			
2.	Orderly and economic provision of public facilities and services:			
3. (a)	Environmental Consequences:			
(b)	Energy Consequences:			
(c)	Economic Consequences:			
(d)	Social Consequences:			
4.	Compatibility with nearby forest and ag activities			

Map 17.3 Suitability Results, Dillard Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Eugene urban reserves suitable land
-  Tax lots



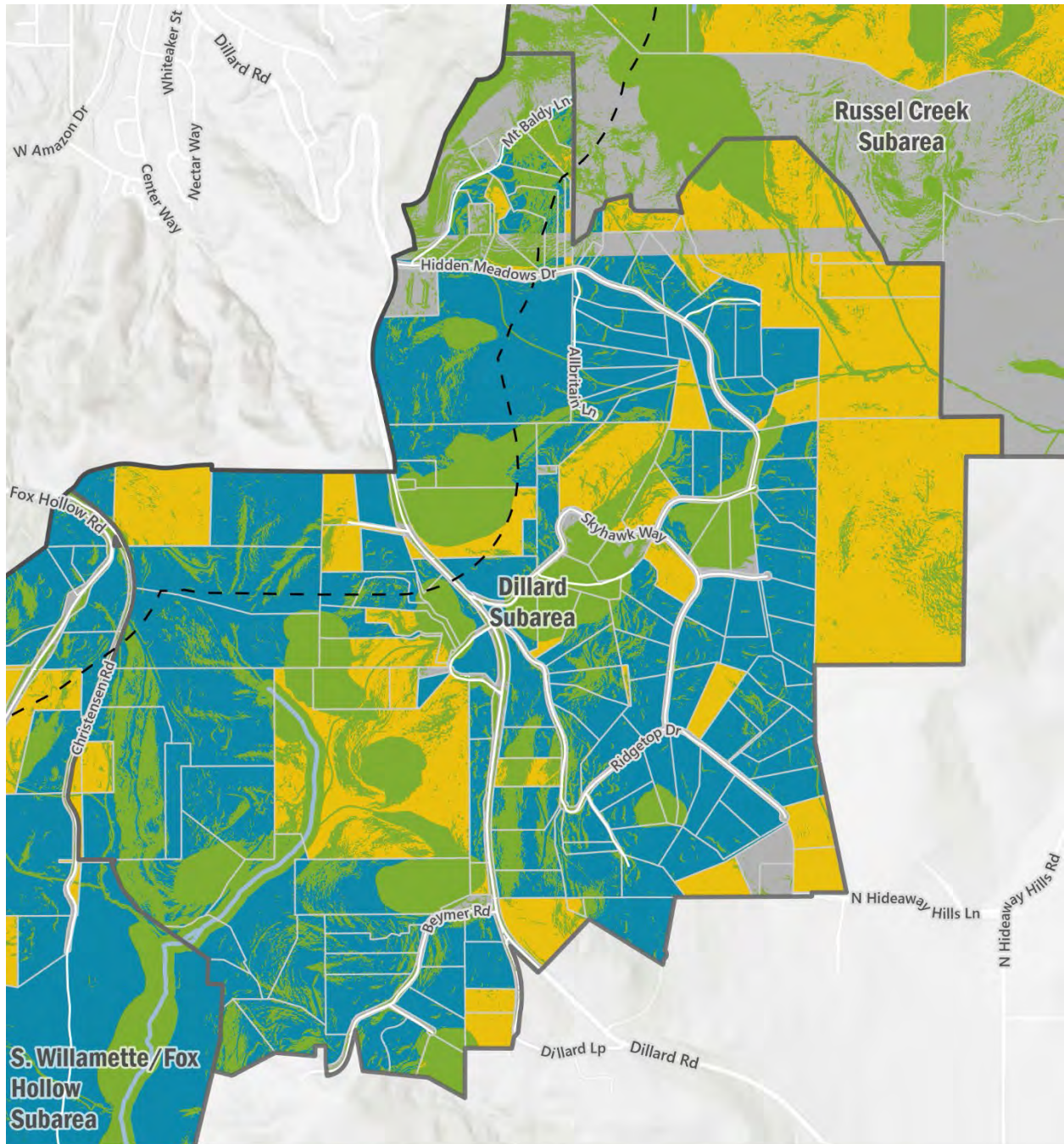
0.25 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 17.4 Development Potential, Dillard Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Quarter mile from Eugene UGB
- Tax lots

- Developable**
 - Partially Vacant
 - Undeveloped
- Undevelopable**
 - Severely constrained by natural hazards or subject to natural resource protections
 - Occupied

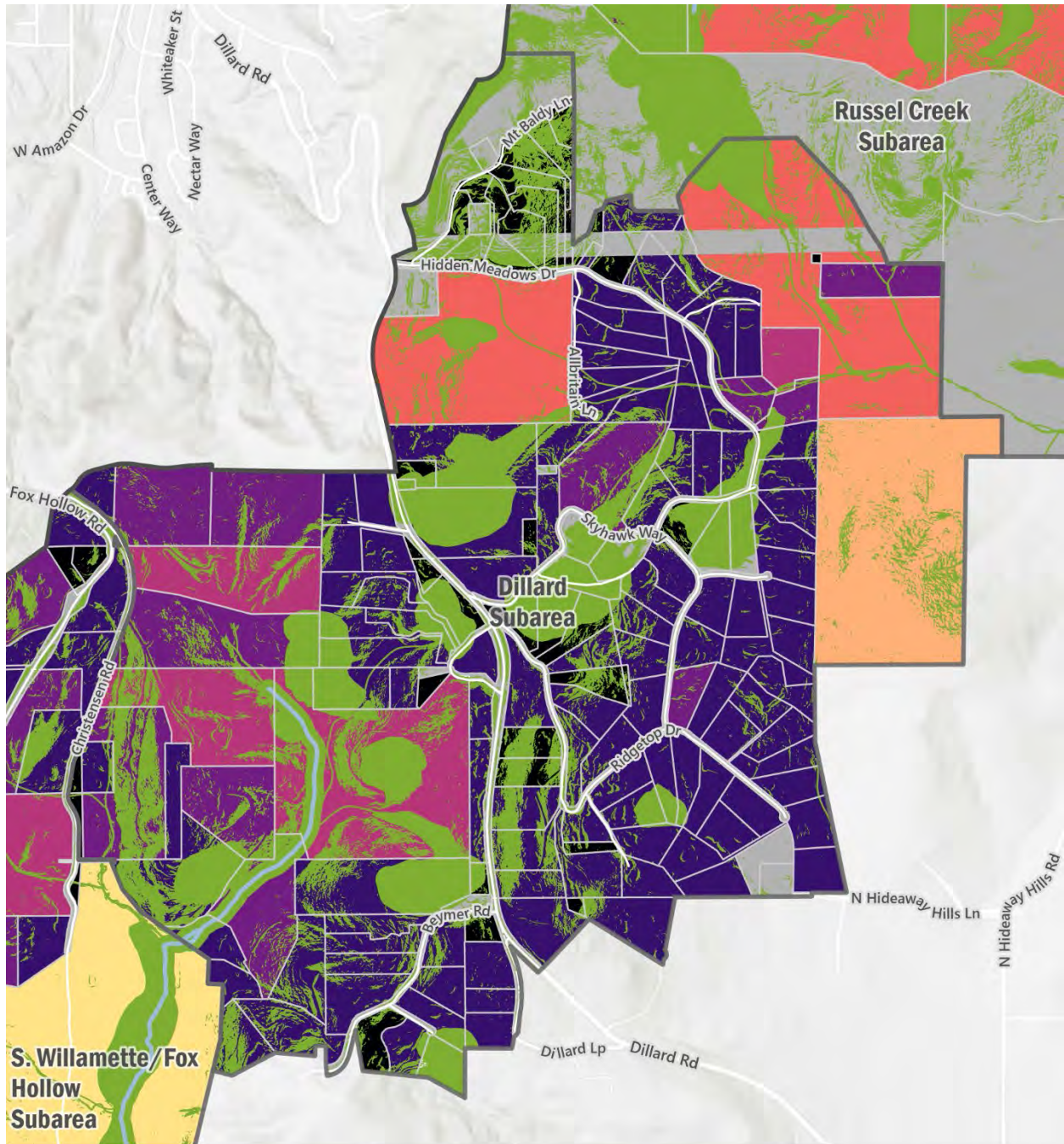


0.25 Miles

Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 17.5 Potential Residential Capacity, Dillard Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied

- Potential residential capacity (dwelling units)
- < 5
 - 5 - 24.9
 - 25 - 49.9
 - 50 - 99.9
 - 100 - 199.9
 - 200 - 499.9
 - ≥ 500

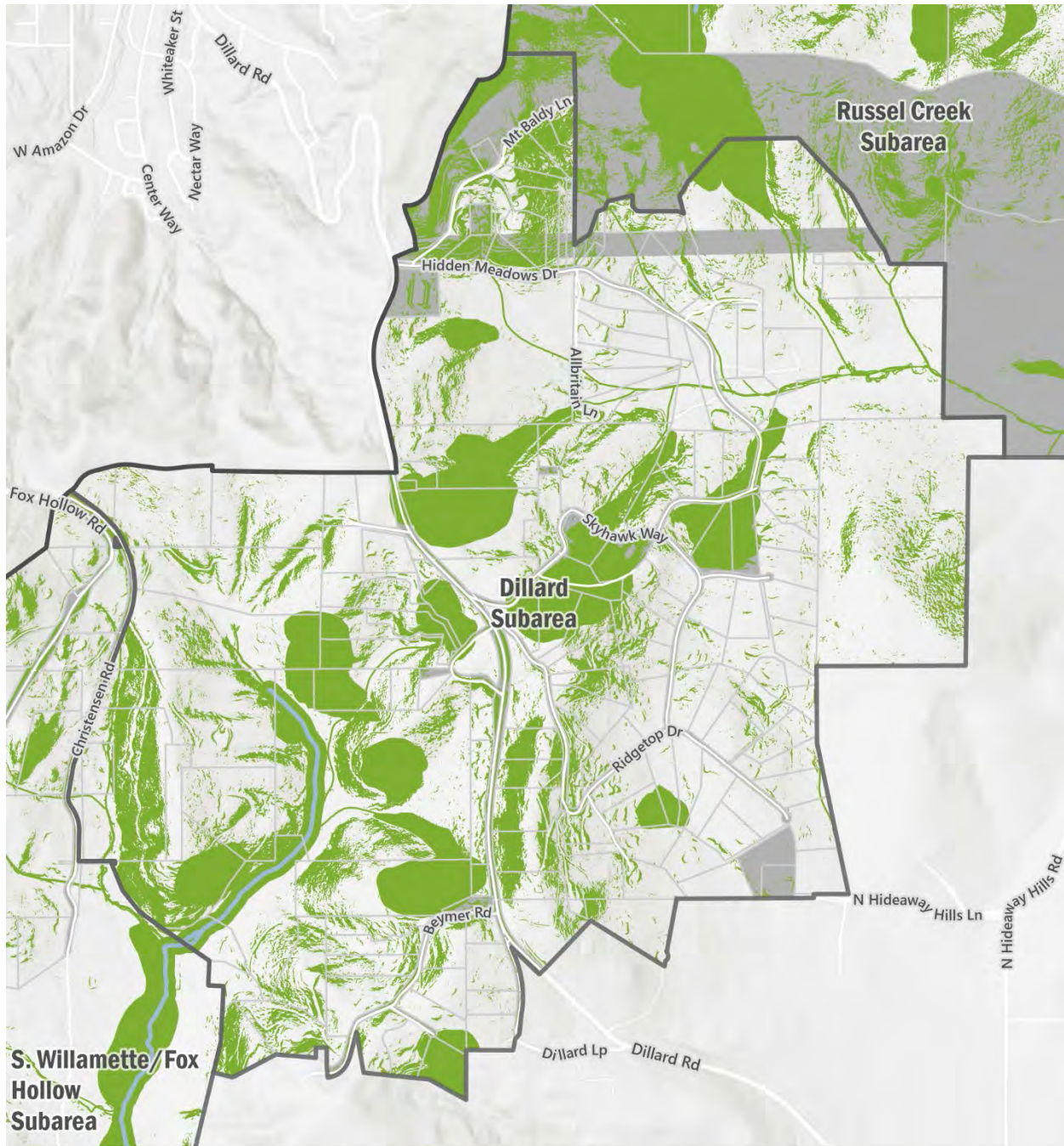


0.25 Miles

Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 17.6 Potential Industrial Capacity, Dillard Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied
- Freight Route Access Points

- Tax lots meeting industrial criteria
 Developable acres per tax lot
- 5 - 9 ac
 - 10 - 19 ac
 - 20 - 49 ac
 - 50 - 74 ac
 - 75+ ac

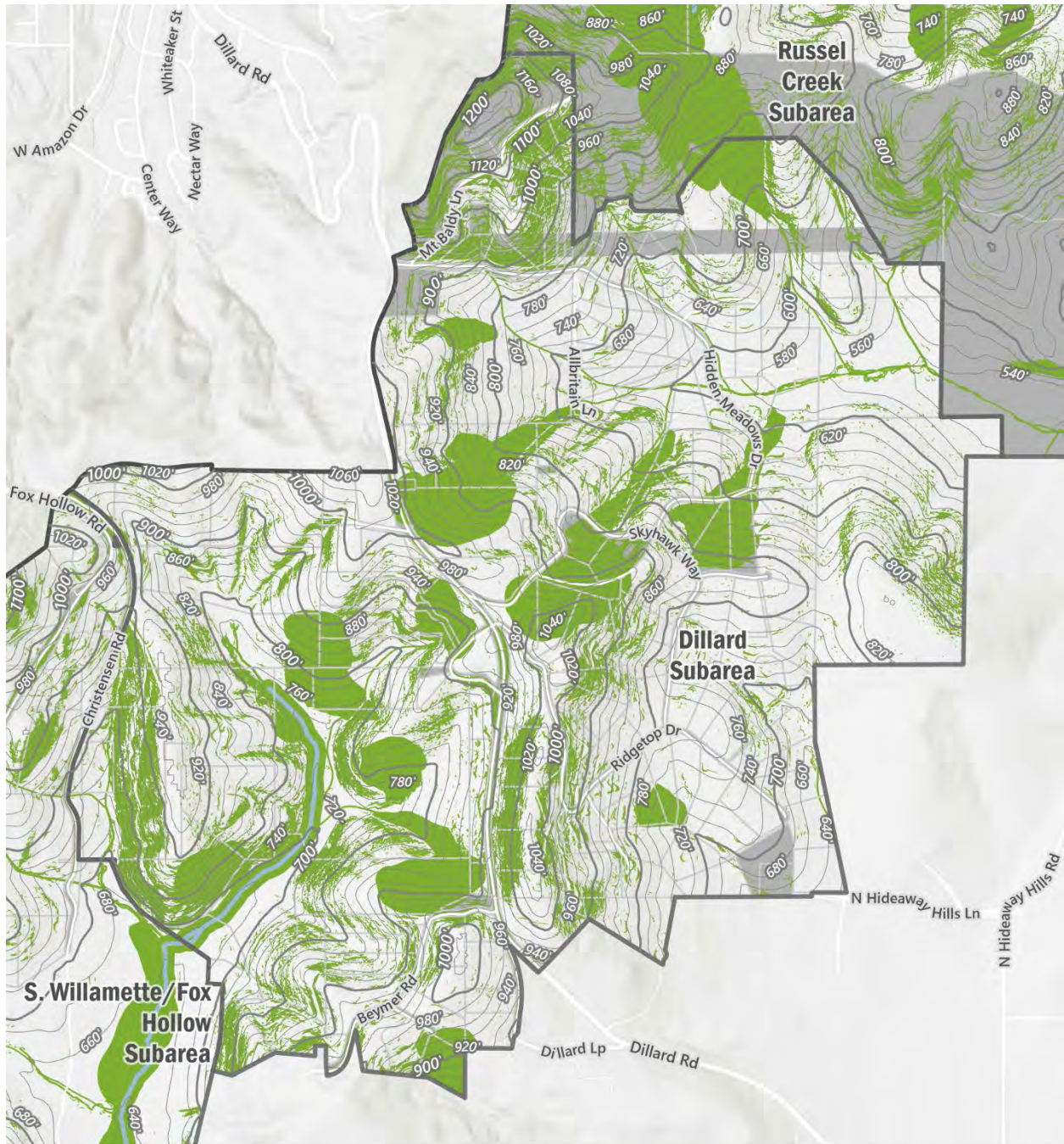
- Tax lots meeting industrial criteria
 Driving distance to a freight route
- 1 mile
 - 1.5 miles
 - 2 miles








Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 17.7 Contours and Hillshade, Dillard Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Tax lots
-  Severely constrained by natural hazards or subject to natural resource protections
-  Occupied



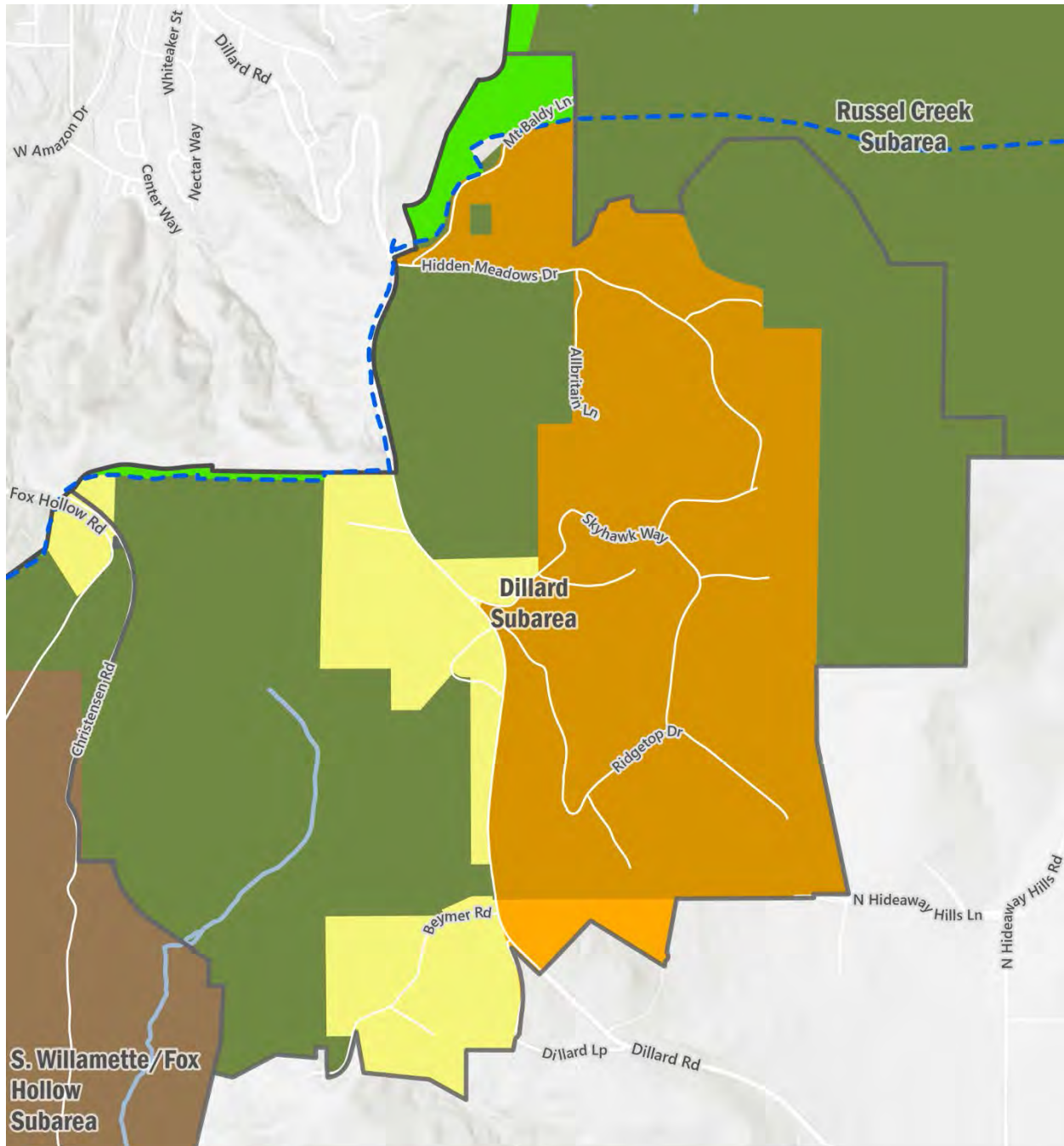
0.25 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 17.8 Plan Designations, Dillard Subarea



- | | | |
|---|----------------------------|-------------------------------|
| Metro plan boundary | Industrial | Agriculture |
| Eugene UGB | Marginal | Airport reserve |
| Eugene urban reserves subarea boundaries | Natural resource: mineral | Government & education |
| Rural comprehensive plan designation | Natural resource: wildlife | Natural resource |
| Agriculture | Non resource | Parks and open space |
| Airport | Parks | Rural commercial |
| Commercial | Public facility | Rural residential |
| Forest | Residential | Sand and gravel |
| | | Metro plan designation |



0.25 Miles

Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

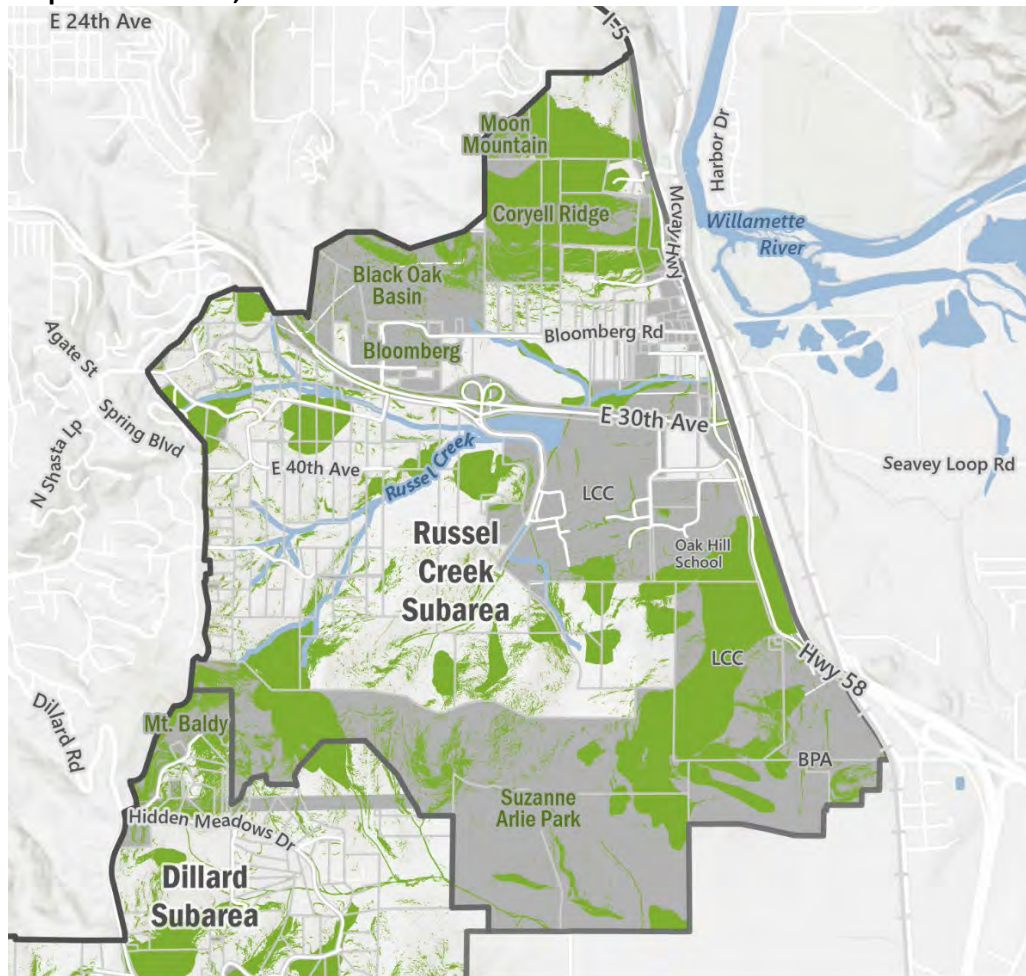
Data sources: City of Eugene, Lane County, RLID, DOGAMI.

18. Suitability Analysis – Russel Creek

I. Background

- A. Location:** The land in the Russel Creek subarea is located to the southeast of Eugene. It is bound by the UGB on the north and west, and McVay Highway/Interstate 5 on the east. The 515-acre City-owned Suzanne Arlie Park is on its southern edge. Beyond it is land in the Dillard subarea and farm and forest land near the unincorporated community of Goshen. East 30th Avenue runs through the middle of the subarea. See **Map 18.1 Location**, below, and **Maps 18.2-18.8** for additional information relevant to the subarea analysis.

Map 18.1 Location, Russel Creek Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied



0.6 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

- B. Existing Land Uses:** Of the 2,718 acres of land in the subarea, only 804 have potential for future residential or employment development. The remaining land in the subarea has no residential or employment development capacity (shown in gray and green on the maps). The gray land includes publicly owned land that is being used or committed to public use, including park land owned by the City of Eugene (Suzanne Arlie, Bloomberg, Moon Mountain, Coryell Ridge and Black Oak Basin), land owned by Bonneville Power Administration (BPA) for a substation and power line easements, land for schools (Lane Community College and Oak Hill School) land for water service owned by EWEB, and privately owned land that is developed. North of 30th Avenue, there are existing commercial and industrial uses along McVay Highway, including two gas stations and a beverage distribution facility and rural residential homes along Bloomberg Road. Lane Community College (LCC), south of 30th Avenue, is by far the biggest development and employer on land in the subarea. Most of the developable land is designated Forest Land (663 acres) but is not used for commercial forestry; it is used for large-lot rural housing or is being prepared for future development.
- C. Barriers to Development:** By far, the largest barrier to development on land in the subarea is that seventy percent of the land is classified as “undevelopable,” shown in gray and green on the maps. Land that is severely constrained by natural hazards or designated/zoned to protect natural resources are in green and include land with prohibitively steep slopes (30 percent or greater) and high-risk landslide hazard areas. Fifteen percent of land in the subarea has a predominant slope classification greater than 30 percent. Also, in green are Lane County adopted Goal 5 wetlands and an area designated for natural resources in the Metro Plan. Russel Creek is multi-forked and crisscrosses through land in the subarea on the south side of 30th Avenue; on the north side it continues to Bloomberg Road. The gray land on maps is classified as “undevelopable” because it is occupied; those uses are listed above Existing Land Uses). The publicly owned parkland along the UGB that is being used or that is committed to public use is a barrier to development, in that it is located between existing residential neighborhoods and developable land in the subarea. However, it is also a benefit to future residents and needed for service connections and access, as described further in the Locational Factor analysis to follow.
- D. Surrounding Land Uses:** The north edge of land in the subarea is currently undeveloped land within the UGB, while the area to the west is developed with low-density residential housing inside the UGB. Suzanne Arlie Park on the southern edge separates the land in the subarea from large lot rural residential land in the Dillard subarea and forest, and agricultural lands towards Goshen. Just east of I-5 is (north to south): the southern tip of Glenwood (which is within Springfield’s UGB), the confluence of the Coast Fork and Middle Fork of the Willamette River, and the Seavey Loop area in unincorporated Lane County.
- E. Organization of this Analysis:** After an initial review, it became clear that within land in the Russel Creek subarea, there are different areas that include land that shares attributes relevant for Goal 14 Locational Factor analysis, therefore they have been subdivided further, as follows:

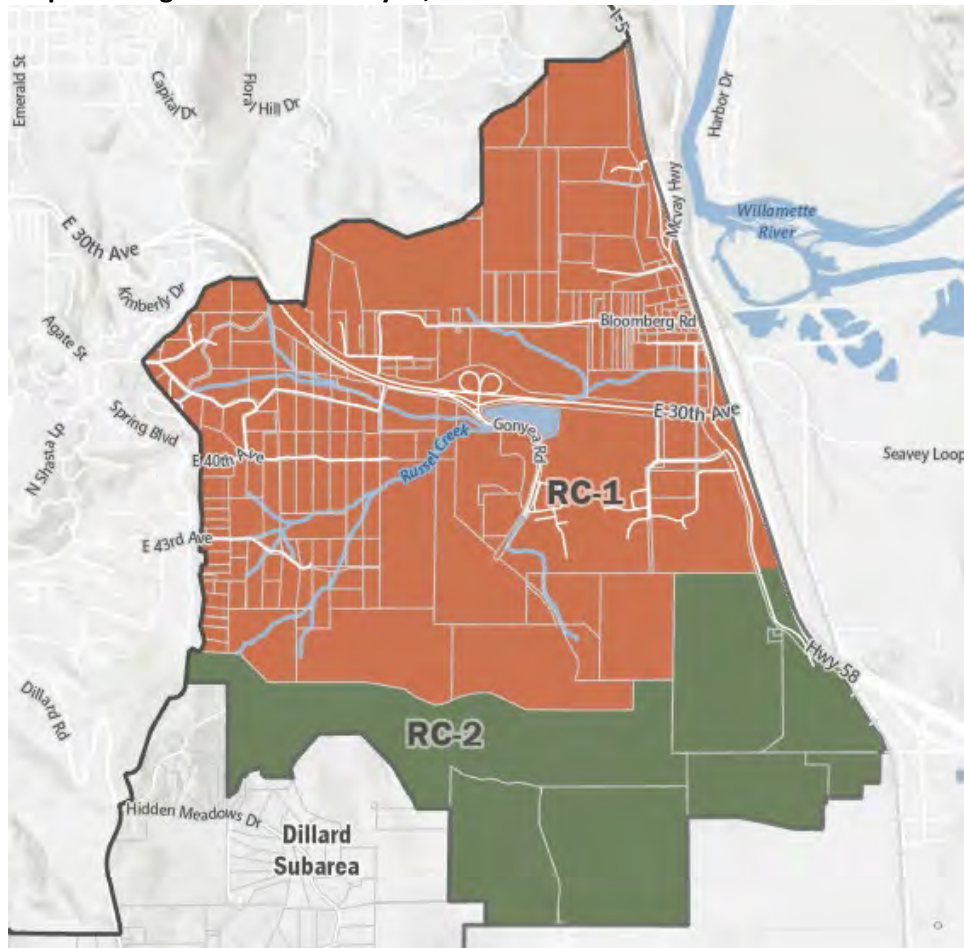
Land in **RC-1** includes 804 developable acres. It surrounds 30th Avenue to the north and south and extends from the UGB to Interstate 5. The land in RC-1 is a mix of residential, commercial and industrial uses as well as school, utility and park uses. Lane Community College’s main campus is the most prominent landmark in RC-1. While the land in RC-1 contains a variety of land types, uses and constraints, it is grouped together for analysis purposes because it shares a

variety of similar attributes (e.g., proximity to urbanizable areas and job centers, transportation and transit connections, access to parks and services) that relates to and is described further in the Goal 14 locational factor analysis to follow.

Land in **RC-2** includes no developable acres. It is significantly different in that it includes park, utility and educational land located along the southern edge of the subarea that shares a different set of common attributes.¹ The land in RC-2 is classified as occupied and has no development capacity; that combined with its location, topography and use set it apart from land in RC-1. Inclusion in urban reserves will not change its anticipated use over the planning period. While there is also occupied land in RC-1, the occupied land in RC-2 does not serve the same purpose, as its inclusion in urban reserves will not aid the land with residential and employment development surrounding it, as is further described in the Goal 14 locational factor analysis to follow.

These differing circumstances enable the land in the Russel Creek subarea to be analyzed in terms of the two areas shown in **Map 18.2 Organization of Analysis**.

Map 18.2 Organization of Analysis, Russel Creek Subarea



¹ Also included in RC-2 with negligible acreage: Oregon Department of Transportation (ODOT) right-of-way; ODOT 0.4 acre lot; and one private developed lot (0.9 acres) with one residence. All land in RC-2 is classified as occupied.

II. Identify land that would be suitable for urban reserves²

A. Locational Factor 1: Efficient accommodation of identified land needs

To what extent is there ...

1. ***Developable land adjacent to or nearby (within .25 mile) of the UGB?*** The land in the Russel Creek subarea includes 217 acres of land classified as developable (partially vacant or undeveloped) and located within lots³ that have a portion of their boundary within .25 miles of the UGB, as shown on **Map 18.4 Development Potential**. This is equivalent to approximately 27 percent of the developable acres within land in the subarea (all on land in RC-1). Most of the nearby capacity for residential or employment development is along 30th Avenue, adjacent to Lane Community College, and north of Suzanne Arlie Park. North of 30th Avenue, there are only two developable lots adjacent to or nearby the UGB (within .25 mile). Land that is within .25 miles of the UGB is likely to more efficiently accommodate the identified land needs than land that is further away from the UGB because of street, utility and neighborhood connections to already urbanized land.
2. ***Partially vacant developable land (that could be developed for the identified land needs)?*** The land in the subarea contains 2,718 total acres, of which 804 are classified as developable: 241 acres on lots classified as partially vacant and 563 acres on lots classified as undeveloped. All of the developable land in the subarea is within RC-1. The distribution of these lots is shown on the **Map 18.4 Development Potential Map**.
3. ***Developable land that is identified in the capacity analysis⁴ as potentially able to be urbanized with a mix of residential housing? How does this translate into potential dwelling units (per the capacity analysis)?*** Only 30 percent of the land in the subarea is identified as having capacity for residential or employment development; all of it is located in RC-1. This developable land has capacity for 2,456 dwelling units, or an average residential density of 3.1 dwelling units per developable acre (compared to 4.8 du/developable acre for the entire study area). Natural hazards, natural resources and existing development limit the residential capacity on land in RC-1 to lots with relatively high capacity (100-199 dwelling units per lot), and smaller Partially Vacant lots with enough developable land for less than 5 dwelling units per lot as shown on **Map 18.5 Potential Residential Capacity**. The land in the subarea's proximity to existing job and education centers, including LCC, and key transportation access to downtown Eugene, Springfield, and other metropolitan destinations due to 30th Avenue and Interstate-5 makes it potentially appropriate for a mix of residential housing types and neighborhood-serving

² Please refer to Section II C of the Eugene Urban Reserve Study (Findings Appendix 2) for background on how the City is identifying land in the study area that would be "suitable," the explanation of the prompts used for the Goal 14 Locational Factors, and specific terminology.

³ In the urban reserves study area, 'lots' are used for analysis purposes. See the Eugene Urban Reserves Technical Memo (Findings Appendix 4), for complete information.

⁴ For information on how residential development capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

commercial uses, however, given the low average residential density estimates, the land in this subarea also includes developable land that could not efficiently accommodate the identified residential land need.

4. ***Developable land that is identified in the capacity analysis⁵ as potentially able to be urbanized with industrial land need? How does this translate into potential industrial sites (per the capacity analysis)?*** As shown on **Map 18.6 Potential Industrial Capacity**, there are five lots identified as potentially suitable for urbanization with industrial land. They are all located on land in RC-1 along 30th Avenue -- two to the north and three to the south. They range from 5-9 developable acres to 20-49 developable acres. Given the proximity of these lots to existing job centers, LCC and key transportation corridors, land in RC-1 can efficiently accommodate identified industrial land need.

5. ***Topography, steep slopes or other “undevelopable”⁶ lands that would make efficient urbanization difficult?*** “Undevelopable” lands are shown as gray and green on all of the analysis maps. As shown primarily on **Map 18.4 Development Potential, and Map 18.7 Contours and Hillshade**, the presence of land that is “undevelopable” because it is severely constrained by natural hazards or subject to natural resource protections, such as steep slopes, landslide hazard areas and wetlands on land in RC-1 would make efficient urbanization difficult on lots with these features and others that are impacted by the features. On the other hand, the “undevelopable” lands classified as occupied on land in RC-1 (which includes parks, schools, water utility, rights of way, etc.) are needed in order to efficiently serve adjacent developable land, due to their location adjacent to the UGB and interspersed with land potentially suitable for future homes and jobs. Only the occupied “undevelopable” land on the southern edge of the subarea along the South Hills ridgeline (in RC-2) appears to not be needed for efficient urbanization of adjacent developable land. This includes the 515-acre Suzanne Arlie Park, a BPA substation and vacant LCC property not needed for educational uses during the planning period.⁷ The use of this land will stay the same regardless of whether it is included in urban reserves, and it is not needed to access nearby developable land, as the adjacent land in the Dillard subarea is not suitable for urban reserves (see Dillard Suitability Analysis).

Conclusion: *As described above, the ability of the land in RC-1 to efficiently accommodate identified land needs is mixed. This is due to a variety of factors including: a limited amount of developable*

⁵ For information on how industrial capacity was estimated for the Eugene urban reserves, see the Eugene Urban Reserves Technical Memo, (Findings Appendix 4).

⁶ As described in section II B of the Eugene Urban Reserve Study (Findings Appendix 2), land was assigned no development capacity if it falls within one of the these “undevelopable” categories: severely constrained by natural hazards or is designated or zoned to protect natural resources; or not vacant or partially vacant (i.e. the land is already occupied).

⁷ Lane Community College owns multiple properties in the subarea, which includes their main campus, parking lots/access roads and athletic fields. They also own other property committed to educational uses that are less developed, including north of their campus along 30th Avenue (in RC-1) and south of their campus (in RC-2). The property north of 30th is needed for future educational uses. The property in RC-2 is different from the others, as it is more remote, difficult to access, and primarily used for nature appreciation. LCC has no plans for its development during the urban reserves planning period. Please see letter from LCC for more information.

*land, most of which is not proximate to the UGB, and steep slopes, Goal 5 wetlands and high-risk landslide hazard areas which contribute to a low average residential density. As described above, the occupied land in **RC-1** (which includes parks, schools, water utility, rights of way, fully developed properties, etc.) is needed in order to potentially have access to urban services in the future and to efficiently serve the adjacent developable land, due to its location near the UGB and interspersed throughout developable land potentially suitable for future homes and jobs. Its inclusion would aid in the efficient accommodation of identified land needs. The positive attributes of the land in **RC-1** is that it is close to existing job centers, educational opportunities and key transportation corridors, and contains land suitable for both residential and industrial development.*

*The more isolated land in **RC-2** has a negative rating due to the following: The land in RC-2 is classified as occupied. It is public land for park, utility and educational use. Unlike the occupied land in RC-1, based on its location at the southern edge of the subarea along the South Hills Ridgeline, the land in RC-2 is isolated from other developable land, it would not benefit that land if connected to urban services in the future, it is not needed to access adjacent developable land, and therefore its inclusion in urban reserves would not aid in the efficient accommodation of identified land needs.*

Efficient accommodation of identified land needs:	Positive	Mixed	Negative
Land in RC-1			
Land in RC-2			

B. Locational Factor 2: Orderly and economic provision of public facilities and services⁸

The information below addresses the feasibility of serving the developable land in the Russel Creek subarea with public facilities and services in an orderly and economical way. It considers the capacity of the current system to serve the area and the extent of new infrastructure that would be needed to serve the area if urbanized. It includes an analysis of **wastewater, water, transportation, transit, stormwater, and fire/emergency services** and also, to a lesser extent, it includes the provision of **electricity, schools and parks**.⁹

Before the narrative description is a table showing the **generalized serviceability** of the subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff, and a **generalized cost estimate** to address the economics of serving the subject area with public facilities and services. It reflects preliminary high-level estimates for the major components of the individual systems. Cost information is provided on a \$ to \$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$) denoting the greatest cost. The scale used to evaluate each type of service is tailored to address the fact that some services are more expensive to provide than

⁸The definition of “public facilities and services,” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines, is: “[p]rojects, activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.”

⁹ The summarized information used in this section is based on the results of the *Urban Reserves Serviceability Analysis Report*, (Findings Appendix 3). In providing information for that report, service providers considered the serviceability of the subareas in their entirety; they generally did not differentiate between areas within a subarea.

others. For example, a \$ for wastewater does not equate to the same dollar amount as a \$ for transportation. Cost estimates do not include future maintenance costs.

Russel Creek						
Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Difficult	Very Difficult	Difficult	Moderate	Easy	Moderate-Difficult
Generalized cost estimate	\$\$\$\$	\$\$\$\$\$	\$\$\$\$-\$\$\$\$\$	\$\$\$\$\$	\$	\$\$\$\$

1. **Wastewater:** The subarea is assigned a “difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. This is due to the fact that the topography of the area would require two pump stations to be constructed, along with approximately 7,000 feet of force main.
2. **Water:** The subarea is assigned a “very difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. This is due to the significant infrastructure needed to serve both sides of 30th Avenue. Even with a small area already served by EWEB north of 30th, multiple new pump stations, reservoirs, and large diameter pipelines would need to be constructed to serve the rest of this subarea.
3. **Fire:** The subarea is assigned a “difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$-\$\$\$\$\$. Given the current locations of city fire stations and existing street network, there are response time and service delay concerns. It is estimated that a new fire station would be needed to serve the subarea. In addition, there is potential wildfire risk due to the increased interface with rural forest lands.
4. **Transportation:** The subarea is assigned a “moderate” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. While the subarea has excellent access to 30th Avenue, I-5, and Springfield, which are all positives for vehicular connectivity, the highway interchange is currently failing, and additional capacity would be very challenging and expensive to accommodate.
5. **Transit:** The subarea is assigned an “easy” serviceability rating and the generalized cost estimate for improvements is \$. This is because there is already LTD bus service along 30th Avenue, connecting Eugene and Springfield residents to Lane Community College.
6. **Stormwater:** The subarea is assigned a “moderate to difficult” serviceability rating and the generalized cost estimate for improvements is \$\$\$\$\$. The area is currently served by an informal system of roadside ditches, culverts, catch basins and pipes. The steep slopes in this subarea present challenges to stormwater management, but there is potential for adding detention facilities.
7. **Other (Parks, Schools, Electric):** In RC-1, north of E. 30th Avenue, parks are plentiful, located adjacent to the UGB and interspersed with developable land potentially suitable for future homes and jobs. RC-1 also includes Lane Community College and Oak Hill School. The park and school land in RC-1 will aid in the orderly and economic provision of public facilities and services. The 515-acre Suzanne Arlie Park is located in RC-2 at the southern edge of the study area along

the ridgeline; adjacent to it is a BPA electrical sub-station that provides electricity to the metropolitan area. Regardless of whether these public facilities are included in urban reserves, they will benefit the metropolitan area.

- 8. Is there undeveloped land within the UGB that would be helped in its development/serviceability if this area were included in urban reserves, or is there undeveloped land within the UGB that would negatively impact the orderly and economic provision of public facilities and services?** The orderly and economic provision of public facilities and services on land in this subarea is not impacted by consideration of this question. Undeveloped land within the UGB adjacent to the subarea is north of E 30th Avenue. Most of it will likely not be impacted if this area were included in urban reserves, as it is already proposed to be developed (as the Laurel Ridge PUD) and adjacent to “undevelopable” (park) land. There is one small undeveloped area inside the UGB at the northern edge of land in the subarea and adjacent to I-5 that may be helped in its development/serviceability if this area were included in urban reserves.

Conclusion: *As described above, input from service providers indicates that the land in the Russel Creek subarea can be served in an orderly and economic manner only with transportation and transit, plus existing parks and schools. Providing the other facilities and services (wastewater, water, fire and stormwater) to the land in the subarea would be moderately to very difficult and expensive due to the presence of steep slopes, large swaths of hazard areas and low development capacity, and therefore could not be provided in an orderly and economic manner.*

Due to the fact that the land in RC-1 could serve 2,456 dwelling units based on capacity assumptions, and that it surrounds 30th Avenue and abuts the UGB and I-5 (all potential utility connection routes), the land in RC-1 is identified as mixed in its ability to be served in an orderly and economic manner, despite the cost and complexity.

All the land in RC-2 is classified as “undevelopable” and therefore does not need to be served. Notwithstanding, the land in RC-2 would not be able to be served in an orderly and economic manner due to its location along the South Hills ridgeline on the far edge of the subarea adjacent to other unsuitable land.

Orderly and economic provision of public facilities and services:	Positive	Mixed	Negative
Land in RC-1			
Land in RC-2			

C. Locational Factor 3: Comparative environmental, energy, economic and social consequences

1. Environmental consequences:

- a. Presence of natural resources: To what extent would urbanization of this area negatively impact open space connectivity, wildlife habitat, wetlands, riparian areas, or other natural resources?** There is significant public parkland throughout land in the subarea, in both land in RC-1 and RC-2, which provides ample wildlife habitat, connectivity, and natural resource protection. There could be negative environmental consequences of urbanization on Goal 5 wetlands identified on the National Wetland Inventory that are present on land in RC-1. Future development will increase impervious surfaces such as roofs and pavement and may increase stormwater runoff and potential pollutants in waterways on land in RC-1, although City regulations would mitigate these impacts. As the land in RC-2 is all parkland and utility land, it will not be urbanized and therefore there are no environmental consequences.
- b. Presence of hazard areas (steep slope, landslides, floodplain): To what extent would urbanization of this area increase the potential risk of natural hazards, such as landslides, wildfire or flooding?** There are high-risk landslide areas and steep slopes throughout land in the subarea (shown on the maps in green) on land in both land in RC-1 and RC-2. Overall, 15 percent of lots in the subarea have steep slopes (predominant slope classification in excess of 30 percent). As hazard areas are “undevelopable” with no development capacity assumed on them, the potential risk due to urbanization is minimized, although adjacent urbanization could still increase risks. Large portions of land in the subarea (particularly in RC-2) are forested, making it at risk for wildfire, which may increase over time with climate change. The developable land in RC-1 also includes many once-forested areas that have been cleared for future development.
- c. Presence of nearby public open space: To what extent would nearby public open space benefit future residents of the area?** There is significant public open space (parkland) throughout land in the subarea, in both RC-1 and RC-2, which provides significant wildlife habitat and natural resource protection. It also will provide close-to-home recreational opportunities for the subarea’s growing population, benefitting future residents by providing nearby opportunities for active and passive recreation, such as hiking, bird watching, mountain biking and nature appreciation.

Conclusion: *As described above, urbanization of the land in RC-1 could potentially increase the risk of natural hazards, such as landslides and wildfire. At the same time, there is a significant amount of parkland throughout the subarea, providing positive environmental consequences and benefitting area residents. Focusing urbanization on less sensitive areas on land in RC-1 would mitigate negative environmental consequences. Therefore, the environmental consequences of urbanizing the land in RC-1 are mixed (medium).*

The land in RC-2 has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. As such, there would be no environmental consequences of including this land in urban reserves.

Environmental Consequences:	Positive (Low)	Mixed (Medium)	Negative (High)	No Consequences
Land in RC-1				
Land in RC-2				

2. Energy Consequences (priority for lower energy usage):

- a. To what extent would this area be able to co-locate a variety of housing types, jobs and services to lower vehicle miles traveled (vmt)?** Land in RC-1, the lower, flatter area closer to East 30th Avenue and LCC could be moderately well-situated to co-locate a variety of housing types due to the existence of larger undeveloped and partially vacant parcels, existing street connections, transit, and easier water and wastewater serviceability. It is also suitable for a mix of jobs and neighborhood-serving commercial (at LCC and along E. 30th Avenue and McVay Highway). This lower, flatter land in RC-1 is walkable and has good potential as a 20-minute neighborhood (where homes, jobs and services can be reached on foot within 20 minutes), limiting the need for vehicle trips and having positive energy impacts. However, moving farther away (north and south) from E. 30th Avenue, topography, lot sizes and high-risk landslide areas are likely to keep average density relatively low, which would have negative impacts on energy usage (with potentially more driving, more infrastructure needed and less multifamily housing). The land in RC-2 would not be able to co-locate housing, jobs and services due to its lack of development capacity.

- b. To what extent is the area easily accessible to other services or uses (e.g., neighborhood commercial, parks, schools)?** There are some existing gas stations, convenience stores, and other commercial uses on land in RC-1 or immediately adjacent, allowing local trips for some services and keeping energy usage low. The nearest public elementary school is Camas Ridge, on 30th Avenue about three miles away on the bus line. As discussed in Locational Factor 2, Oak Hill School and Lane Community College are on land in RC-1, providing employment and education opportunities within walking distance of developable land. Public parkland is plentiful on land in RC-1 and RC-2 also only a short walk away from developable land in RC-1, potentially reducing vehicle miles traveled and carbon emissions.

- c. To what extent is the area adjacent to or nearby the UGB? (see Locational Factor 1, A.2)** As already noted in Locational Factor 1, land in the Russel Creek subarea is adjacent to the UGB, but includes only 217 developable acres located on lots that have a portion of their boundary within .25 miles of the UGB , all in RC-1, as shown on **Map 18.3 Development Potential**. The land in the subarea’s location adjacent to the UGB has positive energy benefits, as its proximity to existing and future neighborhoods would allow for lower vehicle miles traveled than in more distant areas.

- d. To what extent is there good multi-modal transportation access to this area? To what extent is the area easily accessible to job centers and downtown?** There is already good transit service on E. 30th Avenue to LCC (to land in RC-1), from both Eugene and Springfield, and bus rapid transit is being considered. The hill on E. 30th Avenue and the vehicular-focus

of McVay Highway and I-5 are challenges for bicycle and pedestrian access, as are the steep slopes elsewhere in the study area (on land in RC-1 and RC-2). The easy bus and vehicle access to I-5 makes this study area very well located regionally and accessible to job centers throughout both Springfield and Eugene.

- e. To what extent does future urbanization directly or indirectly generate energy or climate burdens (e.g. loss of open space, loss of growing lands, increased traffic, increased carbon emissions)?** Future urbanization of the land in RC-1 will directly and indirectly generate energy and climate burdens due to the loss of forest (and to a lesser extent agricultural) land. As noted above, while vehicle traffic, and increased carbon emissions, would likely increase with urbanization, the land in RC-1 is well-located for multi-modal transportation access. Land in RC-2 is classified as “undevelopable” and therefore will not generate energy or climate burdens.

Conclusion: As described above, there are mixed energy consequences to urbanizing the developable land in **RC-1**. The flatter areas near E. 30th Avenue and LCC have good potential for co-locating a variety of housing, jobs, and services, limiting the need for vehicle trips and therefore having positive energy impacts. There is regular transit access to the area from Eugene and Springfield, and highway and interstate access to job centers and downtown. However, the hill on East 30th Avenue and steep slopes in the farther reaches of **RC-1** will make non-electric bicycling a challenge for most. In these farther reaches of **RC-1**, topography, lot sizes and high-risk landslide areas are also likely to keep average density relatively low, which would have negative impacts on energy usage (with potentially more driving, more infrastructure needed and less multifamily housing). Throughout the subarea, forested parks are plentiful and walkable and have positive energy impacts for carbon sequestration and limiting carbon emissions.

The land in **RC-2** has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. As such, there would be no energy consequences of including this land in urban reserves.

Energy Consequences:	Positive	Mixed	Negative	No Consequences
Land in RC-1				
Land in RC-2				

3. Economic consequences:

- a. In general, how much economic activity would urbanization of this area bring? Ex: Additional construction opportunities?** The land in RC-1 contains 804 acres of developable land. Based on generalized capacity assumptions, this could accommodate 2,456 residential dwelling units. Urbanization would bring construction activity that would benefit the local economy, but given the cost of future services, new development on land in RC-1 would likely be expensive. The City’s tax base would increase, but the cost of services (capital and ongoing) may outweigh the increased revenue. Lane Community College would benefit in having additional opportunities for housing and services on and near their campus. LCC

provides a unique economic benefit to the subarea and beyond, as an employer, educational institution, and job training center. The land in the subarea's location along 30th Avenue and adjacent to I-5 also has positive economic consequences due to its transit, major roadway and interstate access to job centers in Eugene, Springfield and beyond. The land in RC-2 is "undevelopable" and will not bring additional economic activity from urbanization, however regardless of whether it's included in the UGB in the future, Suzanne Arlie Park could be an economic benefit to nearby businesses by bringing regional visitors to land in the subarea.

- b. *Is the area appropriate for future urbanization with a variety of identified uses (not just LDR), to support connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a):*** As noted above, some of the land in RC-1 could support future urbanization with a variety of identified uses which support connected, integrated neighborhoods, providing positive economic consequences. The land in RC-2 would not be able to be urbanized with a variety of uses due to its lack of development capacity.
- c. *Are there concerns about future urbanization causing a loss of economic activity for existing and nearby uses? (also see Locational Factor 4)*** The forested land in the subarea does not appear to include any commercially farmed forests that would have negative economic consequences if it were urbanized, and there has already been tree removal in anticipation of residential development on some of the developable land in RC-1. Some of the existing rural commercial and industrial uses on land in RC-1 could benefit from additional residents, additional development opportunity and access to urban services. All the land in RC-2 is classified as "undevelopable" at the far edge of the subarea along the South Hills ridgeline and therefore not appropriate for future urbanization.
- d. *How cost-efficient is service provision in this area? (also see Locational Factor 2)*** As already noted, the relative high cost of servicing the land in RC-1 makes the likelihood of efficient urbanization and its associated economic benefits mixed. While the high potential capacity on some land in RC-1 may make the investment in infrastructure economical over the long term, this assumes development occurring in anticipated densities. Larger lots along 30th Avenue, adjacent to LCC and lower in elevation would likely be more economically feasible for urbanization. All the land in RC-2 is classified as "undevelopable" and therefore does not need to be served. Notwithstanding, the land in RC-2 is not cost-efficient to be served due to its location along the South Hills ridgeline on the far edge of land in the subarea adjacent to other unsuitable land.

Conclusion: As described above, urbanization will bring significant positive economic consequences to the land in RC-1, but primarily due to the high cost of service provision, the likelihood of efficient urbanization and its associated economic benefits, consequences are mixed. Lane Community College and the developable land surrounding it in RC-1 would benefit economically if the subarea urbanized; housing for students could be provided nearby and city services could be extended to the campus, providing it with additional economic opportunities in the future. LCC provides a unique economic benefit to the both the land in RC-1 and region, as an educational institution, employer

and job training center. The location of land in RC-1 along 30th Avenue and adjacent to I-5 also benefits it economically.

The land in **RC-2** has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. As such, there would be no economic consequences of including this land in urban reserves.

Economic Consequences:	Positive	Mixed	Negative	No Consequences
Land in RC-1				
Land in RC-2				

4. Social Consequences: ¹⁰

- a. Will urbanization negatively impact current residents?** While urbanization may negatively impact some existing residents on land in RC-1 due to increased noise, traffic, and impacts to their viewshed, urbanization could also have positive social consequences by providing additional development opportunities for landowners, including housing, services and neighborhood commercial uses accessible to a broad range of residents. There is only one residence on occupied land in RC-2 surrounded by other “undevelopable” land; therefore, it will not be impacted by urbanization.

- b. How would urbanization worsen or improve service delivery to residents in this area (e.g. adequate fire response times, access to water, parks)? (also see Locational Factor 2)**
 Urbanization would improve service delivery to land in RC-1, but it would not come without a price. Wildfire risk would increase due to the urban interface with adjacent forest lands. Fire and emergency response to the area would be improved if urban services were extended, but costly fire infrastructure would be needed. Water and fire flow service would improve when developable lands connect to EWEB. This would also benefit properties with wells that are running dry on land in RC-1. As noted in Locational Factor 2, water service improvements are complicated and costly, as distribution and transmission systems would have to be extended. Parks are plentiful on land in RC-1 and RC-2 and it is assumed that neighborhood parks would be included with future neighborhood development on land in RC-1 if there’s a service-level need. Urbanization will not impact service delivery to land in R-2 as there is no developable land.

- c. Will urbanization exacerbate the impacts of potential natural hazards, such as flooding, fire, and landslides? (also see Locational Factor 3, Environmental Consequences C.1.b)**
 Urbanization of land in RC-1 could increase the risk of landslides on high-risk landslide areas. However, these areas are categorized as “undevelopable,” with no development capacity forecast on them, mitigating potential impacts to residents. Land in both RC-1 and RC-2

¹⁰ The definition of “social consequences” as set out in the definitions for Oregon’s Statewide Planning Goals and Guidelines is: “[t]he tangible and intangible effects upon people and their relationships with the community in which they live resulting from a particular action or decision.”

contain forest land; residential development in or adjacent to these forested areas may increase the risk of wildfire, which may increase over time with climate change. Providing urban levels of fire and water services will help mitigate that risk for current and future residents. There are no identified flood hazard areas on land in either RC-1 or RC-2.

- d. How might urbanization in this area impact vulnerable populations¹¹ and underserved groups currently living in the subarea? Could one segment of the population be impacted more than another (e.g. low-income households)?** There could be negative impacts to vulnerable populations on land in RC-1, (e.g., older residents and low-income households) due to the potential high cost of receiving urban services, such as water and wastewater service. However, the ability to extend EWEB water throughout land in RC-1 would benefit residents currently dependent on wells that are running dry. In addition, the lower-elevation and flatter areas of land in RC-1 near E. 30th Avenue and LCC could provide good locations for multi-unit and more affordable housing, providing positive social consequences. There is only one residence on occupied land in RC-2 surrounded by other “undevelopable” land; therefore, it will not be impacted by adjacent urbanization.
- e. Will urbanization in this area allow for connected, integrated neighborhoods? (also see Locational Factor 3, Energy Consequences C.2.a)** As discussed previously, some of the land in RC-1 (particularly the lower-elevation and flatter areas in RC-1 near E. 30th Avenue and LCC) could support future urbanization with a variety of identified uses which support connected, integrated neighborhoods, providing positive social consequences on land in RC-1. The land in RC-2 is “undevelopable” and will not allow for connected, integrated neighborhoods; the parkland will provide a benefit to current and future residents regardless of whether it’s included in the UGB in the future.

Conclusion: As described more fully above, urbanization of land in **RC-1** would have mixed social consequences. Service delivery would improve with urbanization, however it would not come without a price; depending on individual needs and circumstances this could be a positive or negative social consequence. For example, there could be negative impacts to vulnerable populations such as older residents and low-income households due to the potential high cost of receiving urban services, such as drinking water. However, the ability to extend EWEB water throughout the subarea would benefit properties currently dependent on wells that are running dry. Urbanization in the wildland-urban interface could increase the chance of wildfire, but urban levels of fire and water services will help mitigate that risk.

*The land in **RC-2** has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. As such, there would be no social consequences of including this land in urban reserves.*

¹¹ Vulnerable populations are defined as populations that identify as a non-white race or ethnicity, younger or older populations, populations with a disability, and/or single-headed households. Data is from Livability Lane, 2013 Equity and Opportunity Assessment, Social and Demographic Characteristics Map. The extent to which vulnerable populations and underserved groups currently live in the subarea is speculative.

Social Consequences:	Positive	Mixed	Negative	No consequences
Land in RC-1				
Land in RC-2				

Locational Factor 3 Conclusion:

For the land in **RC-1**, the analysis under Locational Factor 3 shows that urbanization would have mixed Environmental, Energy, Economic and Social consequences.

The land in **RC-2** has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. As such, there would be no Environmental, Energy, Economic or Social consequences of including this land in urban reserves.

D. Locational Factor 4: Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

1. ***How will urbanization impact agricultural and forest activities on farm and forest designated land within the subarea?*** There is both forest and agriculture designated land in RC-1 and RC-2, as shown on **Map 18.7 Plan Designations**. However, there does not appear to be active farming or forestry activity within land in the subarea. Much of the land designated as forest on land in both RC-1 and RC-2 is protected as public parkland; the remainder of it appears to be waiting for future development or is school or public utility property. Therefore, urbanization of the developable land in RC-1 would not negatively impact farm or forest activities on farm and forest designated land within the subarea.

2. ***Is urbanization compatible with existing agricultural and forest uses on farm and forest designated land nearby (outside of the subarea)?*** There are agricultural and forest designated lands south and east of land in the subarea, with active farming and grazing activities in both areas. The land that is designated forest does not appear to be used for commercial forestry. Both the South Hills ridgeline along the land in RC-2 and Interstate 5 to the east provide buffers between future urbanization of land in RC-1 and these farm uses towards Goshen and in the Seavy Loop area, therefore urban uses outside of the subarea would be compatible.

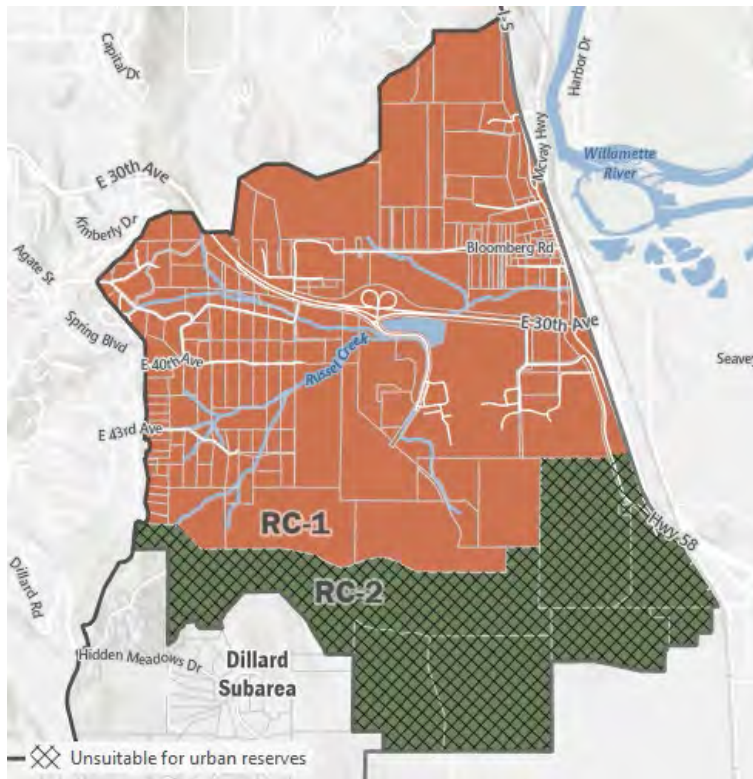
Conclusion: *Because of the location and topography of land in the Russel Creek subarea providing natural buffers from surrounding uses (bordered by the interstate, the South Hills ridgeline, and public land), and that there are no commercial farm or forest activities occurring on farm and forest designated land in the subarea, it appears that urbanization of land in **RC-1** would be compatible with surrounding agricultural and forest activities outside of the UGB.*

*The land in **RC-2** has no capacity for residential or employment development and would remain in current use whether inside or outside the UGB. Since there are no proposed urban uses on this land, there are no consequences regarding its compatibility with nearby agricultural and forest activities occurring on farm and forest land outside the UGB.*

Compatibility with nearby agriculture and forest activities	Positive	Mixed	Negative	No Consequences
Land in RC-1				
Land in RC-2				

III. Conclusion

Considering and balancing all of the Goal 14 locational factors as analyzed above, there are some positive and some negative aspects of future urbanization of the Russel Creek subarea as a whole, which is why the analysis was described as laid out in this report and summarized as follows:



Land in **RC-1** includes 804 developable acres. It surrounds 30th Avenue to the north and south and extends from the UGB to Interstate 5. The land in RC-1 is a mix of residential, commercial and industrial uses as well as school, utility and park uses. In evaluating the land in RC-1, the conclusion of Locational Factors 1-3 were “mixed” in their findings; only Locational Factor 4 was rated as “positive.” This is due to a variety of factors including: a limited amount of developable land, most of which is not proximate to the UGB, and steep slopes, Goal 5 wetlands and high-risk landslide hazard areas which contribute to a low average residential density. The occupied land in RC-1 (which includes parks, schools, water utility, rights of way, fully developed properties, etc.) is needed in order to have access to urban services in the

future and to efficiently serve the adjacent developable land, due to its location near the UGB and interspersed throughout developable land. Its inclusion would aid in the efficient accommodation of identified land needs. The positive attributes of the land in RC-1 is that it is close to existing job centers, educational opportunities and key transportation corridors, and contains land suitable for both residential and industrial development. Therefore, based on these factors and the complete analysis described in this report, when balanced and considered together, the consequences with respect to the land in RC-1 result in a determination that this land is suitable for urban reserves designation.

The land in **RC-2** includes no developable acres. It includes park, utility and educational land located along the southern edge of the subarea, between the UGB and Interstate 5. In evaluating the land in RC-2, the conclusion of Locational Factors 1-2 were “negative” in their findings; and Locational Factors 3 and 4 were “No consequences.” This is because the land in RC-2 has no capacity for future jobs or homes, and due to its location, topography and use it is not now needed for the efficient

urbanization, or orderly and economic provision of services, of the developable land in the subarea. Its remaining out of urban reserves will not affect the developable land nearby and it will not affect how the land will be used. Therefore, based on these factors and the complete analysis described above, when balanced and considered together, the consequences with respect to the land in RC-2 result in a determination that it is not suitable for urban reserves designation at this time.

Please see the summary tables on the following page, and **Map 18.3 Suitability Results**.

Summary

Russel Creek Subarea

Suitable for Urban Reserves Designation

Land in RC-1

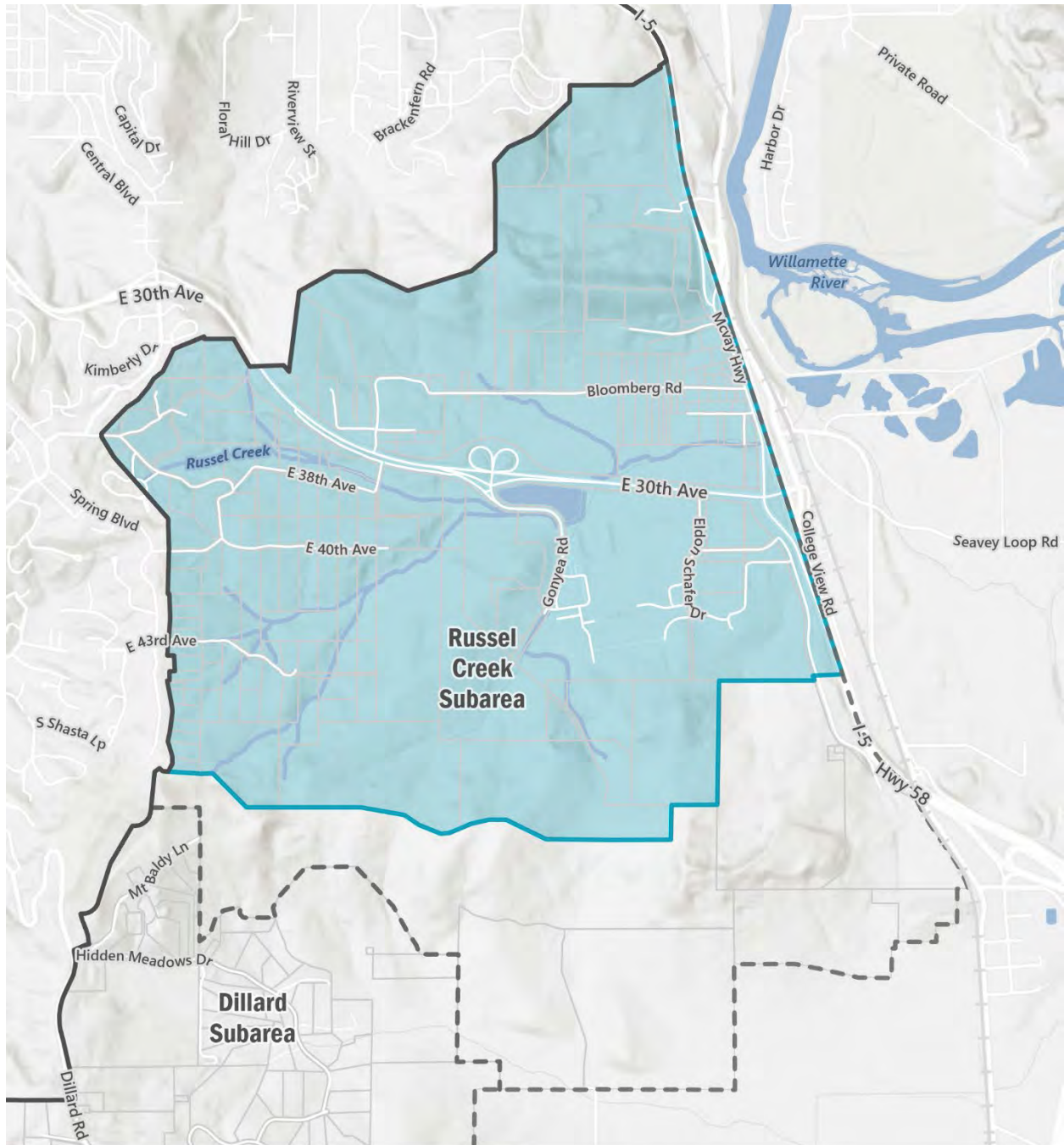
	Goal 14 Locational Factors	Positive	Mixed	Negative
1.	Efficient accommodation of identified land needs			
2.	Orderly and economic provision of public facilities and services			
3. (a)	Environmental Consequences			
(b)	Energy Consequences			
(c)	Economic Consequences			
(d)	Social Consequences			
4.	Compatibility with nearby ag and forest activities			





Not Suitable for Urban Reserves Designation

Land in RC-2

	Goal 14 Locational Factors	Positive	Mixed	Negative	No Consequences
1.	Efficient accommodation of identified land needs				
2.	Orderly and economic provision of public facilities and services				
3. (a)	Environmental Consequences				
(b)	Energy Consequences				
(c)	Economic Consequences				
(d)	Social Consequences				
4.	Compatibility with nearby ag and forest activities				

Map 18.3 Suitability Results, Russel Creek Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Eugene urban reserves suitable land
-  Tax lots



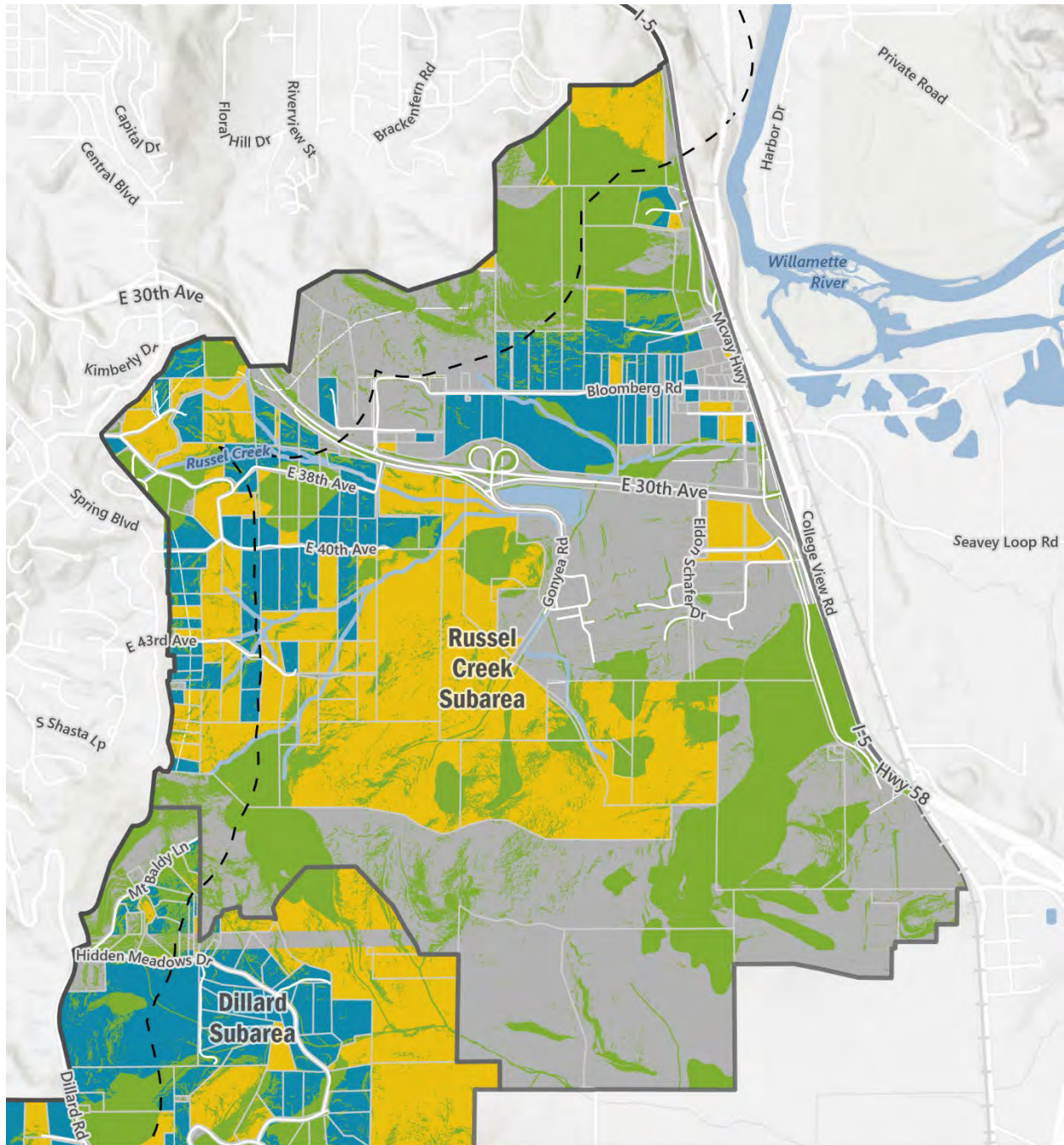
0.4 Miles



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 18.4 Development Potential, Russel Creek Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Quarter mile from Eugene UGB
- Tax lots

- Developable**
- Partially Vacant
 - Undeveloped
- Undevelopable**
- Severely constrained by natural hazards or subject to natural resource protections
 - Occupied



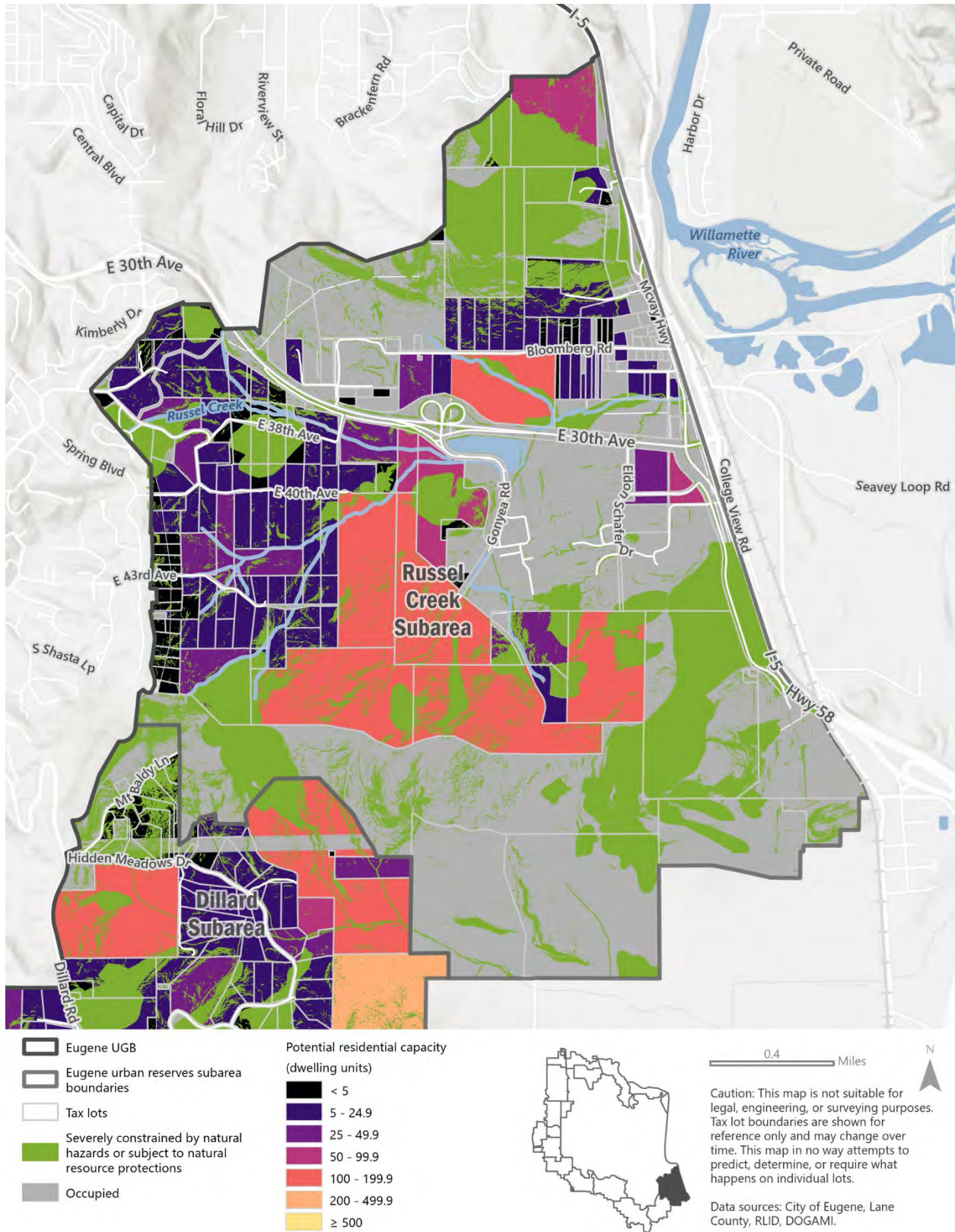
0.4 Miles



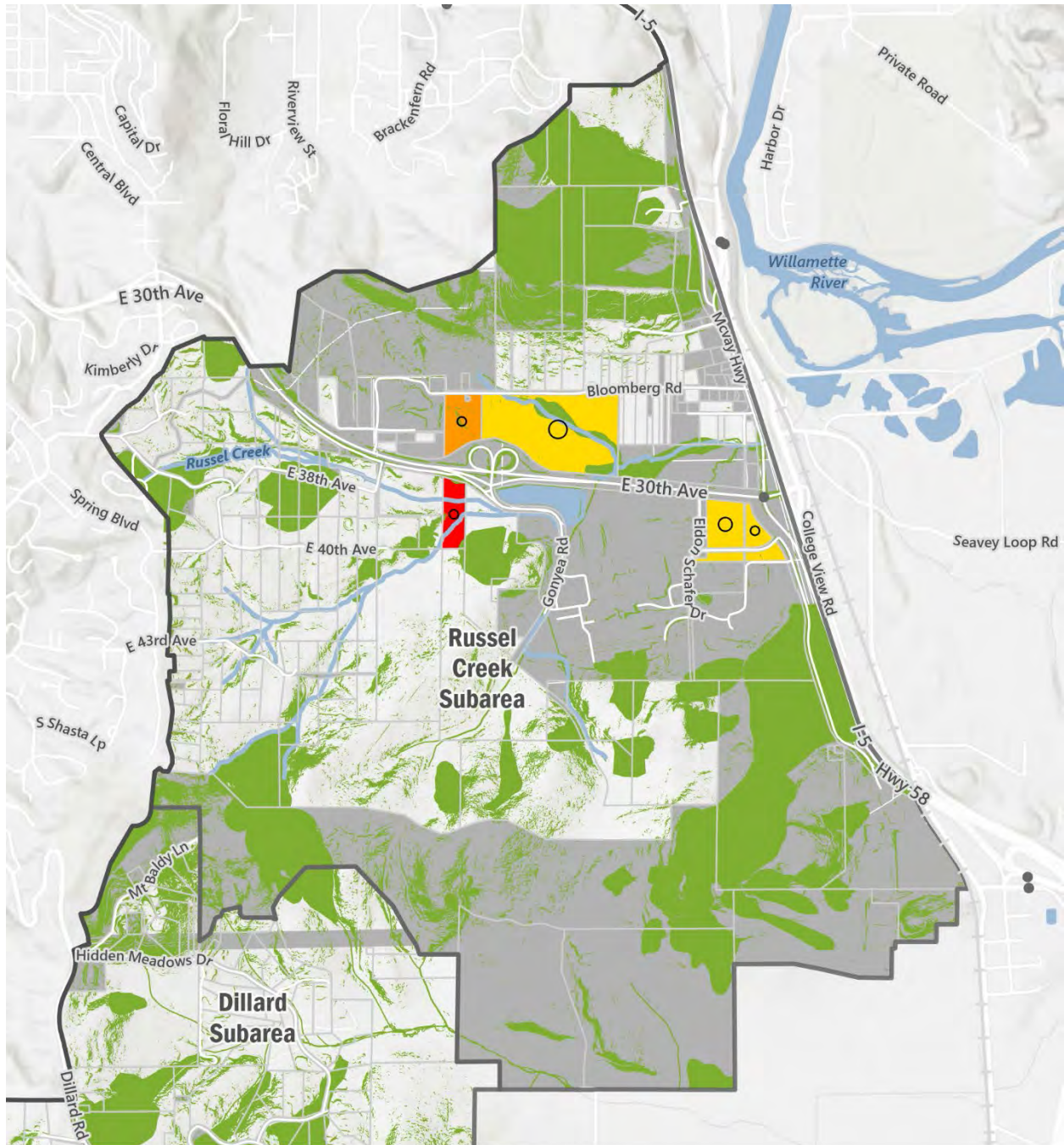
Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 18.5 Potential Residential Capacity, Russel Creek Subarea



Map 18.6 Potential Industrial Capacity, Russel Creek Subarea



- Eugene UGB
- Eugene urban reserves subarea boundaries
- Tax lots
- Severely constrained by natural hazards or subject to natural resource protections
- Occupied
- Freight Route Access Points

- Tax lots meeting industrial criteria
 Developable acres per tax lot
- 5 - 9 ac
 - 10 - 19 ac
 - 20 - 49 ac
 - 50 - 74 ac
 - 75+ ac

- Tax lots meeting industrial criteria
 Driving distance to a freight route
- 1 mile
 - 1.5 miles
 - 2 miles



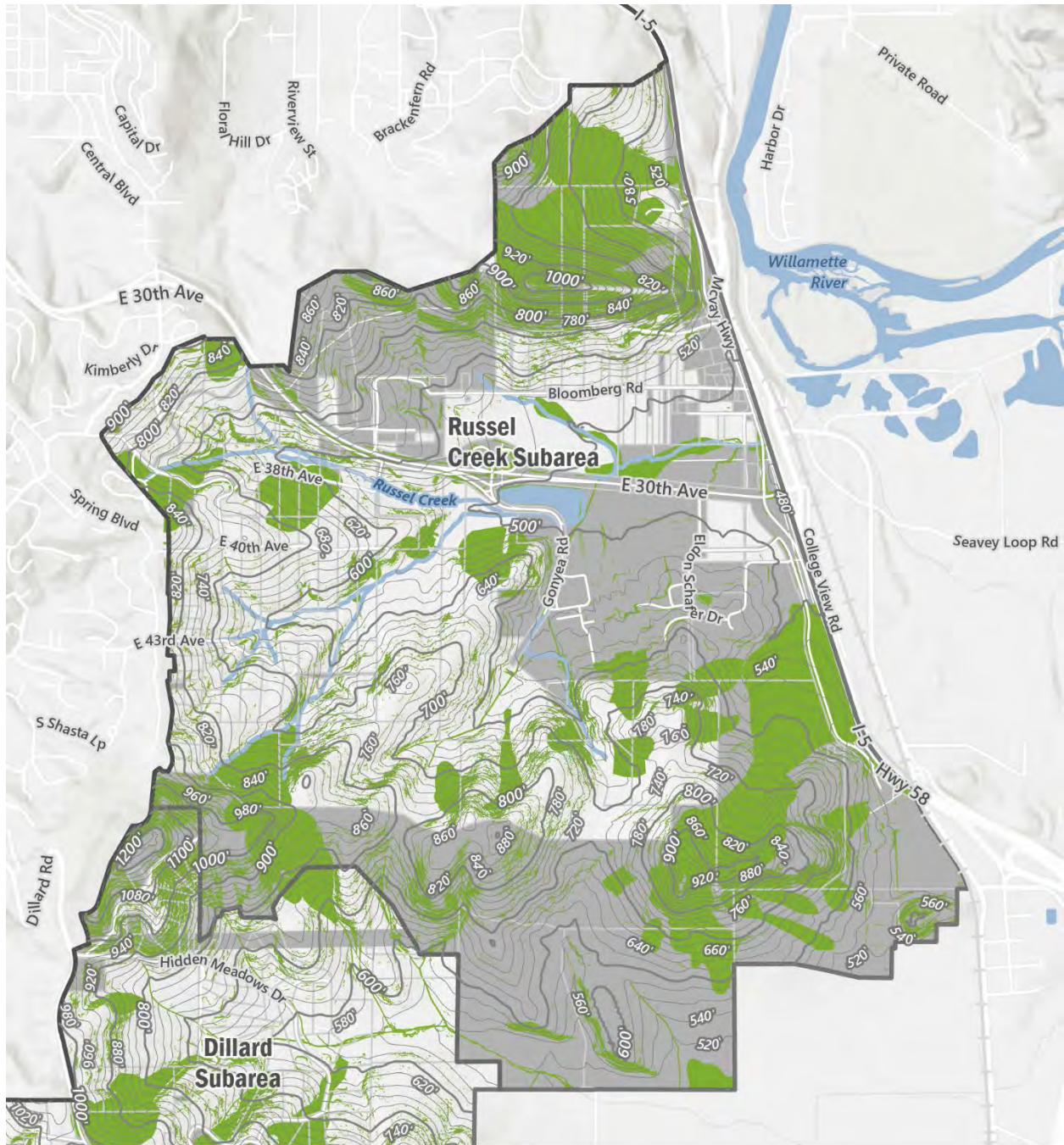
0.4 Miles








Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 18.7 Contours and Hillshade, Russel Creek Subarea



-  Eugene UGB
-  Eugene urban reserves subarea boundaries
-  Tax lots
-  Severely constrained by natural hazards or subject to natural resource protections
-  Occupied



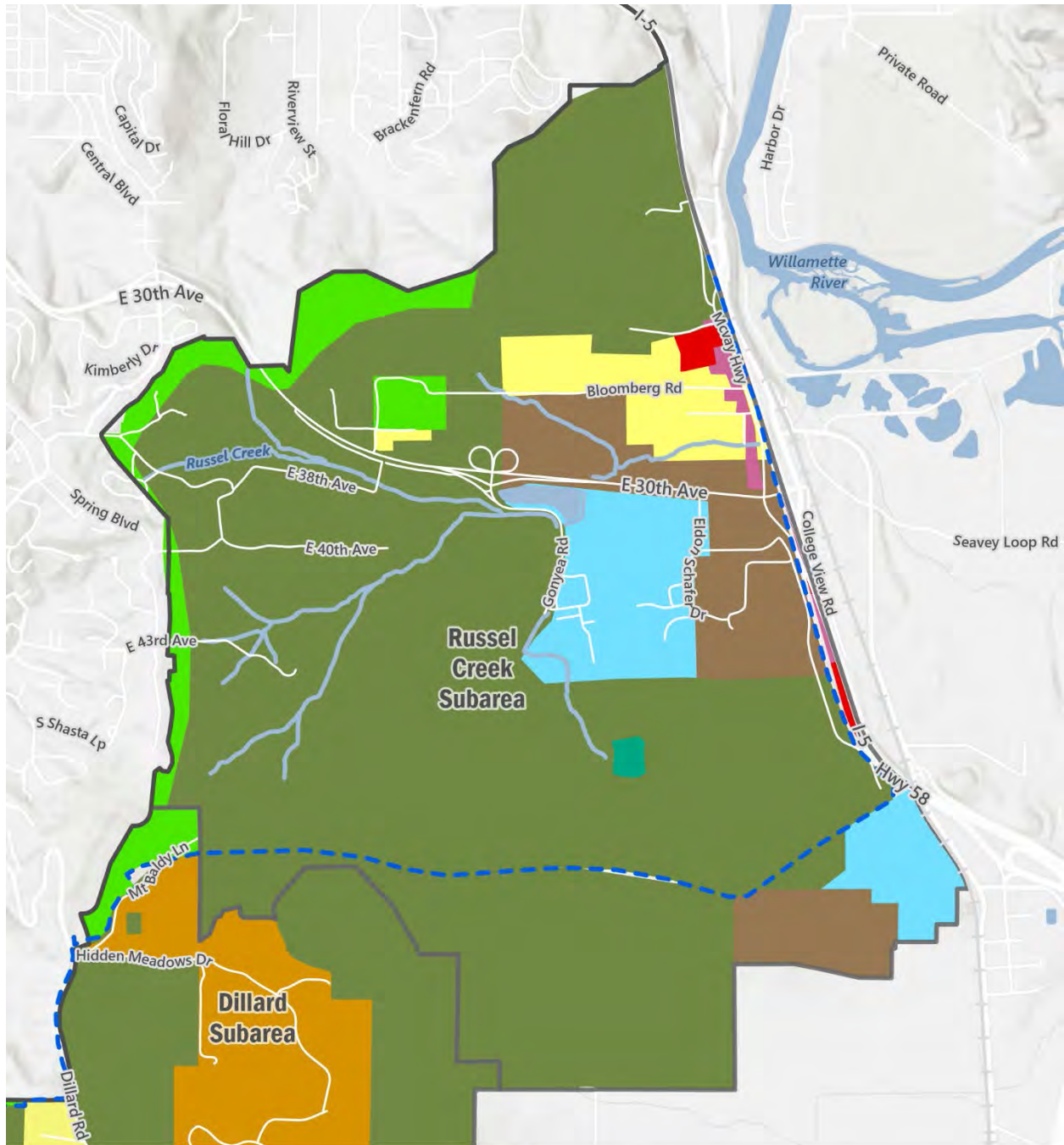
0.4 Miles



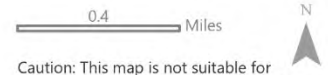
Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Map 18.8 Plan Designations, Russel Creek Subarea



- | | | |
|---|----------------------------|------------------------|
| Metro plan boundary | Industrial | Agriculture |
| Eugene UGB | Marginal | Airport reserve |
| Eugene urban reserves subarea boundaries | Natural resource: mineral | Forest land |
| Eugene urban reserves subarea boundaries | Natural resource: wildlife | Government & education |
| Rural comprehensive plan designation: Agriculture | Non resource | Parks and open space |
| Rural comprehensive plan designation: Airport | Parks | Rural commercial |
| Rural comprehensive plan designation: Commercial | Public facility | Rural industrial |
| Rural comprehensive plan designation: Forest | Residential | Rural residential |
| | | Sand and gravel |



Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.

Eugene Urban Reserves Serviceability Analysis

Preliminary Analysis of Orderly and Economic Provision of Public Facilities and Services

Background

The following is a preliminary assessment of providing an urban level of public services to the Urban Reserves study area. Each subarea includes a high-level narrative description of the serviceability of each subarea (easy, moderate or difficult), based on a qualitative assessment by service providers and staff. Also included is a generalized cost estimate, which represents preliminary estimates for the major components of the individual systems. Cost information is provided on a \$ to \$\$\$\$ scale, with one dollar sign (\$) denoting the least cost and five dollar signs (\$\$\$\$) denoting the greatest cost. The scale used for each type of utility or service varies and is not comparable to other utilities or services. For example, a \$ for wastewater does not equate to a \$ for transportation.

Input on serviceability within the study area was provided by Urban Reserves Service Provider Working Group members. Meetings were held with Eugene's urban service providers as well as the rural service providers who currently serve the study area. The following preliminary analysis mainly comes from current urban service providers because it is assumed that they would eventually expand their service area coverage into the areas in question if they were designated as Urban Reserves and eventually brought into the UGB and then the city limits.

The following agencies and departments have contributed to this serviceability analysis: Eugene Water and Electric Board (EWEB), City of Eugene Public Works (Wastewater, Stormwater, Transportation and Parks and Open Space divisions), Metropolitan Wastewater Management Commission, Eugene Springfield Fire and EMS, Lane Transit District, Lane County Land Management Division and Transportation Planning, and Oregon Department of Transportation.

Service providers only considered developable land within the study area when providing the following information on serviceability. This means that land identified as occupied or containing natural hazard or natural resource land, such as large swaths of floodplain to the north and wetlands to the west, is not being considered for this analysis. The Eugene Urban Reserves Study Subarea Reports (Exhibit F, Appendix 2, Attachments 1-18) utilized information from the Urban Reserves Serviceability Analysis Report to evaluate the orderly and economic provision of public facilities and services for each of the 18 subareas.

01. Game Farm Subarea

General Description

The Game Farm subarea is located to the northeast of Eugene adjacent to the UGB. It is bordered by I-5 to the east, North Game Farm Road to the south and west, and Coburg Road and the McKenzie River to the north. This area is primarily farmland and the floodplain covers most of the area. The only protected historic structure in the study area is located in this area near I-5. The subarea includes a small portion of Armitage park.



Orderly and Economic Provision of Public Facilities and Services

The following is a preliminary assessment of wastewater, water, fire protection, transportation, and stormwater serviceability:

Wastewater: Moderate to serve. The existing downstream wastewater system appears to have adequate capacity to serve the additional area. The area may require a lift station or small pump station. Generalized cost estimate for improvements is \$\$\$.

Water: Easy to serve. Pipeline connections to existing infrastructure would be required. Generalized cost estimate ranges from \$ to \$\$\$.

Fire Protection: Easy to moderate to serve. Given the current locations of the city fire stations and existing street network, there are minor response time/service delay concerns. The closest station to this area is in Springfield. Generalized cost estimate is \$-\$\$\$.

Transportation: Easy to moderate to serve. Coburg Road and North Game Farm Road are already built and likely do not need major upgrades for expansion. Any additional streets in this area would likely be driven by development and relatively easy to construct. Generalized cost estimate for improvements is \$\$.

Transit: Easy to moderate to serve. The flat topography makes this area easy to access. It may be challenging to create efficient service in the area given the relative isolation and need to deviate from existing routes. Lane Transit District is potentially planning capital investments in areas close to this. Given that these routes may have capital investment, it would be difficult to change routing if development occurred at a later date. There are currently bus routes to the south of this area within the UGB as well as one that runs on Coburg Road along the boundary of this area. Generalized cost estimate is \$\$.

Stormwater: Easy to serve. This area has relatively flat topography and is adjacent to the UGB making it potentially easy to access and extend services to. Additionally, the soils in the area are likely suitable for infiltration. Generalized cost estimate is \$.

Other Service Information

Parks: A small portion (approximately 5 acres) of Armitage Park (described in the previous section) extends from the McKenzie area into this area. Crescent Park is across North Game Farm Road.

Electric: EWEB provides electric service to the east side of I-5

Schools: This area is in the Eugene 4J school district.

Game Farm Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Moderate	Easy	Easy-Moderate	Easy-Moderate	Easy-Moderate	Easy
Generalized cost estimate	\$\$\$	\$-\$\$\$	\$-\$\$\$	\$\$	\$\$	\$

02. McKenzie Subarea

General Description

This area is located to the north of Eugene and is bounded by the McKenzie River on the north, the Willamette River on the west, Coburg Road on the east and the UGB to the south. This area is primarily used for sand and gravel mining operations. Most of the area is in the floodplain. Armitage Park is in the eastern corner of this area and is considered occupied land.



Orderly and Economic Provision of Public Facilities and Services

The following is a preliminary assessment of wastewater, water, fire protection, transportation, and stormwater serviceability:

Wastewater: Moderate to serve. The existing downstream wastewater system appears to have adequate capacity to serve the additional area. This area will likely require the construction of a pump station, which significantly increases the cost of serving the area. However, the existing wastewater network and the roads downstream would not be disrupted. Generalized cost for improvements is \$\$\$.

Water: Easy to serve. New pipeline connections to existing infrastructure would be required. Generalized cost estimate ranges from \$ to \$\$\$.

Fire Protection: Easy to moderate to serve. Given the current locations of the city fire stations and existing street network, there are minor response time/service delay concerns. Access to this area appears good, but response times would need to be modeled for additional details. Generalized cost estimate is \$-\$\$\$.

Transportation: Easy to moderate to serve. The 245 acres of buildable land border the UGB and are relatively close to Coburg Road. The topography is flat, making for good bicycle and pedestrian connections if the land within the UGB is urbanized as well. \$\$-\$\$\$?

Transit: Easy to moderate to serve. The flat topography makes this area easy to access. It may be challenging to create efficient service in the area given the relative isolation and need to deviate from existing routes. LTD is potentially planning capital investments in areas close to this. Given that these routes may have capital investment, it would be difficult to change routing if development occurred later. There are currently bus routes to the south of this area within the UGB as well as one that runs on Coburg Road along the boundary of this area. Generalized cost estimate is \$\$\$.

Stormwater: Easy to serve. This area has relatively flat topography and is adjacent to the UGB making it potentially easy to access and extend services to. Additionally, the soils are likely suitable for infiltration. Generalized cost estimate is \$.

Other Service Information

Parks: The 62-acre Armitage park is located in this area on the eastern boundary.

Electric: EWEB provides electric service to the majority of this area.

Schools: This area is in the Eugene 4J school district.

McKenzie Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Moderate	Easy	Easy-Moderate	Easy-Moderate	Easy-Moderate	Easy
Generalized cost estimate	\$\$\$	\$-\$\$\$	\$-\$\$\$	\$\$-\$\$\$	\$\$\$	\$

03. Beacon/ River Loop Subarea

General Description

This area is located to the north of Eugene and includes land to the east of the Willamette River and up to the UGB. This area extends to River Road to the west. Most of this area is within the Willamette River floodplain and contains natural resource and natural hazard land. There is plentiful public parkland in several places along the river: Lane County's 53-acre Hileman Landing Park and 1.5-acre Whiteley Landing Park, the City of Eugene's 6-acre River Loop Park, Oregon Park and Recreation District's 60-acre Beacon Landing, and two other public properties totaling approximately 19 acres.



Orderly and Economic Provision of Public Facilities and Services

The following is a preliminary assessment of wastewater, water, fire protection, transportation, and stormwater serviceability:

Wastewater: Difficult to serve. Although a portion of the area near Beacon Road can be served by the existing gravity system without an additional pump station, a new pump station will be required to serve the remainder of the area. Developing this area would require installing a force main to the wastewater treatment plant as the existing infrastructure will not support additional flows. The needed pump stations are not included in the City's Wastewater Master Plan (1992), and the regional Public Facilities and Services Plan (2001). A significant amount, approximately 8,600 feet, of downstream pipe is undersized to serve this area. Additionally, it should be anticipated that Spring Creek Pump Station will need expansion, and potentially some of the existing gravity lines. Constructing the infrastructure required to serve this area is costly because it will disrupt both the existing roadway and the downstream pipes. Generalized cost estimate for the City's share of improvements is \$\$\$\$\$.

Water: Moderate to serve. Distribution facilities are adjacent to these areas, but ownership of these facilities is predominately by Santa Clara Water District. Some upsizing of mains, both for distribution and transmission, would be required to provide adequate fire protection. Improvements to portions of the Santa Clara Water District infrastructure would need to be made to facilitate delivery to these areas. Extension of water service to the River Loop area shown is problematic because it does not provide an opportunity to have a looped distribution system which results in poor water quality and lower reliability to customers on a single feed system. In preparing the cost estimate, EWEB assumed that necessary new streets or easements would be granted to accommodate pipe and that permits to bore under the storm drainage ditch would be attainable. Generalized cost estimate for improvements is \$\$.

Fire Protection: Easy to moderate to serve. Given the proximity to the nearest city fire stations and existing street network, it appears response times to this area would be acceptable; however, water availability may be problematic given the existing water system deficiencies in the vicinity. Generalized cost estimate is \$-\$\$\$.

Transportation: Easy to moderate to serve. A new street connection might be needed if UGB is expanded in this area. Based on Lane County's Beaver-Hunsaker Corridor planning effort, it was assumed a new street connection was not needed because the UGB would not expand in this area. Several streets need multimodal improvements to serve all users safely. Generalized cost estimate for improvements is \$\$.

Transit: Easy to moderate to serve. This area is easy to access given topography and street connectivity. The area along Beacon Drive is close to the existing #51 Santa Clara route which travels along Spring Creek between

Scenic and River Road. Although this area would be technically easy to serve, there would be challenges in providing efficient service. Because of the location of the area adjacent to existing service, LTD would have to choose between serving one or the other, and in this case, the choice would most likely be to remain on the current routing. Generalized cost estimate is \$\$\$.

Stormwater: Easy to moderate to serve. Drainage from these areas would be to Spring Creek and the East Santa Clara Waterway (also called the Willamette Overflow). The capacity of these waterways north of the current UGB has not been evaluated. The flat topography and potential downstream capacity constraints make extending a more traditional piped stormwater service into the area moderately challenging. Projecting into the future a couple of years, the trajectory of the city’s stormwater development standards may be to limit (for new development) and reduce (for existing development) flow volumes to receiving streams because of the adverse water quality impacts, which means more on-site infiltration/retention and less flow directed off-site compared to traditional stormwater management. Sites in this area are likely suitable for on-site infiltration to reduce post-development runoff and protect downstream water quality. Generalized cost estimate for improvements is \$\$.

Other Service Information

Parks: This area contains several parks along the Willamette River. Lane County’s 53-acre Hileman Landing Park and 1.5-acre Whiteley Landing Park, the City of Eugene’s 6-acre River Loop Park, Oregon Park and Recreation District’s 60-acre Beacon Landing, and two other public properties totaling approximately 19 acres.

Electric: EWEB provides electrical service to the eastern portion of this area, and Emerald People’s Utility District (EPUD) provides service to the area north of Beacon Drive.

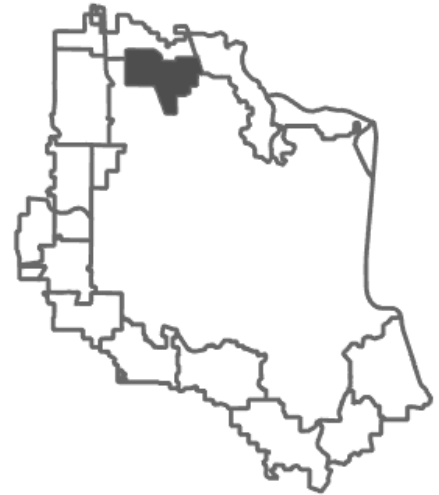
Schools: The majority of this area is in the Eugene 4J school district. The northern portion is in the Junction City school district.

Beacon/River Loop Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Difficult	Moderate	Easy-Moderate	Easy-Moderate	Easy-Moderate	Easy-Moderate
Generalized cost estimate	\$\$\$\$\$	\$\$	\$\$-\$\$\$	\$\$	\$\$\$	\$\$

04. Awbrey Subarea

General Description

This area is located to the north of Eugene and is adjacent to the UGB, and generally includes land around Prairie Road, the Union Pacific railroad corridor and Beacon Drive, west of River Road. North of it is the Highway 99 subarea and east is the Beacon/River Loop subarea. This area is flat and primarily used for agriculture. Almost all of the land in this area to the west of Northwest Expressway is owned by Metropolitan Wastewater Management Commission (MWMC) and is considered occupied. There is another property owned by MWMC in the northern portion of the area.



Orderly and Economic Provision of Public Facilities and Services

The following is a preliminary assessment of wastewater, water, fire protection, transportation, and stormwater serviceability:

Wastewater: Easy to serve. These areas can be served after construction of two new pump stations, which are planned for in the City's Wastewater Master Plan (1992), and the regional Public Facilities and Services Plan (2001). Because these pump stations are already included in the adopted plans, eventually expanding the UGB in this area would not result in any additional costs to the City. Additionally, the existing system likely will not have any capacity issues if this area is developed. Generalized cost estimate is \$.

Water: Easy to serve. EWEB service is already available adjacent to this area. Distribution and transmission systems would not have to be extended far to provide service. In preparing the cost estimate, EWEB assumed that permits to bore under the storm drainage channel on Awbrey Lane would be attainable. Generalized cost estimate for improvements is \$.

Fire Protection: Easy to moderate to serve. This area is currently served by Lane Fire Authority. Given the current locations of the city fire stations and existing street network, there may be response time/service delay concerns for emergency coverage. However, a detailed analysis may prove that the area could be served within existing capacity. Generalized cost estimate is \$-\$\$\$.

Transportation: Easy to serve. There are little to no traffic congestion concerns in this area, although there would be localized conditions to address such as reliance on unimproved roadways, the heavy mix of truck traffic and a lack of connectivity. Generalized cost estimate for improvements is \$.

Transit: Moderate to serve. Easy to access given topography and street connectivity; however, challenging to provide efficient service given isolated location from other routes and areas of higher levels of density. There are no existing routes in the immediate vicinity. The nearest route is to Junction City along Highway 99 and a deviation to serve the Awbrey area is unlikely given the prospects of the new Oregon State hospital site to the north, which would most likely be a higher priority deviation of the existing route. Generalized cost estimate is \$\$.

Stormwater: Easy to moderate to serve. Drainage from these areas would be to tributaries of Amazon Creek. Roadside ditches and pipe segments to receiving waterways exist, and their capacity would need to be evaluated. This subarea is close to existing systems, which makes extending service easy as long as the system

capacity either exists or can be increased. Stormwater development standards would need to be met for pollution reduction, and potentially flow controls which could present moderate challenges depending on soil types and space constraints. The entire area falls within the Junction City Water Control District and stormwater flood control requirements would need to be extended into this area. Generalized cost estimate for improvements is \$\$.

Other Service Information

Parks: There are no parks in this subarea.

Electric: EWEB provides service to a portion of the area, and the remainder of the area is served by EPUD.

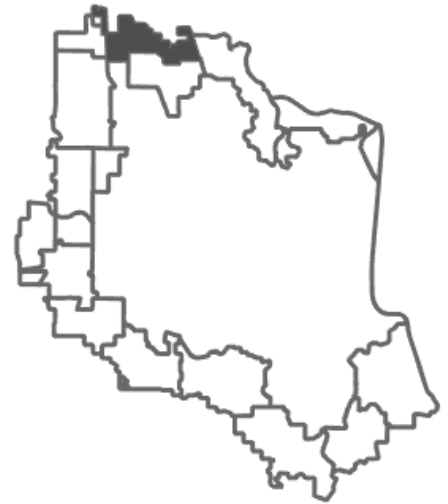
Schools: The southern portion of this area is in the Bethel School District and the northern portion is in the Junction City School District.

Awbrey Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Easy	Easy	Easy-Moderate	Easy	Moderate	Easy-Moderate
Generalized cost estimate	\$	\$	\$-\$\$\$	\$	\$\$	\$\$

05. Highway 99 Subarea

General Description

This area is located to the north of Eugene and extends from west of Highway 99 on its northern edge to River Road to the east. It includes land on both sides of Prairie Rd. The land in the subarea also surrounds the Junction City UGB on three sides where adjacent to Highway 99. This area is flat and primarily used for agriculture.



Orderly and Economic Provision of Public Facilities and Services

The following is a preliminary assessment of wastewater, water, fire protection, transportation, and stormwater serviceability:

Wastewater: Moderate to serve. Developing this area would cause minimal disruption to existing wastewater network and roads downstream; only a relatively small amount of the downstream piping is not large enough. However, a new pump station would likely need to be built to serve the area, which would be costly to design and construct. Generalized cost estimate is \$\$\$\$.

Water: Easy to moderate to serve. This is because distribution and transmission systems would have to be extended from incorporated areas within the UGB to provide service. Due to the flat topography, this can be done relatively efficiently along River Road, Prairie Road and Highway 99. There are no east-west roadways through the entire subarea; that and the existence of the Junction City UGB and two railroad corridors make east-west utility connections more complicated and costly. Generalized cost estimate is \$\$.

Fire Protection: Moderate to serve. This area is currently served by Lane Fire Authority. Given the current locations of the city fire stations and existing street network, there are response time/service delay concerns for truck coverage. There are also water supply issues. Generalized cost estimate is \$\$-\$\$\$.

Transportation: Easy to serve. This subarea has easy access to Highway 99 and Prairie Road, which serve as connections to Eugene and the regional network. Generalized cost estimate is \$.

Transit: Moderate to serve. The flat topography makes this subarea easy to access. It may be challenging to create efficient service in the area given the relative isolation and need to deviate from existing routes. The closest current route is on Highway 99 to Junction City and is separated from most of the developable land in this subarea. Deviating this route would also make service less efficient. Generalized cost estimate is \$\$.

Stormwater: Easy to moderate to serve. This subarea has flat topography and the soils are likely suitable for stormwater infiltration. Individual development sites are likely suitable for on-site infiltration to reduce post-development runoff and protect downstream water quality. If on-site detention is not feasible, neighborhood or regional detention facilities may be necessary, which would make the ease to serve this area 'moderate.' Some degree of a stormwater system exists already which would need to be evaluated for capacity and need for improvements. Generalized cost of improvements is \$\$.

Other Service Information

Parks: There are no parks in this subarea.

Electric: A portion of this area is served by Blachly-Lane Electric.

Schools: This subarea is within the Bethel School District.

Highway 99 Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Moderate	Moderate	Moderate	Moderate	Moderate	Easy-Moderate
Generalized cost estimate	\$\$\$\$	\$\$	\$\$-\$\$\$	\$\$	\$\$\$	\$\$

06. Airport North Subarea

General Description

This area is located directly north of the airport and is not contiguous to the UGB. This area is bordered on the east by Highway 99, and Meadowview Road is the approximate northern boundary. The land in this area is flat and used for agriculture. Several smaller channels run through this area and include floodplain. The following serviceability input is based on the assumption that Highway 99 subarea would develop as well.



Orderly and Economic Provision of Public Facilities and Services

The following is a preliminary assessment of wastewater, water, fire protection, transportation, and stormwater serviceability:

Wastewater: Difficult to serve. This area has significant downstream capacity issues. The downstream pump station should be evaluated for capacity and there is about 7000' of pipe, including a force main, that is undersized to handle expansion in this area. Furthermore, an additional pump station will likely need to be constructed to serve this subarea. Generalized cost estimate is \$\$\$\$.

Water: Easy to serve. EWEB service is already available adjacent to area. Distribution and transmission systems would have to be extended to provide service. In preparing the cost estimate, EWEB assumed that permits to bore under the storm drainage channel on Awbrey Lane would be attainable. Generalized cost estimate for improvements is \$.

Fire Protection: Moderate to serve. This area is currently served by Lane Fire Authority. Given the current locations of the city fire stations and existing street network, there are response time/service delay concerns for truck coverage. The airport fire station does not provide coverage to surrounding areas. Generalized cost estimate is \$\$-\$\$\$.

Transportation: Easy to serve. There are capacity issues with Greenhill Road, but not for the portion that is this far north. Highway 99 is close by and provides an important connection to downtown. Generalized cost estimate is \$.

Transit: Moderate to serve. This area is easy to access given topography. It may be challenging to create efficient service in the area given the relative isolation and need to deviate from existing routes. Route 95 is the closest route and deviation would likely make this service less efficient. Generalized cost estimate is \$\$\$.

Stormwater: Easy to moderate to serve. This area has flat topography and the soils are likely suitable for infiltration. Some degree of a stormwater system exists already which would need to be evaluated for capacity and need for improvements. The individual development sites are likely suitable for on-site infiltration to reduce post-development runoff and protect downstream water quality. If on-site detention is not feasible, neighborhood or regional detention facilities may be necessary, which would make the ease to serve this area 'moderate.' The applicability of Junction City Water Control District flood control requirements would need to be extended into this area. Generalized cost estimate for improvements is \$\$.

Other Service Information

Parks: There are no parks in this subarea.

Electric: Pacific Power and Light provides service to a portion of this area.

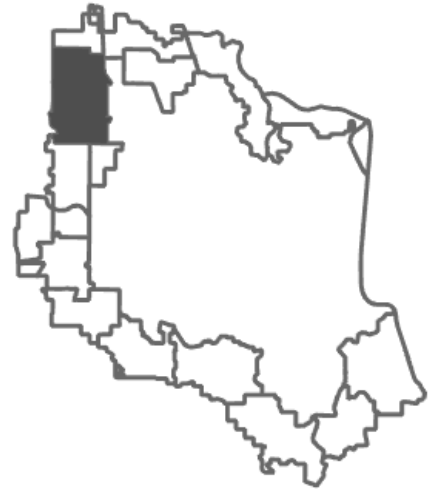
Schools: This subarea is within the Junction City School District.

Airport North Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Difficult	Easy	Moderate	Easy	Moderate	Easy-Moderate
Generalized cost estimate	\$\$\$\$	\$	\$\$-\$\$\$	\$	\$\$\$	\$\$

07. Airport Subarea

General Description

This area is located to the northwest of Eugene. It is contiguous to the UGB. It includes land immediately north of the Eugene airport, south of Meadowview Road and west of Highway 99. Most of the subarea is south of Meadowview Road, but it also includes a small portion of land north of Meadowview Road around Green Hill Road. The subarea is approximately equidistant to downtown Eugene and downtown Junction City, as the crow flies.



Orderly and Economic Provision of Public Facilities and Services

The following is a preliminary assessment of wastewater, water, fire protection, transportation, and stormwater serviceability:

Wastewater: Difficult to serve. This area has significant downstream capacity issues. The downstream pump station should be evaluated for capacity and there is about 7000' of pipe, including a force main, that is undersized to handle expansion in this area. Furthermore, an additional pump station will likely need to be constructed to serve this subarea. Generalized cost estimate is \$\$\$\$\$.

Water: Easy to serve. EWEB service is already available adjacent to area. Distribution and transmission systems would have to be extended to provide service. In preparing the cost estimate, EWEB assumed that permits to bore under the storm drainage channel on Awbrey Lane would be attainable. Generalized cost estimate for improvements is \$.

Fire Protection: Moderate to serve. This area is currently served by Lane Fire Authority. Given the current locations of the city fire stations and existing street network, there are response time/service delay concerns for truck coverage. The airport fire station does not provide coverage to surrounding areas. Generalized cost estimate is \$\$-\$\$\$.

Transportation: Easy to serve. There are capacity issues with Greenhill Road, but not for the portion that is this far north. Highway 99 is close by and provides an important connection to downtown. Generalized cost estimate is \$.

Transit: Moderate to serve. This area is easy to access given topography. It may be challenging to create efficient service in the area given the relative isolation and need to deviate from existing routes. Route 95 is the closest route and deviation would likely make this service less efficient. Generalized cost estimate is \$\$\$.

Stormwater: Easy to moderate to serve. This area has flat topography and the soils are likely suitable for infiltration. Some degree of a stormwater system exists already which would need to be evaluated for capacity and need for improvements. The individual development sites are likely suitable for on-site infiltration to reduce post-development runoff and protect downstream water quality. If on-site detention is not feasible, neighborhood or regional detention facilities may be necessary, which would make the ease to serve this area 'moderate.' The applicability of Junction City Water Control District flood control requirements would need to be extended into this area. Generalized cost estimate for improvements is \$\$.

Other Service Information

Parks: There are no parks in this subarea.

Electric: Pacific Power and Light provides service to a portion of this area.

Schools: This subarea is within the Junction City School District.

Airport Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Difficult	Easy	Moderate	Easy	Moderate	Easy-Moderate
Generalized cost estimate	\$\$\$\$\$	\$	\$\$-\$\$\$	\$	\$\$\$	\$\$

08. Clear Lake Subarea

General Description

This area is to the northwest of Eugene and is bordered by Clear Lake Road to the north, Barger Drive to the south, Green Hill Road to the west and the UGB along its eastern edge. This area is currently used for agriculture.

Orderly and Economic Provision of Public Facilities and Services

The following is a preliminary assessment of wastewater, water, fire protection, transportation, and stormwater serviceability:

Wastewater: Moderate to serve. Only a minimal amount of downstream pipe is undersized to serve the area. However, development of this area will likely require the construction of a pump station. Generalized cost estimate is \$\$\$.

Water: Easy to serve. EWEB service is already available adjacent to area. Distribution/ Transmission systems would have to be extended to provide service. In preparing the cost estimate, EWEB assumed that permits would be attainable. Generalized cost estimate for improvements is \$.

Fire Protection: Easy to moderate to serve. Lane Fire Authority currently provides service to this area. Given the proximity to the nearest city fire stations and existing street network, it appears response times to this area would be acceptable. Generalized cost estimate is \$-\$\$\$.

Transportation: Easy to serve. There are no significant transportation concerns within the subarea. The only potential concerns are related to where traffic from this area will go, specifically if they will use streets in the existing system that already have capacity issues. Generalized cost estimate for improvements is \$.

Transit: Moderate to serve. The flat topography makes this area easy to access. It may be challenging to create efficient service in the area given the relative isolation and need to deviate from existing routes. Route 95 and Route 41 are the closest routes and deviation would likely make this service less efficient. Generalized cost estimate is \$\$\$.

Stormwater: Easy to moderate to serve. Drainage from these areas would be to tributaries of Amazon Creek. Roadside ditches and pipe segments to receiving waterways exist, and their capacity would need to be evaluated. The flat topography and soils are less conducive to in-site infiltration, but it would still be desirable to employ green infrastructure wherever possible. The capacity of the downstream system requires further evaluation but appears to be good. Stormwater development standards would need to be met for pollution reduction, and potentially flow controls which could present moderate challenges depending on soil types and space constraints. The applicability of Junction City Water Control District flood control requirements would need to be extended into this area. Generalized cost estimate for improvements is \$\$.



Other Service Information

Parks: There are no parks in this area. The nearest parks are all inside the UGB in the Bethel neighborhood, such as Golden Gardens Park and Bethel Community Park.

Electric: EWEB provides electric service to a portion of this area.

Schools: This area is in the Bethel School District. Bethel School district owns 20 acres of land adjacent to Clear Lake Road and the UGB.

Clear Lake Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Moderate	Easy	Easy-Moderate	Easy	Moderate	Easy-Moderate
Generalized cost estimate	\$\$\$	\$	\$-\$\$\$	\$	\$\$\$	\$\$

09. Airport South Subarea

General Description

This area is located south of the Eugene Airport at Clear Lake Road, west of Eugene. The subarea is contiguous to the UGB at its southern eastern boundary, at Barger and Green Hill Road. The Clear Lake subarea is directly to the east, along Clear Lake Road. The southern boundary of the subarea is the Amazon Diversion Channel. This area is primarily used for agriculture and floodplain from the Amazon channel covers most of this area.



Orderly and Economic Provision of Public Facilities and Services

The following is a preliminary assessment of wastewater, water, fire protection, transportation, and stormwater serviceability:

Wastewater: Moderate to serve. Only a minimal amount of downstream pipe is undersized to serve the area. However, development of this area will likely require the construction of a pump station, which increases the cost of extending services. Generalized cost estimate is \$\$\$.

Water: Easy to serve. EWEB service is already available adjacent to this area. Distribution and transmission systems would have to be extended only a short distance to provide service. Generalized cost estimate for improvements is \$.

Fire Protection: Moderate to serve. Lane Fire Authority currently provides service to most of this area, except for a southern portion served by Zumwalt Rural Fire Protection District. Given the current locations of the city fire stations and existing street network, there may be response time/service delay concerns for truck coverage. The airport fire station does not provide coverage to surrounding areas. Generalized cost estimate is \$\$-\$\$\$.

Transportation: Easy to serve. There are no significant transportation concerns within the subarea. The only potential concerns are related to where traffic from this area will go, specifically if they will use streets in the existing system that already have capacity issues. Generalized cost estimate for improvements is \$.

Transit: Moderate to serve. Easy to access given topography. It may be challenging to create efficient service in the area given the relative isolation and need to deviate from existing routes. Route 95 is the closest route and deviation would likely make this service less efficient. Generalized cost estimate is \$\$\$.

Stormwater: Easy to moderate to serve. The portion of this subarea that is not in the floodplain has flat topography and soils that appear suitable for infiltration. Some degree of a stormwater system already exists in the area and would need to be further evaluated for capacity and needed improvements. The applicability of Junction City Water Control District flood control requirements would need to be extended into this area. Generalized cost estimate for improvements is \$\$.

Other Service Information

Parks: There are no parks within this subarea. The 18-acre Fir Butte property is outside of this subarea and adjacent to it on the southwest.

Electric: EWEB provides electric service to a portion of this area.

Schools: This subarea is within the Bethel School District.

Airport South Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized Serviceability	Moderate	Easy	Moderate	Easy	Moderate	Easy-Moderate
Generalized cost estimate	\$\$\$	\$	\$\$-\$\$\$	\$	\$\$\$	\$\$

10. Royal Subarea

General Description

This area is to the west of Eugene and includes land on both sides of Royal Avenue. The southern boundary of this area is the edge of Oak Hill park and the northern boundary is the Amazon Creek diversion channel that goes to Fern Ridge reservoir. Green Hill Road and the current UGB are the eastern boundary of this area. This area has relatively flat topography. A Bonneville Power Administration easement goes through this area and there is some protected floodplain in the northern portion of this area, as well as scattered wetlands.



Orderly and Economic Provision of Public Facilities and Services

The following is a preliminary assessment of wastewater, water, fire protection, transportation, and stormwater serviceability:

Wastewater: Moderate to serve. Although over half of the area could be served by gravity, a pump station and force main will need to be constructed to serve the remaining area. The trunk line running down Royal Avenue will need to be a 10-inch pipe. There is adequate pump station capacity. The existing downstream system would not have any capacity issues if this subarea was developed. Generalized cost estimate for the City's share of improvements \$\$\$.

Water: Moderate to serve. Distribution pipelines would be needed. Extension of water service to this subarea is problematic because it does not provide an opportunity to have a looped distribution system which results in poor water quality and lower reliability to customers on a single feed system. Pressure could be an issue here as some of this area is located on an elevated butte. Pumping facilities may be required and/or oversizing facilities to reduce friction loss in pipelines. In preparing this estimate, EWEB assumed that permits to bore under the storm drainage ditch on Royal Avenue would be attainable. Most of the land in this subarea is below 500' elevation, so pressure should be adequate and no new pumping stations are required. Generalized cost estimate for improvements is \$\$.

Fire Protection: Easy to moderate to serve. Zumwalt Rural Fire Protection District currently provides service to this area. Given the distance from the nearest city fire stations and existing street network, it appears response times to this area would be acceptable. Generalized cost estimate is \$-\$\$\$.

Transportation: Moderate to serve. Existing intersection deficiencies include Beltline at Roosevelt Boulevard and Beltline at West 11th Avenue. There are projected corridor constraints identified on West 11th Avenue and Roosevelt Boulevard near Beltline. There are programmed but unfunded projects to improve Royal Avenue between Terry Street and Green Hill Road to urban standards and the future project to extend Roosevelt Boulevard from Terry Street to Royal Avenue could facilitate development in this area. Generalized cost estimate for improvements is \$\$\$.

Transit: Moderate to serve. Easy to access given the topography and street connectivity; however, challenging to provide efficient service given isolated location from other routes and areas of higher levels of density. There are no existing routes in the immediate vicinity. We would need to deviate an existing route, and this may cause us to add lots of service in an unproductive area. Generalized cost estimate is \$\$\$.

Stormwater: Easy to moderate to serve. Drainage from this area would be to Amazon Creek. Roadside ditches along Green Hill Road exist and could be enhanced in conjunction with future street improvements. Given that informal systems, like roadside ditches and swales, already exist to convey runoff and this subarea is relatively close to the receiving waterway, extending stormwater service could be easy as long as there is adequate capacity. Stormwater development standards would need to be met for pollution reduction, and potentially flow controls which could present moderate challenges since soils are likely to be less suitable for infiltration. Generalized cost estimate for improvements is \$.

Other Service Information

Parks: This subarea does not contain any parks but has lots of park land surrounding it. The southern boundary is Oak Hill park, which is described under the W. 11th/Greenhill subarea. The eastern boundary, immediately inside the UGB, is the 404-acre Meadowlark Prairie. The northern boundary is the Greenhill to Fern Ridge waterway connection, which has a small buffer of Parks and Open Space-owned land around it.

Electric: EWEB provides electric service to this subarea.

Schools: The portion of this subarea south of Royal Avenue is in the Eugene 4J School District and the portion north of Royal Avenue is in the Bethel School District.

Royal Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Moderate	Moderate	Easy-Moderate	Moderate	Moderate	Easy-Moderate
Generalized cost estimate	\$\$\$	\$\$	\$-\$\$\$	\$\$\$	\$\$\$	\$

11. Fisher Road Subarea

General Description

This area is located west of the Royal subarea and the W 11th/Greenhill subarea and is not adjacent to the UGB. The Fisher subarea extends just south of Highway 126 and the northern boundary is the Amazon diversion channel. Fern Ridge reservoir is located to the west of this area and the western boundary is the Fern Ridge wildlife area. The subarea is primarily used for agriculture with some forest land and rural residential development. This includes the Oak Hill cemetery as well as scattered wetlands and an area of steep slope. The following serviceability input is based on the assumption that the W 11th/Greenhill and Royal subareas would develop as well.



Orderly and Economic Provision of Public Facilities and Services

The following is a preliminary assessment of wastewater, water, fire protection, transportation, and stormwater serviceability:

Wastewater: Moderate to serve. The downstream pipes have enough capacity to accommodate the wastewater load that development in this subarea would generate, so downstream upgrades are not needed. A pump station would need to be constructed to serve this subarea, or the pump station anticipated for the W 11th/Greenhill subarea would need to be larger and deeper. Either way, this will result in an additional pump station cost. Generalized cost estimate for the City's share of improvements is \$\$\$.

Water: Moderate to serve. Distribution pipelines would be needed. The extension of water service to this subarea provides an opportunity to have a large looped distribution system extending from the Royal and West 11th/Greenhill subareas (Greenhill Rd/Royal Ave/Fisher Rd/Hwy 126). This would assume land in the Royal and West 11th/Greenhill subareas would urbanize first. Most of the land in this subarea is below 500' elevation, so pressure will be adequate and no new pumping stations are required. Generalized cost estimate is \$\$.

Fire Protection: Easy to moderate to serve. Fire protection is currently provided by Zumwalt Rural Fire Protection District, who contracts with Eugene-Springfield Fire Department for fire protection. Given the proximity to the nearest city fire stations and existing street network, it appears response times to this area would be acceptable. Generalized cost estimate is \$-\$\$\$.

Transportation: Moderate to serve. Easy to access given topography and street connectivity. The flat topography makes this area well suited for multimodal transportation, but improvements such as sidewalks and bike lanes would need to be made to accommodate all users, particularly on Royal Ave and W 11th/Hwy 126. There is a programmed but unfunded project to improve Royal Avenue between Terry Street and Green Hill Road to urban standards, which would improve connectivity between the Fisher subarea and the current UGB. Development of this area may exacerbate identified capacity constraints and congestion on W 11th Ave. Based on input received on the W 11th/Greenhill and Royal subareas, generalized cost estimate is \$\$\$.

Transit: Moderate to serve. Easy to access given topography and street connectivity. EmX West is the closest route to this area. Deviating the Bus Rapid Transit system is not feasible at this time but may be possible in over 20 years if development continues to push out past the transit line. The area could be served by some type of

connector route, or through deviating an existing route, however, this would be challenging to do efficiently given isolated location from other routes and areas of higher levels of density. Generalized cost estimate is \$\$\$.

Stormwater: Moderate to serve. Drainage from this area would be to Amazon Creek. Given that the subarea is relatively close to the receiving waterway, extending stormwater service could be easy as long as there is adequate capacity. The existing stormwater system, composed of roadside ditches and along West 11th Avenue, would need to be evaluated for capacity. Soils in this subarea appear less suitable for infiltration, making onsite stormwater management more difficult. Generalized cost estimate is \$\$.

Other Service Information

Parks: There is no dedicated park property within this subarea. The Seesil property, owned by the BLM, is adjacent to this subarea to the northwest. Oak Hill Park, in the W 11th/Greenhill subarea, is also adjacent to the Fisher subarea.

Electric: EWEB provides electric service to the majority of this subarea.

Schools: This subarea is located within the Eugene 4J School District.

Fisher Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Moderate	Moderate	Easy-Moderate	Moderate	Moderate	Moderate
Generalized cost estimate	\$\$\$	\$\$	\$-\$\$\$	\$\$\$	\$\$\$	\$\$

12. W. 11th/ Greenhill Subarea

General Description

This area is located to the west of Eugene adjacent to the UGB and generally includes land around West 11th Avenue/Highway 126. Green Hill Road demarcates the edge of the UGB and is the eastern boundary of this subarea. Beyond it is the Crow subarea to the south, the Fisher subarea to the west, and the Royal subarea to the north. Oak Hill Park, a Bonneville Power Administration substation and an Oregon Department of Transportation wetland mitigation bank are within the subarea.



Orderly and Economic Provision of Public Facilities and Services

The following is a preliminary assessment of wastewater, water, fire protection, transportation, and stormwater serviceability:

Wastewater: Moderate to serve. The existing downstream system has no capacity issues if this area is developed. The expansion of the system into this subarea will likely require construction of a pump station outside of the current UGB, which increases the cost of serving this area. Generalized cost estimate for improvements is \$\$\$.

Water: Moderate to difficult to serve. Additional water storage and pumping capacity will be necessary. Most of this expense is due to the need for new pumping and storage facilities for the land in the southern portion of the subarea; however, there is some potential for cost savings if service was extended to the Crow, Royal and Fisher subareas as well if there are adequate roads and connections between them, such as a large loop system. However, if there were not adequate connections, each area would need its own pump station and reservoir. Water distribution and transmission facilities need to be sited in road right-of-ways and, therefore, expansion areas should take this into account and provide a clear means to bring delivery into a new area with a minimum of two separate routes. EWEB also owns property for water storage on Cantrell Road immediately adjacent to the subarea in the Crow subarea that is beneficial for water provision in the area. Generalized cost estimate for improvements is \$\$\$.

Fire Protection: Easy to moderate to serve. Fire protection is currently provided by Zumwalt Rural Fire Protection District. Given the proximity to the nearest city fire stations and existing street network, it appears response times to this area would be acceptable. There are possible fire flow/water supply concerns, per EWEB. Generalized cost estimate is \$-\$\$\$.

Transportation: Moderate to serve. There are projected capacity and congestion concerns with West 11th Avenue, which runs through this subarea and is the primary connection to downtown Eugene. Generalized cost estimate is \$\$\$.

Transit: Moderate to serve. EmX West is the closest route to this area. Deviating the Bus Rapid Transit system is not feasible at this time but may be possible in over 20 years if development continues to push out past the transit line. The area could be served by some type of connector route, or through deviating an existing route, however, this would be challenging to do efficiently. Generalized cost estimate is \$\$\$.

Stormwater: Moderate to serve. Flow controls would be needed in headwaters areas (over 500 ft in elevation). The soils in the flatter parts of this subarea are less conducive to infiltration. The existing stormwater system, composed of roadside ditches and along West 11th Avenue, would need to be evaluated for capacity. Detention facilities may be needed. Generalized cost estimate is \$\$.

Other Service Information

Parks: The northern boundary of this subarea is the 193-acre Oak Hill park.

Electric: EWEB provides electric service to this subarea.

Schools: This subarea is located within the Eugene 4J School District.

West 11th/Greenhill Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Moderate	Moderate-Difficult	Easy to Moderate	Moderate	Moderate	Moderate
Generalized cost estimate	\$\$\$	\$\$\$	\$-\$\$\$	\$\$\$	\$\$\$	\$\$

13. Crow Subarea

General Description

This area is to the southwest of Eugene and includes land around Willow Creek Road, which turns north and becomes Green Hill Road. Crow Road runs through the western portion of this area. Agricultural land is mostly along Crow Road in the southwest portion of the study area. The land in the subarea includes Townsend Woods, a park owned by the City of Eugene on Greenhill Road, and utility land owned by EWEB on Cantrell Road



Orderly and Economic Provision of Public Facilities and Services

The following is a preliminary assessment of wastewater, water, fire protection, transportation, and stormwater serviceability:

Wastewater: Easy to serve. There are no capacity issues, and all of the areas can be served by gravity wastewater to the existing system. The current master plan requires that the wastewater line in Green Hill Road at Terry Street be extended to the UGB, therefore adding these areas to the UGB would have little to no increased cost to the City. No new pump stations would need to be built, which makes the subarea easier to serve. There is about 6500 feet of downstream pipe that may have moderate capacity issues and require additional capacity, which would need to be examined if this area was eventually considered for UGB expansion. Generalized cost estimate for the City's share of improvements is \$\$.

Water: Difficult to serve. Additional water storage and pumping capacity are necessary assuming that any of the elevations in this subarea are above 500 feet. The distribution system would have to be looped from Willow Creek Road area out to Highway 126. Water distribution and transmission facilities need to be sited in road right-of-ways and, therefore, expansion areas should take this into account and provide a clear means to bring delivery into a new area with a minimum of two separate routes. In preparing this cost estimate, EWEB assumed that three separate pressure zones would be required to serve the area, one reservoir and two pump stations would be required, and property would have to be purchased at two sites. Generalized cost estimate for improvements is \$\$\$.

Fire Protection: Moderate to difficult to serve. There are response time/service delay concerns in the areas farther from the UGB, due to the topography and existing street system. This includes configuration, grade, widths, traffic calming and street connectivity. Also, there is potential wildfire risk due to wildland urban interface conditions, and water supply/fire flow concerns. Generalized cost estimate is \$\$\$-\$\$\$\$.

Transportation: Moderate to serve. There are projected capacity and congestion concerns on West 11th Avenue, and possibly along portions of West 18th Avenue, which would serve as the main connections to downtown Eugene. Generalized cost estimate for improvements is \$\$\$.

Transit: Moderate to serve. EmX West is the closest route to this area. Deviating our Bus Rapid Transit system is not feasible at this time. The area could be served by some type of connector route, or through deviating an existing route, however, this would be challenging to do efficiently. Generalized cost estimate is \$\$\$.

Stormwater: Moderate to difficult to serve. About half of this subarea eventually drains to Amazon Creek (via tributaries along Crow Road to the Green Hill Road roadside ditch and via Willow Creek Road west branch

tributaries, respectively). Capacity of the tributaries has not been evaluated in the City’s stormwater basin planning. Capacity of the west branch of Willow Creek was evaluated using 1998 Metro Plan land use designations (i.e. rural residential); some capacity constraints were identified, mainly private driveway culverts along Willow Creek Road. There is also a portion of the subarea that drains to the southwest to Coyote Creek and this area has not been evaluated for capacity and water quality considerations. Any sites over 500 feet in elevation would be in the “headwaters area” and would need to meet current headwater flow control requirements (i.e. maintaining peak flows at pre-development rates). Soils are likely to be less suitable for infiltration, making meeting the current flow control requirements moderately challenging. Flow controls would be needed for steep-sloped areas. There is a potential need for detention facilities due to steep slopes and hydric soils. Stormwater development standards would need to be met also for pollution reduction, and potentially expanded future flow control requirements. Generalized cost estimate for improvements is \$\$.

Other Service Information

Parks: This area contains the 34-acres Townsend Woods park.

Electric: Lane Electric Cooperative currently provides service to most of this area. EWEB already provides electric service to the northern portion of this area.

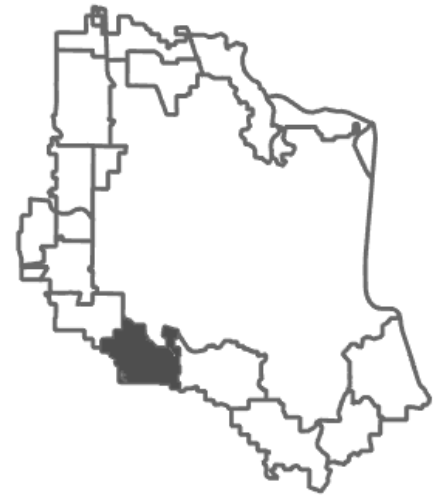
Schools: This area is located within the Eugene 4J School District.

Crow Road						
Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Easy	Difficult	Moderate-Difficult	Moderate	Moderate	Moderate-Difficult
Generalized cost estimate	\$\$	\$\$\$	\$\$\$-\$\$\$\$\$	\$\$\$	\$\$\$	\$\$\$

14. Bailey/ Gimpl Hill Subarea

General Description

This area is located to the southwest of Eugene and contains the land around Bailey Hill Road and Gimpl Hill Road. The Nature Conservancy owns a large property on the northern boundary of this area adjacent to the UGB that is recognized as a protected natural area. Next to the Nature Conservancy property is the City of Eugene's Murray Hill Park. The area is heavily forested with steep slopes and high-risk landslide areas scattered throughout and concentrated in the southwest corner.



Orderly and Economic Provision of Public Facilities and Services

The following is a preliminary assessment of wastewater, water, fire protection, transportation, and stormwater serviceability:

Wastewater: Difficult to serve. The adjacent residential area within the UGB does not currently have wastewater service. This area must be served before the subarea, which will require a pump station placed in the low point, and a force main constructed up Bailey Hill Road to the existing gravity system at the top of the hill. The estimated cost for serving the area currently inside the UGB is \$2,500,000, which does not include any needed property acquisition. This new pump station is not listed in the Public Facilities and Services Plan. The existing wastewater system does not appear to have capacity to serve this subarea. The main in Bertelson Rd will need to be expanded to carry additional load, requiring about 6300 feet of new pipe. Generalized cost estimate for the City's share of improvements is \$\$\$\$.

Water: Moderate to serve. Additional water storage and pumping capacity is necessary. Extension of water service to this area is problematic because it does not provide an opportunity to have a looped distribution system which results in poor water quality and lower reliability to customers on a single feed system. To get infrastructure to new expansion areas, infrastructure has to be extended from the current city limits (or the nearest place where capacity exists to extend) to the expansion area regardless of development that may or may not occur within the current UGB. EWEB is not able to split these costs apart. In preparing the cost estimate, EWEB assumed that water service would not be provided to property located 700 feet above Mean Sea Level, that looping would be accommodated with an easement or new street between Gimpl Hill Road and Bailey Hill Road, and that property is obtainable for a reservoir site (<\$150,000) and a pump station site (<\$150,000). Bringing service to this subarea requires going around the Willow Creek natural area that is located within the UGB, which does not need to be served, which increases the cost of improvements. Generalized cost estimate for improvements to serve both the expansion area and the adjacent area inside the current UGB is \$\$\$\$.

Fire Protection: Moderate to serve. The majority of this area is currently served by the Bailey-Spencer Rural Fire Protection District, except for a portion in the northwest that is served by Zumwalt Rural Fire Protection District. Given the proximity to nearest city fire stations, it appears response times to this area would be acceptable; however, there are wildland urban interface conditions and water supply/fire flow concerns per EWEB. Generalized cost estimate is \$\$-\$\$\$.

Transportation: Moderate to difficult to serve. There are capacity and congestion concerns at both West 11th and West 18th Avenue, as well as along Bailey Hill Road between West 11th Avenue and West 18th Avenue.

These areas of concern are within the UGB but serve as the main connections from this subarea. Generalized cost estimate for improvements is \$\$\$\$.

Transit: Moderate to serve. There is moderate access to this area given the topography and street connectivity. However, it is challenging to provide efficient transit service to areas such as this that are isolated from both other routes and areas of dense development. There are no existing routes in the immediate vicinity and the nearest route is on West 18th Avenue at Bertelsen Road and Bailey Hill Road. Generalized cost estimate is \$\$\$.

Stormwater: Moderate to difficult to serve. Approximately half of this area drains to Willow Creek/Amazon Creek. Capacity of the east branch of Willow Creek was evaluated using 1998 Metro Plan land use designations (rural residential), and one culvert deficiency was identified. Any sites over 500 feet in elevation would be in the “headwaters area” and would need to meet current headwater flow control requirements (i.e. maintaining peak flows at pre-development rates). Soils are likely to be less suitable for infiltration, making meeting the current flow control requirements moderately challenging. Stormwater development standards would need to be met for pollution reduction, and potentially expanded flow control requirements. The other portion of this subarea drains to the southwest to Spencer Creek and has not been evaluated for capacity and water quality considerations. Flow controls would be needed for steep-sloped areas. There is a potential need for detention facilities due to steep slopes and hydric soils. Generalized cost estimate for improvements is \$\$\$.

Other Service Information

Parks: This area contains a number of park lands. The 526-acre Willow Creek natural area is mostly inside the UGB but extends into this subarea. Within the Crow subarea and adjacent to Willow Creek is the 77-acre Murray Hill Park. The 13-acre Baily Hill park is adjacent to Baily Hill Road in the east portion of the subarea. Gimpl Ridge park is two separate pockets, 15 acres total, that are part of the ridgeline parks system.

Electric: Lane Electric Cooperative provides electrical service to the majority of this area with EWEB serving the remaining area.

Schools: This subarea is completely within the Eugene 4J School District.

Bailey/Gimpl Hill Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Difficult	Moderate	Moderate	Moderate-Difficult	Moderate	Moderate-Difficult
Generalized cost estimate	\$\$\$\$\$	\$\$\$\$	\$\$-\$\$\$	\$\$\$\$	\$\$\$	\$\$\$

15. Crest/ Chambers Subarea

General Description

This area is located to the south of Eugene. It includes the land on both sides of Crest Drive, which turns into Lorane Highway. There is mostly rural residential development adjacent to the UGB and along Crest Drive and Blanton Road. The 250-acre city-owned Wild Iris Ridge Park is included in the subarea on its northwestern edge and the 193-acre city-owned South Eugene Meadows Park is included in the subarea on its southeastern edge. There is a Bonneville Power Administration easement which runs through the southern portion of the area.



Orderly and Economic Provision of Public Facilities and Services

The following is a preliminary assessment of wastewater, water, fire protection, transportation, and stormwater serviceability:

Wastewater: Difficult to serve. A new pump station would need to be located in the southwest of this area. If the entire area were included, the pump station would require over 10,000 feet of force main and 15,000 feet of trunk sewer line. In addition, if the entire area was included, it is expected that a portion of the trunk line located in Chambers would need to be replaced due to under-sizing. The existing system appears to have approximately 7300' of pipe with inadequate capacity to handle full expansion of this area. Additionally, this area flows to the Fillmore pump station. Although the pump station recently went through a retrofit, the capacity of this station would need to be verified, and additional upgrades may be necessary. Generalized cost estimates for the City's share of improvements is \$\$\$\$\$.

Water: Moderate to difficult to serve. A portion of the area is already served by EWEB. Potentially there is sufficient capacity in existing facilities, however, there may be a need to increase capacity. Generalized cost estimate for improvements is \$\$\$.

Fire Protection: Difficult to serve. The eastern portion of this area is currently served by Eugene Rural Fire Protection District and the western portion is served by Bailey-Spencer Rural Fire Protection District. Given the current locations of the city fire stations and existing street network, there are response time/service delay concerns. Concerns with the existing street network include configuration grade, widths, traffic calming and street connectivity. Additionally, there is potential wildfire risk due to interface with rural forest lands, and fire flow concerns per EWEB. Generalized cost estimate is \$\$\$\$-\$\$\$\$\$.

Transportation: Difficult to serve. Although there are no existing or projected capacity concerns with the streets in the vicinity, there are localized concerns including the lack of connectivity and alternative routes in this area. Improvements to Lorane Highway and potentially other streets serving the area would be needed to support additional traffic loads. Generalized cost estimate for improvements is \$\$\$\$\$.

Transit: Difficult to serve. Access is difficult given the existing street system, much of which is unfriendly to safe use by transit vehicles. There are no existing routes in the immediate vicinity and the nearest is at 28th and Chambers. Generalized cost estimate is \$\$\$\$\$.

Stormwater: Moderate to difficult to serve. This area is located in the headwaters of the Spencer Creek watershed and drains to Fern Ridge Reservoir and the Long Tom River via Spencer Creek and Coyote Creek. If

developed to urban densities, urban runoff would flow through downstream agricultural and forested lands before discharging to Spencer Creek which has not been evaluated for capacity as the City primarily drains to the north. These sites themselves are not particularly steep but are over 500 feet in elevation; development would need to meet current headwater flow control requirements (i.e. maintaining peak flows at pre-development rates). Soils may be less suitable for infiltration, making meeting the current flow control requirements moderately challenging. Stormwater development standards would need to be met for pollution reduction, and potentially expanded flow control requirements. Regulatory aspects of stormwater management would be more complex, as the City would be included in any TMDLs associated with urban runoff within the Spencer Creek watershed. Generalized cost estimate for improvements is \$\$\$\$.

Other Service Information

Parks: The Southeast portion of this subarea contains South Eugene Meadows, a 193-acre undeveloped park. The northwest corner of this subarea is the 250-acre Wild Iris Ridge park, which is also part of the ridgeline park system.

Electric: Lane Electric provides electrical service to the western portion of this area, and EWEB provides service to the eastern portion.

Schools: This subarea is completely within the Eugene 4J School District.

Crest/Chambers Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Difficult	Moderate-Difficult	Difficult	Difficult	Difficult	Moderate-Difficult
Generalized cost estimate	\$\$\$\$\$	\$\$\$	\$\$\$\$-\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$	\$\$\$\$

16. S. Willamette/ Fox Hollow Subarea

General Description

This area is to the south of Eugene and includes the land around South Willamette Street and Fox Hollow Road extending to where they meet, approximately 2.5 miles south of the UGB. This area is bounded on the north by the UGB and the South Hills, much of which is part of the city's Ridgeline Park system. Spencer Butte Park is in the center of this subarea, with trail access from South Willamette Street and Fox Hollow Road. The area is characterized by steep slopes and is mostly large lot residential development on forest, marginal and rural residential designated County land.



Orderly and Economic Provision of Public Facilities and Services

The following is a preliminary assessment of wastewater, water, fire protection, transportation, and stormwater serviceability:

Wastewater: Difficult to serve. There appears to be about 4,400' feet of downstream pipe in the existing system that will not be able to handle the additional load of development in this area. Additionally, serving the area would likely require the construction of at least one pump station because of the topography of the ridge. Generalized cost estimate is \$\$\$\$\$.

Water: Difficult to very difficult to serve. Will require significant infrastructure potentially requiring pump stations and reservoirs as well as a significant amount of piping. Generalized cost estimates for improvements is \$\$\$\$-\$\$\$\$\$ depending on where development occurs.

Fire Protection: Difficult to serve. This area is currently served by Eugene Rural Fire Protection District. Given the current locations of the city fire stations and existing street network, there are response time/service delay concerns. Additionally, there is potential wildfire risk due to wildland-urban interface conditions, and fire flow concerns per EWEB. Generalized cost estimate is \$\$\$\$-\$\$\$\$\$.

Transportation: Moderate to difficult to serve. Slope failures in this area could be expensive if additional capacity is needed. Bicycle/pedestrian access is difficult due to steep grades. Generalized cost estimate is \$\$\$\$\$.

Transit: Difficult to access because of topography and existing street system. The nearest current routes are Rt. 24 and Rt. 73. Generalized cost estimate to serve is \$\$\$\$.

Stormwater: Moderate to difficult to serve. This area is located in the headwaters of the Spencer Creek watershed and drains to Fern Ridge Reservoir and the Long Tom River via Spencer Creek and Coyote Creek. If developed to urban densities, urban runoff would flow through downstream agricultural and forested lands before discharging to Spencer Creek which has not been evaluated for capacity as the City primarily drains to the north. These sites themselves are not particularly steep but are over 500 feet in elevation; development would need to meet current headwater flow control requirements (i.e. maintaining peak flows at pre-development rates). Soils may be less suitable for infiltration, making meeting the current flow control requirements moderately challenging. Stormwater development standards would need to be met for pollution reduction, and potentially expanded flow control requirements. Regulatory aspects of stormwater management would be

more complex, as the City would be included in any TMDLs associated with urban runoff within the Spencer Creek watershed. Generalized cost estimate for improvements is \$\$\$\$.

Other Service Information

Parks: This area contains the 385-acre Spencer Butte Park, which is located between Willamette Street and Fox Hollow Road.

Electric: EWEB and Lane Electric provide electric service to the study area. service to this area.

Schools: This area is within the Eugene 4J School District.

S. Willamette/ Fox Hollow	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Difficult	Difficult-Very Difficult	Difficult	Moderate-Difficult	Difficult	Moderate-Difficult
Generalized cost estimate	\$\$\$\$	\$\$\$\$-\$\$\$\$	\$\$\$\$-\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$

17. Dillard Subarea

General Description

This area is located to the southeast of Eugene and includes the area on both sides of Dillard Road. This area is bounded to the north by Mt. Baldy and the Ridgeline Trail, and Suzanne Arlie park property, as well as the UGB to the northwest. The western boundary of this area approximately follows Christensen Road. This area is predominantly forested and also contains some rural residential development.



Orderly and Economic Provision of Public Facilities and Services

The following is a preliminary assessment of wastewater, water, fire protection, transportation, transit and stormwater serviceability:

Wastewater: Very difficult to serve. This area is located on the backside of the ridge and has an east to west ridge running through approximately the middle of it. This ridge adds considerable design constraints to any wastewater infrastructure. The middle ridge will require that two pump stations be built to serve the entire area, along with 19,000 feet of force main. In addition, about 8,000 feet of gravity line should be 10-inch pipe due to the large size of this basin. The pump stations would be fairly large, and therefore more costly than other options. The impact on the downstream infrastructure is unknown at this time but the initial analysis indicates that there is about 9500' of downstream pipe that will be unable to serve the additional load if this area is developed. A development of this magnitude would likely require a new parallel gravity system to the Filmore Pump Station (33,000 feet). These pump stations are not listed in the Public Facilities and Services Plan. Generalized cost estimate for the City's share of improvements is \$\$\$\$\$.

Water: Difficult to serve. The area has steep slopes, it is a long distance from the existing distribution system, the streets are not well connected and significant infrastructure, including water reservoirs and pump stations, is required to serve the area. Serving this area could also require significant upgrades in the existing system that extends into the Amazon Basin. In addition, extension of water service to this area is problematic, because it does not provide an opportunity to have a looped distribution system which results in poor water quality and lower reliability to customers. In preparing this estimate, EWEB assumed the following: infrastructure would have to be extended over the ridge; property is currently owned but may not be feasible to build a new reservoir (assumed to be sufficient for purposes of this estimate), and it is assumed that service could be provided to this area by adding a single pump station and reservoir (both on existing property). Generalized cost estimate for improvements is \$\$\$\$.

Fire Protection: Difficult to serve. The eastern portion of this area is currently served by Goshen Rural Fire Protection District and the western portion is served by Eugene Rural Fire Protection District. Given the current locations of the city fire stations and existing street network, there are response time/service delay concerns. Additionally, there is potential wildfire risk due to interface with rural forest lands, and fire flow concerns per EWEB. Generalized cost estimate is \$\$\$\$-\$\$\$\$\$.

Transportation: Difficult to serve. Although there are no existing capacity concerns in the vicinity, there are projected capacity and connectivity concerns with Dillard Road as it could not support such an increase in traffic. A larger roadway network would be needed. However, there are slope stability concerns with expanding the roadway network in this subarea. The sloped terrain and street configuration also pose significant challenges to

bicyclists and pedestrians, including safety challenges on Dillard Road. Generalized cost estimate for improvements is \$\$\$\$\$.

Transit: Difficult to serve/access, given that the study area is accessed from the City solely by Dillard Road, which would present challenges for bus travel given its narrow, extremely curvy nature in this area. There are no existing routes in the immediate vicinity. Generalized cost estimate is \$\$\$\$.

Stormwater: Moderate to difficult to serve. This area lies outside of the City’s stormwater basins, draining to the south and east. Current impervious surface area is low. The capacity of the downstream system has not been evaluated by the City given that it lies outside of the city’s stormwater basins and the 2002 planning area. Very steep sites located above 500 feet in elevation; development would need to meet current headwater flow control requirements (i.e. maintaining peak flows at pre-development rates). Soils may be less suitable for infiltration (assuming they are similar to the south end of the Amazon Basin), making meeting the current flow control requirements moderately challenging to difficult. Generalized cost estimate for improvements is \$\$\$\$.

Other Service Information

Parks: This subarea does not contain any City-owned park land beside the portion of the Ridgeline Trail that falls outside the UGB, and the Mt. Baldy trailhead. However, immediately inside the UGB on the northwest border of this subarea is the 244-acre Amazon Headwaters park land.

Electric: Lane Electric provides electrical service to this area.

Schools: The majority of this area is served by the Eugene 4J School District. There is an area adjacent to Dillard Road on the east side that is served by the Creswell School District. There is also a smaller portion on the east side of the area that is served by the Springfield School District.

Dillard Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Very Difficult	Difficult	Difficult	Difficult	Difficult	Moderate-Difficult
Generalized cost estimate	\$\$\$\$\$	\$\$\$\$	\$\$\$\$-\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$	\$\$\$\$

18. Russel Creek Subarea

General Description

The Russel Creek area is located to the southeast of Eugene. It is bound by the UGB on the north and west, Franklin Boulevard on the east, and the Suzanne Arlie park property on the south. Lane Community College and Oak Hill School are located in this area.

Orderly and Economic Provision of Public Facilities and Services

The following is a preliminary assessment of wastewater, water, fire protection, transportation, transit, and stormwater serviceability:

Wastewater: Difficult to serve. To serve this area, two pump stations would need to be constructed, along with approximately 7,000 feet of force main. The Glenwood station was sized to serve the basin, so it is assumed to have capacity. The City of Springfield constructed a 30-inch wastewater line from the Glenwood pump station to the bridge crossing into Springfield, which should be a sufficient size to serve the area. Although these two needed pump stations are shown on the city's Wastewater Master Plan, they are not included in the Public Facilities and Services Plan. There are approximately 5,000 feet of undersized pipe downstream that would need to be upgraded. If the Goshen wastewater project proceeds it could potentially benefit the serviceability of this area. Generalized cost estimates for the City's share of improvements is \$\$\$\$.

Water:

Difficult to serve. There is a small area already served by EWEB to the north of 30th Ave, however, service is limited to an elevation of 600 feet above mean sea level. There are elevation challenges and connection challenges on both the north and the south side of 30th Ave which could require multiple facilities. Significant infrastructure, including multiple pump stations, reservoirs, and large diameter pipelines, would need to be constructed to serve the rest of this area. Generalized cost estimate for improvements is \$\$\$\$\$.

Fire Protection: Difficult to serve. Given the current locations of the city fire stations and existing street network, there are response time/service delay concerns. Additionally, there is potential wildfire risk due to interface with rural forest lands, and fire flow concerns per EWEB. Generalized cost estimate is \$\$\$\$-\$\$\$\$\$.

Transportation: Moderate to serve. The hill on 30th provides a challenge to bicyclists accessing the area from south Eugene. While the area has good access to 30th Avenue, I-5 and Springfield, which are all positives for vehicular connectivity, the interchange at 30th Avenue and McVay Highway is currently failing, and additional capacity would be very challenging to accommodate based on the lack of right-of-way. Generalized cost estimate for improvements is \$\$\$\$\$.

Transit: Easy to serve. Good access to transit currently exists in this subarea along 30th Avenue. The area is currently served by route #85 LCC/Springfield. Deviation of the bus is possible, though depending on the exact nature of the development, we may run into topographical issues or have to expand service in an unproductive area. Generalized cost estimate is \$\$.

Stormwater: Moderate to difficult to serve. The City has not conducted an analysis of the capacity of this system in the Russel Creek watershed as part of its stormwater planning; however, the area is currently served by an



informal system of roadside ditches, culverts, catch basins and pipes. The capacity of the system would need to be evaluated for higher impervious surface areas. The steep slopes in this area present challenges, but there is the potential for detention facilities. The regulatory side of stormwater management may be more complicated in this area. Generalized cost estimate is \$\$\$\$.

Other Service Information

Parks: Parks and open spaces are plentiful in this area. It contains the 24-acre Bloomberg City Park and the 99-acre Coryell Ridge natural area. The entire southern border of the area is the 515-acre Suzanne Arlie Park. In addition, the 40-acre Moon Mountain Park straddles the UGB and a portion of it is located in this area. The City of Eugene has recently acquired about 120 acres between the UGB and 30th Avenue, which will be Black Oak Basin park.

Electric: EWEB provides electrical service to this area.

Schools: The majority of this area falls within the Eugene School District. There is a portion of the area adjacent to I-5 and north of 30th Avenue that falls within the Springfield School District. There is also a smaller portion along the southeast boundary of the subarea that falls within the Springfield School District.

Russel Creek Subarea	Wastewater	Water	Fire	Transportation	Transit	Stormwater
Generalized serviceability	Difficult	Very Difficult	Difficult	Moderate	Easy	Moderate-Difficult
Generalized cost estimate	\$\$\$	\$\$\$\$	\$\$\$-\$\$\$\$	\$\$\$\$	\$	\$\$\$

Eugene Urban Reserves Technical Memo

I. Introduction

The purpose of this document is to describe the assumptions and methodology behind the two models used for Eugene urban reserves planning work: The Land Need Model and the Land Supply Model, and how this work informs the land selected for Eugene’s urban reserves.

The work that went into developing these two models is laid out consecutively in section II. Land Need Model, and section III. Land Supply Model. However, this work in practice was intertwined in the development of the Eugene urban reserves, and each are referenced throughout this document (e.g., the land capacity analysis in the Land Supply Model is also a component of the Land Need Model). This memo cannot describe all the technical analysis involved in urban reserves planning, instead it documents the key assumptions and methodology.

This document is Appendix 4 to the Eugene urban reserves legal findings, and two documents are included as attachments to this memo: the Eugene Urban Reserves Land Need Model (Appendix 4a), and the Map Documentation of “Undevelopable” Land (Appendix 4b).

II. Land Need Model

For urban reserves planning, the City of Eugene contracted with ECONorthwest to retrofit the Envision Eugene Land Sufficiency Model developed for estimating the 20-year land demand and the development capacity of the 2012-2032 Buildable Lands Inventory (BLI) to meet that demand during the 2017 UGB analysis.¹ The result is the **Urban Reserves Land Need Model (Land Need Model), Appendix 4a – its purpose is to estimate the amount of land needed for residential, employment and other uses over the 2032-2062 urban reserves planning period.** Wherever possible, the assumptions used in the Land Need Model are carried forward from the Envision Eugene Land Sufficiency Model since they were adopted with the UGB.²

This section summarizes the assumptions used in the Land Need Model and directs readers to the tables in the Land Need Model – where the assumptions and results are located. For more detailed information

¹The 2012-2032 Buildable Lands Inventory was adopted as part of the Envision Eugene Comprehensive Plan Appendix C Residential Land Supply Study and Appendix B Employment Land Supply Study in 2017 and acknowledged by DLCD in 2018. The Envision Eugene Land Sufficiency Model was developed to allow the City and interested stakeholders to model the effects of changing key assumptions used in Envision Eugene, including assumptions regarding land demand and the capacity of the land supply, and also to show the complexity of the analysis and how all the assumptions relate to each other.

² For brevity, we are calling this work “Envision Eugene” in many cases throughout this document and in the Land Need model

on the assumptions adopted with the UGB and how they were developed, see the adopted Envision Eugene Residential and Employment Land Supply Studies (2012-2032).

A. Forecast Period

The model calculates land needed for urban reserves ranging from a 10-year to a 30-year forecast period, or any years in between, depending on the population and employment growth assumptions input in the model. These assumptions are based on review of OAR 660-021 and discussions with staff from the Department of Land Conservation and Development (DLCD). OAR 660-021-0030(1) reads: “Urban reserves shall include an amount of land estimated to be at least a 10-year supply and no more than a 30-year supply of developable land beyond the 20-year timeframe used to establish the urban growth boundary.” The model is built to allow comparing timeframes, such as 2032-2042; 2032-2052; or 2032-2062 for comparison purposes only.

The Land Need Model Forecasts Tab shows the Population Forecast for Eugene (Table F1) and the Employment Forecast for Eugene (Table F2), including annual estimates extrapolated for the urban reserves study years between 2032 and 2062. Based on Eugene City Council and Lane County Board of Commissioners direction, the model (and the following analysis) calculates the land needed for urban reserves for a 27-year period, 2032-2059. Population growth for the year selected (2059) is used in the Assumptions tab, Table 1, and Employment growth for the year selected (2059) is used in Table 8.

B. Residential Land Needs

The following section documents the assumptions about residential land needs for urban reserves.

Population Forecast & Growth Rate

A population forecast is the foundation for estimating how many new dwelling units will be needed and eventually how much land is needed to accommodate those dwellings and related development. The population forecast must be based on the official state forecast from Portland State University (PSU).³ In this case that is the “Coordinated Population Forecast, 2019 through 2069, Lane County, its Urban Growth Boundaries (UGB), and Area Outside UGBs” Final Report, **June 30, 2019**.

The 2019 population forecast is used beginning in 2032, the year the UGB planning period ends (Eugene’s adopted UGB planning period is 2012-2032). For the UGB planning period, the 2009 population forecast from PSU was used, which assumed that the Eugene UGB would grow to 214,693 by 2032.⁴ Because the 2009 forecast is no longer the official state forecast, the urban reserves planning period begins with the 2019 forecast,⁵ which shows that in 2032 the Eugene UGB will have 213,619 people and by 2062 there will be 216,412 people. The 2019 forecast shows that the Eugene UGB will have 1,074 fewer people than the 2009 forecast projected by 2032.

³ OAR 660-032-0020(1)

⁴ Eugene City Council Ordinance Number 20437, effective as of November 13, 2009. See page 2.

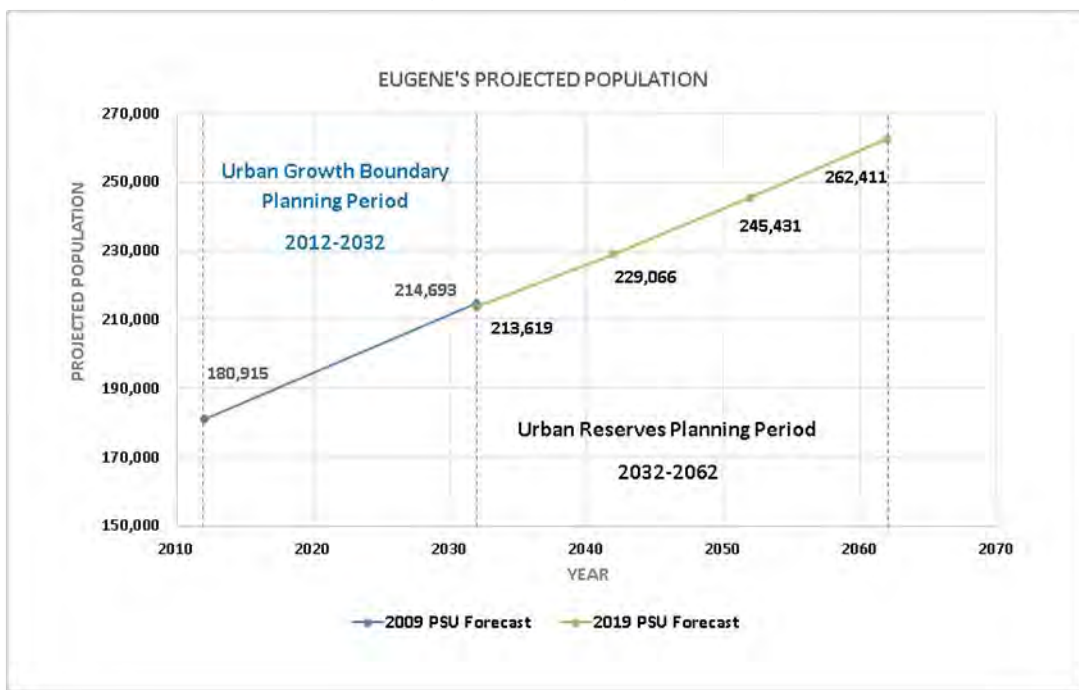
⁵ Coordinated Population Forecast, 2019 through 2069, Lane County, its Urban Growth Boundaries (UGB), and Area Outside UGBs” Final Report, June 30, 2019

The rationale to use the 2019 forecast for urban reserve planning was based on review of OAR 660-021, the fact that the population forecast must be based on the official state forecast from PSU, and discussions with staff from the Department of Land Conservation and Development (DLCD).⁶

ECONorthwest extrapolated a population forecast between 2032 and 2062 from PSU’s 2019 forecast (which is in 5-year increments) using the methodology specified by PSU as the correct way to extrapolate annual population forecasts.⁷ The Land Need Model shows the extrapolated forecast on a year-by-year basis on the Forecasts Tab, Table F1.

Figure 1, below shows the expected population growth based on PSU’s 2019 forecast for Eugene; there will be 48,792 new residents between 2032 and 2062, which is a **growth rate of approximately 0.7 percent**. Based on a 27-year urban reserve, the population growth is **43,944 new residents between 2032 and 2059** (257,563 people in Eugene’s UGB by 2059), shown in the Land Need Model on the Assumptions Tab, Table 1 and Forecasts Tab, Table F1.

Figure 1: UGB and Urban Reserves Planning Periods and Population Forecasts



Number of New Dwelling Units

The number of new dwelling units is calculated based on population growth, persons in group quarters, average household size, and vacancy rates.

⁶ PSU issued a new population forecast on June 30, 2021 for Lane County. Since the urban reserves analysis was based on the 2019 forecast, including urban reserves adoption initiation, that forecast has been used. The City submitted proposed plan amendments to DLCD on June 25, 2021, based on guidance from DLCD.

⁷ The method for extrapolation is described here:

<https://drive.google.com/file/d/1hw7qOk6LkiZsuU8rwH6heWkeLLsl6OZs/view?usp=sharing>

The assumptions about number of new units are shown in the Land Need Model on the Assumptions Tab in Table 1 and in Table 6 for group quarters. They include population growth for the 2032-2059 period, percentage of new population in group quarters, average household size, and vacancy rate. The expected population growth, excluding the percentage of new people expected to reside in group quarters (e.g., nursing homes, dormitories), is divided by the average number of people per household (household size) for all households, resulting in the initial number of new units needed. The initial number of new units is increased by a certain percentage to allow for some portion of the new housing units to be vacant, allowing for the typical movement of households between housing units. For group quarters, the expected population growth to need group quarters is divided by the average number of people per household in buildings with 5 or more units.

These calculations are shown on the Residential Tab in Table R1 and for group quarters Table R6. The assumptions for these variables, other than population growth, did not change from the adopted Envision Eugene Residential Land Supply Study. For full information see Section 3.1, Part II “Eugene Housing Needs Analysis” of the Envision Eugene Residential Land Supply Study. The Residential Land Supply Study used the best available information at the time of the UGB analysis. Since those assumptions were adopted with the UGB, they were carried forward for urban reserves planning. They are: that 4.6% of the new population (2,021 people) will live in group quarters housing, the average household size or number people per household will be 2.24 people per household, the average household size for group quarters will be 1.6 people per household, and the vacancy rate of all new housing will be 5%.

Housing Mix and Allocation of Dwelling Units to Plan Designations

The assumptions about the mix of new housing and allocation of new housing by type of housing to each of Eugene’s comprehensive plan designations did not change from the adopted Envision Eugene Residential Land Supply Study.

The assumptions about housing mix are also shown in the Land Need Model on the Assumptions Tab in Table 1. The housing types categories assumed in the Land Need Model are: single-family detached, single-family attached, buildings with two to four units, and buildings with five or more units. The assumptions about allocating housing types to residential plan designations are presented in Table 2. These calculations are shown in the Land Need Model on the Residential Tab in Tables R1 and R2.

Initially, the Land Need Model allocates housing need to each of Eugene’s existing residential plan designations, to be consistent with the analysis and assumptions used in the adopted Envision Eugene Residential Land Supply Study. Later in the Land Need Model all housing needs from each plan designation are collapsed into one category of “residential” need because land in urban reserves cannot have a specific plan designation until included in the urban growth boundary, per OAR 660-021-0040(1). When (and if) the Eugene UGB is expanded, is the point when Eugene plan designations will be assumed for specific parcels of land in a UGB expansion area and the housing needs will be allocated by specific plan designation. Because of this, the density assumptions for urban reserves land also are collapsed into a generic “residential” category, as discussed in the next subsections.

Residential Density of Land by Plan Designation

The assumptions about housing density (number of dwellings per acre) by plan designation, including net density, net to gross factor, and resulting gross density generally did not change from the Envision

Eugene Residential Land Supply Study. These assumptions are used to estimate the capacity of land to accommodate expected growth. The exception is the density assumed for the Medium Density Residential (MDR) Plan Designation. This assumption was changed from 13.4 dwelling units per net acre to 15.4 dwelling units per net acre on land less than 5 percent slope to be consistent with Eugene's adopted policy changes regarding density in MDR that were made as part of the Envision Eugene process. For more information see Section 2, Part IV “Measures to Increase Residential Development” of the Envision Eugene Residential Land Supply Study.

These assumptions about housing density by plan designation are shown in the Land Need Model on the Assumptions Tab in Tables 3 and 4. The density assumptions initially begin with a “net” density assumption. The net residential density of land⁸ shown in Table 3 is the density on land that is outside of transportation rights-of-ways (e.g., streets, alleys); it is essentially the density of tax lots that are the privately-owned portion of property. However, roads and utilities are also needed to serve residential development and they take up land that would otherwise be used for housing, therefore assuming net densities would overestimate the housing capacity of land. To ensure these needs are accounted for, the net density assumptions are reduced by a percentage (e.g., the net to gross factor) shown in Table 4, resulting in the average “gross density” assumptions by plan designation shown in Table 5. These assumptions were used as an initial step to estimate the potential capacity of urban reserves to accommodate new housing units, as described later in this document under Section III. Land Supply Model.

Residential Density of Land in Urban Reserves

As mentioned above, different from Envision Eugene, urban reserves will not result in different plan designations therefore the gross density assumptions need to be collapsed into generalized “residential” density assumptions before they can be applied to urban reserves land. The plan designation-specific gross density assumptions in Tables 3 and 4 on the Assumptions Tab, are collapsed into generalized residential density assumptions which are then applied to the actual developable land in the urban reserve area. The Residential Capacity Tab, Table UR-C1 shows the collapsed residential density assumptions which are allocated to the actual urban reserves land depending on lot size, slope and elevation to determine the capacity of urban reserves. More information of how urban reserves capacity was calculated is in Section III. Land Supply Model, D. Capacity Analysis, Weighted Residential Density Assumptions.

Other Residential Land Demand

These assumptions are about land demand for group quarters and land demand from commercial uses in residential plan designations. These assumptions did not change from the Envision Eugene Residential and Employment Land Supply Studies. The land for group quarters is from the number of new people assumed to need group quarters (discussed above under Number of New Dwelling Units). Commercial uses in residential plan designations include uses such as neighborhood markets and daycare, and is exclusive of home occupations, which occur with residences and therefore are assumed to not need additional land.

⁸ During Envision Eugene, the term "buildable" was used instead of “developable,” consistent with OAR 660-024 for urban growth boundary planning.

The assumptions about land demand for group quarters are shown in the Land Need Model on the Assumptions Tab in Tables 5 and 6. This calculation is shown on the Residential Tab in Table R6. The assumptions about land demand for commercial uses in residential plan designations are shown on the Assumptions Tab in Table 9. The calculation is shown on the Employment Tab in Table E4 and reiterated on the Residential Tab in Table R7.

Residential Capacity of Surplus Land inside the UGB

There is a projected surplus of 47 acres of LDR land in 2032 after accounting for capacity in the 2012-2032 buildable lands inventory and efficiency measures, according to the adopted Envision Eugene Residential Land Supply Study. The capacity of this surplus is deducted from the overall residential land need for urban reserves. The housing capacity of the 47 acres surplus is estimated to be on average 4.0 du/gross acres (the Envision Eugene collapsed average density for all LDR land) because it was not possible to say where these 47 acres would be in Eugene (i.e., on land with slopes or flat land, above/below 900 feet in elevation, or size of lot).

The assumptions and calculations about surplus buildable residential land inside the UGB and its dwelling unit potential are shown in the Land Need Model on the Residential Tab in Table R3. The remaining dwellings needed for a 27-year urban reserves need after accounting for the 47-acre residential surplus is shown in the Land Need Model on the Residential Tab in Table R4 and the estimated amount of residential land needed in the urban reserve is on the Residential Tab in Table R5.

C. Commercial and Industrial (Employment) Land Needs

The following section documents the assumptions about employment land needs.

Employment Forecast & Growth Rate

The employment forecast begins in 2032, the year the UGB planning period ends. The decision to begin the forecast in 2032 was made to be consistent with the population forecast assumptions, as described previously in this memo (above under section B. Residential Land Needs), and as directed in OAR 660-021-0030. This assumption is shown on the Assumptions Tab in Table 7.

The growth rate assumed for employment growth is the OED forecast growth rate of **1.07% average annual growth per year from the 2017-2027 Oregon Employment Department (OED) forecast for Lane County**, the most recently available forecast when the majority of work on urban reserves was completed. The rationale to use this growth rate⁹ included that Eugene also used an (earlier) growth rate provided by OED in the Envision Eugene Land Sufficiency Model, which was adopted as part of the Employment Land Supply Study. In addition, as the regional employment center in Lane County, it is reasonable to expect that employment will continue relatively strong growth in Eugene. However, the rate of growth used in Envision Eugene (1.43%) for employment was significantly faster than the projected population growth for urban reserves, and there was concern that continuing to assume that

⁹ Two other employment growth rate options were considered for urban reserves other than the growth rate selected. They were: the same growth rate as used in Envision Eugene (1.43% AAGR—based on the Oregon Employment Department (OED) forecast for Lane County released in 2014); and the population growth rate from the 2019 PSU forecast (0.7%)

employment will grow that much faster than population growth forecast would be unrealistic and would presume increased commuting from outlying communities.

Using the 2017 OED employment growth forecast of 1.07%, the Land Need Model projects Eugene employment to be 204,468 by 2062, adding up to 56,008 new employees between 2032 and 2062. Table 1 below shows the employment and population forecasts assumed for urban reserves in 10-year increments.

Table 1: Summary of Employment and Population Forecast

Year	Employment growth	Employment change (from 2032)	Population growth	Population change (from 2032)
2032	148,460		213,619	
2042	165,177	16,716	229,067	15,448
2052	183,775	35,315	245,432	31,813
2062	204,468	56,008	262,412	48,792
2032-2062		1.07% AAGR		0.7% AAGR

Source: Oregon Employment Department (2017 Employment Forecast), Portland State University (2019 Draft Population Forecast), ECONorthwest, City of Eugene Urban Reserves Land Need Model

For a 27-year urban reserve, the employment growth is **49,567 new jobs between 2032 and 2059** (198,027 jobs in Eugene’s UGB by 2059). The employment growth rate of 1.07% is shown in the Land Need Model in the Assumptions Tab, Table 8 and in the Employment Tab, Table E1. The extrapolated employment forecast is shown on a year-by-year basis on the Forecasts Tab, Table F2. The starting and ending number of jobs is shown in Assumptions Tab Table 7 and the employment growth in number of new jobs is shown in Employment Tab, Table E1 and Forecasts Tab, Table F1.

Mix of Employment

The assumptions about the mix of employment types for new jobs did not change from the Envision Eugene Employment Land Supply Study. The employment types for new jobs assumed in the Land Need Model are: industrial, non-retail commercial, retail and government.

The assumptions about employment mix are shown in the Land Need Model on the Assumptions Tab, Table 8. The employment mix calculations are shown on the Employment Tab, Table E2.

Commercial Employment in Residential Designations

These assumptions are about land demand from commercial uses in residential plan designations. The amount of employment locating in residential plan designations did not change from the Envision Eugene Residential and Employment Land Supply Studies, as discussed previously under section B. Residential Land Needs.

These assumptions are shown in the Land Need Model on the Assumptions Tab in Table 9. These calculations are shown on the Employment Tab in Tables E3 and E4 and reiterated on the Residential Tab in Table R7.

Employment Densities and Land Need

The assumed employment capacity is derived from average employment densities (number of employees per acre). The average employment density assumptions did not change from the Envision Eugene Employment Land Supply Study.

The method for calculating the land needed for **commercial and retail** employment growth using employment densities also did not change from the Envision Eugene Employment Land Supply Study.

The employment land need for **industrial** employment is calculated differently for urban reserves than for Envision Eugene. The primary difference is that Envision Eugene based industrial land needs on site needs, considering the size of needed industrial sites (i.e., need for sites smaller than 10 acres compared to need for sites 50 acres and larger). Envision Eugene still counted capacity on buildable industrial lands smaller than 10 acres by assuming an average employment density (similar to commercial and retail capacity), for sites larger than 10 acres Envision Eugene used the average employment density to determine the number of sites needed in different size classifications.

For urban reserves, the Land Need Model calculates industrial land needs from an employees per acre assumption, the same way that commercial and retail employment land needs are calculated. The industrial employment density assumption is based on analysis that was conducted for Envision Eugene but, as previously outlined, was not used solely to estimate future industrial land needs in Envision Eugene.

These assumptions are shown in the Land Need Model on the Assumptions Tab in Table 10. These calculations are shown on the Employment Tab in Table E5.

Employment Capacity of Surplus Land inside the UGB

There is a projected surplus of 7 acres of Commercial land in 2032 after accounting for capacity in the 2012-2032 buildable lands inventory and efficiency measures, according to the adopted Envision Eugene Employment Land Supply Study. The capacity of this surplus is deducted from the overall commercial land need for urban reserves.

The assumptions and calculations about surplus buildable commercial land inside the UGB are shown in the Land Need Model on the Employment Tab in Table E6. The remaining 27-year urban reserves employment land need after accounting for the 7-acre commercial surplus is shown in the Land Need Model on the Employment Tab in Table E6.

D. Public and Semi-Public Land Needs

The following section documents assumptions about public and semi-public land needs:

Parks

The City Council adopted a Parks and Recreation System Plan by resolution in July 2018.¹⁰ From this work, the City estimates a future level of service of 3.59 acres of neighborhood and community parks per 1,000 residents in Eugene. The Urban Reserves Land Need Model uses this estimated level of service to determine the land need for future neighborhood and community parks in urban reserves. These types of parks are presumed because they would serve future neighborhoods and traditionally require urban services. This is a different approach to estimating land need for parks than used in Envision Eugene, where specific park acreage was used rather than a level of service. Part of the reason for this difference is that during Envision Eugene, the City had an adopted list of expected parkland acquisitions for the UGB planning period which is a level of detail the City does not have for urban reserves because of its distant planning period, nor is it necessary given the generic assumption of parks per 1,000 people in Eugene is readily available and derived from the City parks plan.

In addition, there are some public (non-neighborhood or community) parks already present in the Eugene urban reserves study area. As described further here, these parks are not included in the Land Model as needed for urban reserves nor accommodating the neighborhood or community park need identified above. These parks serve a different purpose and are evaluated as part of the Urban Reserves Study (Section C. Identification of Land in the Study Area That Would be “Suitable”) to determine whether these lands are suitable for urban reserves consideration – primarily whether they are necessary to be brought into the UGB in the future to aid in the efficient accommodation of identified land needs and in the orderly and economic provision of public facilities and services (Goal 14, Locational Factors 1 and 2). Some of these parks are surrounded by developable lands and others are on the edge of the urban reserves study area, including: Wild Iris Ridge, Spencer’s Butte, Suzanne Arlie Park, Armitage Park and others. As with existing utility land, discussed below, they do not need to be urbanized due to their use, nor do they have development capacity for residential or employment uses. Depending on their location and adjacency to developable land, the Eugene urban reserves either included existing parkland or dismissed that land because overall it was determined to be unsuitable for urban reserves. This analysis is documented in the Urban Reserves Study Subarea Reports (Appendix 2a of the Findings).

Educational and Other Public Facilities

City staff have had discussions with Bethel and 4J School Districts about their long-term land needs to serve students in the Eugene urban reserves. Neither school district identified a need for acquiring additional land outside of the UGB.

City staff had discussions with the University of Oregon and Lane Community College (LCC) staff about their long-term need for additional land for facilities to serve students in the Eugene urban reserves. Neither institution identified a need for acquiring additional land outside of the UGB.

City staff have had discussions about the long-term need for land for other public facilities such as major water, wastewater, or stormwater facilities in Eugene urban reserves. Conversations have been held

¹⁰ <https://www.eugene-or.gov/DocumentCenter/View/42069/2018-Final-Parks-System-Plan>

with City Public Works Department staff as well as public agencies such as the Eugene Water and Electric Board (EWEB) and the Metropolitan Wastewater Management Commission (MWWC). None of the agencies identified a need for acquiring additional land outside of the UGB for public facilities. This is a different approach to estimating land need for public facilities than used in Envision Eugene, where the acreage needed for specific facilities was used. Part of the reason for this difference is that during Envision Eugene, the City had adopted project lists of expected public facility acquisitions in adopted facilities master plans and capital improvement lists for the UGB planning period, which is a level of detail the City does not have for urban reserves and its more distant planning period. It is acknowledged that these types of public facilities will be needed if the UGB is expanded into urban reserves. The net-to-gross factor discussed in this memo under section B. Residential Land Needs accounts for the expected needs for utility (water, stormwater, wastewater) lines and transportation rights-of-way, but other public facilities discussed in this section will need to be further analyzed at the time of the next UGB analysis. Once areas of UGB expansion are identified, service providers will have more information about the amount of public land acquisition needed due to the additional amount, location and capacity of housing and jobs needed. Therefore, the Land Need Model does not include any additional land needed for public facilities, though some publicly-owned land is included in urban reserves as noted below.

While public facilities do not necessarily need to bring land into the UGB (and thus into urban reserves) to accommodate expected growth, some of these agencies already own property within the Eugene urban reserves. These include: the LCC main campus, MWWC wastewater facilities, land owned by Bethel School District, Oregon Department of Transportation, EWEB, and others. Depending on the location of the facilities and other factors evaluated in the suitability analysis, as noted above regarding parkland, the Eugene urban reserves includes some of these publicly-owned properties to aid in the efficient accommodation of identified land needs, and in the serviceability of surrounding developable land. Other publicly owned land was identified as not suitable for Eugene urban reserves due primarily to its greater isolation—for example, its location on the edge of the urban reserves study area would not allow it to aid in the service provision of developable land in the future. The evaluation of publicly owned properties is documented in the Urban Reserves Study Subarea Reports (Findings Appendix 2a).

Semi-Public Uses

The Urban Reserves Land Need Model assumes 1.3 acres of land need for semi-public (i.e., religious institutions) uses per 1,000 (new) people. This assumption did not change from the Envision Eugene Residential and Employment Land Supply Studies.

The assumptions for both public and semi-public land demands are shown in the Land Need Model on the Assumptions Tab in Table 11. These calculations are shown on the Public Tab in Table P1.

E. Summary

The **Land Need Model Summary Tab**, Table S1 summarizes the estimated need for residential, commercial, industrial, and public land uses and compares the total need to the estimated supply. The total land need for each use, as calculated in the previous Land Need Model Tabs of Assumptions,

Residential, Employment and Public and as summarized in the sections above, are pulled into the Summary tab and together result in an estimate of 5,913 total acres needed for urban reserves for a 27-year period (Table 2). However, this initial estimate of the amount of land needed for urban reserves may be somewhat different than the final amount of land selected depending on the characteristics and resulting capacity of the actual lots selected for urban reserves (e.g., flatter land has a higher capacity assumption resulting in less acreage needed to accommodate the need than sloped land). As documented in the following sections of this memo, after the capacity analysis was completed and land was selected for the Eugene urban reserves, the “land selected for 27-year urban reserves” in Table 2 shows **5,918 acres of developable land is estimated to accommodate a 27-year land need for urban reserves**

Table 2. Summary of all land need for the 27-year urban reserves (2032-2059)

Land Use Type	Urban Reserve Land Needs (gross acres/developable land)
Residential	
For housing	4,012
For group quarters	59
For employment in residential areas	82
Commercial	
For employment	694
Industrial	
For employment	852
Public Land	
For public uses	158
For semi-public uses	57
Estimate of land need for 27-year urban reserves	5,913
Land selected for 27-year urban reserves	5,918

Source: City of Eugene Urban Reserves Land Need Model

F. Capacity of Land in Potential Urban Reserves for Residential Uses, Overall Capacity and Capacity by Subarea

These two tabs (Residential Capacity and Capacity by Subarea) show background data that informs the results of both the Land Need and Land Supply models; they show the estimated capacity of the land that was analyzed, then ultimately selected for Eugene urban reserves.

The **Residential Capacity Tab** shows the estimated capacity of urban reserve land for residential uses. It is based on the density assumptions used in Tables 3 and 4 of the Assumptions Tab, and the gross density assumptions shown in Table UR-C1 used in the Land Supply Model. These assumptions are then applied to urban reserves and presented on the Residential Capacity Tab at three scales: (1) the total

study area (Tables UR-C2 and UR-C3), (2) only the land in the study area identified as suitable for urban reserves (“Suitable Land” in Tables UR-C4 and UR-C5), and (3) only the suitable land selected for a 27-year urban reserve (Tables UR-C6 and UR-C7).

This information is then summarized into Table UR-C8: Summary of developable land for residential uses, in developable acres, and Table UR-C9: Summary of residential capacity and average density. Table UR-C9 shows how the overall average residential density (estimated dwellings/developable acres) achieved changes with the differing characteristics of the land included at each scale. Although each scale uses the same density assumptions in Table UR-C1, the suitable land (row 2) has a higher average estimated density than the full study area (row 1), because land with more development constraints has been removed from the suitable lands (primarily lots with greater than five percent slope above 900 feet in elevation which has lower density and capacity assumptions). The average estimated density then drops when land for the 27-year urban reserves is selected from that suitable land (row 3), because the highest-value agricultural land is removed from urban reserves consideration (which has less than 5 percent slope and is located below 900 ft. and therefore has higher density and capacity assumptions). This methodology is fully described later in this memo, in **Section III. Land Supply Model, D. Capacity Analysis.**

The **Capacity by Subarea Tab** shows the summary of developable land (Table UR-C10) and the estimated residential capacity of urban reserves land, by subarea and at three scales, (1) the total study area (Table UR-C11), (2) only the land in the study area identified as suitable for urban reserves (“Suitable Land” in Table UR-C12), and (3) only the suitable land selected for a 27-year urban reserve (Table UR-C13). Subareas were developed for analysis purposes only as part of the suitability analysis. Results are based on the density assumptions used in Table UR-C1 in the Residential Capacity Tab and applied to developable land. As noted above, further documentation of how urban reserves capacity was calculated can be found in **Section III. Land Supply Model, D. Capacity Analysis.**

III. Land Supply Model

A geospatial Urban Reserves Land Supply Model was developed to analyze the land within the urban reserve study area. The same data sources and methodology from the Envision Eugene adopted 2012-2032 Buildable Lands Inventory (BLI)¹¹ were employed whenever possible. However, some data sources were no longer available or more precise updated datasets had become available. For example, the 2012-2032 BLI used the regional land use layer as one of the primary inputs to determine whether land was developed or undeveloped, but that information has not been updated since 2012. As a substitute for the regional land use layer, the Urban Reserves Land Supply Model used the Property Class Description from the Lane County Assessment and Taxation Department, which is updated annually based upon property sales.

This section describes the data, methodology and assumptions used in the Land Supply Model to develop the urban reserves land supply and land capacity estimates. The main unit of analysis within the Land Supply Model is the tax lot, and whenever possible, information is provided at the tax lot level. Therefore, tax lots were either entirely included or excluded at each stage of the analysis when determining the Eugene urban reserves, with the exception of transportation rights-of-ways because those are not individual tax lots.

A. Classifying development potential

The assessment of land supply begins by classifying each tax lot into four categories based on their development potential:

- Occupied
- Severely constrained by natural hazards or subject to natural resource protections,
- Partially vacant
- Undeveloped

Land that is occupied¹² falls into three categories:

- Publicly owned land that is being used or that is committed to public use (including parkland, land owned for schools and utilities, airport property, and utility and transportation easements and rights-of-way)
- Cemeteries
- Privately owned land that is developed

The first step is identifying occupied lands that are committed to public or special uses. These areas are devoted to uses like parks, schools, government offices, cemeteries, and rights-of-way and therefore are assumed to have no development or redevelopment capacity for residential or employment. Occupied land committed to public or special use includes:

¹¹ For complete details on Eugene’s adopted 2012-2032 Buildable Lands Inventory, refer to the Envision Eugene Comprehensive Plan Appendices: the [Employment Land Supply Study](#) and the [Residential Land Supply Study](#).

¹² Land that is occupied is further described in the Urban Reserves Study, Appendix 2 to the Eugene Urban Reserves Findings.

- Transportation rights-of-way (e.g. streets and rail)
- City Government Property
- County Government Property
- State Government Property (includes land owned by state-funded schools such as University of Oregon and Lane Community College)
- Federal Government Property (e.g. Bureau of Land Management)
- Parks (city, county, and state) and park easements
- School property (e.g. 4J and Bethel schools)
- Cemeteries
- Public utility property for water, wastewater, electric and natural gas, including Bonneville Power Administration (BPA) easements

Next, lands that are severely constrained by natural hazards or subject to natural resource protections¹³ are identified.¹⁴ These areas are assumed to have no potential capacity for residential or employment development or redevelopment and include:

- Federal Emergency Management (FEMA) Floodway and Special Flood Hazard areas
- Lane County's Adopted Goal 5 Riparian Corridors with applicable setbacks
- Lane County's Adopted Goal 5 Wetlands:
 - Wetlands on the National Wetland Inventory
 - Wetlands designated as protect or restore in the West Eugene Wetlands Plan
- Plan designations: Natural Resource (Metro Plan), Natural Resource: Conservation Area (Rural Comprehensive Plan), and Natural Resource: Wildlife (Rural Comprehensive Plan)
- Federally and State-listed threatened and endangered species habitat
- Historic and cultural resources, which are properties classified as eligible and listed according to the Oregon Heritage State Historic Preservation Office
- Designated Natural Areas on the Oregon State Register of Natural Heritage Resources
- Properties with active conservation easements recognized by the Lane County Assessment and Taxation Department
- Areas with a high risk of either a shallow or deep landslide according to the Oregon Department of Geology and Mineral Industries (DOGAMI) landslide susceptibility layers
- Areas with prohibitively steep slopes of 30% or greater

Lands can be classified as occupied, severely constrained by natural hazards or subject to natural resource protections, or both (e.g., government-owned land with protected wetlands) and as such these

¹³ Also identified as/synonymous with “Land that is Severely Constrained by Natural Hazards or Designated / Zoned to Protect Natural Resources” in the Urban Reserves Study, Appendix 2 to the Eugene Urban Reserves Findings.

¹⁴ Except for one, these land types are included in OAR 660-024-0065 “Establishment of Study Area to Evaluate Land for Inclusion in the UGB ... (c) the land consists of a significant scenic, natural, cultural or recreational resource described in this subsection” and “(b) the land is subject to significant development hazards...” These are lands which may be excluded from the preliminary study area when considering a UGB expansion. They were identified as “undevelopable” for the purposes of establishment of the Eugene urban reserves in part to be consistent with state rules for UGB expansion, as urban reserves will be among the first land considered when expanding the UGB in the future. The only land type included here but not in OAR 660-024-0065 are “areas with prohibitively steep slopes of 30% or greater; they are included to be consistent with the analysis undertaken for the Envision Eugene adopted 2012-2032 Buildable Lands Inventory (BLI).

classes are not mutually exclusive. In areas that are both occupied and severely constrained by natural hazards or subject to natural resource protections, the occupied classification takes priority, and will ultimately be assigned to the area. These lands are shown in the Map Documentation of Undevelopable Land (Attachment 4b).

With occupied lands that are committed to public or special uses and land severely constrained by natural hazards or subject to natural resource protections identified, the Urban Reserves Land Supply Model categorizes the remaining land within the study area as **occupied, partially vacant, or undeveloped**. Property classifications and improvement valuations from the Lane County Assessment and Taxation Department are used to determine the categorization of each lot. The locations of addresses and building footprints along with aerial imagery are also used to aid in the process.

Privately owned, developed tax lots are initially classified as **occupied** if these criteria are met:

- Not previously identified as fully constrained by natural hazards or subject to natural resource protections
- Has an improvement value assigned by the Lane County Assessor of greater than or equal to \$1,000 in 2018
- Has a developed property class code from the Lane County Assessor in 2018
- Contains an address point as of January 1, 2019
- Contains a building footprint as of January 1, 2019

Privately owned tax lots initially classified as occupied are reclassified as **partially vacant** if these criteria are met:

- The portion of the tax lot not occupied by a public easement, severely constrained by natural hazards, or subject to natural resource protections is greater than or equal to the partially vacant threshold size of 1 acre
- The remaining developable land on the lot is greater than 4,500 square feet¹⁵

Tax lots are initially classified as **undeveloped** if these criteria are met:

- Not previously identified as occupied or fully constrained by natural hazards or subject to natural resource protections
- Has an improvement value assigned by the Lane County Assessor of less than \$1,000 in 2018
- Has an undeveloped property class code from the Lane County Assessor in 2018
- Does not contain an address point as of January 1, 2019
- Does not contain a building footprint as of January 1, 2019

B. Manual review of tax lots

Whenever there is conflicting information (e.g., significant improvement value and a property classification indicating development, but no address or building footprint), staff manually reviewed the information for the property in question and all surrounding properties to categorize the development potential of the lot.

¹⁵ The minimum lot size in Eugene's R-1 Low Density Residential of 4,500 square feet was used as a proxy for the threshold of a buildable lot size.

When evaluating lots that are eligible for the partially vacant development potential, the area of the existing development is quantified to determine the remaining amount of developable land. The methodology for this differs slightly from the Envision Eugene method. The 2012-2032 Adopted BLI assumed for low density residential land a standard existing development amount of 0.33 acres for lots with a predominant slope of 5 percent or less, and 0.5 acres for lots with a predominant slope of greater than 5 percent. These standard values were based on a manual review of development on partially vacant residential lots across the Eugene UGB during Envision Eugene. A review of large developments was then conducted to manually measure the existing development visible on aerial imagery and those values were applied instead of the standard existing development amounts.

Instead of this practice, the Urban Reserves Land Supply Model used an automated approach to buffer all building footprints on a lot by 30 feet, then draw a polygon completely containing all the buildings and buffers. Driveways outside of the buffer do not count as development, as they can be reconfigured. The size of the polygon containing all the buildings and their buffers was calculated and if it was greater than the standard amount (0.33 acres for lots with a predominant slope of 5 percent or less and 0.5 acres for lots with a predominant slope of greater than 5 percent), it was rounded to the nearest tenth of an acre and used for the existing development amount for the lot. If the automated calculation was less than the standard amount, then the standard existing development amount was applied based on the predominant slope of the lot.

Large lots with widespread development were manually checked, and overridden if necessary, to ensure that the automated calculation did not overestimate the existing development. Additionally, lots with developable land near the threshold amount of 4,500 square feet were manually reviewed to estimate that the configuration of the lot could accommodate additional development.

There were other cases where staff overrode the standard output of the model to reflect more recent information. Examples include land recently purchased by the City's Parks and Open Space Division that was soon to be committed to park use, land initially identified as occupied because it was owned by a public-entity but was actually surplus and could be developed, land without a building footprint in the GIS layer but with a building on it and at least one other indicator of development (e.g., improvement value greater than \$1,000, an address point, or a developed property class code).

In areas where the UGB bisects a tax lot, the development on the entire tax lot is considered when assigning a development potential, but only the amount of developable acreage outside the UGB is counted. For example, if all the existing development is on the portion of the tax lot inside the UGB, the lot will be classified as occupied or partially vacant depending upon the amount of developable acreage of the portion outside the UGB.

After manual review, classification of development potential was complete.

C. Cleaning up plan designation slivers and identifying splits to determine priority land categories and acreage

When plan designations and tax lots did not align perfectly in the geospatial model, staff manually reviewed tax lots to determine on which plan designation(s) the existing development occurred and to correctly identify the priority land category of the lot (based on the plan designation).

Staff identified all splits or gaps in plan designations to be a “sliver” if the secondary plan designation or gap in plan designation accounted for **less than 10%** of the area of a tax lot. These slivers were determined to be a misalignment/difference in spatial accuracy between the plan designation layers and the tax lot layer. Tax lots containing slivers were assigned the primary plan designation. This was done to calculate acreage and capacity by priority land categories for determination of urban reserves, as required per OAR 660-021-0030. Table 3 summarizes which plan designations were assigned to each priority land category.

Table 3: Plan designations comprising each priority land classification

Priority Land Classification	Metropolitan Plan Designations	Rural Comprehensive Plan Designations
First Priority: Exception Areas	<ul style="list-style-type: none"> • Government and Education • Rural Industrial • Rural Commercial • Rural Residential 	<ul style="list-style-type: none"> • Commercial • Industrial • Nonresource • Residential
Second Priority: Marginal Lands	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Marginal
Third Priority: Agricultural Lands	<ul style="list-style-type: none"> • Agriculture 	<ul style="list-style-type: none"> • Agriculture
Third Priority: Forest Lands	<ul style="list-style-type: none"> • Forest Land 	<ul style="list-style-type: none"> • Forest
Other Lands¹⁶	<ul style="list-style-type: none"> • All other plan designations 	<ul style="list-style-type: none"> • All other plan designations

A manual review of the alignment for tax lots with secondary plan designations or gaps in plan designations accounting for *greater than 10%* of the tax lot revealed that in certain cases there was a clear shift in the plan designation from the tax lot layer. In some cases, the plan designation layer roughly followed the tax lot lines, but was drawn at a different scale, resulting in this spatial shift or offset. In these cases, the shift was evaluated manually, and the interpreted, intended plan designation was applied to the entire tax lot. For tax lots where the secondary plan designation accounted for greater than 10% of the tax lot and there was no clear spatial shift between the tax lot layer and the plan designation layer, the tax lot was classified as split designated. Split-designated tax lots may also result in a tax lot with a split priority land classification.

All split-designated tax lots with a development potential of partially vacant were manually reviewed to determine on which plan designation(s) the existing development occurred. The existing development acreage was then removed from the developable acres in the appropriate plan designation/priority land category, so that capacity could be assigned to the correct category.

¹⁶ “Other lands” include land present in the urban reserves study area with plan designations that are not included in the First, Second or Third priority land categories, such as Sand and Gravel, Airport Reserve, and Public Facility, among others.

Table 4: Developable land in acres by Priority Land Category in the Urban Reserve Study Area

Priority Land Classification	Partially Vacant	Undeveloped	Grand Total
First Priority: Exception Areas	1,377	321	1,698
Second Priority: Marginal Lands	342	432	774
Third Priority: Agricultural Lands	3,487	1,489	4,976
Third Priority: Forest Lands	1,833	1,633	3,466
Other Lands	190	112	302
Grand Total	7,229	3,987	11,216

D. Capacity analysis

The capacity analysis combines the urban reserves land need and land supply results to determine how many homes or jobs could be accommodated on developable land within the urban reserves study area. No uses are assigned to specific land in the study area; the analysis simply identifies whether there is enough land with specific characteristics to potentially meet different needs.

Staff and the Envision Eugene Technical Advisory Committee (EETAC) looked at capacity assumptions for two of the land needs that are potentially most significant, residential housing and industrial jobs. Capacity was analyzed for these two land use types because most of the land need is from residential housing and industrial land has certain site characteristics that are different from residential or commercial land. Commercial land is often sited with or adjacent to residential housing in mixed use neighborhoods.

Residential capacity

Residential land makes up the majority of the urban reserves land need. This section explains how residential development capacity was estimated for urban reserves, which used a similar, but more streamlined methodology to estimate residential capacity than the adopted 2012-2032 BLI. A full explanation of the residential capacity methodology for the adopted 2012-2032 BLI is available in section 4.1 of the [Envision Eugene Residential Land Supply Study](#).

The estimate of residential capacity starts with quantifying the acres of developable land, which includes undeveloped land and developable portions of partially vacant land. It uses housing density averages to convert from acres of undeveloped and partially vacant land to capacity for residential development in dwelling units. The result of the capacity analysis is an estimate of the number of dwelling units that can be accommodated on urban reserve’s undeveloped and partially vacant land. The housing density assumptions are generally the same as those used in the Envision Eugene Residential Land Supply Study, which were derived from review of previous housing development in Eugene.

Factors such as elevation, slope, and lot size can affect the capacity of the land supply to accommodate new units of housing.¹⁷ Therefore, as described below, the capacity analysis uses different density

¹⁷ The City imposes more regulation in areas of higher elevation and slope that contribute to lower residential densities in those areas. The areas are still developable; they simply have less capacity because portions of many sites may have steep grades or have neighborhood plan density limits.

assumptions and two capacity methods for land depending on its elevation (below or at or above 900 feet), slope (less than or greater than or equal to 5%), and lot size (acres located on lots¹⁸ of less than 1 acre, 1-5 acres, or 5 or more acres). Although this level of specificity makes urban reserve's capacity analysis more complicated than is legally required, it produces more accurate results than a capacity analysis that uses a single method and density assumption to determine the capacity of all undeveloped and partially vacant land and is consistent with the Envision Eugene capacity methodology and assumptions.

- **Lot size** for undeveloped and partially vacant land. The lot size categories are lots smaller than 1 acre, lots of 1 to 5 acres in size, and lots larger than 5 acres. Lot size is considered because smaller lots require less land set aside for rights-of-way and larger lots require more land for rights-of-way. Lot size excludes the acreage of the lot occupied for public or special uses, severely constrained by natural hazards, or subject to natural resource protections. For example, if an undeveloped lot is 1.2 acres in total, with 0.5 acres of that being severely constrained by natural hazards, its lot size for capacity calculations will be classified as less than one acre (1.2 total acres minus 0.5 natural hazard acres equals 0.7 developable acres). To address the fact that there are some lots that are unlikely to develop without adding more acreage (e.g., very small “sliver” tax lots with only hundreds of square feet and lots that may be mostly non-developable because they are severely constrained by natural hazards or subject to natural resource protections), capacity was not calculated for lots below a minimum lot size.¹⁹
- **Slope of lot.** The slope categories are less than 5% slope and greater than or equal to 5% slope. The slope is considered because development on lands with steeper slopes generally occurs at lower densities compared to flat land (e.g., below 5% slope). To simplify slope across an entire lot into one category for the capacity analysis, all precise slope values were reclassified into 7 categories (less than 5%, 5-10%, 10-15%, 15-20%, 20-25%, 25-30%, and greater than or equal to 30%). The slope category that comprised the largest share, by area, of the lot was calculated and assigned as the predominant slope of the lot. The predominant slope of the lot was then further collapsed into two general categories: less than 5% slope or greater than or equal to 5% slope. For example, a large lot may have a predominant slope classification of less than 5%, but still contain small areas of steeper slopes. Any portions of this example lot with slopes of 30% or more would be classified as undevelopable due to being severely constrained by natural hazards.

¹⁸ The capacity model results in a sub-tax lot level analysis. This means that in the geospatial model, a lot or subarea is not identical with a tax lot. Instead, it is a subarea of a tax lot that shares certain characteristics. For instance, if a lot has more than priority land classification, barring any other differing characteristics the tax lot would be split into subareas by the number of priority land classifications on the site. The term “lot” (rather than “tax lot”) as used here and throughout this section refers to the sub-tax lot acre size, excluding acreage previously identified as occupied for public or special use or fully constrained by natural hazards or subject to natural resource protections.

¹⁹ The minimum lot size of 4,500 square feet was used as a proxy for the threshold of a developable lot size.

- **Elevation** of the land. The elevation categories are below 900 feet and at or above 900 feet. If any portion of the lot is at or above 900 feet, the entire lot is classified as at or above 900 feet. Elevation is considered because Eugene’s land use code regulates development above and below 900 feet differently in some areas.

The methods used in the capacity analysis are described below; they are the same for undeveloped and partially vacant land, which is consistent with the Envision Eugene Residential Land Supply Study:²⁰

- **Capacity method in dwellings per acre.** This method estimates the capacity on:
 - land of all sizes that is flat and below 900 feet,
 - lots of all sizes with a slope of greater than or equal to 5% and an elevation at or above 900 feet, and
 - lots of 1 to 5 acres and larger than 5 acres on land with a slope of greater than or equal to 5% or an elevation at or above 900 feet.

This capacity method multiplies the acres of developable land by the density assumption:

$$\text{Developable Land (ac)} * \text{Density (du/ac)} = \text{Capacity (du)}$$

For example: 100 acres of developable land * 6 dwelling units per acre = a capacity of 600 dwelling units

Developable land excludes acreage previously identified as occupied for public or special use or severely constrained by natural hazards or subject to natural resource protections. For partially vacant lots, it also excludes the amount of existing development estimated.

- **Capacity method in dwellings per lot.** This method estimates the capacity on lots smaller than 1 acre on land with any portion of the lot at an elevation above 900 feet, regardless of the slope of the lot.

This capacity method multiplies the total number of lots by an assumption about the density at which a lot will develop:

$$\text{Number of Lots} * \text{Density (du/lot)} = \text{Capacity (du)}$$

For example: 100 lots * 1 dwelling unit per lot = a capacity of 100 dwelling units

Based on actual development trends collected for the adopted 2012-2032 BLI, it is reasonably clear that, even in sloped areas and areas above 900 feet in elevation (south hills), almost every reasonably sized, undeveloped lot could develop with one home. For these smaller lots, an average density “per acre” is not as accurate as a “one dwelling unit per lot” measurement.

²⁰ There is one exception to this; in the Envision Eugene Residential Land Supply Study, there was one type of land that used a different capacity method for undeveloped than for partially vacant land (LDR, 1-5 acres, sloped, less than 900’). This difference in methodology was to address an area-specific density restriction. However, for urban reserves capacity analysis, since that density restriction is not applicable in the urban reserves area, undeveloped and partially vacant land in this category were treated with the same capacity method .

Density assumptions are documented in the Urban Reserves Land Need Model. As described in Section I, they are generally the same assumptions as were used in the adopted 2012-2032 Buildable Lands Inventory and based on the actual density achieved inside the UGB between 2001-2012. The density assumption begins with identifying a preliminary average residential density that would occur on those acres if all the buildable land was dedicated to housing units (net density). The method does not employ site specific density assumptions; rather it applies average densities to all developable land in a category to derive a dwelling unit estimate.

Each net density is then converted to a gross density to account for developable land that will be used for future streets, sidewalks and utility lines to serve new housing. The net density assumption was adjusted to a gross density assumption based on the amounts of land used for rights-of-way in existing housing, referred to as a net-to-gross conversion.²¹ Accounting for land needed for rights-of way (e.g., streets, sidewalks, utility lines) in this way results in a density assumption that ensures the analysis is not over-estimating the housing capacity of the land supply by recognizing that some land will be needed for public uses.

Weighted residential density assumptions

Given that future residential plan designations will not be identified for urban reserve areas, an average density is needed to predict capacity across all tax lots. The analysis used the plan designation probability by site characteristics inside the UGB as a basis for predicting potential future density within the urban reserves study area.

To incorporate these density assumptions into the urban reserves capacity analysis,²² the Envision Eugene density assumptions were collapsed into weighted average density factors for residential development within each lot type for urban reserves. Calculating a weighted average density involved looking at how different residential plan designations inside the UGB (low, medium, and high density residential) are distributed within each lot type category (e.g., same elevation, slope, size) then applying it to land within the urban reserves study area.

Table 5 shows the weighted residential density calculations, which were based off actual conditions within the Eugene UGB during Envision Eugene. Residential plan designation records²³ from the adopted BLI (2012-2032) were categorized by elevation, slope, and size (as was done for the BLI and described above). Then, the proportion of plan designation records in each elevation/slope/size category were calculated and multiplied by the density factor associated with each category. Those products were then

²¹ OAR 660-024-0010(6) provides the following definition: “*Net Buildable Acre*” consists of 43,560 square feet of residentially designated buildable land after excluding future rights-of-way for streets and roads. Thus, a gross acre is an acre that includes future rights-of-way for streets and roads. Net densities are always higher than gross densities. Sample net to gross calculation for single-family detached using a 25% net to gross factor: Gross density = net density * (1-0.25). For example: net density of 6.0 dwelling units per acre equates to a gross residential density of 4.5 dwelling units per acre (6.0 * (1-.25) = 4.5).

²² Because urban reserves studies rural land outside of the UGB that does not have low density residential, medium density residential or high-density residential designations, it was not possible to overlay capacity assumptions on tax lots with these plan designations.

²³ The calculations included only BLI records with 4,500 square feet or more of developable land (0.103 acres) AND one of the following plan designations: high density residential, high density residential mixed use, medium density residential, medium density residential mixed use, or low density residential.

summed to arrive at a weighted average residential density assumption for each category (e.g., same lot elevation, slope, and size).

For example, within the UGB, small and sloped residential lots are overwhelmingly low density residential, whereas flat and large residential lots have a mixture of low, medium, and high density residential plan designations. This means that the weighted residential density factor applied to a large and flat lot will be higher (more density assumed) than the weighted density factor applied to a small and sloped lot (less density assumed) because the slope and size of the lot affect the likelihood of more dense development occurring.

To apply numbers to that, when tallying residential lots inside the UGB that are small (less than one acre), flat (predominantly below 5% slope), and below 900 feet in elevation, about 92% are designated LDR, 6% are designated MDR, and 2% are designated HDR. Multiplying each of those probabilities by its corresponding adopted BLI 2012-2032 gross density assumption and summing the products results in an average weighted density assumption for small, flat, and below 900 feet lots, of 6.3 dwelling units per acre.

$$(Percent\ of\ lots\ in\ LDR * LDR\ density) + (Percent\ of\ lots\ in\ MDR * MDR\ density) + (Percent\ of\ lots\ in\ HDR * HDR\ density) = weighted\ residential\ density$$

For example, for flat small lots below 900 feet in elevation (first row in the table below):

$$(92.2\% * 5.2\ du/ac) + (6.1\% * 15.4\ du/ac) + (1.8\% * 32.6\ du/ac) = 6.3\ du/ac$$

Table 5: Conversion of density assumptions by residential plan designation to a weighted gross residential density assumption for all residential land, with densities in dwelling units per acre except where noted

Lot characteristics			Distribution of lots within the UGB with matching characteristics by residential plan designation			BLI gross density assumption by residential plan designation			Weighted residential density assumption
Size	Slope	Elevation	LDR	MDR	HDR	LDR	MDR	HDR	
< 1 ac	< 5%	Below 900 ft	92%	6%	2%	5.2	15.4	32.6	6.3 du per acre
< 1 ac	< 5%	At or above 900 ft	100%	0%	0%	1 per lot	15.4	32.6	1 du per lot
< 1 ac	≥ 5%	Below 900 ft	98%	1%	1%	4.1 ²⁴	12.5	32.6	4.4 du per acre
< 1 ac	≥ 5%	At or above 900 ft	100%	0%	0%	1 per lot	12.5	32.6	1 du per lot
1-5 ac	< 5%	Below 900 ft	68%	27%	5%	4.6	13.2	24.8	8.0 du per acre
1-5 ac	< 5%	At or above 900 ft	100%	0%	0%	2.7 ²⁵	13.2	24.8	2.7 du per acre
1-5 ac	≥ 5%	Below 900 ft	97%	3%	1%	2.7 ²⁵	10.7	24.8	3.1 du per acre
1-5 ac	≥ 5%	At or above 900 ft	100%	0%	0%	2.7 ²⁵	10.7	24.8	2.7 du per acre
5+ ac	< 5%	Below 900 ft	61%	26%	12%	4.0	12.3	21.5	8.4 du per acre
5+ ac	< 5%	At or above 900 ft	100%	0%	0%	2.3 ²⁵	12.3	21.5	2.3 du per acre
5+ ac	≥ 5%	Below 900 ft	94%	6%	0%	2.3 ²⁵	10.0	21.5	2.8 du per acre
5+ ac	≥ 5%	At or above 900 ft	100%	0%	0%	2.3 ²⁵	10.0	21.5	2.3 du per acre

Table 6 summarizes the urban reserves weighted residential density assumptions by lot size and type. It is also included in the Land Need Model Residential Capacity Tab, Table UR-C1.

Table 6: Urban reserves weighted gross residential density assumptions in dwellings per acre except where noted

Lot size ²⁶	Lot slope <5%		Lot slope ≥5%	
	Entire lot below 900ft	Any portion of lot at or above 900ft	Entire lot below 900ft	Any portion of lot at or above 900ft
<1 acre	6.3 per acre	1 per lot	4.4 per acre	1 per lot
1-5 acres	8.0 per acre	2.7 per acre	3.1 per acre	2.7 per acre
5+ acres	8.4 per acre	2.3 per acre	2.8 per acre	2.3 per acre

²⁴ This category of LDR used a 1 dwelling unit per lot density assumption in the [Residential Land Supply Study](#) and was converted into number of dwelling units per acre to align with the units of the density factors for MDR and HDR. The number of lots in this category and their buildable acreage was used to convert the density assumption from 1 dwelling unit per lot to an equivalent of 4.1 dwelling units per acre.

²⁵ This category of LDR used a Capacity Method 2 density assumption (2.5 dwelling units per acre applied to all land) in the [Residential Land Supply Study](#) and was converted into a Capacity Method 1 density assumption (dwelling units per developable acre) equivalent since Capacity Method 2 was not used in the urban reserves land supply analysis.

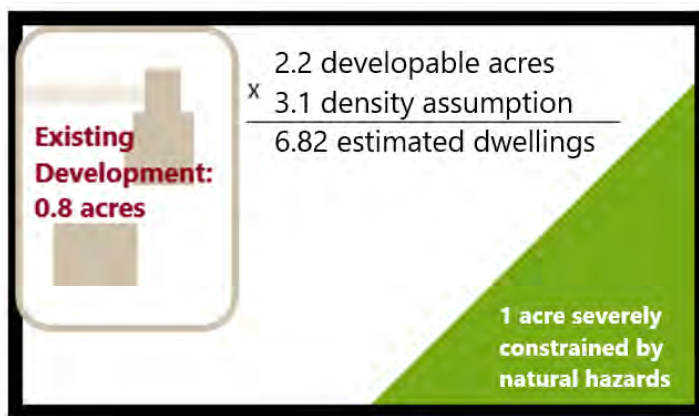
²⁶ Lot size excludes the acreage of the lot occupied for public or special uses (e.g., rights-of-way, utility easements), severely constrained by natural hazards, or subject to natural resource protections.

The weighted residential density assumption was then multiplied for each lot by the lot’s developable acres to calculate potential residential capacity for each lot in the study area.

Figure 2 displays an example to further illustrate the capacity calculations for a lot with the following characteristics:

- Lot slope: Greater than 5 percent
- Lot elevation: Below 900 feet
- Lot size: 3 acres (excludes areas occupied for public or special uses, severely constrained by natural hazards, or subject to natural resource protections)
- The slope, elevation, and size equate to a density assumption of 3.1 dwellings per acre for residential development (see Table 6)
- 4 lot acres minus 1 acre of severely constrained by natural hazards minus 0.8 existing development acres equals 2.2 developable acres
- 2.2 developable acres multiplied by 3.1 dwellings per acre results in an estimated future capacity of 6.82 dwellings on this lot.

Figure 2: Residential capacity estimate example with a 4-acre lot



It is important to keep in mind that these capacity calculations are based upon average densities seen across Eugene from 2001-2012. It is noted that some lots may develop more densely than estimated, while other lots may develop less densely. The capacity analysis does not seek to pinpoint where or exactly how much future development will happen, but to estimate on average the total amount of capacity that is available.

The developable residential acreage presented in Table 7 is also included in the Land Need Model, Residential Capacity Tab, UR-C8. It is important to note that the 5,532 acres of developable land available for residential uses in the Eugene urban reserves (row 3) is greater than the residential land need shown in the Summary tab, table S1 (4,154 acres) because this land supply could be used for housing, but it could also be used for other uses, such as commercial or public uses.

Also as noted at Table UR-C8, the total acreage for all categories excludes developable acres of land in close proximity to the Eugene Airport that are only compatible with employment or industrial development, not residential use. This is further discussed in the Airport and Airport North Subarea Reports included in Appendix 2a.

Table 7: Summary of undeveloped and partially vacant land for residential uses, in developable acres^{27, 28}

	Undeveloped	Partially Vacant	Total
1. Total Study Area	3,865	6,755	10,620
2. Suitable Land	2,432	3,837	6,269
3. Urban Reserve Land (27-year)	2,255	3,277	5,532

Table 8 is a subset of results from the Land Need Model, Residential Capacity Tab, UR-C9. It shows how the estimated residential capacity changes with the land in the urban reserves study area (row 1), land that is identified as “suitable” for urban reserves (row 2) and land selected for urban reserves (row 3).

Table 8: Summary of estimated residential capacity in dwelling units²⁷

	Undeveloped	Partially Vacant	Total
1. Total Study Area	17,355	33,423	50,779
2. Suitable Land	11,603	21,407	33,009
3. Urban Reserve Land (27-year)	10,128	16,710	26,838

Industrial capacity

While residential land makes up the majority of the urban reserves land need, industrial land needs certain site characteristics that are different from residential or commercial land. Industrial land is projected to employ 13 employees per acre²⁹. There is a projected need for 10,642 industrial employees between 2032 – 2062, which translates to 963 acres of land.

The industrial capacity analysis does not assign uses to specific land in the study area; it simply identifies whether there is enough land with the characteristics to potentially meet the industrial jobs need identified.

Table 9 shows the developable acres located on lots meeting all of the following industrial capacity criteria within the urban reserves study area:

- Predominant slope of less than 10 percent (OAR 660-024-0065(5)(d))
- Undeveloped or partially vacant development potential
- Developable area greater than 5 acres (OAR 660-024-0065(5)(d))
- Not entirely comprised of a residential plan designation³⁰

²⁷ Acreage and corresponding capacity of areas deemed incompatible with residential development due to airport proximity are excluded from tables 7 and 8.

²⁸ The acreages in Table 7 include undeveloped land that may not have estimated residential capacity because the lot size falls below the minimum threshold of 4500 square feet, therefore these values are slightly higher than those in the UR-C8 table within the Land Need Model.

²⁹ 13 employees per acre is the same value found on industrially-designated land across Eugene as shown in the [Employment Land Supply Study](#).

³⁰ The urban reserves analysis presumed that if a lot had a residential plan designation it was likely not appropriate for future industrial use due to the existing or nearby residential uses. For tax lots with split plan designations that meet the industrial criteria, potential industrial acreage and capacity estimates excluded any portion(s) with residential plan designations.

- Any portion of the lot is within 1, 1.5, or 2 miles, driving distance on existing roads to a State Designated Freight Route.³¹ Freight routes include:
 - a. I-5
 - b. I-105 west of I-5
 - c. Beltline
 - d. Hwy 99 north of Beltline
 - e. Hwy 126 west of Beltline

Table 9: Industrial land capacity in developable acres

	Developable acres with potential for industrial capacity
1. Total Study Area	3,246
2. Suitable Land	2,736
3. Urban Reserve Land (27-year)	2,156

The land with industrial capacity was analyzed in the Urban Reserve Study Subarea Reports to determine whether it was suitable for urban reserves. Maps illustrating the locations of land with potential industrial capacity are shown in the Eugene Urban Reserves Study Subarea Reports (Appendix 2a to the Findings).

Table 9 shows that there is over twice as much land with potential industrial capacity in the Eugene urban reserves. Excluding the land in close proximity to the Eugene Airport that is compatible only with employment uses, the remaining land with industrial capacity also has potential for residential capacity.

F. Suitability analysis

The results of the Land Supply Model discussed above served to inform the suitability analysis, which divided the urban reserves study area into 18 subareas to ease assessment of such a large area of land. The 18 subarea reports can be found in Appendix 2a to the Findings. The analysis from the Land Supply Model included in the subarea analysis reports, such as development potential, potential residential and industrial capacity estimates, and undevelopable land, aided staff when evaluating the Goal 14 locational factors used to determine which lands were suitable for urban reserves and which would be dismissed from consideration.

G. Determination of urban reserves land in priority order

As fully described in the Urban Reserves Study, Appendix 2, OAR 660-021-0030(3) lays out the order in which cities may include land found suitable for an urban reserve. “If land of higher priority [priority 1 and 2] are inadequate to accommodate the amount of land estimated ...third priority goes to land designated in an acknowledged comprehensive plan for agriculture or forestry, or both. Higher priority shall be given to land of lower capability as measured by the capability classification system or by cubic

³¹ The Freight Route designation is the criteria used in the UGB industrial expansion analysis based on the adopted Economic Opportunities Analysis in the Envision Eugene Employment Land Supply Study (1 mile was used). Rail is not included in the state’s definition of a freight route, so access to rail lines was not analyzed.

foot site class, whichever is appropriate for the current use.” (OAR 660-021-0030(3)(c)). This is why the Land Supply Model categorizes land in priority order and why further classification was necessary for third priority land, as described below.

Third priority agricultural and forest land classification

The predominant land capability class and forest productivity class were calculated for all suitable third priority agricultural and forest lands within the urban reserves study area. When grouped together, land capability class and forest productivity class are referred to as “land class”.

For third priority agricultural lands, the land capability class ranges from one to eight, with class one soils being the most productive for agriculture and class eight soils being least productive. The land capability class was sourced from a Lane Council of Governments (LCOG) spatial dataset, derived from the United States Department of Agriculture - Natural Resources Conservation Service (USDA - NRCS) soils database (September 10, 2019 version was used).

Land capability class definitions for agriculture land:³²

- Class 1 soils have slight limitations that restrict their use
- Class 2 soils have moderate limitations that reduce the choice of plants or require moderate conservation practices
- Class 3 soils have severe limitations that reduce the choice of plants or require special conservation practices, or both
- Class 4 soils have very severe limitations that restrict the choice of plants or require very careful management, or both
- Class 5 soils have little or no hazard of erosion but have other limitations, impractical to remove, that limit their use mainly to pasture, range, forestland, or wildlife food and cover
- Class 6 soils have severe limitations that make them generally unsuited to cultivation and that limit their use mainly to pasture, range, forestland, or wildlife food and cover
- Class 7 soils have very severe limitations that make them unsuited to cultivation and that restrict their use mainly to grazing, forestland, or wildlife
- Class 8 soils and miscellaneous areas have limitations that preclude their use for commercial plant production and limit their use to recreation, wildlife, or water supply or for esthetic purposes

For third priority forest lands, the productivity class is determined by the cubic feet of new growth an acre of land could produce annually when growing the dominant timber-producing tree species, which is Douglas-fir (*Pseudotsuga menziesii*) for Lane County. The Oregon Department of Forestry (ODF) groups forest productivity into six classes, with class one capable of yielding the most growth and class 6 yielding the least growth.

³² Land capability class definitions are from the United States Department of Agriculture Natural Resources Conservation service: https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/nra/?cid=nrcs143_014040.

Figure 3: Forest land productivity classes

CLASS	POTENTIAL YIELD-MEAN ANNUAL INCREMENT
1	225 or more cu.ft./ac./yr.
2	165 to 224 cu.ft./ac./yr.
3	120 to 164 cu.ft./ac./yr.
4	85 to 119 cu.ft./ac./yr.
5	50 to 84 cu.ft./ac./yr.
6	20 to 49 cu.ft./ac./yr.

Source: <https://www.oregon.gov/ODF/Documents/AboutODF/LandUsePlanningNote3SiteProductivity.pdf>

The cubic feet per acre per year yield ratings were provided by the [Lane County Soil Ratings for Forestry and Agriculture report](#) (August 2011 update) from the Lane County Land Management Division. This report contains productivity ratings from NRCS and from ODF (when NRCS data are not available) by NRCS soil type. The cubic feet per acre per year yield ratings were reclassified into productivity classes based on the information listed in Figure 3.

Predominant land capability or forest productivity class

The technical analysis for urban reserves was conducted at the tax lot level, but soil types do not conform to tax lot boundaries. To evaluate agriculture land capability and forest productivity on a tax lot level, the predominant land capability or forest productivity class was calculated for each suitable third priority tax lot in the study area. In circumstances when tax lots have multiple priority land classifications, the values were only calculated for the third priority section(s) of the tax lot because land capability class and forest productivity class are only applicable when evaluating third priority land. A summary tool was run using GIS software once for land capability class on agriculture-designated land and once for forest productivity class on forest-designated land. These results produced the predominant land capability or forest productivity class (largest share by area, but not necessarily the majority because one lot could contain up to six or eight individual classes) for each tax lot comprised partially or entirely of third priority land. This method of calculating the predominant land class aligns with how slope classification was calculated for each tax lot within the study area, maintaining consistency for incorporating natural features that do not align with tax lot boundaries into the technical analysis.

Third priority (with predominant land class of 1 or 2) and first priority split tax lots

In selecting the 27-year urban reserves, as documented in the Eugene Urban Reserves Study, Sections III and IV, staff were directed by the Eugene City Council and the Lane County Board of Commissioners to not include land with the highest-value soils for urban reserves designation, which is all third priority land with predominant class 1 land and immediately adjacent predominant class 2 land (the lowest priority land based on State rules).

By not including the lowest priority land in urban reserves, five tax lots were identified with split first priority and third priority land (with a predominant land class of 1 or 2).³³ Since urban reserves land is selected at the tax lot level, a determination was made to select these tax lot *based on the majority priority land classification* of the tax lot. In other words, if the tax lot is majority third priority land, then that is how it is considered when designating urban reserves; if the lot is majority first priority land, then that is how it is considered when designating urban reserves. There are two cases where the tax lot is majority first priority land, and three cases where the tax lot is majority third priority land, as shown in Table 10 below:

Table 10: Third priority (with predominant land class of 1 or 2) and first priority split tax lots

Tax lot number	Percent third priority	Predominant third priority land class	Included in urban reserves?
1604280001000	88%	2	No
1604280001104	90%	1	No
1604340000900	21%	2	Yes
1604340000905	88%	1	No
1704041001200	23%	1	Yes

IV. Conclusion

This technical memo describes the methodology for estimating the land need and land supply for the Eugene urban reserves. Table 11 is from Table UR-C10 in the Land Need Model and summarizes the total developable acres available for all land uses in the urban reserves study area (row 1), in the land that is identified as “suitable” for urban reserves (row 2) and in the land selected for urban reserves (row 3).

Table 11: Total developable acres

	Total Developable Acres ³⁴
1. Total Study Area	11,216
2. Suitable Land	6,655
3. Urban Reserve Land (27-year option)	5,918

Based on the direction of the Eugene City Council and the Lane County Board of Commissioners, the Eugene urban reserves will meet the need of approximately 27-years of growth, which is a land supply of 5,918 developable acres. Please refer to the Eugene Urban Reserves Study (Appendix 2 to the

³³ See section III. C. of this memo, “Cleaning up plan designation slivers and identifying splits to determine priority land categories and acreage” for more information on split designations and split priority land classification within the urban reserves study area.

³⁴ These values are higher than those in Table 7 and those in the Residential Capacity section because they include developable land that is only compatible with industrial employment uses and developable land without regard to minimum lot size required for residential development.

Findings) for more information on how this technical data was used in the selection of the Eugene urban reserves.

Attachments:

- a. Eugene Urban Reserves Land Need Model (spreadsheet)
- b. Map Documentation of “Undevelopable” Land

Introduction

The **Urban Reserves Land Need Model** is a technical spreadsheet and represents the most up-to-date assumptions about urban reserve planning for Eugene. Eugene's urban reserves planning started with a 30-year period, for the years between 2032 to 2062.

The model is built to allow toggling between timeframes. Based on Eugene City Council and Lane County Board of Commissioners direction, this version of the model shows results for a 27-year urban reserve, for the year of 2032 to 2059. The spreadsheet often refers to a 27-year "need" or "demand" or "deficit," however this is actually the result of first narrowing the study area down to the suitable land selected for the urban reserve, which is the equivalent to a 27-year urban reserve land need or deficit.

Most of the assumptions in this model are carried forward or are based on the analysis and assumptions from the adopted Envision Eugene Employment and Residential Land Supply Studies (2012-2032).

The spreadsheet provides an opportunity for the public to see the complexities of the assumptions and the impact on Urban Reserves land need when different assumptions are applied.

Further explanation of the assumptions and methodology can be found in the Eugene Urban Reserves Technical Memo.

Urban Reserves Land Need Model

The purpose of this model is to estimate the land needed for residential, employment, and other lands within urban reserves to accommodate expected growth and to compare the total land need for urban reserves to the estimated capacity in the urban reserves area. While it currently shows the demand and capacity for the proposed 27-year urban reserves of 2032 to 2059, the model's format allows assumptions to be adjusted for a 10 to 30 year period.

Instructions

This spreadsheet has eight tabs other than the Intro and Instructions tabs. They are as follows in bold:

Assump: This tab shows all assumptions used in the model in eleven tables.

Changes to any assumptions should occur on this tab as follows:

Assumptions that can be changed are highlighted in green. Assumptions that cannot be changed, for instance because they are carried forward from Envision Eugene, are highlighted in grey.

There are several places that check the sums in a different way than the tables. Sometimes the check shows that the total is 100%, sometimes it shows "-" indicating the check shows no difference in sum from the table and is okay.

Forecasts: This tab presents a year-by-year forecast for population and employment growth.

Table F1 shows the population forecast for Eugene on an annual basis.

Table F2 shows the employment forecast for Eugene on an annual basis.

Residential: This tab shows the residential land demand calculations.

Tables R1 and R2 show demand for residential land based on population growth.

Table R3 shows the capacity of the residential surplus land within the UGB (2032).

Table R4 shows capacity needed in urban reserves after deducting for surplus residential land capacity in the current UGB.

Table R5 shows the remaining deficit of land for housing that needs to be accommodated in urban reserves.

Table R6 shows demand for residential land for group quarters.

Table R7 shows demand for commercial uses in residential plan designations.

Employment: This tab shows the employment land demand calculations.

Tables E1 and E2 show the employment forecast by category of employment use.

Table E3 shows employment growth that will not require new employment land.

Table E4 estimates demand for commercial land in residential plan designations (excluding employment in home occupations).

Table E5 estimates demand for employment land.

Table E6 shows capacity needed in urban reserves after deducting for surplus employment land capacity in the current UGB.

Public: This tab shows demand for public and semi-public land.

Table P1 shows demand for public and semi-public land.

Residential Capacity: This tab shows the estimated capacity of land that is expected to be part of urban reserves.

Table UR-C1 shows density assumptions for residential land.

Table UR-C2 shows the inventory of developable undeveloped and partially vacant land in the entire urban reserve study area in buildable acres.

Table UR-C3 shows residential capacity of land in the entire study area in UR-C2 in dwelling units.

Table UR-C4 shows the inventory of suitable developable, undeveloped, and partially vacant land in the suitable land of the urban reserves study area.

Table UR-C5 shows residential capacity of suitable land in UR-C4 in dwelling units.

Table UR-C6 shows the inventory of suitable developable, undeveloped, and partially vacant land in the proposed 27-year urban reserve in buildable acres.

Table UR-C7 shows residential capacity of land in the proposed 27-year urban reserve in UR-C6 in dwelling units.

Table UR-C8 summarizes the developable, undeveloped, and partially vacant land for residential uses for the total study area, suitable land area, and the 27-year urban reserve.

Table UR-C9 summarizes the resulting overall average residential density of land for the study area, suitable land, and the 27-year urban reserve in UR-C8 in dwelling.

Capacity by Subarea: This tab presents the estimated of capacity of land that is expected to be part of urban reserves by subarea.

Table UR-C10 summarizes all of the developable land, for the total study area, suitable land area, and the 27-year urban reserve.

Table UR-C11 shows the inventory of developable undeveloped and partially vacant land and residential capacity in subareas for the entire urban reserve study area.

Table UR-C12 shows the inventory of suitable developable undeveloped and partially vacant land and residential capacity in subareas for the suitable land of the urban reserve study area.

Table UR-C13 shows the resulting overall average residential density in subareas for land in the proposed 27-year urban reserve.

Summary: This tab summarizes all land need for urban reserves.

Table S1 summarizes all of the land needs that cannot be met within the UGB in 2032 and will be met in urban reserves.

Land Demand and Capacity Assumptions

Assumptions shown are based the demand for a 27-year urban reserves.
Assumptions in green can be changed because they are demand estimates for urban reserves that were not derived from Envision Eugene.
Assumptions in gray are locked because the assumption/methodology was carried forward for urban reserves from the adopted Envision Eugene Residential and Employment Land Supply Studies (2012-2032).

Residential Land Demand (new dwelling units)						
1. Housing Demand Demand variables						
	Value					
Population Growth 2032-2059	43,944					
% in Group Quarters	4.6%					
Average household size	2.24					
Vacancy	5.0%					
Housing mix						
Single-family detached	55%					
Single-family attached	8%					
Two to four units	12%				Mix Summary	
Five or more units	25%				SF Detached 55%	
					Multifamily 45%	
Total	100.0%	Correct				
2. Allocation of dwelling units to plan designation:						
Percent of DU by DU type	LDR	MDR	HDR	Com	total	Balance
Single-family detached	97%	3%	0%	0%	100%	Correct
Single-family attached	17%	53%	30%	0%	100%	Correct
Two to four units	27%	68%	5%	0%	100%	Correct
Five or more units	0%	30%	70%	0%	100%	Correct

Residential Land Density									
These assumptions were used to calculate gross residential density for Eugene's existing vacant and partially vacant land for Envision Eugene. They are the basis of developing an estimate of residential capacity in urban reserves. See Residential Capacity Tab, Table UR-C1 for Gross Density Assumptions for Developable Residential Land, and the Eugene Urban Reserves Technical Memo for further documentation.									
3. Net Density Assumptions (DU/AC)									
	LDR		LDR		MDR/HDR				
	<5% Slope		<5% Slope		>5% Slope				
	Acres Below 900'		Acres Above 900'		Acres Below 900'		Lots Above 900'		
Plan Designation								<5%	5% to 30%
Low Density Residential	5.4	3.2	1.0	3.2	1.0	3.2	1.0	NA	NA
Medium Density Residential	NA							15.4	12.5
High Density Residential	NA							32.6	32.6
Note: LDR where a 1 is indicated equals 1 DU per LOT. Note: Acres above 900' includes lots straddling 900'.									
4. Net-to Gross Factors by Lot Size									
Plan Designation	<1 ac	1-5 ac	5+ ac						
Low Density Residential	4%	14%	26%						
Medium Density Residential	0%	14%	20%						
High Density Residential	0%	24%	34%						

Other residential land: Group Quarters and UGB Residential Surplus		
These assumptions are based on assumptions in Envision Eugene. They were used to estimate the capacity of the residential surplus in the current UGB (Table R3) and the demand for group quarters in urban reserves (Table R6).		
5. Density for UGB residential surplus land and group quarters		
Dwelling units by gross acres	Net Densities	Gross Densities
LDR	5.4	4.0
MDR	15.4	12.3
HDR	32.6	21.5
Commercial		20.5
6. Demand and density for group quarters		
People in group quarters	2,021	
Average HH size	1.6	
Development density	21.5	

Employment Land Demand		
7. Employment growth		
	Value	
2032 employment	148,460	
2032-2059 growth rate	1.07%	
2059 employment	198,027	
8. Employment growth by land use type		
	Percent	
Industrial	19%	
Non-Retail Commercial	55%	
Retail	12%	
Government	14%	
9. New commercial employment in Residential Plan Designations		
	Emp in Res. PD	No Additional Land (HO)
	Req. Land	
Non-Retail Commercial	10.0%	5.0%
Retail	10.0%	5.0%
Employment Land Capacity		
These assumptions were used to calculate gross employment density for Eugene's existing vacant and partially vacant land for Envision Eugene. They are the basis of developing an estimate of employment capacity in urban reserves. Documentation of how urban reserve employment capacity was calculated can be found in the Eugene Urban Reserves Technical Memo.		
10. Commercial and Industrial employment densities		
	EPA	Net-to-gross
Industrial	13	15%
Non-Retail Commercial	68	20%
Retail	23	20%

Public and Semi-Public Land Demand		
These categories were used in Envision Eugene and are used here to get a rough estimate of need for additional land for public and semi-public uses in urban reserves.		
11. Demand Assumptions for Additional Public and Semi-Public Land in Urban Reserves		
	43,944	
Population Growth		
	Acres/1,000 persons	Gross Acres
Parks - Neighborhood and Community Pa	3.59	
Educational and Other Public Facilities		
Bethel School District & 4J School Distri	NA	0
University of Oregon & Lane	NA	0
Community College Facilities	NA	0
City of Eugene/Other Public Facilities	NA	0
	1.3	
Semi-Public		

Population and Employment Forecasts by Year, 2032 to 2062

F1. Population Forecast for Eugene

Source: the "Coordinated Population Forecast 2019 through 2069, Lane County Urban Growth Boundaries & Area Outside UGBs" June 30 2019, Portland State University

Year	Total	Year-over-year change
2032	213,619	
2033	215,209	1,590
2034	216,811	3,192
2035	218,425	4,806
2036	219,934	6,315
2037	221,454	7,835
2038	222,985	9,366
2039	224,526	10,907
2040	226,078	12,459
2041	227,567	13,948
2042	229,067	15,448
2043	230,576	16,957
2044	232,096	18,477
2045	233,625	20,006
2046	235,242	21,623
2047	236,870	23,251
2048	238,510	24,891
2049	240,161	26,542
2050	241,823	28,204
2051	243,621	30,002
2052	245,432	31,813
2053	247,256	33,637
2054	249,094	35,475
2055	250,946	37,327
2056	252,584	38,965
2057	254,233	40,614
2058	255,893	42,274
2059	257,563	43,944
2060	259,244	45,625
2061	260,823	47,204
2062	262,412	48,792

F2. Employment Forecast for Eugene

Source: the 2017-2027 Oregon Employment Department (OED) forecast for Lane County

Year	Total	Year-over-year change
2032	148,460	0
2033	150,053	1,593
2034	151,662	3,202
2035	153,289	4,829
2036	154,934	6,474
2037	156,596	8,136
2038	158,275	9,815
2039	159,973	11,513
2040	161,689	13,229
2041	163,424	14,964
2042	165,177	16,717
2043	166,949	18,489
2044	168,739	20,279
2045	170,549	22,089
2046	172,379	23,919
2047	174,228	25,768
2048	176,097	27,637
2049	177,986	29,526
2050	179,895	31,435
2051	181,825	33,365
2052	183,775	35,315
2053	185,747	37,287
2054	187,739	39,279
2055	189,753	41,293
2056	191,789	43,329
2057	193,846	45,386
2058	195,925	47,465
2059	198,027	49,567
2060	200,151	51,691
2061	202,298	53,838
2062	204,468	56,008

The PSU method used to extrapolate the forecast to a year-to-year basis is described here:

<https://drive.google.com/file/d/1hw7qOk6LkiZsuU8rwH6heWkeLLsl6OZs/view?usp=sharing>

Residential Land Demand (in Urban Reserves from 2032 to 2059)

This model initially allocates housing needs according to Eugene's existing residential plan designations, to be consistent with the analysis in Envision Eugene and using the same key assumptions. The same is true for the capacity analysis of potential developable urban reserves land.

Urban Reserves then summarizes the residential land need (and capacity) into one category, residential, because land in urban reserves will not have a specific plan designation. When (and if) the Eugene Urban Growth Boundary is expanded, that is the point when plan designations will be given to specific parcels of land.

Demand for new residential land, resulting from population growth

R1. Housing Demand

Variable	Estimate of Housing Units (2032- 2059)
Change in persons	43,944
<i>minus</i> Change in persons in group quarters	2,021
<i>equals</i> Persons in households	41,923
Average household size	2.24
New occupied DU	18,716
<i>times</i> Aggregate vacancy rate	5%
<i>equals</i> Vacant dwelling units	936
Total new dwelling units	19,652
Dwelling units by structure type	
Single-family detached	
Percent single-family detached DU	55%
<i>equals</i> Total new single-family detached DU	10,809
Single-family attached	
Percent single-family attached DU	8%
Total new single-family attached DU	1,572
Two to four units	
Percent two to four DU	12%
Total new two to four DU	2,358
Five or more units	
Percent five or more DU	25%
Total new five or more DU	4,913
Totals	
<i>equals</i> Total new dwelling units	19,652

R2. Housing Allocation to PD

Housing Type	Plan Designation				Total (DU)	
	LDR	MDR	HDR	Commercial		
Percent of Units						
Single-family detached	97%	3%	0%	0%	100%	
Single-family attached	17%	53%	30%	0%	100%	
Two to four units	27%	68%	5%	0%	100%	
Five or more units	0%	30%	70%	0%	100%	
Number of Units						
Single-family detached	10,485	324	0	0	10,809	-
Single-family attached	267	833	472	0	1,572	-
Two to four units	637	1,603	118	0	2,358	-
Five or more units	0	1,474	3,439	0	4,913	-
Total	11,389	4,234	4,029	0	19,652	
CHECK SUM	58%	22%	21%		100%	

Residential capacity of existing surplus, within current UGB

R3. Summary of 2032 BLI Residential Surplus, acres and DU Potential

This is the acres and capacity of Eugene's residential surplus lands in 2032 based on the Envision Eugene analysis, including the derived average residential density of the surplus land.

Plan Designation	Land Supply Surplus (Gross Acres) Vacant or Partially Vacant within the UGB (2032)		DU Potential	Average density (DU/G Ac)
Low Density Residential	47		188	4.0
Medium Density Residential	0		0	
High Density Residential	0		0	
Total	47		188	4.0

Residential capacity needed in Urban Reserve after surplus within current UGB

R4. Comparison of capacity of vacant residential surplus land inside the UGB as of 2032 with demand for new urban reserves dwelling units

This table compares the capacity of existing surplus land (Table R3) in the UGB with demand for new urban reserves dwellings in residential plan designations (Table R1)

Plan Designation	Capacity of existing vacant surplus land within the UGB (in 2032)		Demand for DU	Residential Capacity -- Deficit
Low Density Residential	188		11,389	-11,201
Medium Density Residential	0		4,234	-4,234
High Density Residential	0		4,029	-4,029
Total	188		19,652	-19,464

Residential land need for Urban Reserves

R5. Land deficit to be accommodated through Urban Reserves

This table shows the remaining dwellings to be accommodated in urban reserves from Table R4 after accounting for the surplus in the UGB. The table also shows the remaining residential land need to be accommodated in urban reserves, derived from the average density of the land in the 27-year urban reserves (Table UR-C9 on the Residential Capacity tab).

Land Use	Unmet Residential Capacity after UGB Surplus (DU)	Average Density in 27-year Urban Reserve Area	Land Deficit (Gross Acres)
Residential	-19,464	4.8	-4,021

Demand for additional residential land

R6. Land needed for group quarters

Table R6 projects land needed for group quarters based on the population projected to be in group quarters (Table R1) and the assumed density (Table 6)

Variable	
Dwelling Units Needed	
Population in group quarters	2,021
Persons per household	1.60
Dwelling Units	1,264
Land Need for Group Quarters	
Density (DU/Gross Acres)	21.5
Total Land Need (Gross Acres)	59

R7. Residential land needed for employment (does not include land needed for home occupations)

This table projects demand for land in residential plan designations for employment based on Table E3.

Land Use	Percent	Gross Acres
Residential Land	100%	82

Employment Land Demand (in Urban Reserves from 2032 to 2059)

This model initially allocates employment needs by employment category and then according to Eugene's existing employment plan designations, to be consistent with the analysis in Envision Eugene and using the same key assumptions. The same is true for the capacity analysis of potential buildable urban reserves land.

Demand for new employment land, resulting from employment growth

E1. Employment growth

Year	Total Employment
2032	148,460
2059	198,027
Change 2032 to 2059	
Employees	49,567
Percent	33%
AAGR	1.07%

E2. Employment growth in by land use type

Land Use Type	2032		2059		Change 2032 to 2059
	Employment	% of Total	Employment	% of Total	
Industrial	28,207	19.0%	37,625	19.0%	9,418
Non-Retail Commercial	81,654	55.0%	108,915	55.0%	27,261
Retail	17,815	12.0%	23,763	12.0%	5,948
Government	20,784	14.0%	27,724	14.0%	6,940
Total	148,460	100%	198,027	100%	49,567

CHECK SUM - -

E3. New commercial employment in residential plan designations

This table projects demand for land in residential plan designations for

Land Use Type	New Employment Growth	Employment Growth not Requiring New Employment Land		Employment Requiring New Land
		Emp. in Residential Des.	% of New Employment	
Non-Retail Commercial	27,261	4,089	15%	23,172
Retail	5,948	892	15%	5,056
Total	33,209	4,981	15%	

CHECK SUM - -

E4. Land demand for commercial employment in residential plan designations -- does not include employment in "home occupations"

This table projects land demand for employment in residential plan designations (Table E3), exclusive of employment in home occupations. This includes employment like neighborhood markets, day care centers, or doctors offices located in residential areas. Home occupations are assumed to occur on residential land but not require additional land so they need no additional analysis.

	Employment on New Residential Land. Excluding home occupations	EPA (Net Acres)	Land Demand (Net Acres)	Land Demand (Gross Acres)
Non-Retail Commercial	2,726	68	40	50
Retail	595	23	26	32
Total	3,321	50	66	82

E5. Commercial and Industrial employment land need by land use type

Land Use Type	Employment on New Land	EPA (Net Acres)	Land Demand (Net Acres)	Land Demand (Gross Acres)
Industrial	9,418	13	724	852
Non-Retail Commercial	23,172	68	341	426
Retail	5,056	23	220	275
Total	37,646		1,285	1,553

Employment land sufficiency including surplus within the current UGB, and employment land need in Urban Reserves areas

E6. Comparison of capacity of vacant employment surplus land within the UGB as of 2032 with demand for new urban reserves employment land and land deficit to be accommodated through Urban Reserves

This table compares the capacity of existing surplus land in the UGB with demand for new urban reserves employment in employment plan designations (Table E5), and the remaining employment land need to be accommodated in urban reserves.

	Land Supply Surplus (Gross Acres) Vacant or Partially Vacant within the UGB (2032)	Land Demand (Gross Acres)	Land Deficit (Gross Acres)
Industrial	-	852	-852
Commercial	7	701	-694
Non-retail commercial	-	426	
Retail	-	275	
Total	7	1,553	-1,546

Public and Semi-Public Uses (in Urban Reserves from 2032 to 2059)

This model allocates public needs by public use category. Urban reserves analysis does not further allocate public and semi-public needs according to Eugene's existing plan designations as done in Envision Eugene because this level of detail is not available for the extended planning period of urban reserves.

P1. Estimate of public and semi-public land need, gross acres

Type of Use	Assumed Need (Ac/1,000 Persons)	Estimated need (gross acres)
Parks - Neighborhood and Community Parks	3.59	158
Educational and Other Public Facilities		-
Bethel School District & 4J School District	NA	-
University of Oregon & Lane Community College Facilities	NA	-
City of Eugene/Other Public Facilities	NA	-
Semi-Public	1.3	57
Total		215

Capacity of Urban Reserve Land for Residential Uses

This tab presents the estimated residential capacity of land that is expected to be part of a 27-year urban reserve. It is based on the density assumptions used in Tables 3 and 4 on the Assumptions tab and converted to gross density assumptions presented in Table UR-C1 and applied to the developable land in the urban reserve area from the Land Supply Model. For background, the capacity is initially presented for the entire study area, and then only for the suitable land, finally only for the land selected for a 27-year urban reserve. Documentation of how urban reserve capacity was calculated can be found in the Urban Reserves Technical Memo.

UR-C1. Gross density assumptions for developable residential land

Lot size	Lot slope <5%		Lot slope >5%	
	Entire lot below 900ft	Any portion of lot above 900ft	Entire lot below 900ft	Any portion of lot above 900ft
<1 acre	6.3 per acre	1 per lot	4.4 per acre	1 per lot
1-5 acres	8.0 per acre	2.7 per acre	3.1 per acre	2.7 per acre
5+ acres	8.4 per acre	2.3 per acre	2.8 per acre	2.3 per acre

Total Study Area

UR-C2. Inventory of developable undeveloped and partially vacant land for residential uses, in developable acres except where noted

Lot size	Lot slope <5%		Lot slope >5%		Total Acres
	Entire lot below 900ft	Any portion of lot above 900ft	Entire lot below 900ft	Any portion of lot above 900ft	
<1 acre					
Undeveloped	20	-	26	21 lots	60
Partially Vacant	-	-	-	-	-
Subtotal	20	-	26	21 lots	60
1-5 acres					
Undeveloped	102	1	190	113	406
Partially Vacant	292	2	592	346	1,232
Subtotal	394	3	782	459	1,638
5+ acres					
Undeveloped	1,144	-	1,161	1,091	3,396
Partially Vacant	2,426	255	1,617	1,224	5,523
Subtotal	3,570	255	2,779	2,315	8,920
Total Acres	3,985	259	3,587	2,787	10,617

UR-C3. Residential capacity (in dwelling units)

Lot size	Lot slope <5%		Lot slope >5%		Total
	Entire lot below 900ft	Any portion of lot above 900ft	Entire lot below 900ft	Any portion of lot above 900ft	
<1 acre					
Undeveloped	128	-	116	21	265
Partially Vacant	-	-	-	-	-
Subtotal	128	-	116	21	265
1-5 acres					
Undeveloped	814	4	590	304	1,712
Partially Vacant	2,338	6	1,834	934	5,111
Subtotal	3,152	9	2,424	1,238	6,823
5+ acres					
Undeveloped	9,611	-	3,252	2,509	15,372
Partially Vacant	20,380	588	4,529	2,816	28,313
Subtotal	29,991	588	7,781	5,325	43,684
Total	33,271	597	10,321	6,584	50,772

Suitable Land

UR-C4. Inventory of developable undeveloped and partially vacant land for residential uses, in buildable acres except where noted

Lot size	Lot slope <5%		Lot slope >5%		Total Acres
	Entire lot below 900ft	Any portion of lot above 900ft	Entire lot below 900ft	Any portion of lot above 900ft	
<1 acre					
Undeveloped	15	-	20	10 lots	41
Partially Vacant	-	-	-	-	-
Subtotal	15	-	20	10 lots	41
1-5 acres					
Undeveloped	60	-	139	24	223
Partially Vacant	193	-	358	91	642
Subtotal	253	-	497	115	865
5+ acres					
Undeveloped	823	-	819	523	2,165
Partially Vacant	1,714	-	1,237	230	3,181
Subtotal	2,537	-	2,055	753	5,345
Total Acres	2,805	-	2,572	874	6,251

UR-C5. Residential capacity (in dwelling units)

Lot size	Lot slope <5%		Lot slope >5%		Total
	Entire lot below 900ft	Any portion of lot above 900ft	Entire lot below 900ft	Any portion of lot above 900ft	
<1 acre					
Undeveloped	95	-	88	10	192
Partially Vacant	-	-	-	-	-
Subtotal	95	-	88	10	192
1-5 acres					
Undeveloped	482	-	430	65	977
Partially Vacant	1,543	-	1,109	245	2,898
Subtotal	2,025	-	1,540	310	3,875
5+ acres					
Undeveloped	6,913	-	2,292	1,203	10,408
Partially Vacant	14,396	-	3,463	529	18,388
Subtotal	21,309	-	5,755	1,732	28,796
Total	23,429	-	7,382	2,053	32,864

Urban Reserve Land (27-year)

UR-C6. Inventory of developable undeveloped and partially vacant land for residential uses, in buildable acres except where noted

Lot size	Lot slope <5%		Lot slope >5%		Total Acres
	Entire lot below 900ft	Any portion of lot above 900ft	Entire lot below 900ft	Any portion of lot above 900ft	
<1 acre					
Undeveloped	14	-	19	10 lots	40
Partially Vacant	-	-	-	-	-
Subtotal	14	-	19	10 lots	40
1-5 acres					
Undeveloped	52	-	137	24	214
Partially Vacant	181	-	358	91	629
Subtotal	233	-	495	115	843
5+ acres					
Undeveloped	656	-	819	523	1,998
Partially Vacant	1,166	-	1,237	230	2,633
Subtotal	1,822	-	2,055	753	4,631
Total Acres	2,070	-	2,570	874	5,514

UR-C7. Residential capacity (in dwelling units)

Lot size	Lot slope <5%		Lot slope >5%		Total
	Entire lot below 900ft	Any portion of lot above 900ft	Entire lot below 900ft	Any portion of lot above 900ft	
<1 acre					
Undeveloped	91	-	86	10	187
Partially Vacant	-	-	-	-	-
Subtotal	91	-	86	10	187
1-5 acres					
Undeveloped	418	-	426	65	909
Partially Vacant	1,446	-	1,109	245	2,801
Subtotal	1,864	-	1,535	310	3,709
5+ acres					
Undeveloped	5,512	-	2,292	1,203	9,007
Partially Vacant	9,796	-	3,463	529	13,789
Subtotal	15,309	-	5,755	1,732	22,796
Total	17,264	-	7,375	2,053	26,692

UR-C8. Summary of developable land with residential capacity, in developable acres

	Undeveloped	Partially Vacant	Total
Total Study Area	3,862	6,755	10,617
Suitable Land	2,428	3,822	6,251
Urban Reserve Land (27-year option)	2,251	3,263	5,514

UR-C9. Summary of residential capacity (in dwelling units) and average density

	Undeveloped	Partially Vacant	Total	Average density (est. dwellings/developable acre)
Total Study Area	17,349	33,423	50,772	4.8
Suitable Land	11,577	21,286	32,864	5.3
Urban Reserve Land (27-year option)	10,103	16,589	26,692	4.8

Developable Land and Residential Capacity for Urban Reserve Land by Subarea (from 2032 to 2059)

This tab presents the total acres of all developable land, by subarea. For background, it is shown for the entire study area, then only for the suitable land, and finally only for the 27-year urban reserve. The developable acres are higher than in the Residential Capacity tab because it is all developable land not just land with residential capacity. This tab also shows the estimated residential capacity, by subarea. For background, it is shown for the entire study area, then only for the suitable land supply, and finally only for the 27-year urban reserve. The capacity is based on the density assumptions used in Table UR-C1 in the Residential Capacity tab and applied to developable land. Documentation of how urban reserve capacity was calculated can be found in the Urban Reserves Technical Memo.

UR-C10. Summary of developable land

	Total Developable Acres
Total Study Area	11,213
Suitable Land	6,638
Urban Reserve Land Selected (27-year option)	5,901

Total Study Area

UR-C11. Developable land and residential capacity within the urban reserves study area by subarea

Subarea	Developable Acres	Residential Capacity	Average Residential Density (DU/developable residential Acre)
Airport	184	-	0.0
Airport North	464	452	8.4
Airport South	260	2,179	8.4
Awbrey	524	4,387	8.4
Bailey/Gimpl Hill	902	2,413	2.7
Beacon/River Loop	332	2,768	8.3
Clear Lake	312	2,614	8.4
Crest/Chambers	1,302	3,636	2.8
Crow	987	3,576	3.6
Dillard	893	2,478	2.8
Fisher	922	6,795	7.4
Game Farm	31	236	7.5
HWY 99	669	5,590	8.4
McKenzie	244	2,040	8.3
Royal	285	1,962	6.9
Russel Creek	804	2,456	3.1
S. Willamette/Fox Hollow	1,341	3,346	2.5
W. 11th/Greenhill	755	3,845	5.1
Grand Total	11,213	50,772	4.8

Suitable Land

UR-C12. Suitable developable land and residential capacity within the suitable urban reserves study area by subarea

Subarea	Developable Acres	Residential Capacity	Average Residential Density (DU/developable residential Acre)
Airport	0	0	0.0
Airport North	386	0	0.0
Airport South	24	197	8.3
Awbrey	524	4,387	8.4
Bailey/Gimpl Hill	507	1,394	2.7
Beacon/River Loop	0	0	0.0
Clear Lake	312	2,614	8.4
Crest/Chambers	865	2,521	2.9
Crow	830	3,161	3.8
Dillard	0	0	0.0
Fisher	922	6,795	7.4
Game Farm	10	68	7.0
HWY 99	281	2,351	8.4
McKenzie	141	1,179	8.4
Royal	277	1,897	6.8
Russel Creek	804	2,456	3.1
S. Willamette/Fox Hollow	0	0	0.0
W. 11th/Greenhill	755	3,845	5.1
Grand Total	6,638	32,864	5.3

Urban Reserve Land (27-year)

UR-C13. Developable land and residential capacity within urban reserves (27-year) by subarea

Subarea	Developable Acres	Residential Capacity	Average Residential Density (DU/developable residential Acre)
Airport	0	0	0.0
Airport North	386	0	0.0
Airport South	24	197	8.3
Awbrey	43	349	8.1
Bailey/Gimpl Hill	507	1,394	2.7
Beacon/River Loop	0	0	0.0
Clear Lake	312	2,614	8.4
Crest/Chambers	865	2,521	2.9
Crow	830	3,161	3.8
Dillard	0	0	0.0
Fisher	922	6,795	7.4
Game Farm	0	0	0.0
HWY 99	35	284	8.2
McKenzie	141	1,179	8.4
Royal	277	1,897	6.8
Russel Creek	804	2,456	3.1
S. Willamette/Fox Hollow	0	0	0.0
W. 11th/Greenhill	755	3,845	5.1
Grand Total	5,901	26,692	4.8

Summary of Results (for Urban Reserves from 2032 to 2059)

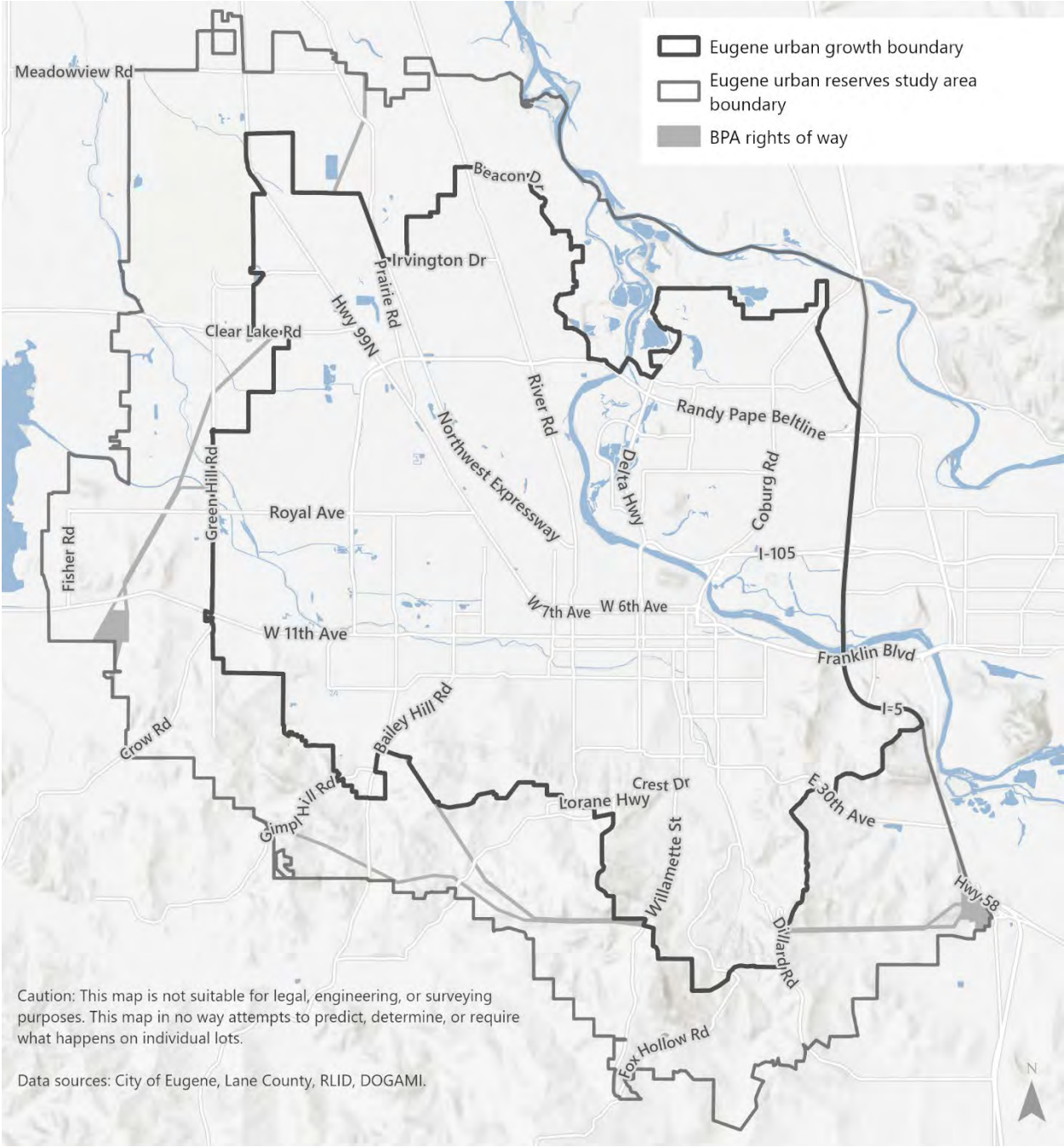
This summarizes the land need from the Residential, Employment and Public tabs into one total urban reserves land need and compares the total need to the estimated supply of land selected for a 27-year urban reserves.

S1. Summary of all land need for the 27-year urban reserves

Land Use Type	Urban Reserve Land Needs (gross acres)
Residential	
For housing	4,021
For group quarters	59
For employment in residential areas	82
Commercial	
For employment	694
Industrial	
For employment	852
Public Land	
For public uses	158
For semi-public uses	57
Estimate of land need for 27-year urban reserves	5,922
Land selected for 27-year urban reserves	5,901

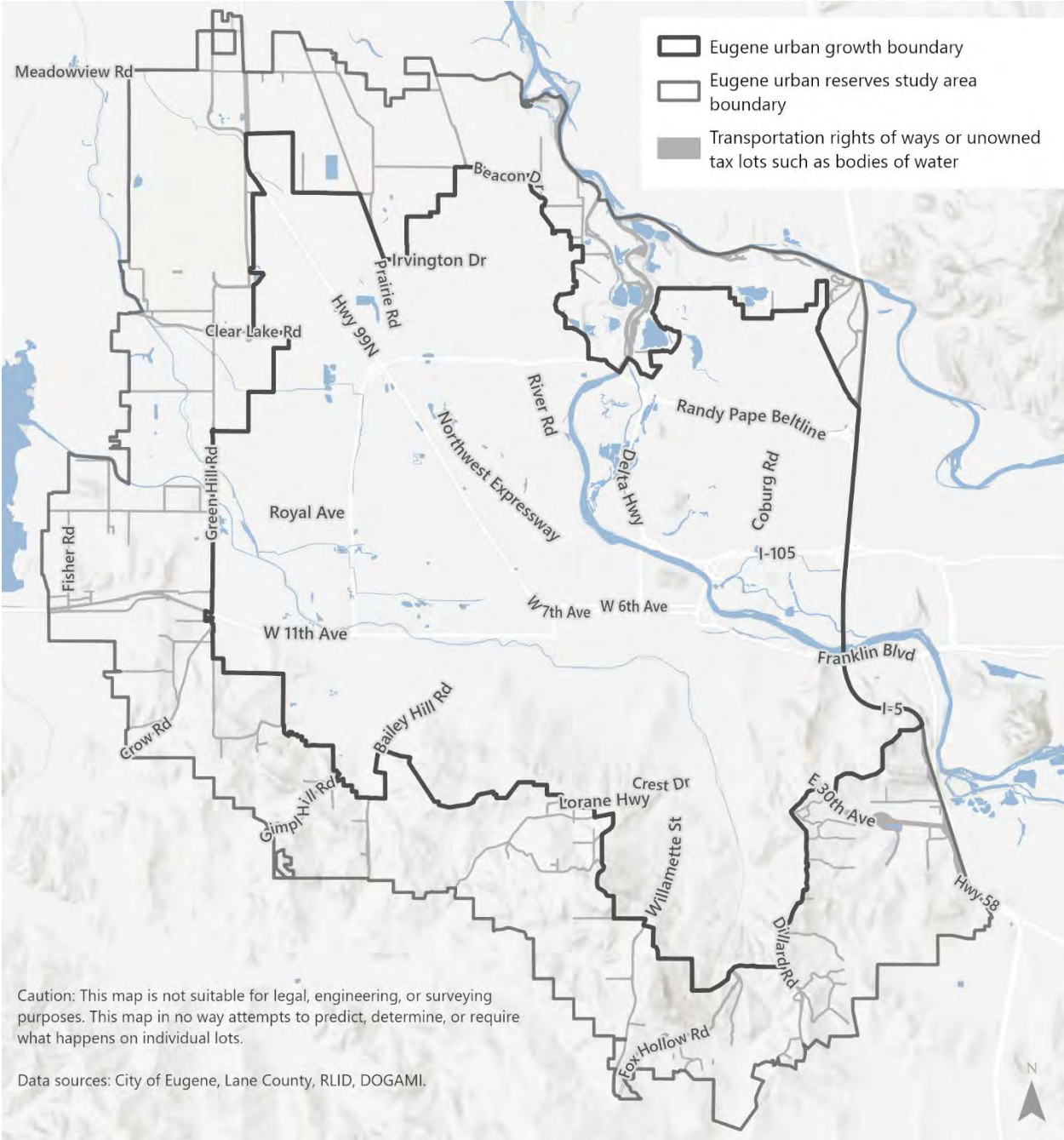
Map Documentation of “Undevelopable” Land

Map 1: Occupied Land--BPA rights of way



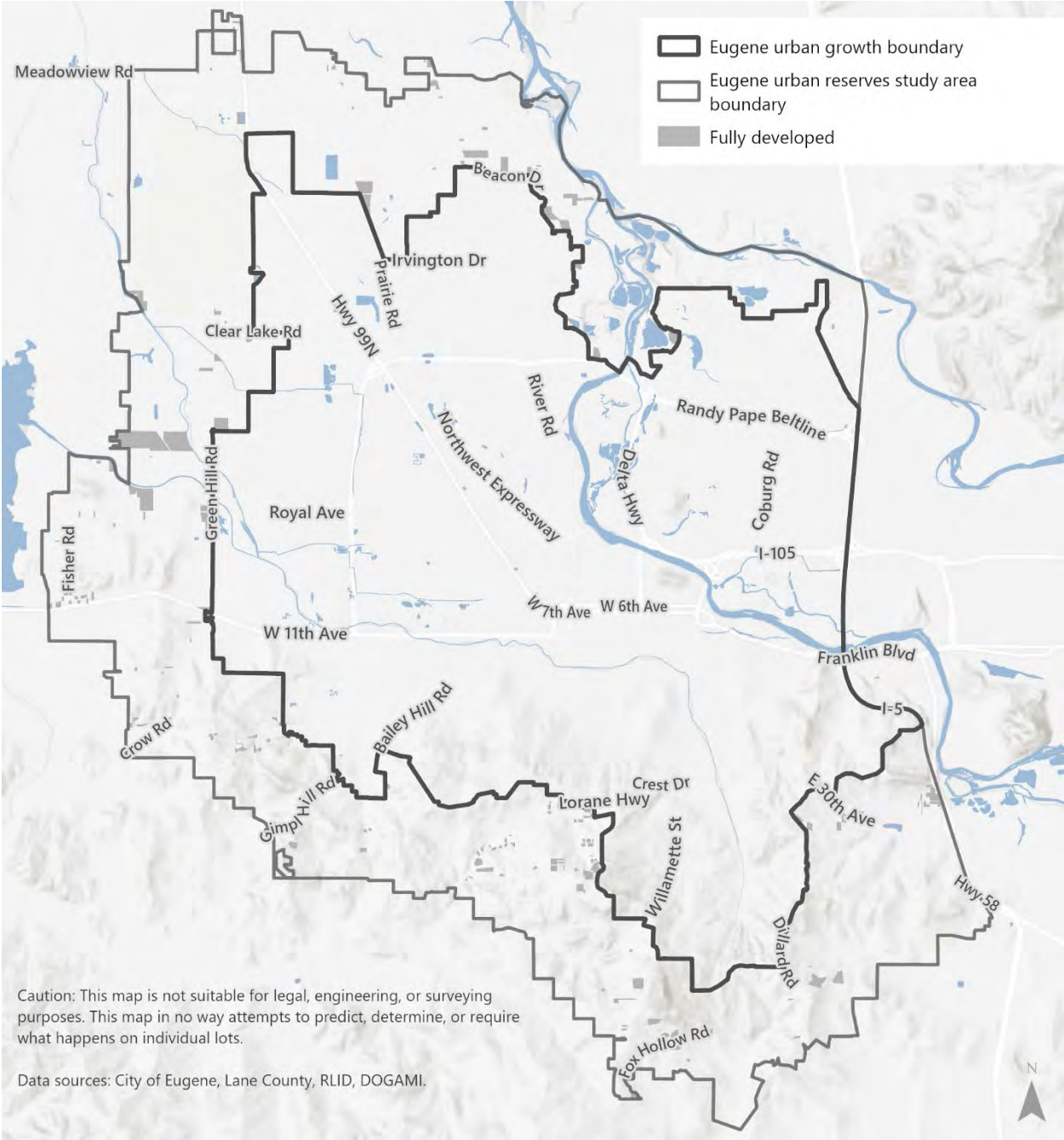
Notes: Bonneville Power Administration (BPA) rights of way are electrical transmission line easements from the Regional Land Information Database (RLID), as of 12/31/2018.

Map 2: Occupied Land—Transportation rights of way or unowned tax lots such as bodies of water



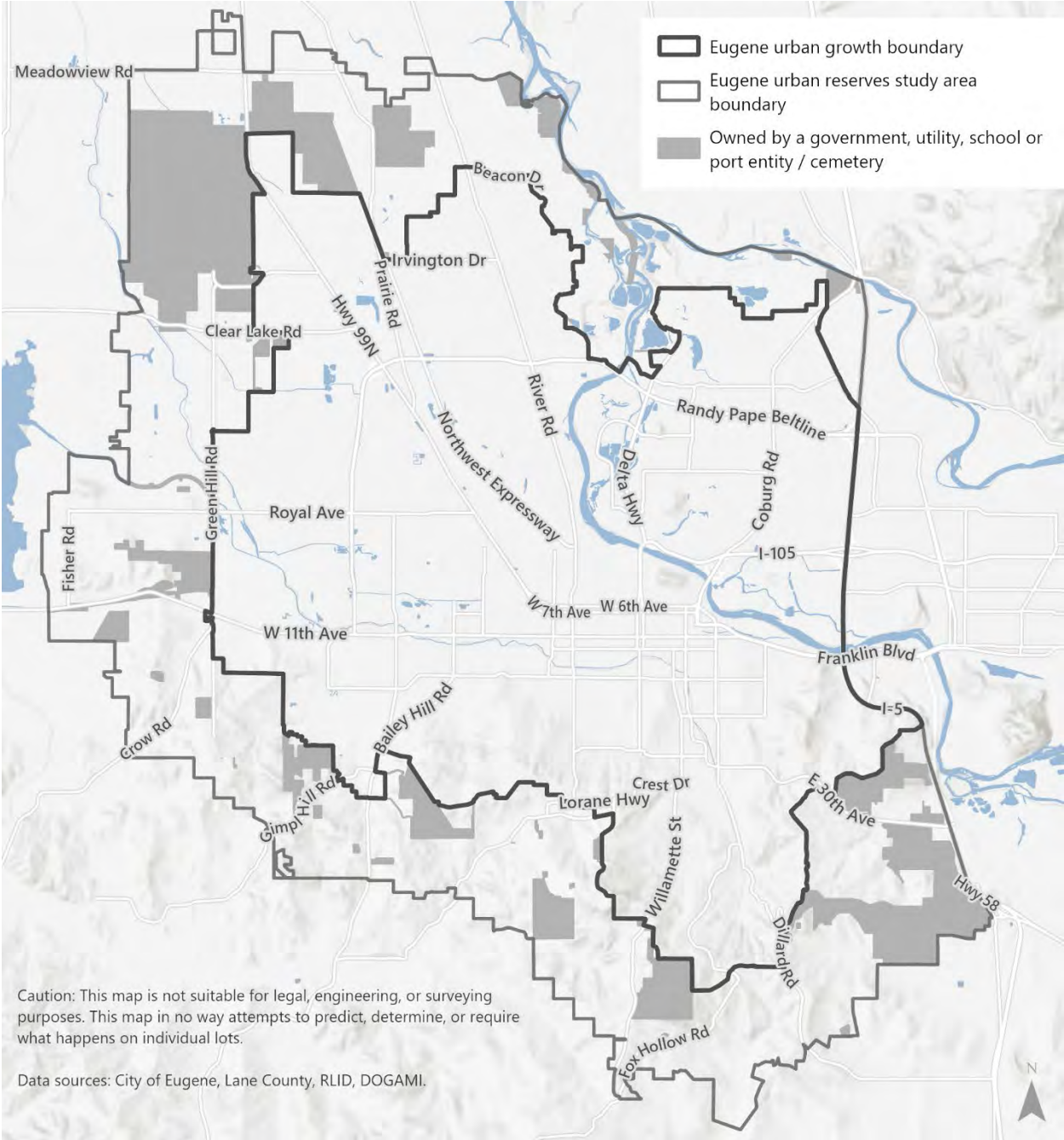
Notes: Transportation rights of way (streets and rail) and other gaps (e.g., bodies of water) within the regional tax lot data are known as mythical lots. These types of lots are assigned a standardized tax lot number to preserve the topological integrity of the dataset (as of 12/31/2018).

Map 3: Occupied Land--Fully Developed Lots



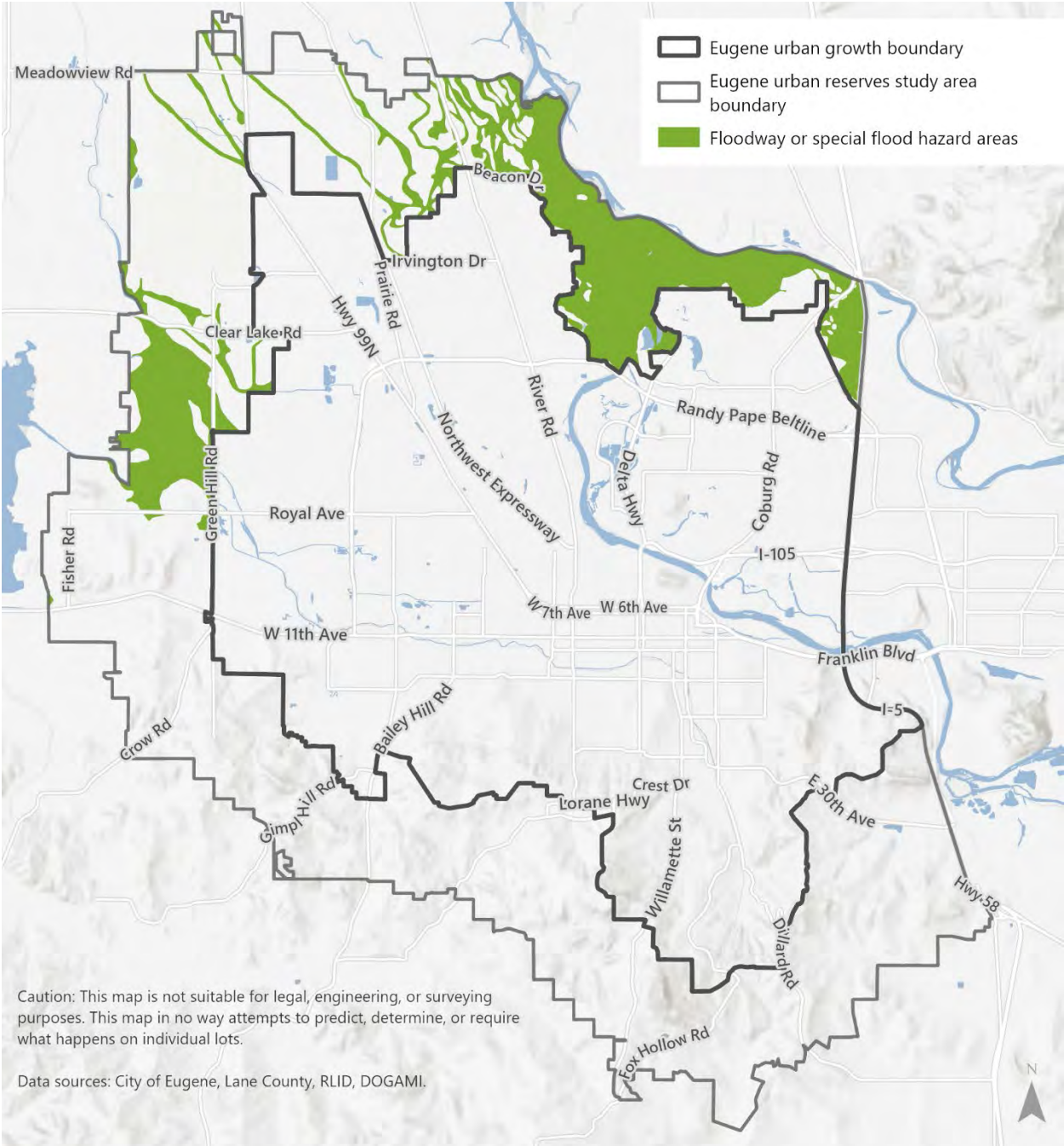
Notes: A tax lot is categorized as fully developed if there are one or more structures of significant improvement, without adequate acreage for additional development. Refer to the Eugene Urban Reserves Technical Memo for the complete methodology on identifying developed tax lots. The tax lot information and boundaries are from the Regional Land Information Database (RLID), as of 12/31/2018 and do not account for any changes occurring afterwards.

Map 4: Occupied Land—Land owned by a government, utility, school, port district or cemetery



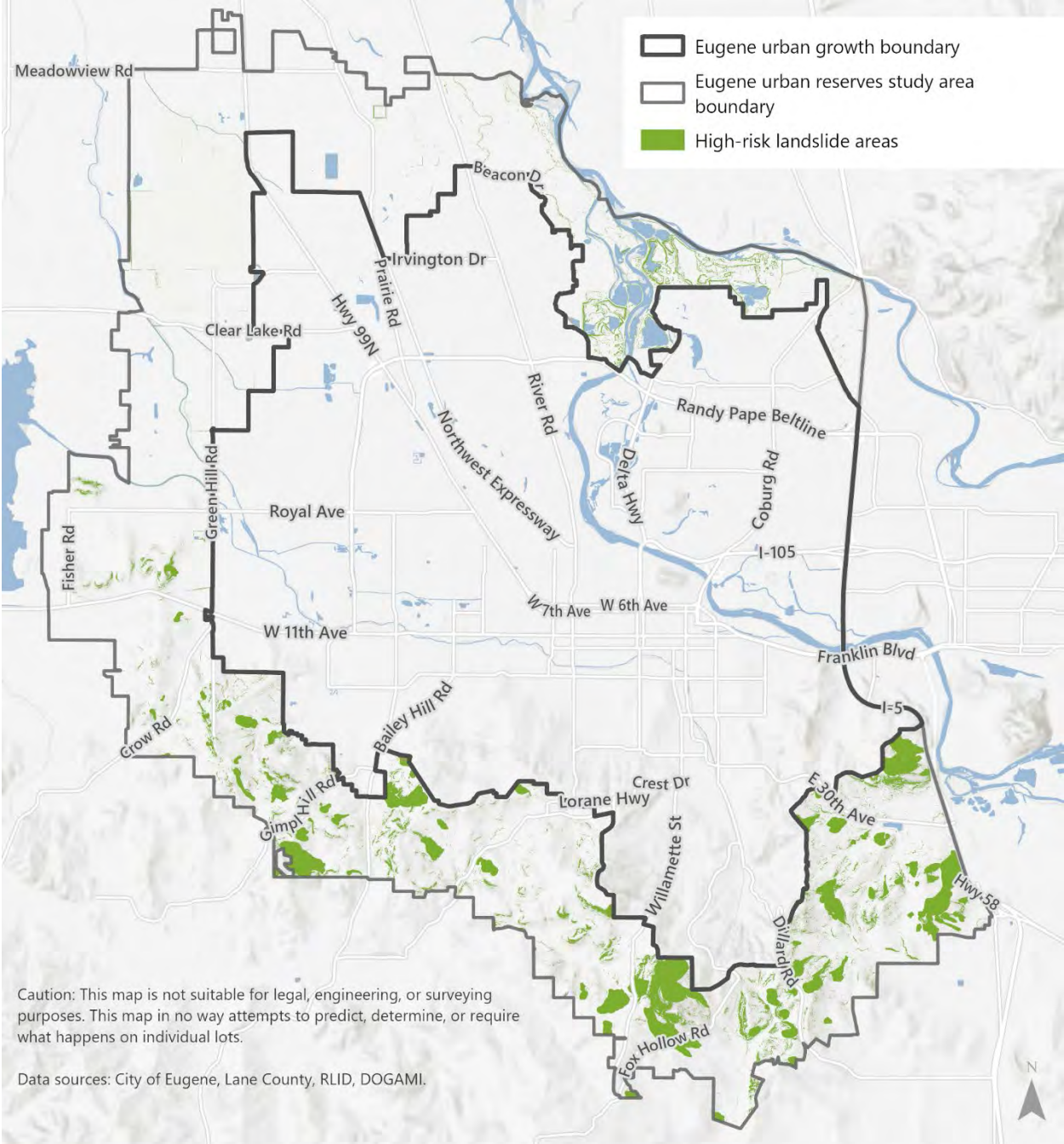
Notes: Based on tax assessor data as of 12/31/2018, tax lots owned by the following entities are classified as occupied and shown on the map above: City, county and state government property (includes land owned by state-funded schools such as University of Oregon and Lane Community College); federal government property (e.g., Bureau of Land Management); port district property; public parks (city, county, and state) and park easements; school property for K-12 educational use; public utility property for water, wastewater, electric and natural gas; and cemeteries. Public agencies were consulted, and areas identified as surplus were removed from the occupied land classification, while areas of contracted acquisition were added as occupied land.

**Map 5: Land that is severely constrained by natural hazards or subject to natural resource protections-
Floodway or Special Flood Hazard Areas**



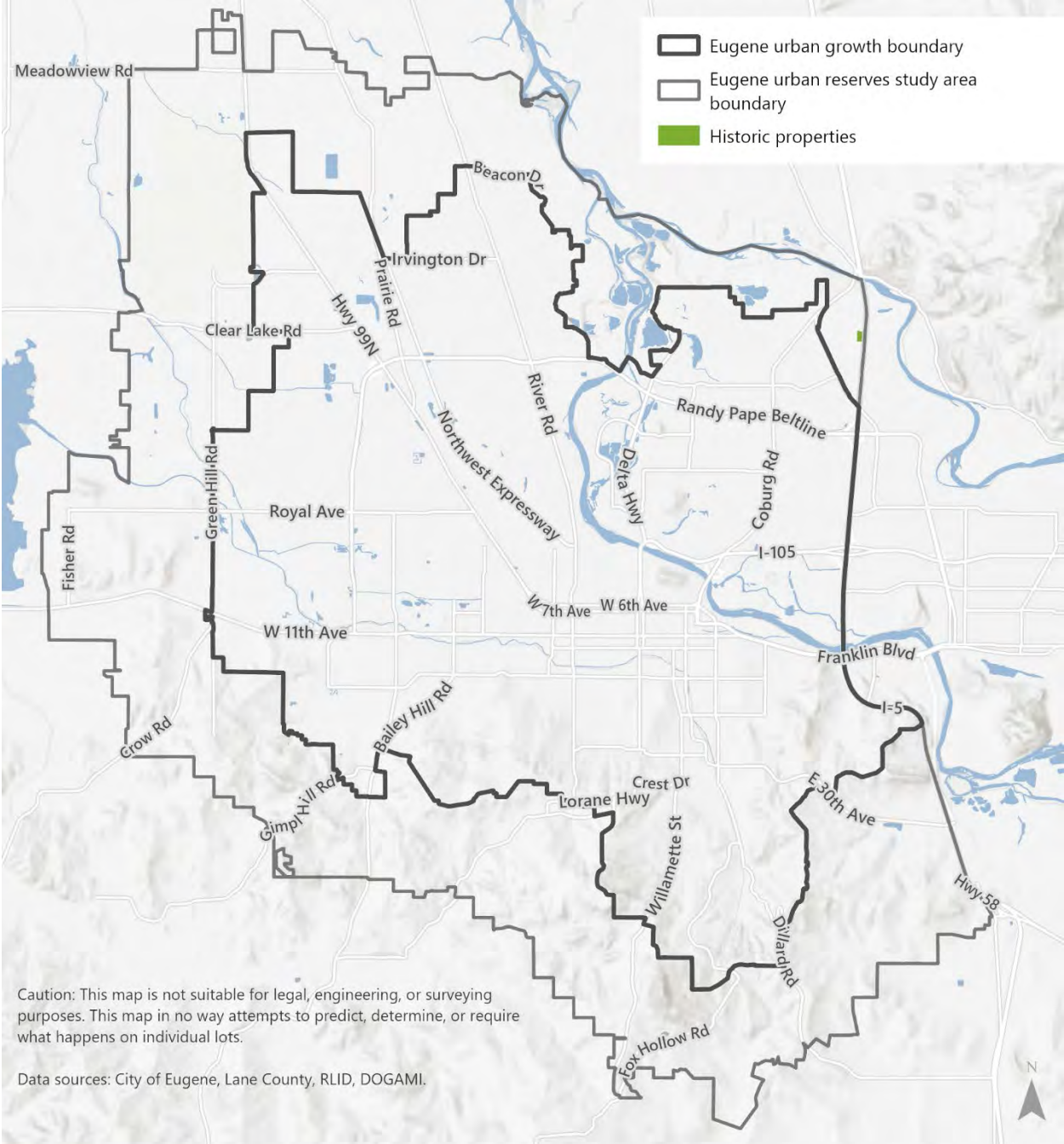
Notes: Areas identified as within the floodway or the Special Flood Hazard Areas (SFHA) according to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRMs) are considered to be severely constrained by natural hazards. The current FIRM maps for the region have an effective date of June 2, 1999.

**Map 6: Land that is severely constrained by natural hazards or subject to natural resource protections-
High-Risk Landslide Areas**



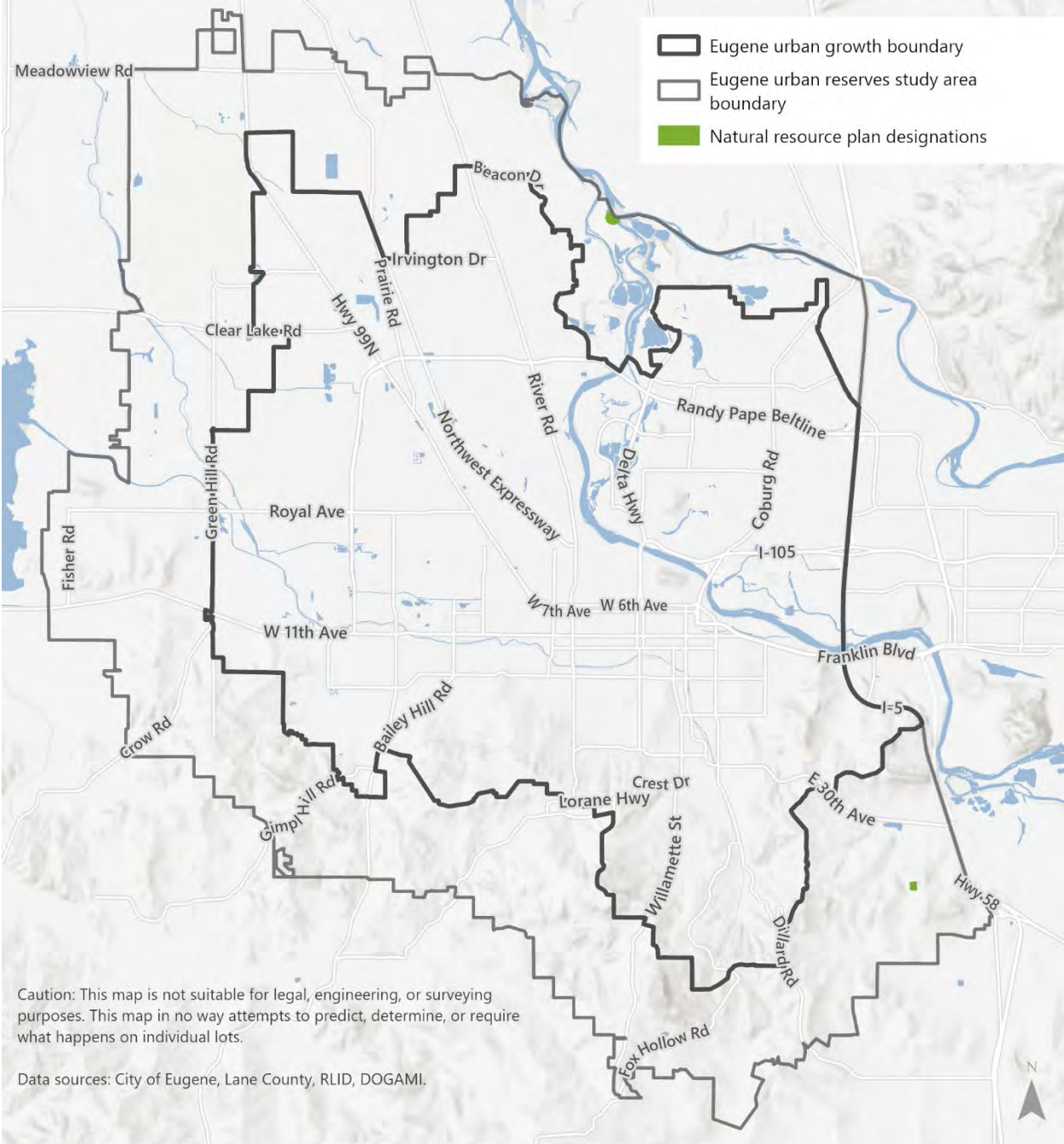
Notes: The Oregon Department of Geology and Mineral Industries (DOGAMI) models the relative risk of both deep and shallow landslides across the region in the publication IMS-60 ([IMS-60](#), Landslide hazard and risk study of Eugene-Springfield and Lane County, Oregon). Areas within the high susceptibility zone of either a deep or shallow landslide are considered to be severely constrained by natural hazards. (2018)

**Map 7: Land that is severely constrained by natural hazards or subject to natural resource protections-
Historic Properties**



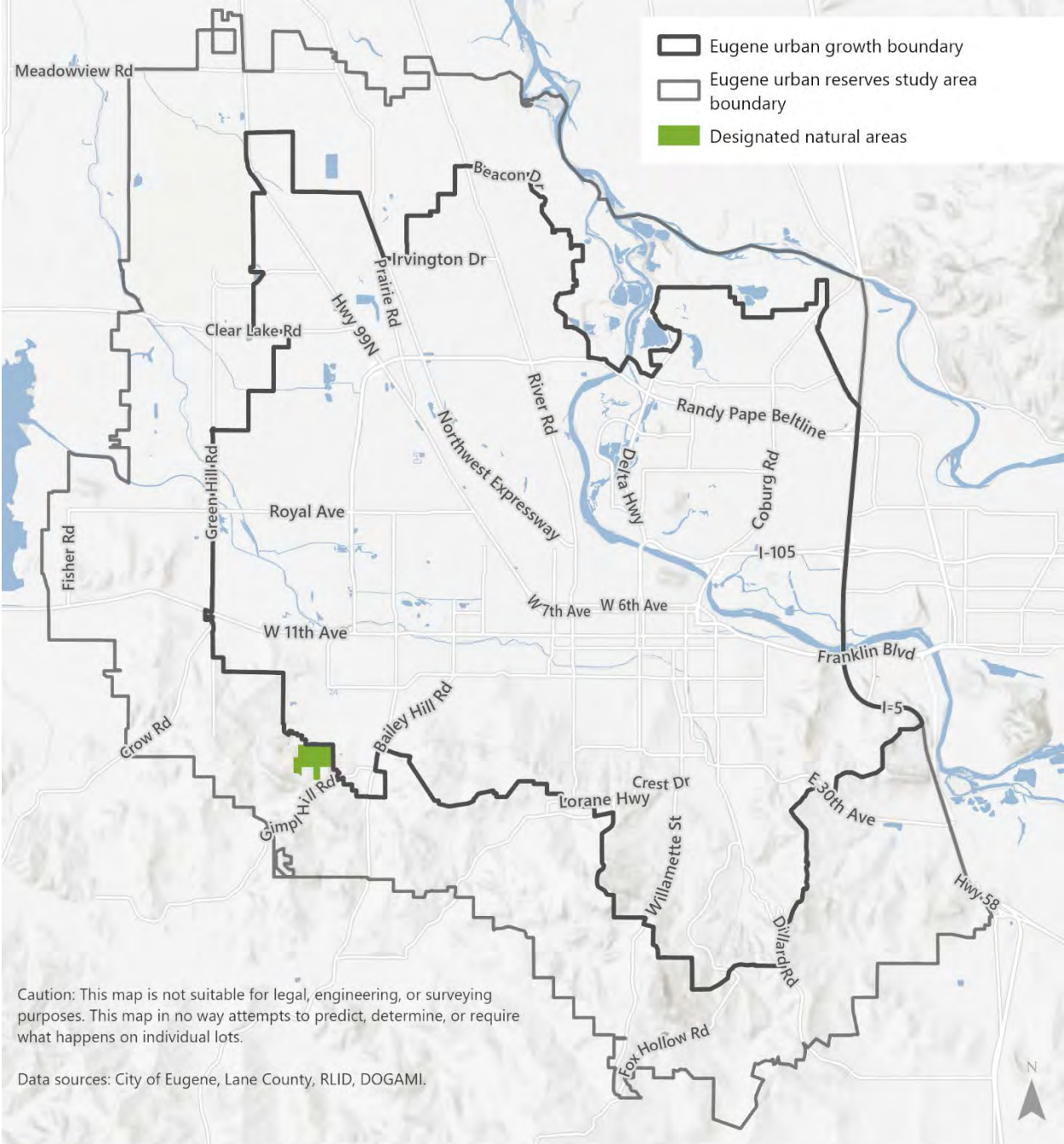
Notes: Historic and cultural resources classified as eligible in the Oregon Historic Sites Database from the Oregon Heritage State Historic Preservation Office are subject to natural resource protections. There was one site identified in the Study Area. Eligible sites from the database were verified by City of Eugene staff members to ensure the resource location was current, as of 12/31/2018.

**Map 8: Land that is severely constrained by natural hazards or subject to natural resource protections-
Natural Resource Plan Designations**



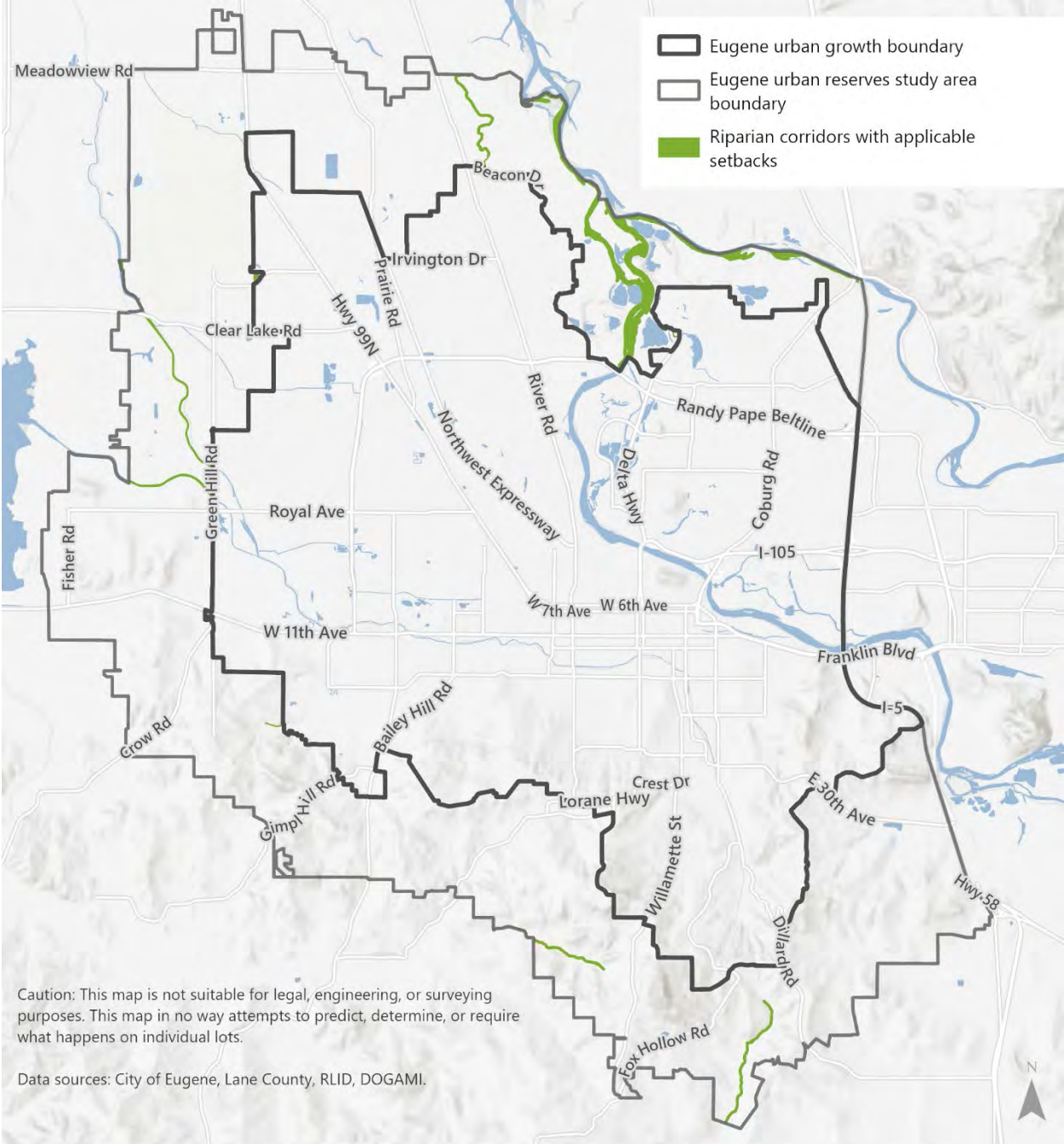
Notes: Areas within the Metro Plan with a plan designation of Natural Resource or within the Rural Comprehensive Plan with a plan designation of Natural Resource: Wildlife or Natural Resource: Conservation Area are subject to natural resource protections and are shown here. Areas within the Metro Plan with a plan designation of Sand and Gravel or within the Rural Comprehensive Plan with a designation of Natural Resource: Mineral are not shown here (as of 12/31/2018).

**Map 9: Land that is severely constrained by natural hazards or subject to natural resource protections-
Designated Natural Areas**



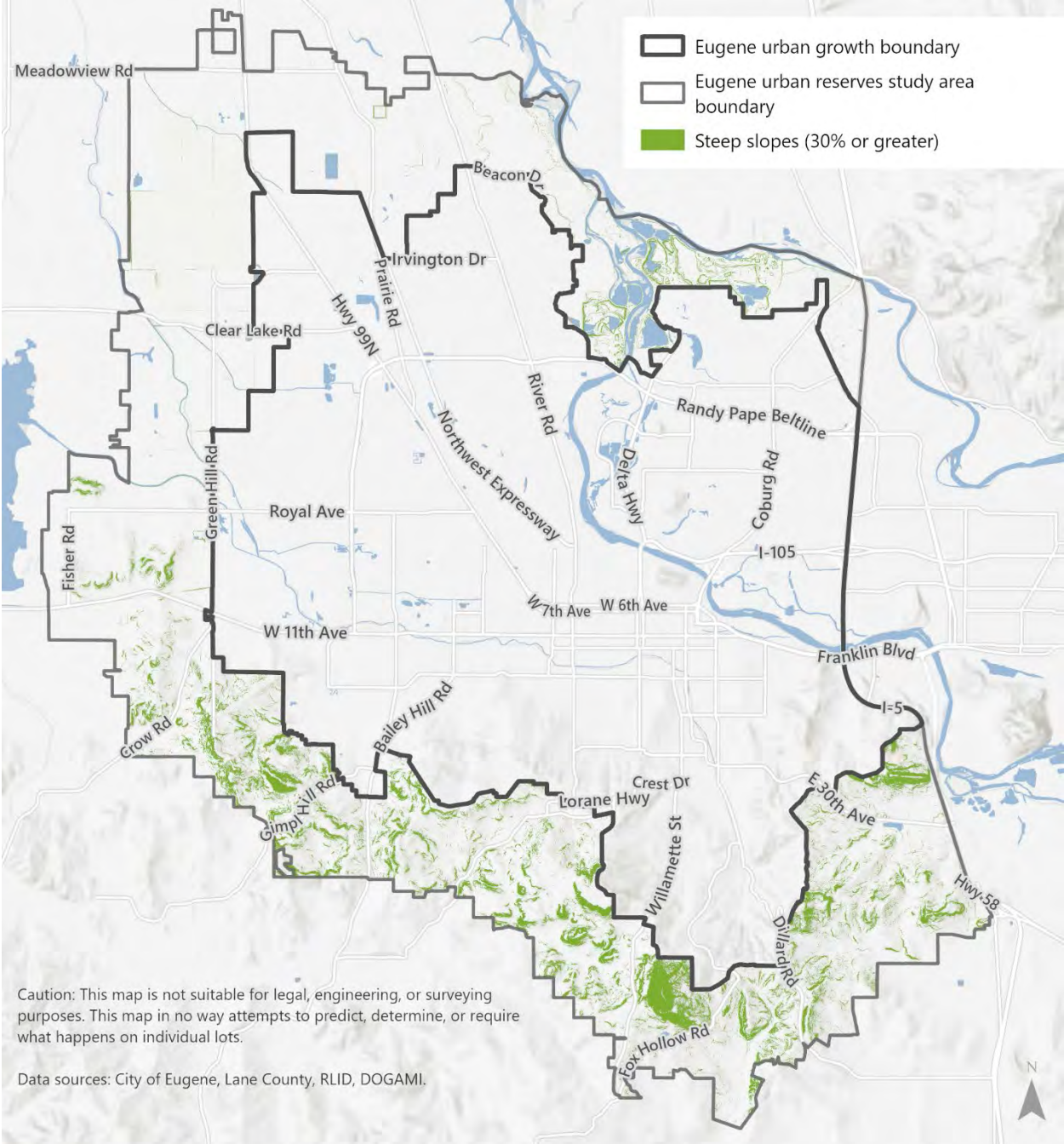
Notes: Designated natural areas on the Oregon State Register of Natural Heritage Resources are subject to natural resource protections. The only designated natural area within the urban reserves study boundary is a portion of The Nature Conservancy's Willow Creek Preserve, as shown here (as of 12/31/2018).

**Map 10: Land that is severely constrained by natural hazards or subject to natural resource protections-
Riparian Corridors with Applicable Setbacks**



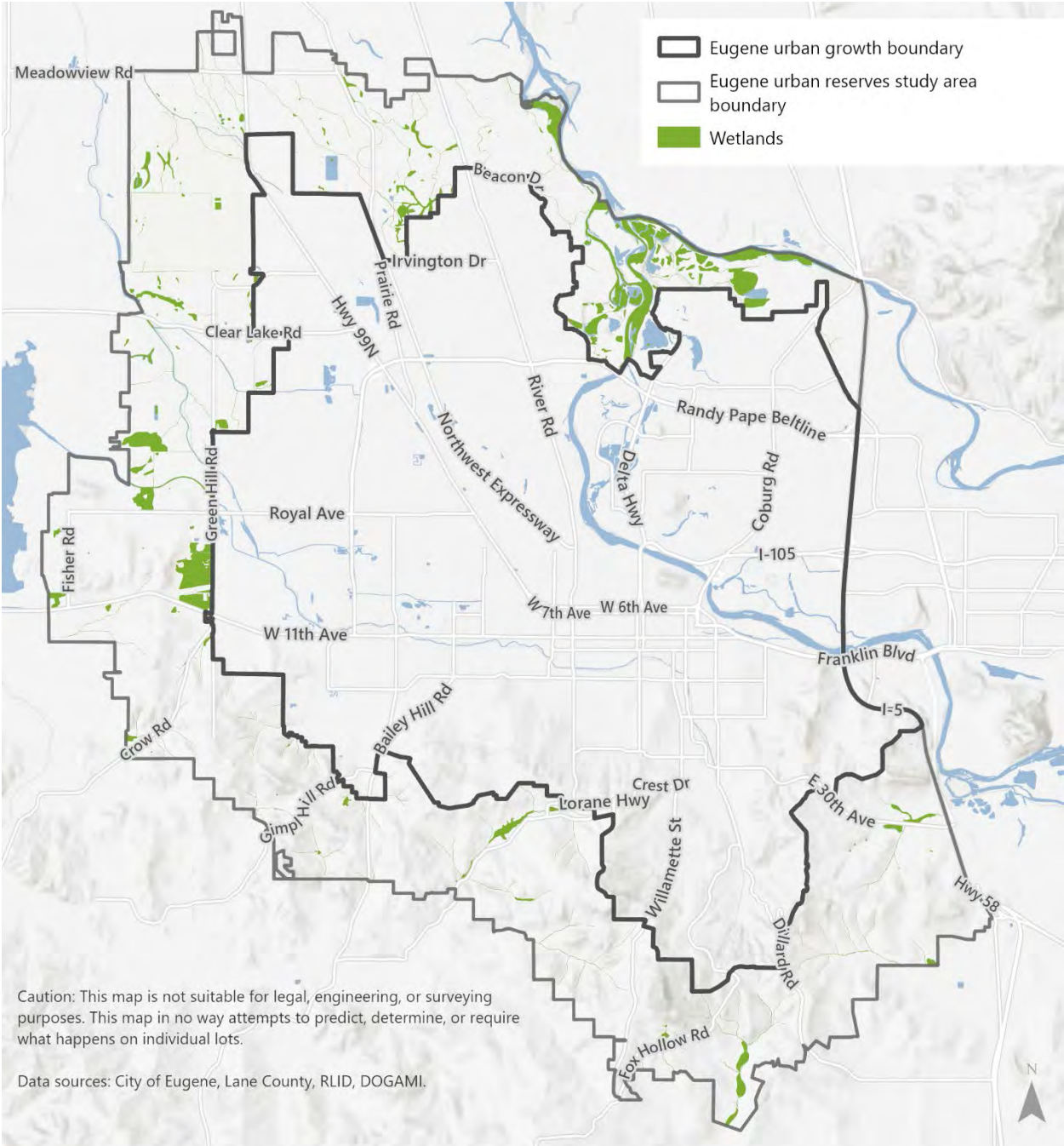
Notes: Lane County Goal 5 riparian corridors were mapped with both the waterway and the applicable setback considered to be subject to natural resource protections. For the urban reserves study area, as shown here, riparian corridors include the Willamette and McKenzie Rivers and all Class 1 streams (the portion of the Willamette River outside the Metro Plan boundary, Spring Creek, Spencer Creek, and an unnamed creek between Dillard and Fox Hollow Roads). Setbacks are based on flow rates for the portions of the Willamette and McKenzie Rivers within the Metro Plan boundary, and resource vs. non-resource zones for Class 1 streams.

**Map 11: Land that is severely constrained by natural hazards or subject to natural resource protections-
Steep Slopes (30 percent or greater)**



Notes: Steep slopes (30 percent or greater) as shown here, are calculated from digital elevation surfaces derived from high-accuracy 2009 LiDAR data, made available by the Oregon Lidar Consortium (OLC), which is overseen by the Oregon Department of Geology and Mineral Industries (DOGAMI) (2009).

**Map 12: Land that is severely constrained by natural hazards or subject to natural resource protections-
Wetlands**



Notes: The wetlands shown here are comprised of Lane County Goal 5 adopted wetlands, wetlands on the National Wetlands Inventory, and wetlands designated as protect or restore in the West Eugene Wetlands Plan, and are subject to natural resource protections. No protection setbacks are applied to the wetlands. The National Wetland Inventory dataset used in the analysis was version 2, released in May 2016.

**Land that is severely constrained by natural hazards or subject to natural resource protections—
Critical Habitat**

Federally and State-listed threatened and endangered species critical habitat areas are subject to natural resource protections. The federally-listed critical habitat boundaries data used in the analysis was sourced from the U.S. Fish and Wildlife Service Environmental Conservation Online System, and was last updated on October 20, 2018. State-listed critical habitat spatial data was purchased from the Oregon Biodiversity Information Center (ORBIC), part of Oregon State University's Institute for Natural Resources, with the most recent update of the data performed in 2016. Records from state-listed critical habitat were filtered to only include locations of critical habitat that were mapped with a GPS unit.

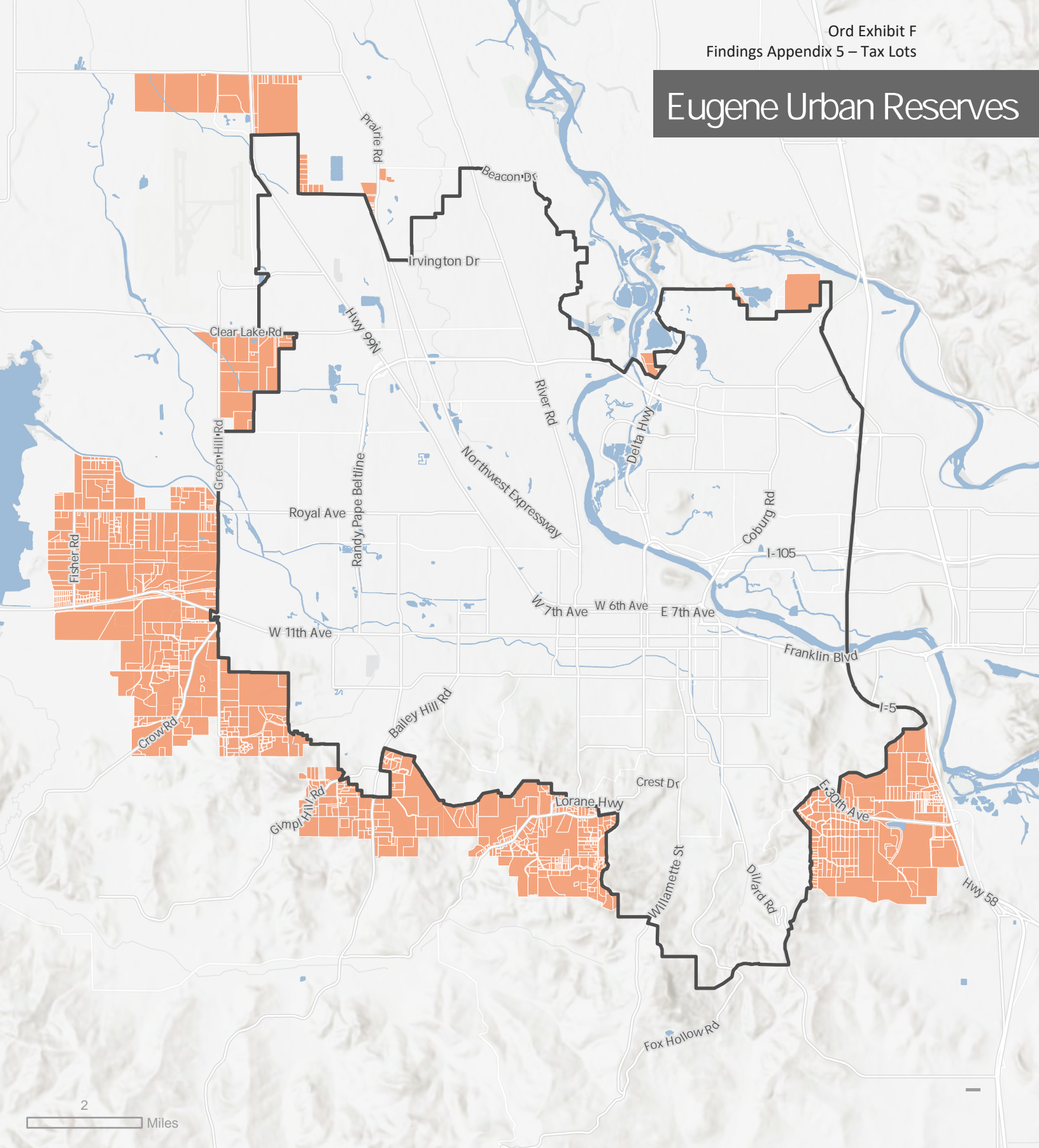
Due to the sensitive nature of critical habitat data, it is not possible to disclose the precise locations of individual species on a map, but critical habitat is included whenever all land that is severely constrained by natural hazards or subject to natural resource protections is mapped.



These are the threatened and endangered species with areas of critical habitat within the Urban Reserves study area:

- Fish
 - Bull trout (*Salvelinus Confluentus*)
 - Chinook Salmon (*Oncorhynchus Tshawytscha*)
- Plants
 - Bradshaw's Lomatium (*Lomatium bradshawii*)
 - Kincaid's Lupine (*Lupinus Sulphureus* ssp. *kincaidii*)
 - Wayside Aster (*Eucephalus vialis*)
 - White-topped Aster (*Sericocarpus rigidus*)
 - Willamette Daisy (*Erigeron decumbens*)
- Insects
 - Fender's Blue Butterfly (*Icaricia Icaroides Fenderi*)

Map and List of Tax Lots Included in Eugene Urban Reserves

Eugene Urban Reserves



-  Eugene urban growth boundary
-  Eugene urban reserves
- Tax lot boundaries in white

Caution: This map is not suitable for legal, engineering, or surveying purposes. Tax lot boundaries are from the analysis effective date (November 2018), shown for reference only and may change over time. This map in no way attempts to predict, determine, or require what happens on individual lots.

Data sources: City of Eugene, Lane County, RLID, DOGAMI.



Tax Lots Within the Eugene Urban Reserves

Map and tax lot number (As of November 1, 2018)	Tax lot acreage within urban reserves	Total tax lot acreage	Split across UGB
1604280000901	2.64	2.64	
1604290001701	40.31	40.31	
1604290001702	85.25	85.25	
1604290002000	18.38	18.38	
1604290002100	4.13	4.13	
1604290002200	2.62	2.62	
1604290002201	2.65	2.65	
1604290002300	3.52	3.52	
1604290002301	1.47	1.47	
1604290002302	4.78	4.78	
1604290002400	4.49	4.49	
1604290002500	4.59	4.59	
1604290002600	4.78	4.78	
1604300000700	118.99	118.99	
1604300000701	133.55	133.55	
1604300000800	76.36	76.36	
1604300000900	0.89	0.89	
1604320000200	208.18	406.72	Split across UGB
1604320000300	2.60	8.24	Split across UGB
1604320000301	5.22	5.22	
1604330000400	4.87	4.87	
1604330000500	4.88	4.88	
1604330000600	4.88	4.88	
1604330000601	4.88	4.88	
1604330000700	4.88	4.88	
1604330000800	4.89	4.89	
1604330000900	4.49	4.49	
1604330000901	4.83	4.83	
1604330001002	4.48	4.48	
1604330001003	5.69	5.69	
1604330001004	4.20	4.20	
1604330001300	18.50	18.50	
1604340000900	4.67	4.67	
1604340000908	9.16	9.16	
1703080000307	4.40	14.28	Split across UGB
1703080007500	8.46	12.57	Split across UGB
1703082405700	0.00	0.02	Split across UGB

1703090000600	128.20	141.41	Split across UGB
1703180000300	12.73	12.73	
1703180001100	12.36	12.36	
1703180001201	3.32	3.32	
1703180003901	3.30	3.30	
1703180004200	1.14	1.14	
1704041000100	6.56	6.56	
1704041000200	0.99	0.99	
1704041000300	1.23	1.23	
1704041000400	0.45	0.45	
1704041000500	0.41	0.41	
1704041000600	0.79	0.79	
1704041000700	0.32	0.32	
1704041000900	1.02	1.02	
1704041001000	0.81	0.81	
1704041001100	1.21	1.21	
1704041001200	1.38	1.38	
1704070002700	4.78	4.78	
1704070002800	2.45	2.45	
1704070002900	22.69	22.69	
1704080002200	18.19	18.19	
1704080002500	9.77	9.77	
1704080002600	10.00	10.00	
1704080002800	0.75	0.75	
1704080002900	0.20	0.20	
1704080003100	3.37	3.37	
1704080003101	0.54	0.54	
1704080003200	8.67	8.67	
1704170000400	40.13	40.13	
1704170000500	63.58	63.58	
1704170000501	5.20	5.20	
1704170000600	1.70	1.70	
1704170000700	8.83	8.83	
1704170000801	42.17	42.16	
1704170000802	39.93	39.93	
1704170000900	1.47	1.47	
1704170001000	1.70	1.70	
1704170001100	40.17	40.17	
1704170001200	38.94	38.94	
1704170001300	40.13	40.13	
1704170001400	77.45	77.45	
1704170001700	33.68	33.68	
1704170001800	6.75	6.75	

1704171400200	0.95	26.45	Split across UGB
1704190000900	0.95	0.95	
1704190001000	1.84	1.84	
1704190001100	1.46	1.46	
1704190001200	0.94	0.94	
1704190001300	0.93	0.93	
1704190001400	0.99	0.99	
1704190001501	1.21	1.21	
1704190001502	0.61	0.61	
1704190001600	5.02	5.02	
1704190001700	7.49	7.49	
1704190002400	9.23	9.23	
1704190002500	5.10	5.10	
1704190002600	5.85	5.85	
1704190002700	38.23	38.23	
1704190002800	5.66	5.66	
1704190002900	5.34	5.34	
1704190003000	5.11	5.11	
1704190003100	5.04	5.04	
1704190003200	1.26	1.26	
1704190003300	2.93	2.93	
1704190003400	10.01	10.01	
1704190003500	4.22	4.22	
1704300000100	2.17	2.17	
1704300000101	1.88	1.88	
1704300000200	5.00	5.00	
1704300000300	4.99	4.99	
1704300000400	3.80	3.80	
1704300000500	3.93	3.93	
1704300000501	0.37	0.37	
1704300000502	5.55	5.55	
1704300000600	4.87	4.87	
1704300000700	5.92	5.92	
1704300000800	19.76	19.76	
1704300000801	19.89	19.89	
1704300000900	59.42	59.42	
1704300001000	10.14	10.14	
1704300001001	10.16	10.16	
1704300001100	18.99	18.99	
1704300001101	37.98	37.98	
1704300001200	1.48	1.48	
1704300001201	29.96	29.96	
1704300001202	27.84	27.84	

1704300001300	1.15	1.15	
1704300001302	7.24	7.24	
1704300001303	7.24	7.24	
1704300001304	7.24	7.24	
1704300001305	7.24	7.24	
1704300001306	5.75	5.75	
1704300001307	6.48	6.48	
1704300001308	5.00	5.00	
1704300001400	23.02	23.02	
1704300001401	13.37	13.37	
1704300001402	1.73	1.73	
1704300001403	6.94	6.94	
1704300001404	6.00	6.00	
1704300001405	5.60	5.60	
1704300001406	3.07	3.07	
1704300001407	0.41	0.41	
1704300001408	0.53	0.53	
1704300001409	4.76	4.76	
1704300001410	10.41	10.41	
1704300001500	8.43	8.43	
1704300001501	39.91	39.91	
1704300001600	1.96	1.96	
1704300001800	43.85	43.85	
1704300001801	16.88	16.88	
1704300001900	2.60	2.60	
1704300002100	78.25	79.66	Split across UGB
1704300002200	8.87	8.87	
1704300002201	25.84	25.84	
1704300002202	19.36	20.46	Split across UGB
1704300002203	16.03	16.03	
1704300002204	1.46	1.46	
1704300002300	2.10	2.10	
1704300002400	1.64	1.64	
1704300002500	0.34	0.34	
1704310000101	1.07	1.07	
1704310000102	7.07	7.07	
1704310000200	33.69	33.69	
1704310000201	0.99	0.99	
1704310000203	0.63	0.63	
1704310000204	0.60	0.60	
1704310000205	0.04	0.04	
1704310000300	4.73	4.73	
1704310000400	22.87	22.87	

1704310000403	10.00	10.00	
1704310000405	5.50	5.50	
1704310000409	0.66	0.66	
1704310000500	5.35	5.35	
1704310001000	0.72	0.72	
1704310001100	9.43	9.43	
1704310001400	3.86	3.86	
1704310001500	24.84	24.84	
1704310001600	96.04	96.05	
1704310001702	17.37	17.37	
1704310001703	10.01	10.00	
1704310001704	9.99	10.00	
1704310001705	1.87	1.87	
1704310001800	15.98	15.98	
1704310001900	9.15	9.15	
1704310002000	45.07	45.07	
1704310002001	3.06	3.06	
1704310002002	0.59	0.59	
1704310002003	0.01	0.01	
1704310002100	5.78	5.78	
1704310002200	7.79	7.80	
1704310002500	1.39	1.39	
1704310002601	5.06	5.06	
1704310002602	5.18	5.18	
1704310002603	0.07	0.07	
1704310002700	10.50	10.50	
1704310002800	13.96	13.96	
1704310002801	3.60	3.60	
1704310002803	20.10	20.10	
1704310002804	20.18	20.18	
1704310003000	10.53	10.53	
1704310003100	0.91	0.91	
1704310003300	10.74	10.74	
1704310003400	2.10	2.10	
1704310003500	0.81	0.81	
1704310003503	1.96	1.96	
1704310003506	2.28	2.28	
1704310003507	0.50	0.50	
1704310003600	9.31	9.31	
1704310003700	1.17	1.17	
1704310003800	1.17	1.17	
1704310003900	2.05	2.05	
1704310004000	5.87	5.87	

1704310004001	2.36	2.36	
1704310004100	5.23	5.23	
1704310004200	1.09	1.09	
1704310004300	3.67	3.67	
1704310004400	12.23	12.23	
1704310004401	4.78	4.78	
1704310004402	13.83	13.83	
1704310004500	20.35	20.35	
1704311400200	0.35	0.35	
1704311400300	0.56	0.56	
1704311400400	0.17	0.17	
1704311400500	0.77	0.77	
1704311400600	0.26	0.26	
1704311400700	1.43	1.43	
1704311400800	0.27	0.27	
1704311400900	0.26	0.26	
1704311401000	0.80	0.80	
1704311401100	0.51	0.51	
1704320006000	13.31	13.31	
1704320006100	0.73	0.72	
1705000000500	32.18	1067.00	Split across UGB
1705240001000	0.54	0.54	
1705240001100	2.46	2.46	
1705240001300	2.91	2.91	
1705240001700	41.07	41.07	
1705240001800	24.30	24.30	
1705240001900	40.44	40.44	
1705240002000	27.63	27.63	
1705240002100	13.87	13.87	
1705240002200	19.40	19.40	
1705240002300	0.78	0.78	
1705240002400	13.57	13.57	
1705240002501	1.57	1.57	
1705240002600	0.38	0.38	
1705240002700	12.62	12.62	
1705240002800	2.81	2.81	
1705240002900	2.62	2.62	
1705240003000	11.74	11.74	
1705240003100	15.40	15.40	
1705240003200	14.77	14.77	
1705240003300	7.05	7.05	
1705240003400	0.93	0.93	
1705240003500	0.36	0.36	

1705240003600	6.04	6.04	
1705240003700	4.60	4.60	
1705240003701	2.50	2.50	
1705240003800	7.77	7.77	
1705240003900	30.20	30.20	
1705240004000	2.97	2.97	
1705240004100	1.23	1.23	
1705240004200	1.14	1.14	
1705240004300	2.02	2.02	
1705240004400	1.18	1.18	
1705240004401	0.43	0.43	
1705250000100	2.00	2.00	
1705250000200	19.71	19.71	
1705250000205	5.52	5.52	
1705250000206	20.04	20.04	
1705250000207	38.54	38.54	
1705250000208	1.40	1.40	
1705250000209	6.14	6.14	
1705250000301	1.79	1.79	
1705250000302	1.80	1.80	
1705250000303	2.01	2.01	
1705250000304	1.23	1.23	
1705250000305	1.12	1.12	
1705250000306	1.78	1.78	
1705250000307	4.36	4.36	
1705250000308	4.00	4.00	
1705250000309	1.33	1.33	
1705250000313	2.77	2.77	
1705250000314	2.55	2.55	
1705250000315	6.60	6.60	
1705250000316	0.90	0.90	
1705250000317	4.18	4.18	
1705250000400	2.88	2.88	
1705250000500	3.94	3.94	
1705250000600	21.94	21.94	
1705250000601	0.94	0.94	
1705250000701	19.47	19.47	
1705250000702	10.44	10.44	
1705250000703	0.03	0.03	
1705250000800	5.08	5.08	
1705250000900	0.93	0.93	
1705250001000	12.13	12.13	
1705250001001	1.00	1.00	

1705250001100	4.00	4.00	
1705250001200	14.88	14.88	
1705250001300	4.94	4.94	
1705250001400	28.98	28.98	
1705250001401	4.67	4.67	
1705250001402	4.71	4.71	
1705250001500	14.13	14.13	
1705250001501	0.89	0.89	
1705250001600	5.58	5.58	
1705250001601	1.09	1.09	
1705250001602	9.18	9.18	
1705250001603	3.95	3.95	
1705250001700	14.14	14.14	
1705250001801	14.29	14.29	
1705250001802	13.52	13.52	
1705250001803	0.37	0.37	
1705250001804	1.55	1.55	
1705250001900	26.18	26.18	
1705250002000	24.66	24.66	
1705250002100	11.08	11.08	
1705250002101	10.16	10.16	
1705250002200	5.33	5.33	
1705250002202	73.65	73.65	
1705250002300	34.09	34.09	
1705250002301	20.23	20.23	
1705250002302	12.85	12.85	
1705250002400	83.53	83.53	
1705250002401	18.51	18.51	
1705250002402	17.26	17.26	
1705360000100	2.19	2.19	
1705360000200	21.58	21.58	
1705360000300	6.11	6.11	
1705360000400	151.45	151.45	
1705360000401	81.47	81.47	
1705360000500	59.55	59.55	
1705362000100	1.01	1.01	
1705362000200	5.32	5.32	
1705362000300	1.51	1.51	
1705362000400	1.49	1.49	
1705362000500	1.17	1.17	
1705362000600	0.98	0.98	
1705362000700	0.96	0.96	
1705362000800	0.91	0.91	

1705362000900	0.84	0.84	
1705362001000	1.97	1.97	
1705362001100	0.83	0.83	
1705362001200	0.98	0.98	
1705362001300	0.98	0.98	
1705362001400	0.98	0.98	
1705362001500	1.27	1.27	
1705362001600	1.31	1.31	
1705362001700	1.14	1.14	
1705362001701	0.95	0.95	
1705362001800	0.74	0.74	
1705362001900	0.74	0.74	
1705362002000	0.74	0.74	
1705362002100	0.80	0.80	
1705362002200	2.41	2.41	
1705362002300	1.09	1.09	
1705362002400	1.03	1.03	
1705362002500	1.02	1.02	
1705362002600	1.01	1.01	
1705362002700	1.00	1.00	
1705362002800	1.00	1.00	
1705362002900	1.00	1.00	
1705362003000	0.99	0.99	
1705362003100	0.49	0.49	
1705362003101	0.51	0.51	
1705362003200	0.99	0.99	
1705362003300	1.12	1.12	
1705362003400	1.03	1.03	
1705362003500	1.02	1.02	
1705362003600	1.01	1.01	
1705362003700	1.00	1.00	
1705362003800	1.00	1.00	
1705362003900	1.00	1.00	
1705362004000	0.99	0.99	
1705362004100	2.99	2.99	
1705362004200	1.00	1.00	
1705362004300	1.01	1.01	
1705362004400	1.00	1.00	
1705362004499	1.01	1.01	
1705362004500	1.01	1.01	
1705362004600	1.01	1.01	
1705362004699	1.01	1.01	
1705362004700	1.01	1.01	

1705362004800	1.00	1.00	
1705362004900	0.50	0.50	
1705362005000	0.50	0.50	
1803030000108	9.32	9.32	
1803030000110	12.29	34.97	Split across UGB
1803034001000	53.78	53.79	
1803090000100	4.03	4.03	
1803090000101	1.47	1.47	
1803090000200	15.77	15.77	
1803090000201	0.55	0.55	
1803090000300	4.83	4.83	
1803090000700	5.49	5.49	
1803090000800	2.92	2.92	
1803090002100	8.81	8.81	
1803090002200	4.91	4.91	
1803090002201	0.90	0.90	
1803090002300	3.31	3.31	
1803090002400	2.29	2.29	
1803090002500	1.16	1.16	
1803090002800	4.18	4.18	
1803090002801	2.59	2.59	
1803090002900	2.10	2.10	
1803090003000	3.00	3.00	
1803090003100	2.70	2.70	
1803090003200	2.95	2.95	
1803090003300	5.85	5.85	
1803090004800	1.91	1.91	
1803090004900	4.13	4.13	
1803090005000	5.18	5.18	
1803090005100	4.41	4.41	
1803090005200	3.99	3.99	
1803090005300	3.81	3.81	
1803090005301	3.02	3.02	
1803090005302	2.54	2.54	
1803090005303	3.34	3.34	
1803090005700	3.33	3.33	
1803090005800	3.45	3.45	
1803090005900	3.15	3.15	
1803090006000	2.98	2.98	
1803090006100	3.31	3.31	
1803090006200	2.83	2.83	
1803090006300	2.91	2.91	
1803090006800	8.20	8.20	

1803090006900	14.61	14.61	
1803090007000	0.67	0.67	
1803092400200	7.06	7.06	
1803093000100	6.45	6.45	
1803093000200	3.57	3.57	
1803093000300	3.34	3.34	
1803093002500	7.64	7.64	
1803093002600	18.36	18.36	
1803093009502	0.36	1.43	Split across UGB
1803093010400	4.99	4.99	
1803093010401	1.01	1.77	Split across UGB
1803093010501	1.54	6.06	Split across UGB
1803093401600	8.09	11.11	Split across UGB
1803093402800	4.10	4.09	
1803093402900	3.94	3.94	
1803093403000	1.87	1.87	
1803093403100	1.76	1.76	
1803093403200	0.45	0.45	
1803100000100	7.09	7.09	
1803100000101	17.46	17.46	
1803100000200	52.05	52.05	
1803100000300	5.44	5.44	
1803100000400	5.23	5.23	
1803100000500	5.23	5.23	
1803100000600	4.92	4.92	
1803100000701	1.22	98.31	Split across UGB
1803100000703	0.08	24.89	Split across UGB
1803100000704	89.15	89.15	
1803100000800	18.46	18.46	
1803100000801	1.49	1.49	
1803100000900	1.01	1.01	
1803100000901	0.89	0.89	
1803100001000	0.99	0.99	
1803100001001	1.02	1.02	
1803100001101	15.01	15.01	
1803100001102	0.26	0.26	
1803100001103	4.38	4.39	
1803100001200	7.42	7.42	
1803100001202	4.64	4.64	
1803100001300	10.48	10.48	
1803100001301	0.14	0.14	
1803100001302	50.09	50.09	
1803100001400	153.78	153.77	

1803100001600	8.58	8.58	
1803101000300	7.63	7.63	
1803101000301	1.07	1.07	
1803101000400	11.98	11.98	
1803101000500	29.92	29.92	
1803101000600	12.62	12.62	
1803101000601	6.70	6.70	
1803101000700	12.11	12.11	
1803101000800	9.06	9.06	
1803101000900	0.86	0.86	
1803101001000	0.44	0.44	
1803101001100	4.90	4.90	
1803101001101	2.38	2.38	
1803101001200	3.47	3.47	
1803101001300	1.46	1.46	
1803101001400	2.33	2.33	
1803101001500	1.26	1.26	
1803101001501	1.30	1.30	
1803101001600	1.53	1.53	
1803101001700	2.32	2.32	
1803101001800	1.01	1.01	
1803101001900	1.01	1.01	
1803101002000	1.14	1.14	
1803101002100	1.14	1.14	
1803101002300	2.63	2.63	
1803101002400	1.21	1.21	
1803101002500	0.47	0.47	
1803101002601	0.93	0.93	
1803101002602	0.50	0.50	
1803101002603	0.50	0.50	
1803101002700	0.65	0.65	
1803101002800	1.19	1.19	
1803101002900	0.64	0.64	
1803101003000	0.76	0.76	
1803101003100	0.32	0.32	
1803101003200	0.63	0.63	
1803104000200	1.06	1.06	
1803104000300	0.52	0.52	
1803104000400	0.59	0.59	
1803104000500	0.67	0.67	
1803104000600	5.24	5.24	
1803104000700	0.73	0.73	
1803104000900	1.09	1.09	

1803104001000	0.99	0.99	
1803104001100	1.18	1.18	
1803104001200	2.07	2.07	
1803104001300	0.83	0.83	
1803104001400	3.54	3.54	
1803104001402	0.86	0.86	
1803104001500	3.54	3.54	
1803104001600	1.49	1.49	
1803104001700	25.80	25.80	
1803113000700	0.42	0.42	
1803113000800	0.17	0.17	
1803113000900	0.49	0.49	
1803113001000	0.49	0.49	
1803113001100	0.64	0.64	
1803113001200	0.67	0.67	
1803113001300	2.00	2.00	
1803113001400	0.86	0.86	
1803113001500	3.05	3.05	
1803113001600	1.00	1.00	
1803113001700	3.00	3.00	
1803113001800	0.21	0.21	
1803113001900	1.23	1.23	
1803113002000	0.04	0.04	
1803113002100	6.35	6.35	
1803113002101	1.76	1.76	
1803113002200	1.22	1.22	
1803113004000	0.39	0.39	
1803113004001	0.31	0.31	
1803140002500	61.86	61.86	
1803140002501	9.11	9.11	
1803150000100	11.77	11.77	
1803150000200	84.15	84.15	
1803150000201	63.55	63.55	
1803150000202	36.46	36.46	
1803150000204	1.69	1.69	
1803150000205	2.04	2.04	
1803150000206	10.65	10.65	
1803150000207	1.87	1.87	
1803150000208	10.43	10.43	
1803150000209	1.31	1.31	
1803150000300	81.75	81.75	
1803150000302	57.65	57.65	
1803150000303	10.55	10.55	

1803150000304	25.31	25.31	
1803150000400	60.24	60.24	
1803160000100	31.20	31.20	
1803161000100	9.61	9.61	
1803161000200	9.52	9.52	
1803161000300	6.31	6.31	
1803161000401	6.56	6.56	
1803161000700	6.86	6.86	
1803161000701	6.26	6.26	
1803161000702	12.47	12.47	
1803161000800	11.26	11.26	
1803161000900	4.92	4.92	
1803161001000	4.64	4.64	
1803161001100	9.96	9.96	
1803161001200	2.29	2.29	
1803161001300	2.84	2.84	
1803161001400	3.38	3.38	
1803161001500	3.38	3.38	
1803161001600	3.39	3.39	
1803161001700	3.39	3.39	
1803161001800	4.90	4.90	
1803161001900	4.75	4.75	
1803161002000	4.82	4.82	
1803161002100	9.67	9.67	
1803161002200	4.17	4.17	
1803161002300	6.43	6.43	
1803161002400	3.56	3.56	
1803161002401	3.72	3.72	
1803161002500	8.01	8.01	
1803161002600	3.45	3.45	
1803161002603	2.20	2.20	
1803161002604	3.87	3.97	Split across UGB
1803162000100	3.93	5.40	Split across UGB
1803162001500	4.91	6.93	Split across UGB
1803162001701	2.08	2.84	Split across UGB
1803162001702	2.10	2.81	Split across UGB
1803162001901	1.82	2.41	Split across UGB
1803162001905	1.57	1.57	
1803162001906	0.30	0.89	Split across UGB
1803162400100	2.60	3.38	Split across UGB
1803162400200	2.35	3.79	Split across UGB
1803162400300	1.70	2.35	Split across UGB
1803162400600	0.65	1.02	Split across UGB

1803162400700	1.11	1.87	Split across UGB
1803162400800	1.46	1.46	
1803162400900	2.53	3.44	Split across UGB
1803163000100	1.71	2.33	Split across UGB
1803163000200	1.99	2.62	Split across UGB
1803163000301	2.12	3.63	Split across UGB
1803163000302	2.62	3.70	Split across UGB
1804040001310	0.01	1.26	Split across UGB
1804040001318	0.02	9.31	Split across UGB
1804040002300	22.37	26.14	Split across UGB
1804050000101	153.64	153.64	
1804050000200	34.01	34.01	
1804050000300	21.86	21.86	
1804050000400	14.81	14.81	
1804050000401	2.17	2.17	
1804050000402	2.82	2.81	
1804050000500	11.36	11.36	
1804050000501	5.04	5.04	
1804050000700	2.17	2.17	
1804050000800	3.10	3.10	
1804050000900	2.66	2.66	
1804050001000	0.46	0.46	
1804050001200	0.85	0.85	
1804050001300	1.75	1.75	
1804050001500	3.62	3.62	
1804050001501	5.98	5.98	
1804050001502	1.43	1.43	
1804050001600	0.06	0.06	
1804050001601	2.01	2.01	
1804050001602	2.00	2.00	
1804050001700	0.00	0.00	
1804050001800	2.62	2.62	
1804050001802	2.20	2.20	
1804050001900	4.82	4.82	
1804050002000	12.48	12.48	
1804050002001	0.97	0.97	
1804050002100	3.31	3.30	
1804050002101	2.04	2.04	
1804050002200	3.94	3.94	
1804050002201	10.66	10.66	
1804050002202	10.21	10.21	
1804050002203	9.94	9.94	
1804050002204	9.91	9.92	

1804050002205	1.60	1.60	
1804050002300	39.15	39.15	
1804050002301	5.02	5.02	
1804050002400	21.88	21.88	
1804050002401	3.08	3.08	
1804050002500	7.85	7.85	
1804050002501	2.87	2.87	
1804050002600	1.47	1.47	
1804050002700	1.28	1.28	
1804050002900	21.14	21.14	
1804050002901	5.01	5.01	
1804050002902	4.89	4.89	
1804050003000	1.99	1.99	
1804050003100	29.09	29.08	
1804050003101	1.00	1.00	
1804050003102	1.01	1.00	
1804050003103	1.00	1.00	
1804050003104	1.01	1.01	
1804050003105	1.00	1.00	
1804050003106	1.01	1.01	
1804050003107	1.01	1.01	
1804050003108	1.00	1.00	
1804050003109	1.54	1.55	
1804050003300	1.02	1.02	
1804050003500	0.43	0.43	
1804050003600	1.32	1.32	
1804050003700	1.09	1.09	
1804050003800	1.04	1.04	
1804050003900	1.08	1.08	
1804050004000	1.19	1.19	
1804050004100	1.53	1.53	
1804050004200	2.78	2.78	
1804050004300	1.65	1.66	
1804050004400	1.32	1.32	
1804050004401	0.20	0.20	
1804050004500	1.79	1.79	
1804050004900	3.04	3.04	
1804050004901	0.98	0.98	
1804050004902	36.50	36.50	
1804050005000	14.26	14.26	
1804050005200	19.09	19.09	
1804060000103	115.51	115.51	
1804060000104	2.00	2.00	

1804060000105	2.00	2.00	
1804060000200	5.38	5.38	
1804060000201	13.44	13.44	
1804060000300	1.86	1.86	
1804060000301	9.87	9.87	
1804060000303	8.21	8.21	
1804060000305	19.14	19.14	
1804060000306	0.43	0.43	
1804060000307	12.94	12.94	
1804060000308	0.30	0.30	
1804060000310	2.47	2.47	
1804060000311	79.47	79.47	
1804060000314	20.02	20.02	
1804060000400	2.29	2.29	
1804060000500	0.66	0.66	
1804060000600	37.57	37.57	
1804060000601	33.93	33.93	
1804060000700	1.60	1.60	
1804060000701	0.15	0.15	
1804060000800	3.45	3.45	
1804060000801	5.83	5.83	
1804060000802	4.56	4.56	
1804060000900	8.32	8.32	
1804060000901	1.63	1.63	
1804060000902	1.50	1.50	
1804060001000	1.53	1.53	
1804060001002	1.10	1.10	
1804060001003	5.19	5.19	
1804060001100	3.04	3.04	
1804060001101	1.91	1.91	
1804060001200	51.95	51.95	
1804060001300	65.84	65.84	
1804060001400	6.60	6.60	
1804060001401	1.31	1.31	
1804060001402	35.30	35.30	
1804060001403	22.72	22.72	
1804060001700	1.03	1.03	
1804060002000	20.08	20.08	
1804090000802	22.13	22.13	
1804090001300	4.97	4.97	
1804090001302	5.02	5.02	
1804090001303	5.05	5.05	
1804090001501	3.67	3.67	

1804090001601	4.96	4.96	
1804090001602	4.82	4.82	
1804090001603	4.96	4.96	
1804090001604	5.24	5.24	
1804090001700	1.38	1.38	
1804090001701	17.73	17.73	
1804090001800	4.68	4.68	
1804090001801	0.61	0.61	
1804090002802	3.46	3.46	
1804090002900	2.22	2.22	
1804090003000	2.20	2.20	
1804090003001	3.08	3.08	
1804090003100	3.89	3.89	
1804090003200	6.94	6.94	
1804090003300	6.57	6.57	
1804090003400	5.33	5.33	
1804090003402	6.51	6.51	
1804090003600	40.36	40.36	
1804090003601	1.96	1.96	
1804090003602	10.08	10.08	
1804090003603	4.84	4.84	
1804090003604	1.91	1.91	
1804090003605	1.12	1.12	
1804090003606	36.23	36.23	
1804090003700	6.85	6.85	
1804090003701	5.64	5.64	
1804090003702	14.14	14.14	
1804090003703	0.19	0.19	
1804090003704	10.15	10.15	
1804090003706	2.02	2.02	
1804090003800	1.45	1.45	
1804090003900	23.82	23.82	
1804090003901	10.55	10.55	
1804090003903	3.42	3.42	
1804090004000	10.26	10.26	
1804090004001	8.26	8.26	
1804090004002	20.83	20.83	
1804090004100	8.13	8.13	
1804090004101	5.04	5.04	
1804090004200	4.88	4.88	
1804090004201	8.73	8.73	
1804090004300	0.96	0.96	
1804090004400	0.84	0.84	

1804090005000	1.51	1.51	
1804090005301	12.50	12.50	
1804090005400	3.83	3.83	
1804090005500	18.43	18.43	
1804090005900	5.06	5.06	
1804090006000	5.05	5.05	
1804090006100	4.64	4.64	
1804100000101	1.62	1.62	
1804100000103	172.01	172.01	
1804100000200	0.93	0.93	
1804100000201	5.55	5.55	
1804100000204	3.27	3.27	
1804100000205	0.96	0.96	
1804100000206	7.64	7.64	
1804100000300	7.18	7.18	
1804100000301	1.43	1.43	
1804100000304	3.26	3.26	
1804100000305	2.97	2.97	
1804100000306	0.62	0.62	
1804100000312	5.39	5.39	
1804100000313	5.01	5.01	
1804100000314	19.72	19.72	
1804100000315	1.76	1.76	
1804100000502	7.28	17.50	Split across UGB
1804100000503	13.52	21.55	Split across UGB
1804100000504	2.29	2.29	
1804100000505	10.25	10.25	
1804100000704	8.23	8.23	
1804100000705	7.86	7.86	
1804100000706	84.62	84.62	
1804100000707	6.67	6.67	
1804100000708	29.47	29.47	
1804100000800	10.13	10.13	
1804100000900	21.17	21.17	
1804100000903	16.67	16.67	
1804100000904	11.38	11.38	
1804110000102	46.48	46.48	
1804110000104	1.28	1.28	
1804110000201	47.33	54.94	Split across UGB
1804110000307	15.03	15.03	
1804110000308	10.02	10.02	
1804110000310	15.00	15.00	
1804110000311	13.20	13.20	

1804110000312	10.01	10.01	
1804110000401	122.28	122.28	
1804110000500	31.35	31.35	
1804110000600	0.34	0.34	
1804110000900	6.20	6.20	
1804110001000	6.38	6.38	
1804114400100	5.05	5.05	
1804114400200	4.98	4.98	
1804114400300	5.09	5.09	
1804114400401	5.17	5.17	
1804114400402	6.70	6.70	
1804114400500	7.47	7.47	
1804122005601	0.79	0.79	
1804122005603	5.01	5.01	
1804122005604	5.01	5.01	
1804122006100	1.54	1.54	
1804123000100	1.81	1.81	
1804123000200	1.67	1.67	
1804123000300	2.33	2.33	
1804123000301	0.04	0.04	
1804123000302	1.67	1.67	
1804123000400	3.15	3.15	
1804123000401	0.36	0.36	
1804123000402	0.24	0.24	
1804123000500	1.55	1.56	
1804123000501	2.18	2.18	
1804123000600	1.49	1.49	
1804123000700	0.72	0.72	
1804123000800	1.18	1.18	
1804123000900	0.88	0.88	
1804123001000	4.19	4.19	
1804123001001	1.23	1.23	
1804123001003	1.71	1.71	
1804123001100	1.97	1.97	
1804123001101	1.04	1.04	
1804123001200	1.84	1.84	
1804123001300	1.75	1.75	
1804123001301	1.52	1.52	
1804123001400	1.82	1.82	
1804123001500	2.64	2.64	
1804123001600	1.89	1.89	
1804123001700	0.58	0.58	
1804123001701	0.99	0.99	

1804123001702	0.78	0.78	
1804123001800	25.97	25.97	
1804123001901	6.36	6.36	
1804123001905	5.24	5.24	
1804123001906	5.27	5.27	
1804123002100	4.96	4.96	
1804123002200	17.94	17.94	
1804124002800	0.98	0.98	
1804124002900	3.53	3.53	
1804124003000	0.60	0.60	
1804124003100	3.20	3.20	
1804124003102	0.88	0.88	
1804124003200	10.79	10.79	
1804124003801	2.11	2.11	
1804124203700	1.81	1.81	
1804124203800	3.43	3.43	
1804124203900	3.86	3.86	
1804124204000	3.56	3.56	
1804124204100	1.27	1.27	
1804124204200	1.02	1.02	
1804124204300	0.62	0.62	
1804124204400	2.00	2.00	
1804124204500	0.17	0.40	Split across UGB
1804124204600	0.42	0.42	
1804124204700	0.49	0.49	
1804124204800	0.44	0.44	
1804124204900	2.00	2.00	
1804124205000	0.55	0.55	
1804124205100	0.31	0.31	
1804124205200	0.40	0.40	
1804124205300	0.30	0.30	
1804124205400	0.21	0.21	
1804124300100	9.65	9.65	
1804124300200	2.00	2.00	
1804124300300	2.01	2.01	
1804124300401	3.40	3.40	
1804124300402	3.15	3.15	
1804124300500	0.42	0.42	
1804124400100	4.07	4.07	
1804124400200	1.96	1.96	
1804124400300	1.28	1.28	
1804124400400	1.94	1.94	
1804124400500	5.98	5.98	

1804124400600	4.95	4.95	
1804124400700	4.94	4.94	
1804124400800	4.93	4.93	
1804124400900	2.12	2.12	
1804130000200	0.48	0.48	
1804130000300	0.49	0.49	
1804130000400	0.52	0.52	
1804130000500	2.75	2.75	
1804130000502	0.45	0.45	
1804130000503	0.44	0.44	
1804130000504	0.67	0.67	
1804130000505	0.88	0.88	
1804130000506	0.69	0.69	
1804130000508	0.71	0.71	
1804130000509	3.19	3.19	
1804130000510	0.88	0.88	
1804130000700	0.62	0.62	
1804130000800	0.44	0.44	
1804130000900	1.55	1.55	
1804130001000	5.26	5.26	
1804130001001	3.19	3.19	
1804130001002	2.42	2.42	
1804130001004	6.99	6.99	
1804130001100	0.40	0.40	
1804130001200	2.85	2.85	
1804130001201	1.56	1.56	
1804130001300	123.21	123.21	
1804130001301	3.58	3.58	
1804130001400	3.19	3.20	
1804130001401	2.58	2.58	
1804130001402	2.02	2.02	
1804130001403	1.02	1.02	
1804130001404	1.23	1.23	
1804130001405	1.00	1.00	
1804130001406	0.95	0.95	
1804130001407	2.39	2.39	
1804130001408	4.26	4.26	
1804130001409	4.00	4.00	
1804130001500	5.60	5.60	
1804130001601	7.46	7.45	
1804130001702	9.20	9.21	
1804130001703	33.25	33.25	
1804130001705	80.43	80.43	

1804130001706	1.70	1.70	
1804130001801	4.00	4.00	
1804130001802	2.00	2.00	
1804130001803	3.29	3.29	
1804130001900	0.98	0.98	
1804130001901	0.97	0.97	
1804130002000	0.97	0.97	
1804130002100	0.88	0.88	
1804130002200	1.01	1.01	
1804130002201	0.89	0.89	
1804130002202	1.02	1.02	
1804130002300	0.91	0.91	
1804130002301	1.04	1.04	
1804130002302	1.04	1.04	
1804130002399	1.04	1.04	
1804130002400	1.08	1.08	
1804130002500	1.38	1.38	
1804130002600	0.45	0.45	
1804130002601	1.86	1.86	
1804130002700	7.79	7.79	
1804130002800	1.04	1.04	
1804130002900	7.45	7.45	
1804130003000	0.96	0.96	
1804130003200	0.44	0.44	
1804130003301	0.69	0.69	
1804130003302	2.26	2.26	
1804130003303	8.18	8.18	
1804130003304	7.59	7.59	
1804130003305	5.01	5.01	
1804130003306	5.00	5.00	
1804130003400	0.49	0.49	
1804130003401	0.95	0.95	
1804130003501	0.73	0.73	
1804130003502	0.91	0.91	
1804130003503	1.07	1.07	
1804130003504	1.26	1.26	
1804130003507	3.19	3.19	
1804130003509	0.63	0.63	
1804130003600	1.08	1.08	
1804130003700	5.00	5.00	
1804130003900	0.02	0.02	
1804130004300	0.67	0.67	
1804130004400	1.10	1.10	

1804130004800	10.00	10.00	
1804130004900	10.07	10.07	
1804130005000	11.95	11.95	
1804130005100	10.25	10.25	
1804131101700	15.07	19.57	Split across UGB
1804131101701	0.85	0.85	
1804140004000	2.30	2.31	
1804140004001	12.72	12.72	
1804140004006	59.60	59.60	
1804140004008	4.75	4.75	
1804140004009	23.67	23.67	
1804141100200	5.70	5.70	
1804141100201	2.40	2.40	
1804141100300	2.24	2.24	
1804141100400	2.21	2.21	
1804141100600	4.03	4.03	
1804141100700	4.67	4.67	
1804141100800	2.60	2.60	
1804141100900	4.80	4.80	
1804141200100	2.36	2.36	
1804141200101	0.21	0.21	
1804141200200	0.49	0.49	
1804141200300	1.06	1.06	
1804141200400	1.01	1.01	
1804141200500	1.02	1.02	
1804141200600	1.02	1.02	
1804141200700	0.51	0.51	
1804141200800	1.53	1.53	
1804141200900	2.75	2.75	
1804141201000	0.11	0.11	
1804141201100	0.74	0.74	
1804141201200	2.38	2.38	
1804141201300	2.06	2.06	
1804141201400	6.28	6.28	
1804141201500	0.99	0.99	
1804141201600	1.00	1.00	
1804141201601	4.93	4.93	
1804141201700	0.77	0.77	
1804141201800	0.56	0.56	
1804141201900	3.01	3.01	
1804141202000	2.03	2.03	
1804141202100	5.49	5.49	
1804141202200	0.04	0.04	

1804142100100	1.22	1.22	
1804142100200	0.40	0.40	
1804142100300	0.64	0.64	
1804142100400	1.24	1.24	
1804142100500	1.03	1.04	
1804142100600	2.93	2.93	
1804142100701	10.62	10.62	
1804142100900	2.79	2.79	
1804142101000	2.95	2.95	
1804142101100	0.48	0.48	
1804142200300	11.48	11.48	
1804150000300	20.07	20.07	
1804150000400	22.02	22.02	
1804150000500	22.62	22.62	
1804150000502	2.41	2.41	
1804150000600	10.02	10.02	
1804150001500	2.42	2.42	
1804160000100	10.03	10.03	
1804160000200	8.21	8.21	
1805010000101	48.44	48.44	
1805010000106	5.27	5.27	
1804060000312	31.36	31.36	
1804060001301	3.18	3.18	
1804060001302	5.26	5.26	
1804060001303	3.50	3.50	