



Growing McMinnville
MINDFULLY

**McMinnville Growth Management and
Urbanization Plan, 2003 – 2023**

City of McMinnville
Remand Order 12-WKTASK-001814
TECHNICAL MEMORANDUMS
December, 2020
Attachment 2

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TECHNICAL MEMORANDUM #1

MGMUP UGB REMAND UPDATE

DATE: August 15, 2020
TO: Heather Richards, Planning Director
FROM: DJ Heffernan, Planner
SUBJECT: Affordable Housing Need Analysis for the 2023 Planning Horizon

This technical memorandum supplements information relied on to establish residential land needs within the Urban Growth Boundary for the 2023 planning horizon. It uses information contained in the City's adopted and acknowledged *2001 Residential Land Needs Analysis* (RLNA) that was prepared by EcoNorthwest, Inc. The RLNA included information from the 2000 census about the income characteristics of McMinnville households. This income data was used to forecast housing and land needs for lower income households in the 2003 McMinnville Growth Management and Urbanization Plan (MGMUP). This supplemental analysis provides information to support an amendment to the housing land needs analysis in MGMUP, *Appendix B – Revised Buildable Land Need Analysis* (Appendix B). It focuses on changes to the land supply in the existing UGB that are material to the forecast housing and land needs, and it establishes the amount of land need to accommodate housing for lower income households. The analysis was developed from and is consistent with the approved 2001 RLNA and with related assumptions used by the City to establish buildable land needs for the subject planning period.

Planning Assumptions

The basic assumptions that underlay the residential land need analysis for the 2003 MGMUP remain unchanged. They are outlined in Appendix B of the 2003 Revised Buildable Land Need Analysis. They include:

- The overall need for new housing can be met with 60% single family residential (SFR) and 40% multi-family residential (MFR) dwellings.
- The trend in dwelling sizes will shift from historic patterns and favor smaller housing products. This change is supported by projections for more single-person households, more “empty nester” and elderly households, and the growing disparity between housing costs and household incomes.
- Most lower-income households will continue to need and seek rental housing.
- Most new rental housing products will be constructed either as multi-family residential (MFR) apartments or attached townhomes and row-houses, or as cottage clusters homes or mobile homes in parks.
- Most McMinnville home owners will choose to live in single family residential (SFR) dwellings.
- Given limited redevelopment opportunities in existing neighborhoods, most housing for new residents, including for low and moderate income households, will need to come from new construction on vacant land.

Residential Need – Assumptions

Appendix B in the 2003 MGMUP details the planning assumptions relied on to estimate residential land needs for the 2003 – 2023 planning horizon. The underlying demographic and housing need characteristics in Appendix B were based on the adopted and acknowledged 2001 RLNA. The 2001 RLNA provided the basis for calculating overall housing needs for dwelling types by City residential zone per statewide guidance in the housing need analysis handbook. Appendix B shows an increase in the total housing need from the forecast included in the 2001 RLNA. This reflected the change in the forecast horizon from 2020 to 2023 and the associated change in population growth. In other respects, however, the assumptions in the RLNA for how housing land needs were calculated remained the same between the 2001 RLNA and in Appendix B. They provide the factual basis for the land need analysis.

Key factors in Appendix B that were used to forecast residential land need include:

- Table 5 establishes the future population basis and the assumed housing mix for the planning horizon. It also establishes assumptions for vacancy rates, household sizes, development densities and other variables that were used to forecast overall housing needs. This is unchanged.
- Table 6 establishes the distribution percentages used to allocate needed housing by type of structure and residential zone. A change in policy is proposed regarding multi-family zones. The City has elected not to establish a new R-5 multi-family zone but instead to restrict SFR uses from the R-4 zone. The MFR housing allocation that had been assigned to the R-5 zone will be added to the R-4 zone.
- Table 7 shows needed housing by dwelling type and the assumed development densities for needed housing.
- Table 8 in Appendix B shows the distribution of new needed housing by zone and the amount of land needed to accommodate that housing.
- Table 9 in Appendix B shows the gross land need for housing and added land needs for schools, parks, and other public and quasi-public uses to arrive at a total residential land need. The need assumption for public and quasi-public uses remains unchanged.

Residential Land Needs and Household Income Analysis

The 2001 RLNA includes an analysis of household incomes using census information that assesses housing needs for low and moderate income households. The analysis was not directly used to estimate land needs based on McMinnville income distributions, but it informed the percentage distribution of housing needs for structure type, tenure, and zoning. The 2001 income analysis showed that:

- 94% of home owners choose detached single family residences.
- 2% of home owners choose attached multi-family dwellings.
- 55% of renters live in detached housing and 45% live in apartments.
- Real income levels in McMinnville are likely to remain constant over time.
- The distribution of household incomes in McMinnville is likely to remain the same over time.
- ~45% of new households will be considered low income and ~30% will be very low income.
- More than 60% households headed by persons under age 35 and over age 65 will be low income.
- Most low income households (i.e. <80% of median income) will live in rental housing.
- Most very low income households (i.e. <50% of median income) will live in apartments.

- All group quarters housing residents will need attached housing and 50% will be low income.
- Higher income households almost exclusively will purchase detached single family housing.
- In response, future housing products are likely to transition toward smaller units and more attached housing.

Based on these factors, McMinnville's housing needs can be refined to include an estimate of housing needed for low and moderate income households. The following tables show how this analysis was developed. The need for affordable housing is the minimum required given the assumption that non-subsidized market development will be relied on to deliver most of the affordable units. The data show that 43% of forecast new housing will need to be affordable to low and moderate income households in order for McMinnville to accommodate a future population whose demographics are similar to its historic characteristics.

The analysis started with the 2023 housing forecast in Appendix B – Revised Residential Land Need Analysis. Table 1 below shows forecast dwelling units by zone from Appendix B, Table 8. Table 2 shows the corresponding acreage need for each zone. It also is extracted from Appendix B, Table 8. The analysis assumes that low and moderate income households will occupy a share of these dwellings. Table 3 shows the distribution of household income in McMinnville based on the 2001 RLNA. The data were taken from the 2000 Census and show incomes for head of household for each age cohort. At that time, median income in McMinnville was \$39,549. Moderate income was defined as households earning less than 80% of median, or \$31,639. Low income was defined as households earning less than 60% of median, or \$23,729. And very low income was defined as households earning less than 50% of median, or \$19,775.

Table 3 shows the year 2000 estimate of the income distribution for median, moderate, low, and very low income households. This table was developed from Table 5-9 in the 2001 RLNA. To arrive at an estimate of the number of low and moderate income households within each age cohort, the analysis assumed that the income distribution within each income range that included the breakpoints for determining median, moderate, low, and very low income levels was uniform for all households in that range. On that basis, an estimate of the households whose income fell below the threshold was made for the income range where the threshold break fell, and that subtotal was added to the estimated households in all income ranges below the threshold amount. This provided an estimate of the number of moderate, low, and very-low income households in each age cohort.

For example, the income threshold for moderate income households is \$31,639. That number falls in the household income range between \$25,000 and \$34,999, and it is the 90th percentile for incomes in that range. For that income cohort, we assumed that 90% of the households in that cohort were moderate income. That sum was then added to the household estimates for all income categories earning less than \$25,000 to estimate total households whose incomes were below the moderate income threshold. This same method was then used to estimate the number low, and very low income households in each age cohort and those estimates were summed to then estimate the overall number of moderate, low, and very low income households city-wide.

Table 4 converted the information from Table 3 into percentages that could be applied to forecast housing needs. Table 5 shows the result. The low-mod percentages from Table 4 were applied to total new dwellings to arrive at an estimate of forecast housing need by income city-wide. No effort was made to try to target the need by zoning district or to land inside and outside of the current UGB. Doing so could have unintended consequences. It could, for example, lead to the impression that if property is zoned for higher density that means it is targeted for low income housing, which is not the case. Similarly, there are ways for properties with

R-1 zoning to add an accessory dwelling that may provide housing for a lower income family member or tenant. The need is expressed simply as units needed to accommodate low and by moderate income households.

Table 1

2023 New Housing Units by Zone

	<u>R-1</u>	<u>R-2</u>	<u>R-3</u>	<u>R-4</u>	<u>Units</u>
<u>SFR (60%)</u>					
Detached	601	1,504	301		2,406
Mobile H.	120	481	240	360	<u>1,201</u>
					3,607
<u>MFR (40%)</u>					
Apartment				1,685	1,685
Row/Town			301	421	<u>722</u>
					2,407
Total Units	721	1,985	842	2,466	6,014

Source: Appendix B – Revised Residential Land Need Analysis, Table 8

Table 2

2023 New Housing Acres by Zone

	<u>R-1</u>	<u>R-2</u>	<u>R-3</u>	<u>R-4</u>	<u>Acres</u>
<u>SFR</u>					
Detached	180	368	74		622
Mobile H.	24	97	41	62	<u>224</u>
					846
<u>MFR</u>					
Apartment				112	112
Row/Town			40	56	<u>96</u>
					208

Source: Appendix B – Revised Residential Land Need Analysis, Table 8

Table 3 – 2000 Census Distribution of McMinnville Household Income

<u>HH Income</u>	<u>Under 25</u>	<u>25-34</u>	<u>35-44</u>	<u>45-54</u>	<u>55-64</u>	<u>65-74</u>	<u>over 75</u>	<u>Total</u>
< 5000	58	44	16	40	22	63	40	283
5000 - 9999	68	70	27	26	31	69	151	442
10000 - 14999	111	124	60	44	49	61	224	673
15000 - 24999	135	370	166	109	133	223	309	1445
25000 - 34999	89	351	221	181	81	142	158	1223
35000 - 49999	64	249	424	260	144	142	121	1404
50000 - 74999	86	240	532	525	353	146	116	1998
75000 - 99999	2	126	273	247	120	70	44	882
100k - 149999	3	21	116	206	78	37	28	489
>150000	0	12	85	139	35	33	8	312
All HH	616	1607	1920	1777	1046	986	1199	<u>9151</u>

Source: 2001 Residential Land Need Analysis, Table 5-9

Table 4 – Estimated Income Distribution and Percentages

	<u>Under 25</u>	<u>25-34</u>	<u>35-44</u>	<u>45-54</u>	<u>55-64</u>	<u>65-74</u>	<u>over 75</u>	<u>Total</u>
<u>HH Income #s</u>								
< Median	<u>480</u>	<u>959</u>	<u>490</u>	<u>400</u>	<u>316</u>	<u>558</u>	<u>882</u>	<u>4085</u>
< 80%	<u>452</u>	<u>925</u>	<u>469</u>	<u>383</u>	<u>308</u>	<u>544</u>	<u>867</u>	<u>3949</u>
< 60%	<u>367</u>	<u>595</u>	<u>263</u>	<u>215</u>	<u>230</u>	<u>408</u>	<u>713</u>	<u>2791</u>
< 50%	<u>352</u>	<u>553</u>	<u>244</u>	<u>203</u>	<u>215</u>	<u>383</u>	<u>678</u>	<u>2627</u>
<u>HH %s</u>								
< Median	<u>78%</u>	<u>60%</u>	<u>26%</u>	<u>23%</u>	<u>30%</u>	<u>57%</u>	<u>74%</u>	<u>55%</u>
< 80%	<u>73%</u>	<u>58%</u>	<u>24%</u>	<u>22%</u>	<u>29%</u>	<u>55%</u>	<u>72%</u>	<u>43%</u>
< 60%	<u>60%</u>	<u>37%</u>	<u>14%</u>	<u>12%</u>	<u>22%</u>	<u>41%</u>	<u>59%</u>	<u>30%</u>
< 50%	<u>57%</u>	<u>34%</u>	<u>13%</u>	<u>11%</u>	<u>21%</u>	<u>39%</u>	<u>57%</u>	<u>29%</u>

Source: City of McMinnville

Table 5 – Estimated 2023 New Housing Need

	<u>Low/Mod %</u>	<u>Units</u>
Moderate Income	43%	761
Low/Very Low Income	30%	<u>1,834</u>
Total		2,595

Source: City of McMinnville



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TECHNICAL MEMORANDUM #2

MGMUP UGB REMAND UPDATE

DATE: September 25, 2020
TO: Heather Richards, Planning Director
FROM: DJ Heffernan, Planner
SUBJECT: Comparative Review of Study Areas for Housing Capacity and Needs

This technical memorandum reviews the process and assumptions used to evaluate candidate UGB Study Areas for their ability to address identified housing needs.

Development Assumptions

This analysis relied on density assumptions for candidate expansion areas in the record for the MGMUP. Appendix B includes the population forecast that serve as the basis for calculating residential land need. See Appendix B, Table 1. Appendix B, Table 11 presents the assumed densities for City zoning districts based on analysis of housing conditions in the City and more recent trends that show increases over historic rates. See the table below. It documents that the overall residential density for expansion areas is 5.7 DU per acre. Notably, the aggregate density in areas zoned R-3, R-4, and R-5 is 6.3 DU/acre. The density for R-2 zone is 4.3. R-1 zoning is not anticipated for use outside of exception areas.

The housing capacity in exception areas is shown in Table 16, page 7-28 of the MGMUP. Housing capacity for exception areas not included in the UGB and for which capacity was not established in the record are assigned capacity at 4.3 DU per buildable acre, which includes all vacant and partly vacant land in the study area. Also important to the density decision was agreement between the City, DLCD, and other parties to rezone areas in the city's West Hills from R-1 to R-2. This step firmly established a commitment by the City not to use the R-1 zone for planning purposes.

An analysis by the City Planning Department of multi-phase planned developments in the West Hills that were approved after the R-2 rezone decision was taken shows that development in areas with slopes greater than 10% have been unable to achieve 4.3 DU/acre. This provides support for a decision to set a conservative productivity limit for land with slopes between 10% and 24% at 4.3 DU/acre. Land with slopes less than 10% are assumed to be capable to achieve 6.3 DU/acre. These density assumptions were applied to all buildable land in all study areas.

Appendix B - Table 11. Additional land needed for housing outside the present McMinnville UGB, 2003-2023

Zone	Additional Dwelling Unit Need	Gross Density	Needed Gross Res Acres
R-1	368	3.5	104.1
R-2	1,011	4.3	236.8
R-3	429	5.4	78.9
R-4	705	8.8	80.4
R-5	552	15.0	36.7
All Other Zones	na	na	na
Total	3,065	5.7	536.9

Zoning Suitability Analysis

Study areas were rated based on size and slope characteristics to establish which needed housing types and zones they could accommodate. All areas with buildable residential acres were deemed suitable for R-1/R-2 zoning. Study Areas with 50% of their buildable land with slopes less than 10% slope, or with more than 20-acres of land with slopes less than 10%, were deemed suitable for R-3 and R-4 zoning. Study areas with 75% of buildable land with slopes less than 10% slope, or with more than 40 acres with slopes less than 10%, were deemed suitable for R5 zoning.

Parcel sizes and previously approved capacity limits for all Exception Areas mean these areas are only suitable for R-1/R-2 zoning. The Study Area Norton Lane West is in public ownership and was, therefore, assigned no residential buildable land. It was not rated for housing suitability.

For ratings, study areas only suitable for lower density SFR zoning received a rating score of 1. Areas suitable also suitable for R-3 and R-4 zoning received a rating of 2. Areas also suitable for R-5 zoning received a rating of 3.

Table H-1: Zoning Suitability Ratings

<u>Study Area</u>	<u>R-1/R-2</u>	<u>R-3</u>	<u>R-4</u>	<u>R-5</u>	<u>Rating</u>
N of Old Stone	Yes	TRUE	TRUE	TRUE	3
NA-EV-E	Yes	TRUE	TRUE	FALSE	2
Three Mile Lane East	Yes	TRUE	TRUE	TRUE	3
Three Mile Lane West	Yes	FALSE	FALSE	FALSE	2
Norton Lane East	Yes	TRUE	TRUE	TRUE	3
SW - 06	Yes	TRUE	TRUE	TRUE	3
SW-03	Yes	TRUE	TRUE	FALSE	2
SW II	Yes	TRUE	TRUE	TRUE	3
W of Old Sheridan-1	Yes	FALSE	FALSE	FALSE	1
W of Old Sheridan-2	Yes	TRUE	TRUE	TRUE	3
West Hills-South	Yes	TRUE	TRUE	TRUE	3
West Hills-2	Yes	TRUE	TRUE	TRUE	3

N of Fox Ridge-East	Yes	TRUE	TRUE	TRUE	3
NW-Ext 1a (Northern)	Yes	TRUE	TRUE	FALSE	2
NW-Ext 1b (Southern)	Yes	TRUE	TRUE	FALSE	1
NW-Ext 2	Yes	FALSE	FALSE	FALSE	1
Grandhaven-E	Yes	FALSE	FALSE	FALSE	1
Grandhaven-W	Yes	TRUE	TRUE	FALSE	2
Airport East (EA)	Yes	TRUE	TRUE	TRUE	3
North of Baker Creek (NBC)	Yes	TRUE	TRUE	TRUE	3

Housing Capacity / Productivity Analysis

Study Areas were evaluated for their capability to provide housing at the desired density set forth in the MGMUP. The overall density goal is 5.7 DU/buildable acre. Areas able to produce housing below that density were rated less favorably than areas able to produce above the target density. All else being equal, higher rated areas have potential to reduce resource land consumption rates. The capacity ratings for study areas were based on the variance from the target density. Areas able to achieve a density rating below 5.3 DU/acre received a rating of 1. Areas able to achieve densities between 5.4 DU/acre and 5.9 DU/acre received a rating of 2. Areas able to achieve a density rating of 6.0 DU/acre or greater received a rating of 3. All exception areas received a housing productivity rating of 1. Ratings for resource areas are shown below.

Table H-2: Housing Productivity Ratings

<u>Study Area</u>	<i>Production on 0-10% Slopes</i>	<i>Production on Slopes >10%</i>	<i>Total Production</i>	<i>Achievable Density</i>	<i>Rating</i>
N of Old Stone	1,711	5	1,716	6.2	3
NA-EV-E	246	3	248	6.2	3
Three Mile Lane East	972	81	1,053	6.1	3
Three Mile Lane West	38	9	47	5.7	2
Norton Lane East	379	24	403	6.1	3
SW - 06	703	28	731	6.2	3
SW-03	179	9	188	6.1	3
SW II	671	32	702	6.1	3
W of Old Sheridan-1	1,330	7	1,337	6.2	3
W of Old Sheridan-2	1,761	6	1,767	6.2	3
West Hills-South	554	89	643	5.9	2
West Hills-2	587	1,189	1,776	4.8	1
N of Fox Ridge-East	592	326	918	5.4	2
NW-Ext 1a (Northern)	252	24	276	4.8	1
NW-Ext 1b (Southern)	175	20	195	6.0	3
NW-Ext 2	79	10	89	5.9	2
Grandhaven-E	92	4	96	6.1	3
Grandhaven-W	329	29	357	6.0	3
Airport East (EA)	3,001	17	3,018	6.2	3
North of Baker Creek (NBC)	386	64	450	5.9	2

Development Efficiency Rating Analysis

Resource areas with significant amounts of unbuildable land and land in steeper slopes that develop at lower densities consume more resource land than areas that develop housing more efficiently. This is reflected in the variance between their gross and net density. This relationship reflects two conditions. Including areas with significant variance in gross to net density would result in a larger amount of resource land being added to the UGB. Second, the presence of unbuildable land and lower density development results in an urban landscape that is more dispersed and less connected, which makes urban integration more difficult.

The following table shows rated efficiency in study areas by the variance between gross and net density for resource areas. We subtracted the gross density from the net density. Small variances between gross and net density indicate less dispersion and the opportunity for greater urban continuity within the study area. A variance between 0 and -.5 was awarded 3 points. A variance between -.6 and -1 received 2 points. Variance greater than -1 received 1 point. All exception areas were rated 1.

Table H-3: Density Variance Ratings

<u>Study Area</u>	Average Density Gross	Average Density Net Buildable	Variance	Rating
N of Old Stone	6.2	6.2	(0.1)	3
NA-EV-E	6.2	6.2	(0.0)	3
Three Mile Lane East	5.6	6.1	(0.5)	3
Three Mile Lane West	4.8	5.7	(0.9)	2
Norton Lane East	5.4	6.1	(0.7)	2
SW - 06	5.4	6.2	(0.8)	2
SW-03	4.5	6.1	(1.6)	1
SW II	5.9	6.1	(0.3)	3
W of Old Sheridan-1	5.8	6.2	(0.5)	3
W of Old Sheridan-2	5.6	6.2	(0.6)	2
West Hills-South	5.7	5.9	(0.2)	3
West Hills-2	4.1	4.8	(0.7)	2
N of Fox Ridge-East	4.9	5.4	(0.5)	3
NW-Ext 1a (Northern)	2.8	4.8	(2.0)	1
NW-Ext 1b (Southern)	5.6	6.0	(0.4)	3
NW-Ext 2	5.7	5.9	(0.2)	3
Grandhaven-E	4.9	6.1	(1.2)	1
Grandhaven-W	5.3	6.0	(0.8)	2
Airport East (EA)	5.3	6.0	(0.8)	2
North of Baker Creek (NBC)	5.3	6.0	(0.8)	2

Composite Rating

An overall rating for housing was calculated based on the average of the ratings. All exception areas were rated 1.

Table H-4: Composite Ratings

<u>Study Area</u>	Zoning Rating	Productivity Rating	Density Variance	Composite Rating
N of Old Stone	3	3	3	3
NA-EV-E	2	3	3	3
Three Mile Lane East	3	3	3	3
Three Mile Lane West	2	2	2	2
Norton Lane East	3	3	2	3
SW - 06	2	3	2	3
SW-03	3	3	1	2
SW II	3	3	3	3
W of Old Sheridan-1	3	3	3	1
W of Old Sheridan-2	3	3	2	3
West Hills-South	2	2	3	3
West Hills-2	3	1	2	2
N of Fox Ridge-East	2	2	3	3
NW-Ext 1a (Northern)	2	1	1	1
NW-Ext 1b (Southern)	1	3	3	3
NW-Ext 2	1	2	3	2
Grandhaven-E	1	3	1	2
Grandhaven-W	2	3	2	3
Airport East (EA)	3	3	2	3
North of Baker Creek (NBC)	3	2	2	2



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TECHNICAL MEMORANDUM #3

MGMUP UGB REMAND UPDATE

DATE: October 15, 2020
TO: Heather Richards, Planning Director
FROM: Tom Schauer, Senior Planner and Chuck Darnell, Senior Planner
SUBJECT: Nearby Agricultural Use Conflicts

This technical memorandum describes the methodology for evaluating Nearby Agricultural Use Conflicts and the analysis of the study areas based on this methodology.

The purpose of this analysis is to provide data for evaluating study areas under Goal 14 Factor 7: compatibility of the proposed urban uses with nearby agricultural activities.

In order to evaluate study area's and compare their potential compatibility with nearby agricultural activities, an analysis was completed of lands surrounding each study area. The analysis was completed by visual inspection of aerial imagery and driveby inspections of sites where they were able to be accessed (generally only available from adjacent right-of-ways). Observations were made of the type of agricultural use that was within and adjacent to each study area.

Different agricultural uses were categorized into "Classes", based on their assumed potential impacts with adjacent urban uses. The table below describes the categorization of agriculture resource uses, along with a description of the types of uses in each Class and a basis for the potential conflict rating that the Class and agricultural resource use received:

Classification	Conflict Potential Rating	Types of Resource Uses	Basis for Rating includes one or more of the following:
Class 1 Resource Use Class	1-High	Intensive livestock or poultry processing operations, feedlots, dairies, etc.	<p>Potential for year-round, continuous/ongoing, or nearly daily conflicts and impacts</p> <p>Potential for pet/livestock conflicts</p> <p>Potential for trespass; litter; nuisance/vandalism;</p> <p>Potential for complaints about noise, odor, hours of operation</p>
Class 2 Resource Use Class	2-Moderate	Commodity crops, row crops, orchards, vineyards, hay, silage	<p>Potential for seasonal conflicts and impacts, seasonal beehives</p> <p>Potential for trespass; litter; nuisance/vandalism;</p> <p>For certain uses/operations: potential for complaints about noise, odor, manure application, spray drift, hours of operation</p>
Class 3 Resource Use Class	3-Low	Woodlots, pasture, grazing, passive management uses	<p>Potential for Infrequent conflicts and impacts – less frequent than annual harvest - or no significant continuous impacts, may be multi-year cycle for harvest for certain uses, or routine harvest of only a portion of the resource (woodlot, etc.). Routine resource management activities may also be low impact.</p> <p>Potential for trespass; litter; nuisance/vandalism;</p> <p>Potential for complaints about certain resource management and harvest operations</p>

Compatibility / Conflict Summary Table

Area	Ag/Resource Class Use Type Conflict Summary Rating Where Adjacent to Resource (Regardless of Perimeter)
LL	2
OSR	2
Hidden Hills NFRR-W	3
Booth Bend	2
Brentano Lane	2
Westside Road	2
SUM NA-NOSV (1+2)	1
SUM NA-EV (E+W)	2
SUM TML-E (1+2)	2
TML-W	2
SUM NL-E (R1+R2)	2
NL-W	N/A
SUM SW-06 (R1+R2)	2
SW-03	2
SW-2	2
W-OSR1	2
SUM W-OSR2 (R1+R2)	2
WH-S	2
SUM WH2 (2a+2b+2c)	3
SUM NFRR-E (1+2)	2
NW-EX1a	2
SUM NW-EX1b (R1+R2+R3)	3
NW-EX2	2
GH-E	2
GH-W	2
EA	2
NBC	2

Individual Study Area Analysis

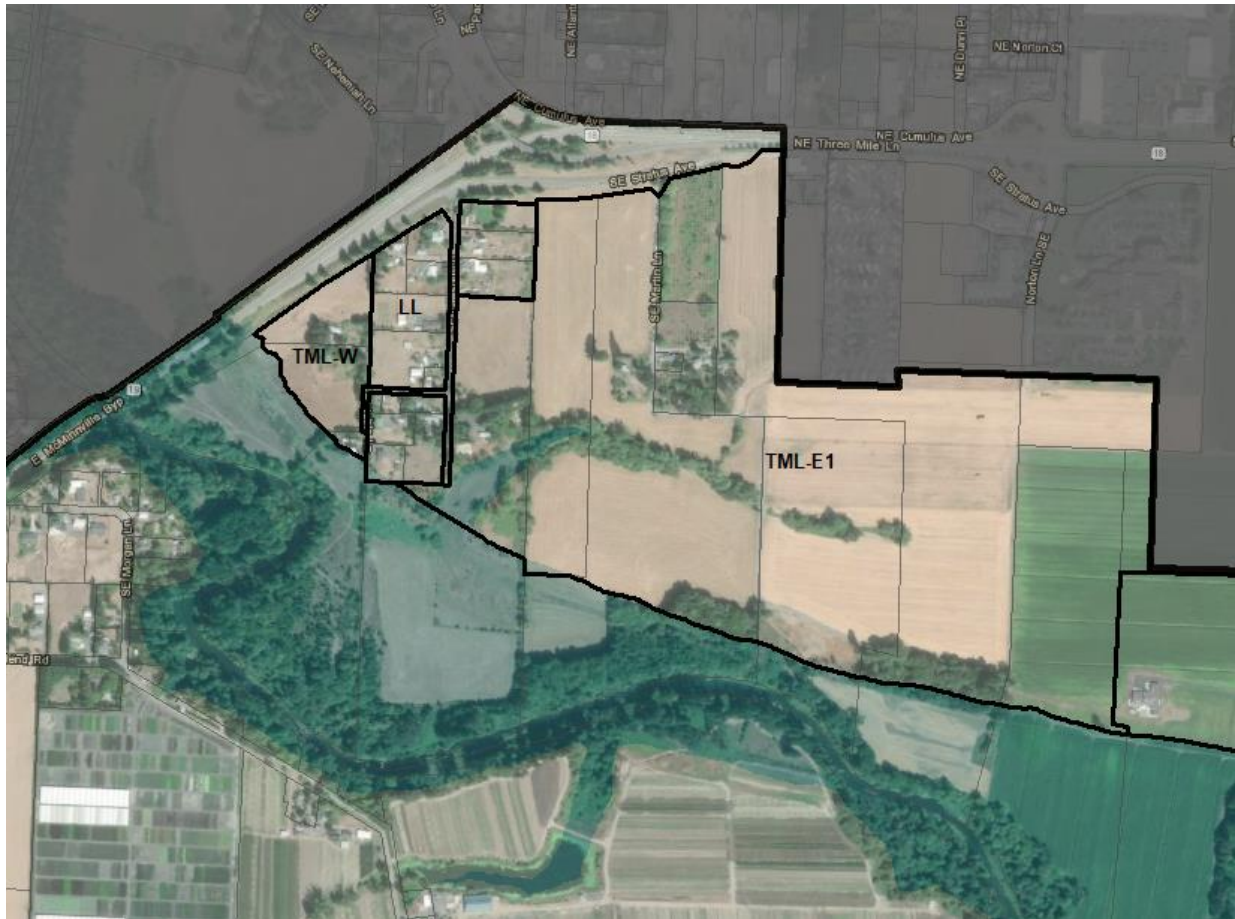
Lawson Lane

Study Area

- This area is in rural residential use, including some pastured animals.

Surrounding Area. Predominant Conflict Rating 2

- Urban uses in the UGB are located to the north across the highway.
- Properties to the east and west is the TML-E and TML-W study areas. The predominant resources immediately abutting this area are Class 2 resources, with some home sites and Class 1 pasture immediately abutting the area, and with other Class 2 resources within the broader area, including commodity crops and an orchard. Property to the south includes a portion of the TML-E study area and land within the floodplain, with a mix of Class 1 and 2 resources.



Old Sheridan Road

Study Area

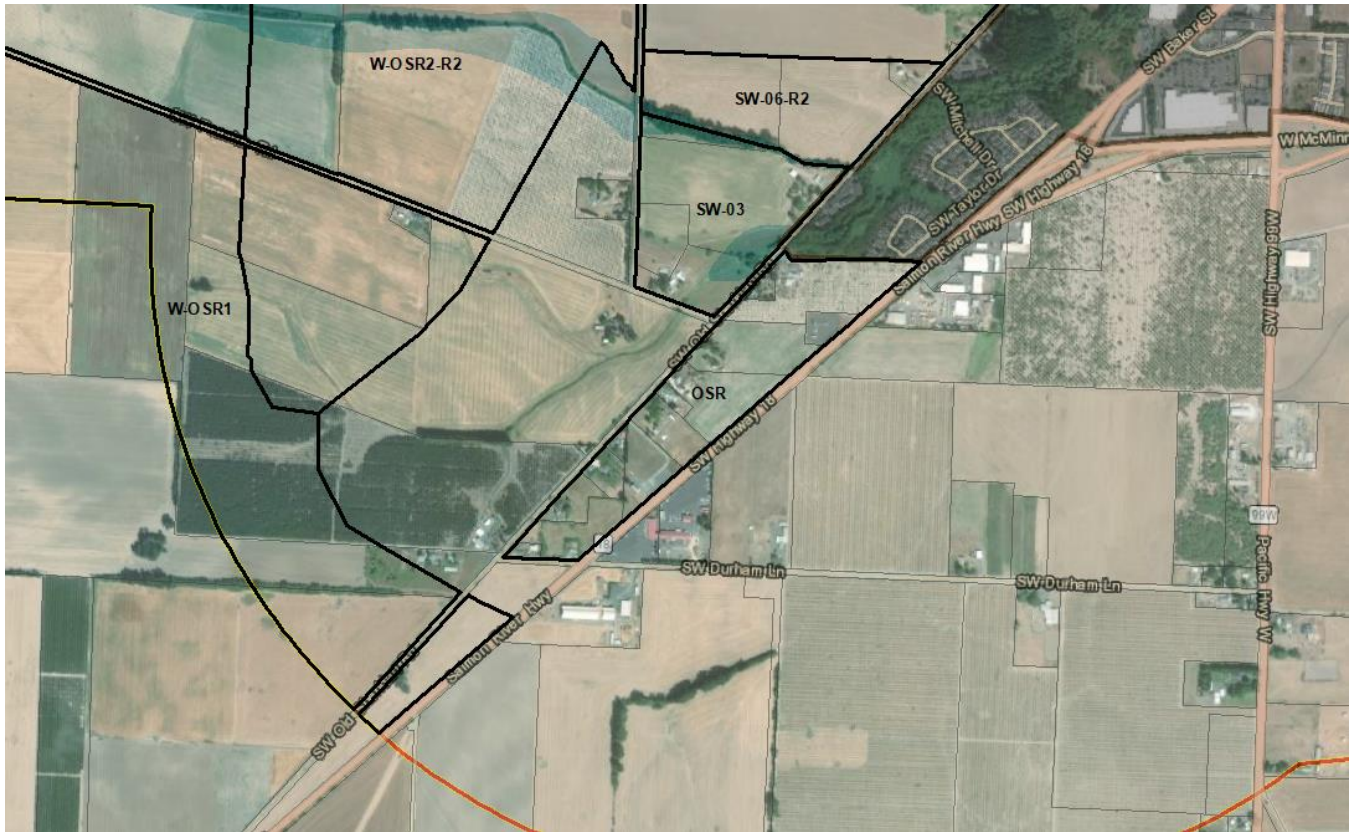
- This area is non-resource zoning, containing a mix of uses, including rural-residential, a church, power substation, and Class 2 uses including an orchard and hay/silage.

Surrounding Area. Predominant Conflict Rating 2

- The north property line of this area abuts the UGB, abutting urban residential use and open space /waterway.
- The area is predominantly surrounded by Class 2 resource uses, including hay/silage, orchards, row crops, and including the presence of residential and agricultural buildings, with some Class 3 pasture.

There are two areas across Highway 18 to the east adjacent to the study area which are in rural commercial/rural industrial uses which are not in agricultural resource use.

- There appears to be one small lowland area near the intersection of Old Sheridan Road and Peavine Road that is south of Cozine Creek but within its meander plain that is fallow. This may be a wetland. There do not appear to be other fallow holdings, wood lots, or livestock operations.



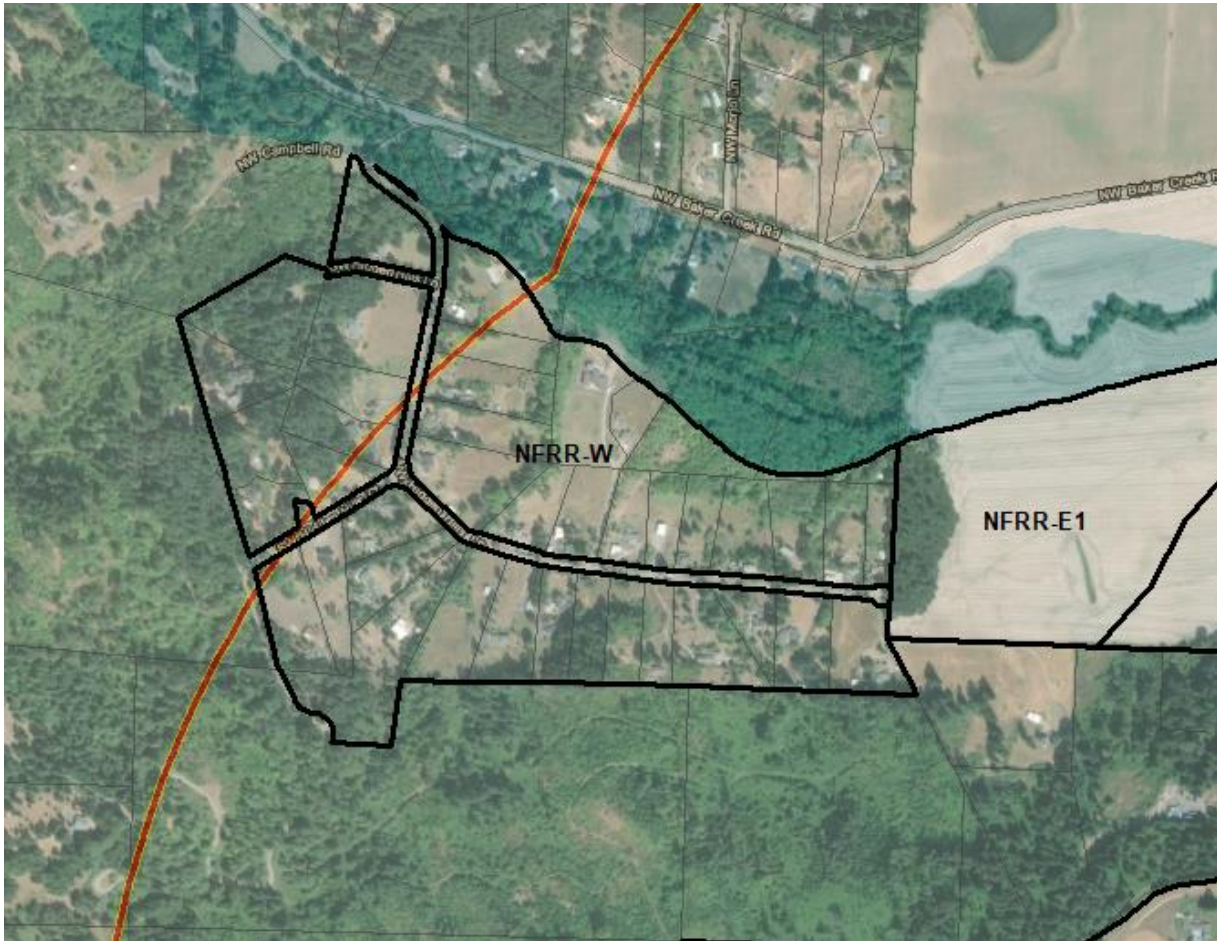
Hidden Hills

Study Area

- This area is non-resource rural-residential zoning with rural-residential use.

Surrounding Area. Predominant Conflict Rating 3

- This study area was clipped at the Baker Creek floodplain. Property to the north is rural-residential within the floodplain area.
- Property to the west and south is wooded and meadow (Class 3 resource use) within a county forestry zone and it is not actively farmed as either commodity crops or silage.
- Property to the east is predominantly Class 2 resource use, with a 1200-foot interface. The northerly 900 feet abut study area NFRR-E, and there is a wooded buffer about 200 feet wide extending most of this distance.



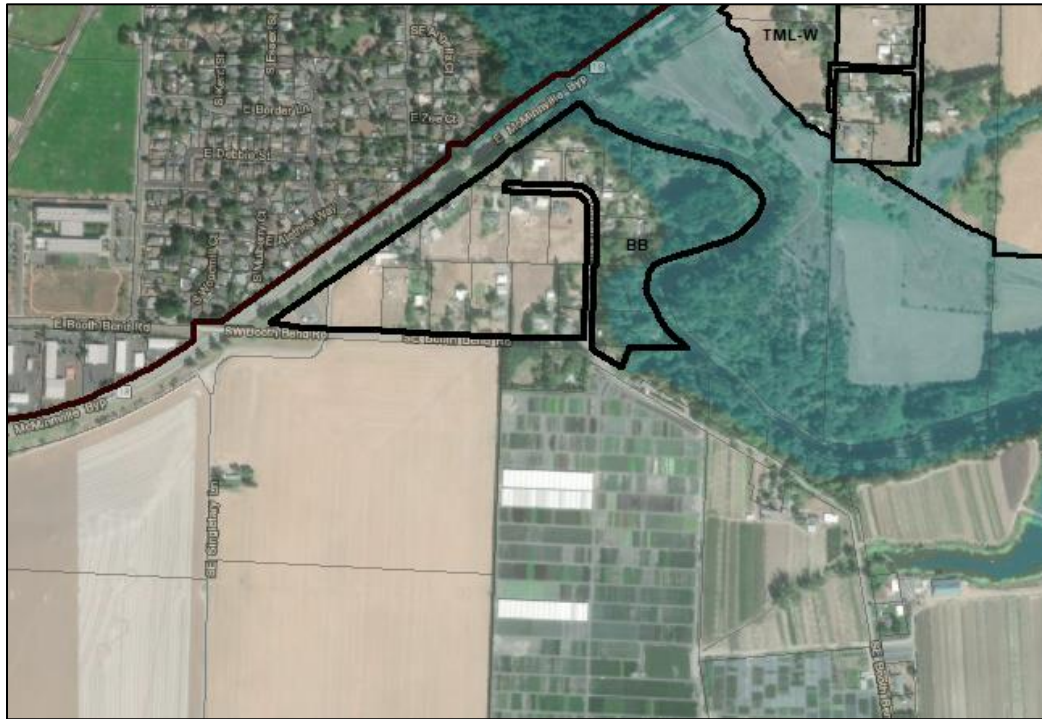
Booth Bend

Study Area

- This area is non-resource rural-residential use.

Surrounding Area. Predominant Conflict Rating 2

- To the east of the study area is the South Yamhill River, which serves as a physical buffer to the floodplain lands across the river to the east. These floodplain areas on the east side of the river are wooded, before transitioning to agricultural uses outside of the floodplain that include farmed areas of either commodity crops, hay, or silage (Class 2 agricultural resources).
- To the south of the study are lands that are actively farmed as either commodity crops, hay, or silage (Class 2 agricultural resources), as well as a well-established and functioning nursery (Oregon Pride Nurseries), which is also a Class 2 agricultural resource.



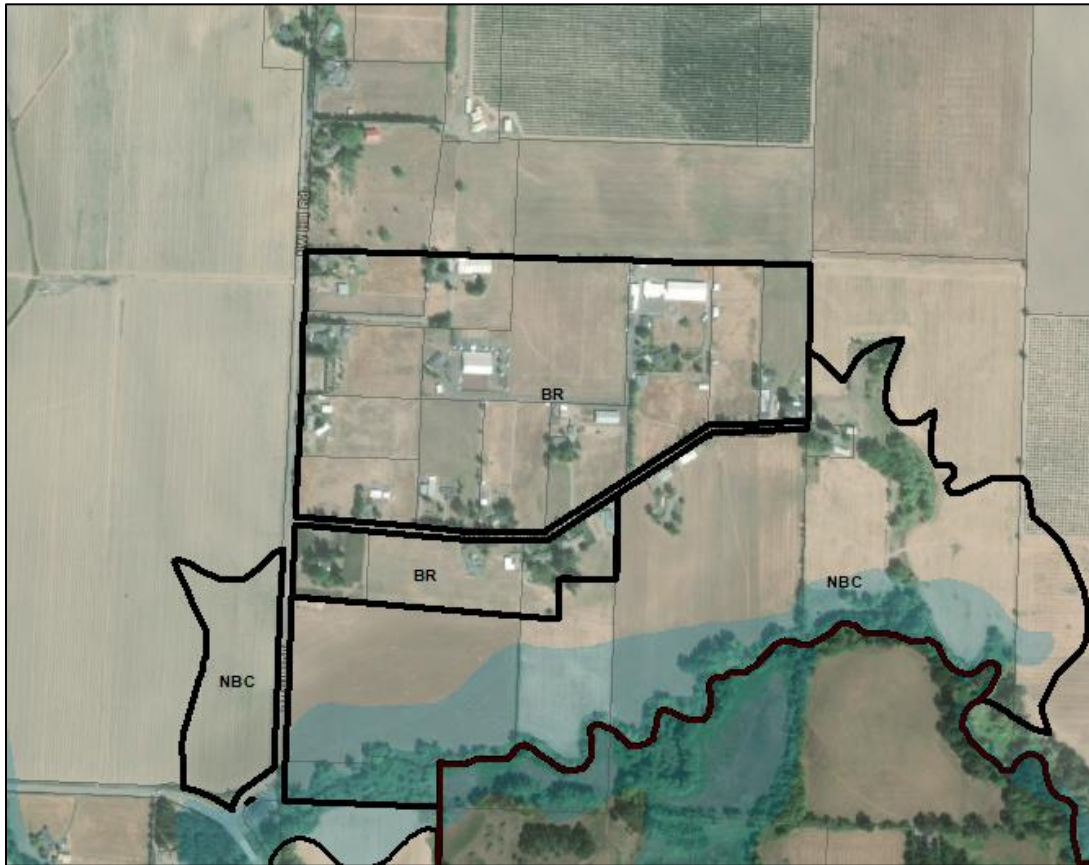
Brentano Lane

Study Area

- This area is non-resource rural-residential zoning with rural-residential use.

Surrounding Area. Predominant Conflict Rating 2

- The Brentano Lane (BL) study area, on its own, is completely separated from the existing UGB, so is therefore completely surrounded by Exclusive Farm Use zoned properties.
- To the north, east, and south of the study area are agricultural uses that include primarily farmed areas of either commodity crops, hay, or silage (Class 2 agricultural resources).
- Some areas of planted orchards exist to both the north and east (also Class 2 agricultural resources).
- To the west of the study area and across Hill Road North are more recently planted orchards (Class 2 agricultural resources).
- Based on these Class 2 types of adjacent agricultural uses, the Brentano Lane study area scored moderately for the type of adjacent agricultural uses.



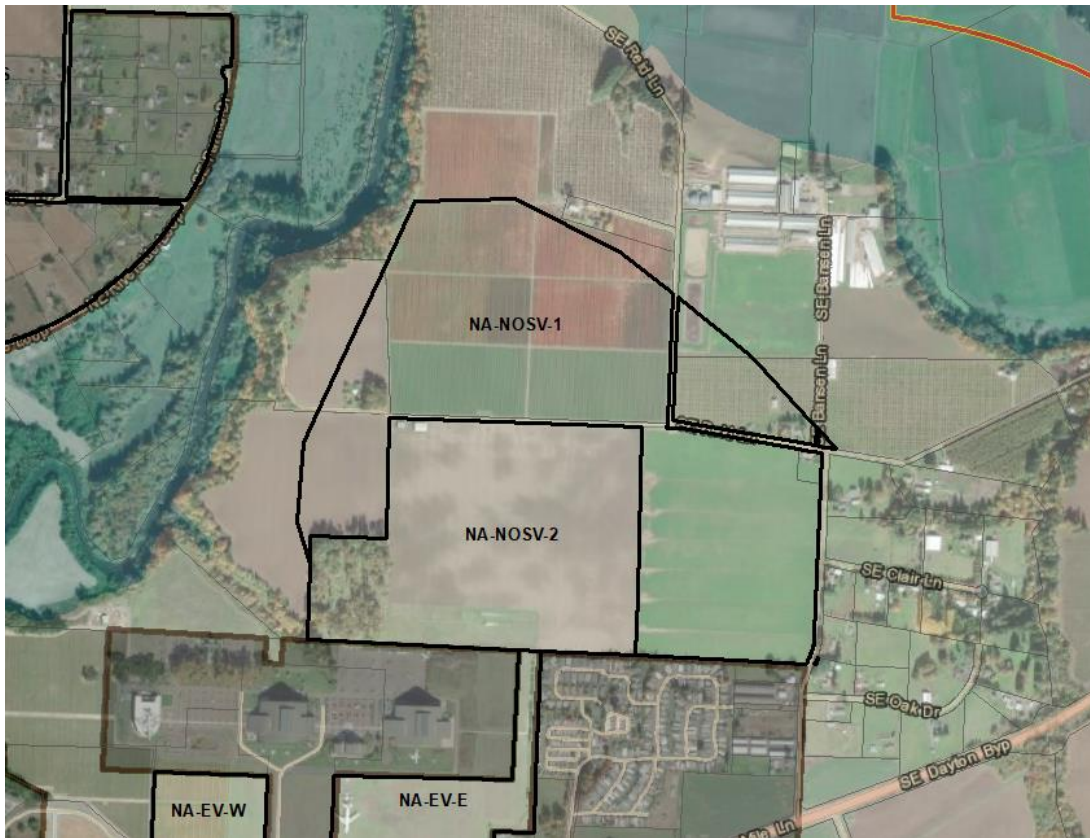
Westside Road

Study Area

- This area is non-resource with rural-residential use.

Surrounding Area. Predominant Conflict Rating 3

- Lands to the north and to the west, across Westside Road, are zoned for Exclusive Farm Use (EF-80 to the west and EF-20 to the north) and are in active agricultural use.
- The lands to both the north and the west are primarily farmed areas of either commodity crops, hay, or silage (Class 2 agricultural resources), which results in a moderate rating for the type of adjacent agricultural use.



North of the Airport – Evergreen Properties

Study Area

- The western portion of this area is planted in grape vines. The eastern portion isn't actively farmed.

Surrounding Area. Predominant Conflict Rating 2

- The easterly subarea is almost entirely surrounded by the current UGB, with about 150 feet of interface with Class 2 resource use to the north.
- The westerly subarea is surrounded by the UGB on three sides (north, south, and east), and has about 600 feet of interface with the Class 2 grape vines planted to the west, which are on property in the same ownership as the study area property.



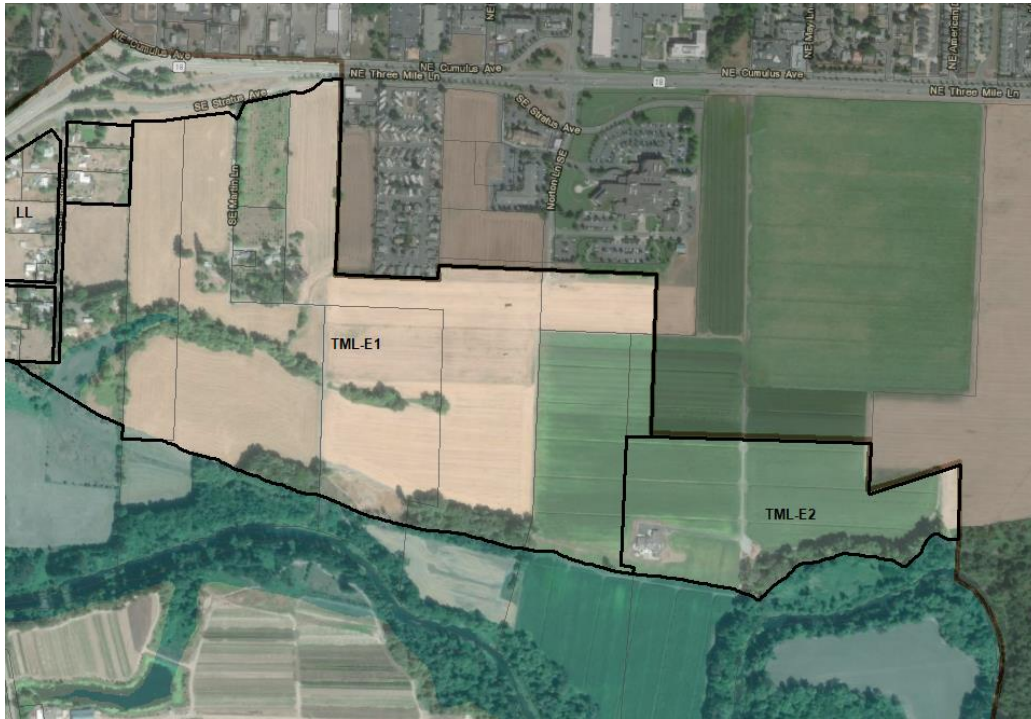
Three Mile Lane East

Study Area

- The area predominantly contains Class 2 resource uses, appearing to be either commodity crops, hay, or silage.

Surrounding Area. Predominant Conflict Rating 2

- The north side of this study area abuts the portion of the UGB south of the highway or abuts Highway 18 where the UGB is located north of the highway. Where the UGB boundary jogs, the east sides of the study area abut the UGB.
- The west side of the study area abuts the Lawson Lane study area, which is rural-residential.
- The southerly boundary of the study area is the floodplain of the Yamhill River. There are agricultural uses within the floodplain, as well as wooded riparian buffers in some areas along the river and its floodplain. If the floodplain to the south of the study area boundary was included in the UGB, the Yamhill River and riparian area would provide a buffer between the area and the uses on the south side of the river.



Three Mile Lane West

Surrounding Area. Predominant Conflict Rating 2

- This triangle-shaped study area abuts Highway to the northwest, and the UGB is across the highway.
- On the east side, the study area abuts the Lawson Lane study area which is rural-residential.
- This study area stops at the Yamhill River floodplain on the south side. The tax lots which are partially within the study area extended further into the floodplain. The use to the south, which is the same ownership as the properties in the study area, use is predominantly Class 3 pasture and/or Class 2 hay/silage.



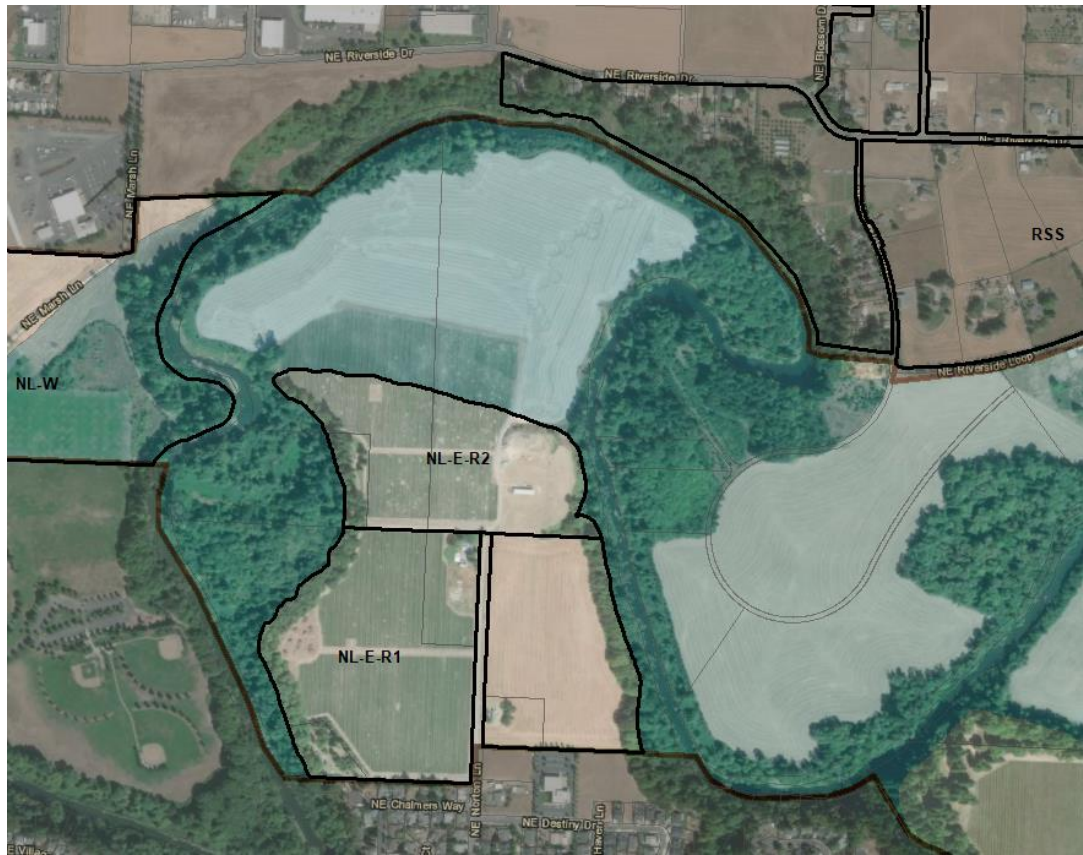
Norton Lane East

Study Area

- The area predominantly contains Class 2 resource uses, including a berry farm and hay/silage.

Surrounding Area. Predominant Conflict Rating 2

- The south side of this study area abuts the UGB.
- The floodplain forms the other extents of this area. To the east and west, the riparian area is wooded. To the north, there are Class 2 resource uses within the floodplain, and a wooded riparian area. The resource uses to the north include a continuation of the berry farm and hay/silage further north.



Norton Lane West

Surrounding Area. Predominant Conflict Rating: Not Applicable.

- This area is surrounded by the UGB on the north, west, and south sides. The easterly side is formed by the property line that generally follows the Yamhill River. The river and its riparian area provide a buffer from uses across the river.



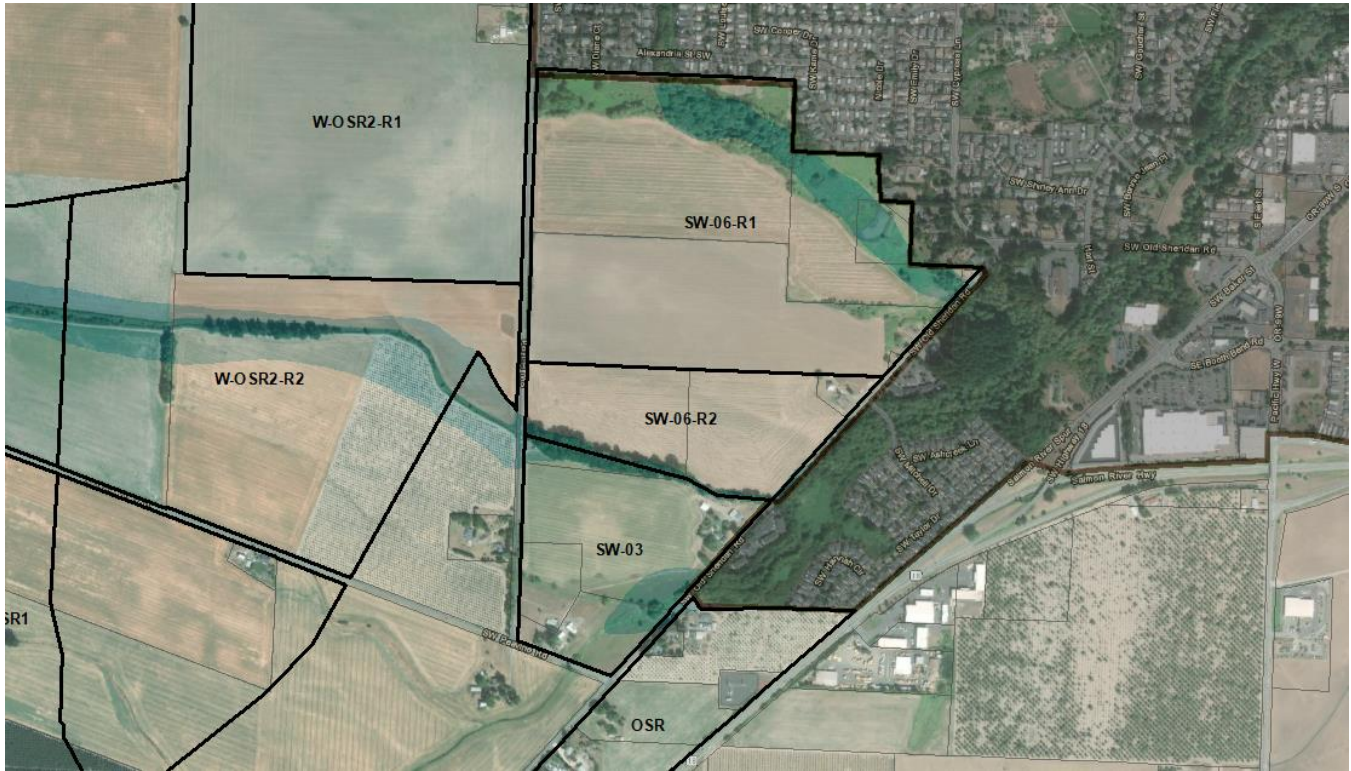
Southwest 06

Study Area

- The area predominantly contains Class 2 resource uses, including row crops and hay/silage.

Surrounding Area. Predominant Conflict Rating 2

- The north and west sides abut the UGB.
- The west side abuts Class 2 resource uses across Hill Road to the west, within the W-OSR study area / subareas.
- The south side abuts Cozine Creek and its wooded riparian area. South of that is predominantly Class 2 resource uses, within the SW-03 subarea.



Southwest 03

Study Area

- The area predominantly contains Class 2 resource uses, including hay/silage.

Surrounding Area. Predominant Conflict Rating 2

- The north side abuts Cozine Creek and its floodplain, north of which is study area SW-06, which has similar Class 2 resource uses.
- The west side abuts Class 2 resource uses across Hill Road to the west, which is predominantly an orchard.
- The south side abuts Peavine Road. South of Peavine Road is additional Class 2 resource uses similar to the use within the study area.
- The east side abuts the UGB along the northern portion of the boundary across Old Sheridan Road. The southern portion of the east boundary line abuts the north portion of the Old Sheridan Road study area. That property is in Class 2 orchard use, with some residential and agricultural buildings in the westerly vicinity next to Old Sheridan Road.



Southwest 2

Study Area

- The area predominantly contains Class 2 resource uses, including hay/silage.

Surrounding Area. Predominant Conflict Rating 2

- This area abuts the UGB to the north and east.
- The area abuts predominantly Class 2 uses to the south and southwest, and property that isn't actively farmed to the north and east portion of the west boundary.



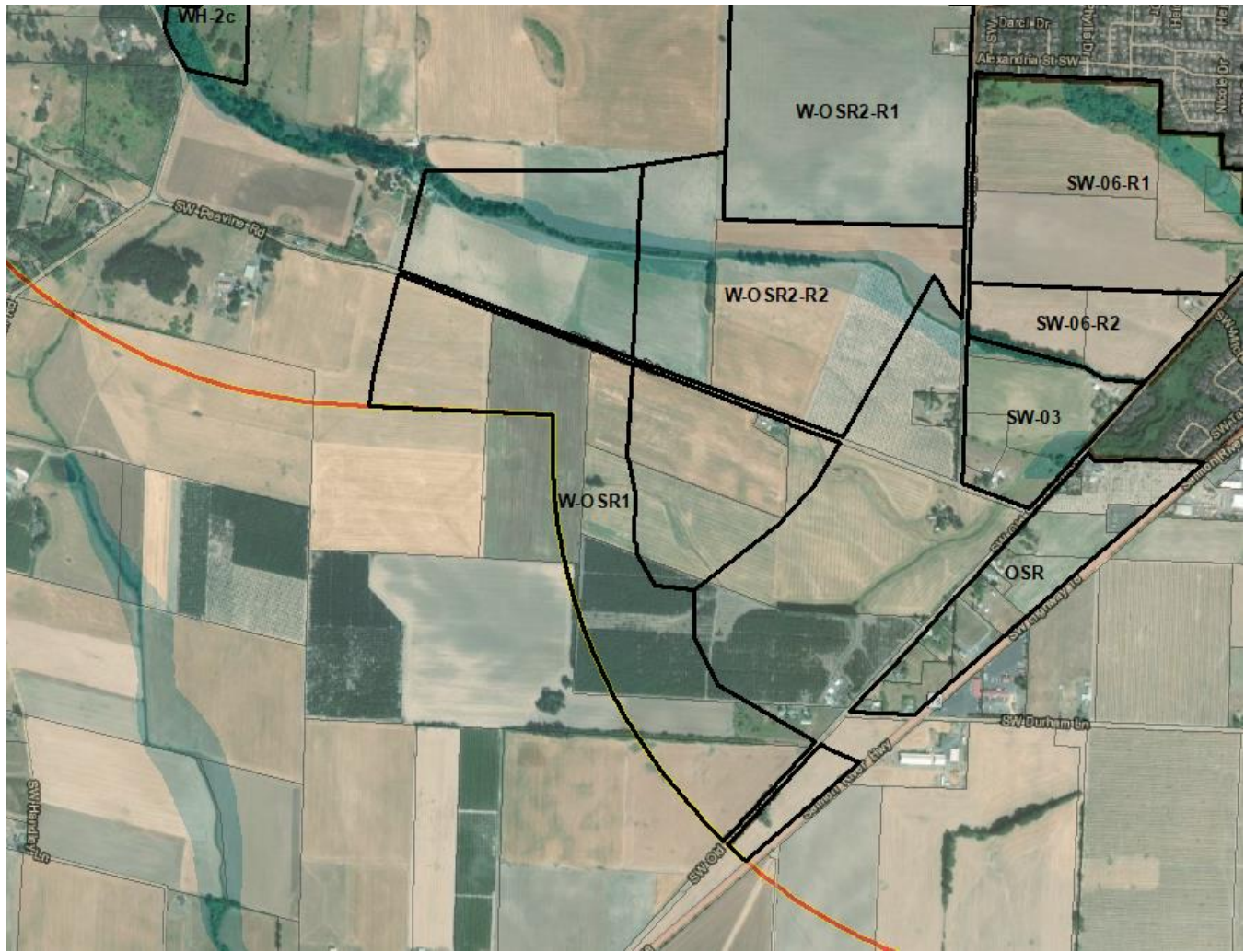
West of Old Sheridan Road 1

Study Area

- The area predominantly contains Class 2 resource uses, including hay/silage and orchard.

Surrounding Area. Predominant Conflict Rating 2

- This area is not contiguous to the UGB. It would only be contiguous to the UGB if W-OSR2 is included in the UGB.
- The area abuts predominantly Class 2 uses on all sides, including commodity crops/hay/silage, and orchard. A portion of Cozine Creek and its riparian area and floodplain cross through the northerly portion of the area.



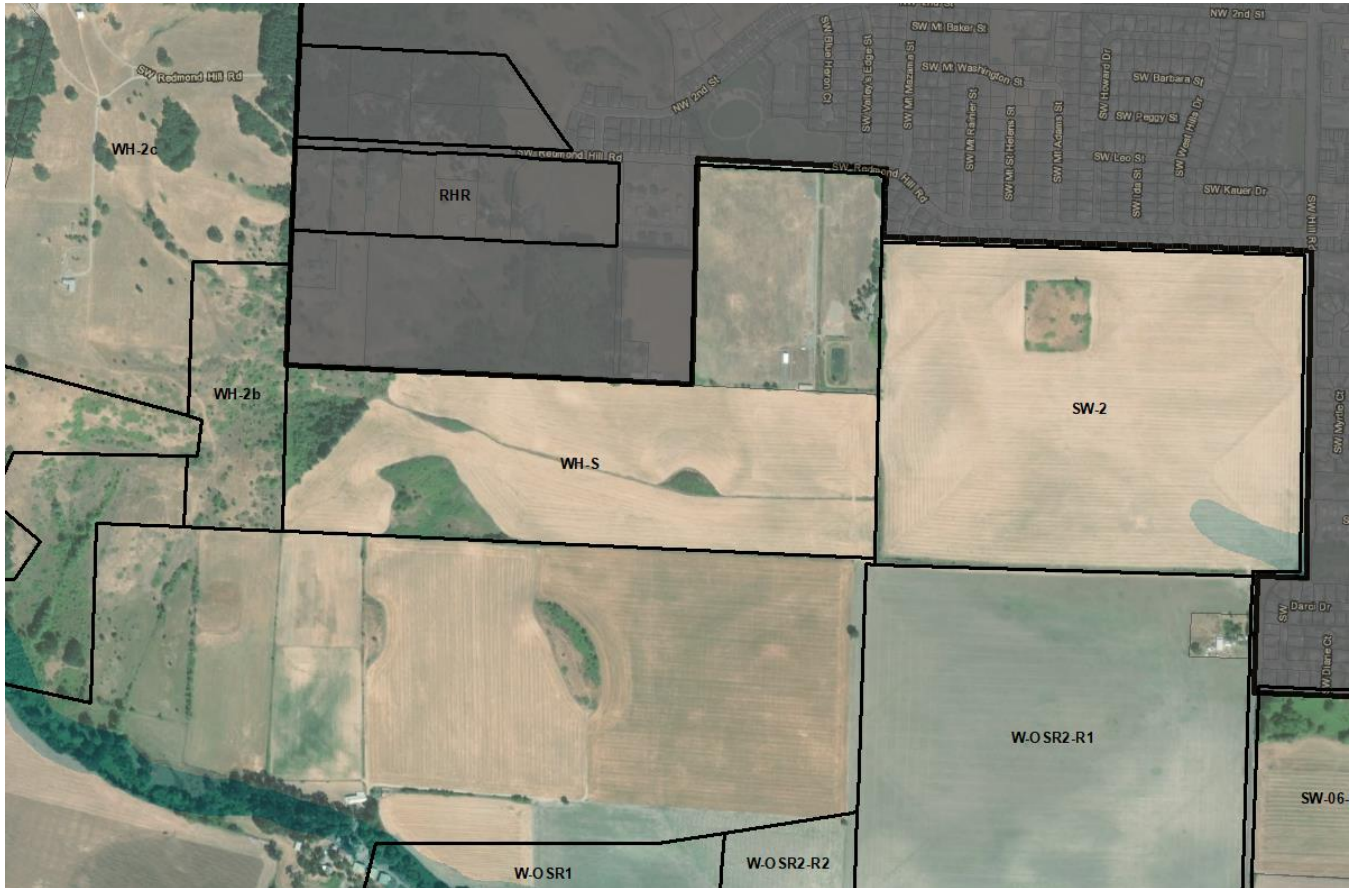
West of Old Sheridan Road 2

Study Area

- The area predominantly contains Class 2 resource uses, including hay/silage.

Surrounding Area. Predominant Conflict Rating 2

- This area abuts the UGB to the north and east.
- The area abuts predominantly Class 2 uses to the south and southwest, and property that isn't actively farmed to the north/east portion of the west boundary.



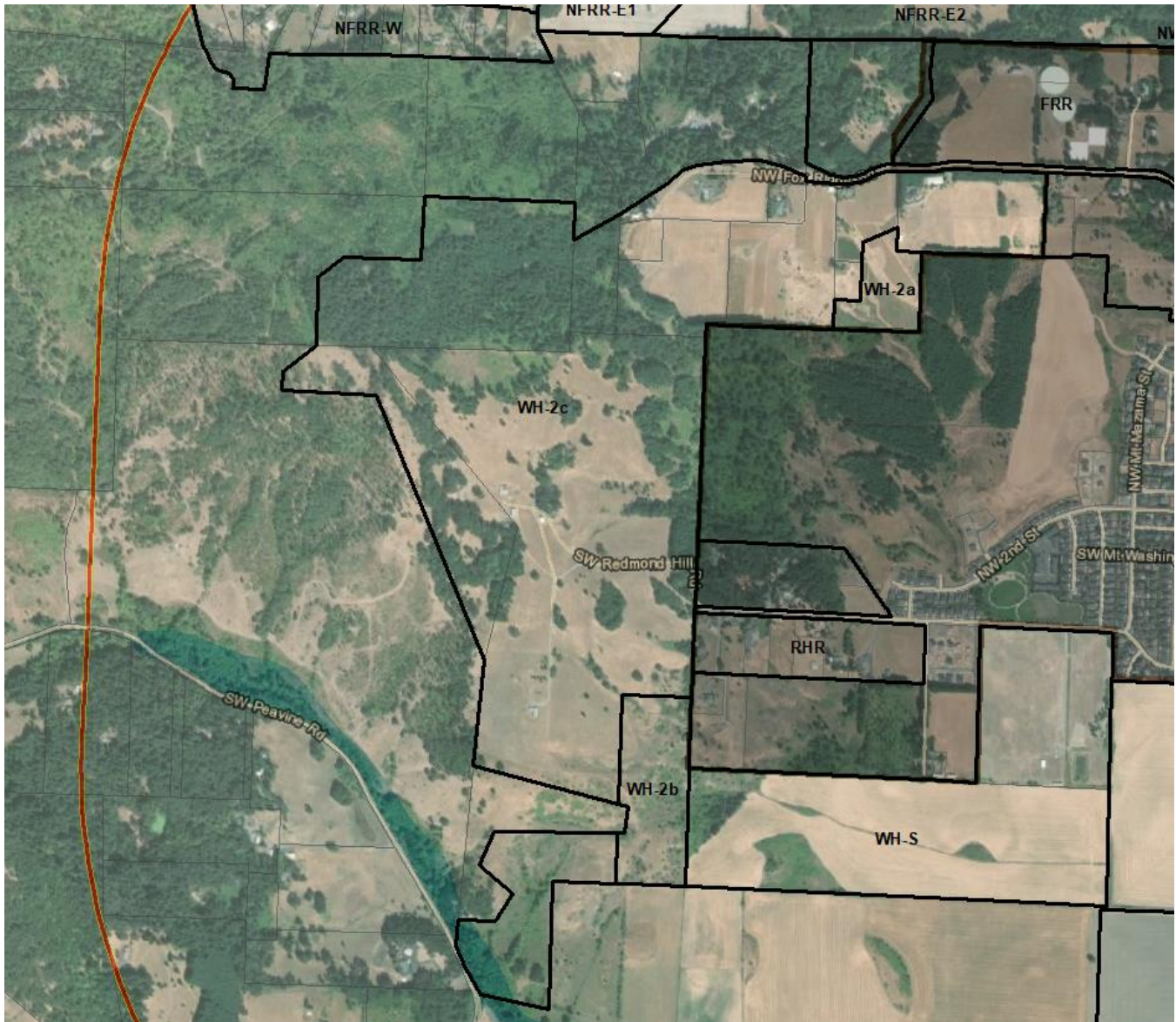
West Hills 2

Study Area

- The area predominantly contains predominately Class 3 resource uses, including partially wooded lots that may also be grazing lands.
- A planted vineyard exists in the northernmost portion of the study area adjacent to Fox Ridge Road

Surrounding Area. Predominant Conflict Rating 3

- This area abuts the UGB to the east.
- The area abuts predominantly Class 3 uses to the north and west. To the north and northwest are more heavily wooded lots, some that are zoned for Forestry use. To the west and southwest are lands that are more sparsely wooded, and appear that they may be used for grazing. There are some home sites within the lands to the west and southwest, accessed from Redmond Hill Road and potentially from further west off of Peavine Road.
- Lands to the southeast of the study area are more actively farmed for commodity crops, hay, or silage (Class 2 agricultural resources). Part of these lands are within the WH-S study area. However, these adjacent Class 2 agricultural use lands make up a small portion of the study area perimeter.



North of Fox Ridge Road East

Study Area

- The area predominantly contains a mixture of agricultural uses. Actively farmed areas of either commodity crops, hay, or silage (Class 2 agricultural resources) exist in the western and northern portions of the study area (primarily in the NFR-E1 sub area). The southern and eastern portion of the study area (primarily in the NFR-E2 sub area) are partially wooded and meadow that may also be grazing lands (Class 3 resource uses).
- A planted vineyard exists in the northernmost portion of the study area adjacent to Fox Ridge Road

Surrounding Area. Predominant Conflict Rating 2

- The NFRR-E study area is adjacent to the existing UGB along a portion of the southern boundary, adjacent to a residential use (West Wind Country Estates – within the NW-EX1a study area) along a portion of the eastern boundary, and adjacent to another residential use (Hidden Hills subdivision – the NFRR-W study area) along the western boundary.
- The area abuts predominantly Class 2 uses to the north, which are farmed areas of either commodity crops, hay, or silage (Class 2 agricultural resources) within the Baker Creek floodplain.
- Lands to the southeast of the study area are also actively farmed for commodity crops, hay, or silage (Class 2 agricultural resources). Part of these lands are within the NW-EX1b study area.
- Lands to the south and southwest that are not part of the existing UGB are partially and heavily wooded (Class 3 agricultural resources). These lands are zoned EFU though, not for forestry.



Northwest EX-1a

Study Area

- The area predominantly contains a mixture of residential and agricultural uses. Actively farmed areas of either commodity crops, hay, or silage (Class 2 agricultural resources) exist in the western and northern portions of the study area. There is also an active farm use within the study area, Draper Farms. A large majority of the study area is a Measure 37 claim subdivision (West Wind Country Estates).
- A single dwelling with associated agricultural and livestock uses exists on a parcel in the southern portion of the study area, adjacent to the High School site.

Surrounding Area. Predominant Conflict Rating 2

- The NW-EX1a study area is adjacent to the existing UGB to the south and to the east.
- All other portions of the study area are adjacent to Exclusive Farm Use lands, which are primarily in active agricultural use.
- To the west are farmed areas of either commodity crops, hay, or silage (Class 2 agricultural resources) The lands to the west are within the North of Fox Ridge Road East (NFRR-E) study area to the west.
- The area abuts agricultural uses to the north, which are farmed areas of either commodity crops, hay, or silage (Class 2 agricultural resources) within the Baker Creek floodplain.
- A recently planted orchard (Class 2 agricultural resources) exists to the north across Baker Creek Road, which is in the Northwest Ext. 2 (NW-EX2) study area.



Northwest EX-1b

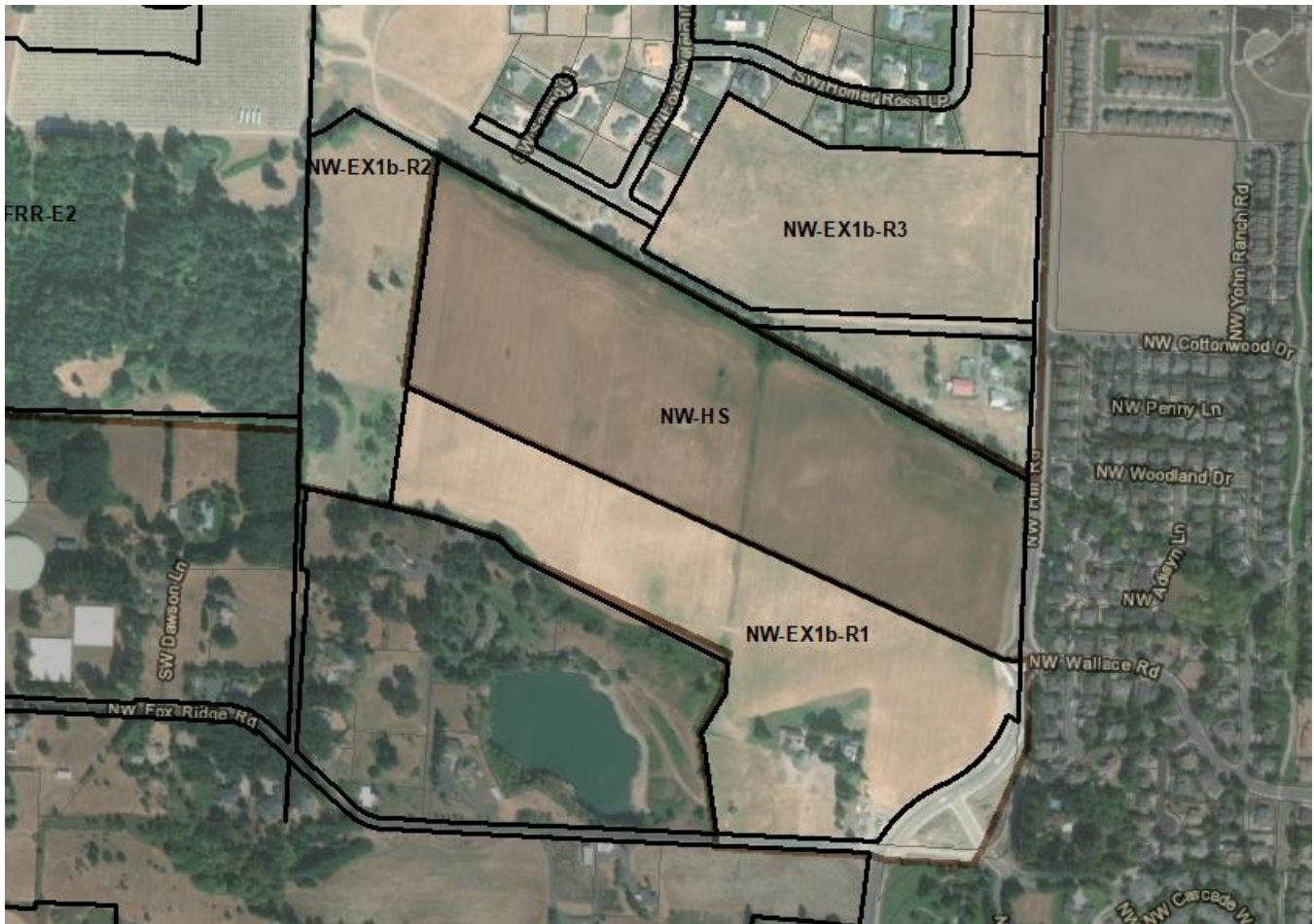
Study Area

- The area predominantly contains actively farmed areas of either commodity crops, hay, or silage (Class 2 agricultural resources).

- A single dwelling exists on the southern parcel in the study area.

Surrounding Area. Predominant Conflict Rating 3

- The NW-EX1b study area is primarily adjacent to the existing UGB to the south and east. To the north is an area outside of the UGB but in residential use (West Wind Country Estates subdivision within the NW-EX1a study area). One parcel with a single dwelling and associated agricultural and livestock uses exists on a parcel just north of the High School site (this parcel is within the NW-EX1a study area).
- The only other portion of the study area that is adjacent to Exclusive Farm Use agricultural lands is the western boundary (which is also the NFRR-E study area).
- To the immediate west within the North of Fox Ridge Road East (NFRR-E) study area is a wooded lot (Class 3 agricultural resource).
- To the northwest are farmed areas of either commodity crops, hay, or silage (Class 2 agricultural resources). These lands are further north and not immediately adjacent to the study area, and are within the North of Fox Ridge Road East (NFRR-E) study area to the west.



Northwest EX-2

Study Area

- The entire study area is a recently planted orchard (Class 3 agricultural resource).

Surrounding Area. Predominant Conflict Rating 2

- The NW-EX2 study area is adjacent to the existing UGB to the east, but all other boundaries are adjacent to Exclusive Farm Use lands that are primarily in active agricultural use.
- An active crop farm use (Class 2 agricultural resource) exists to the south across Baker Creek Road, Draper Farms, which is located within the Northwest Ext. 1a (NW-EX1a) study area.
- The area abuts agricultural uses to the north, which is a continuation of the recently planted orchard (Class 2 agricultural resources) that is within the study area, but continues north into the Baker Creek floodplain.



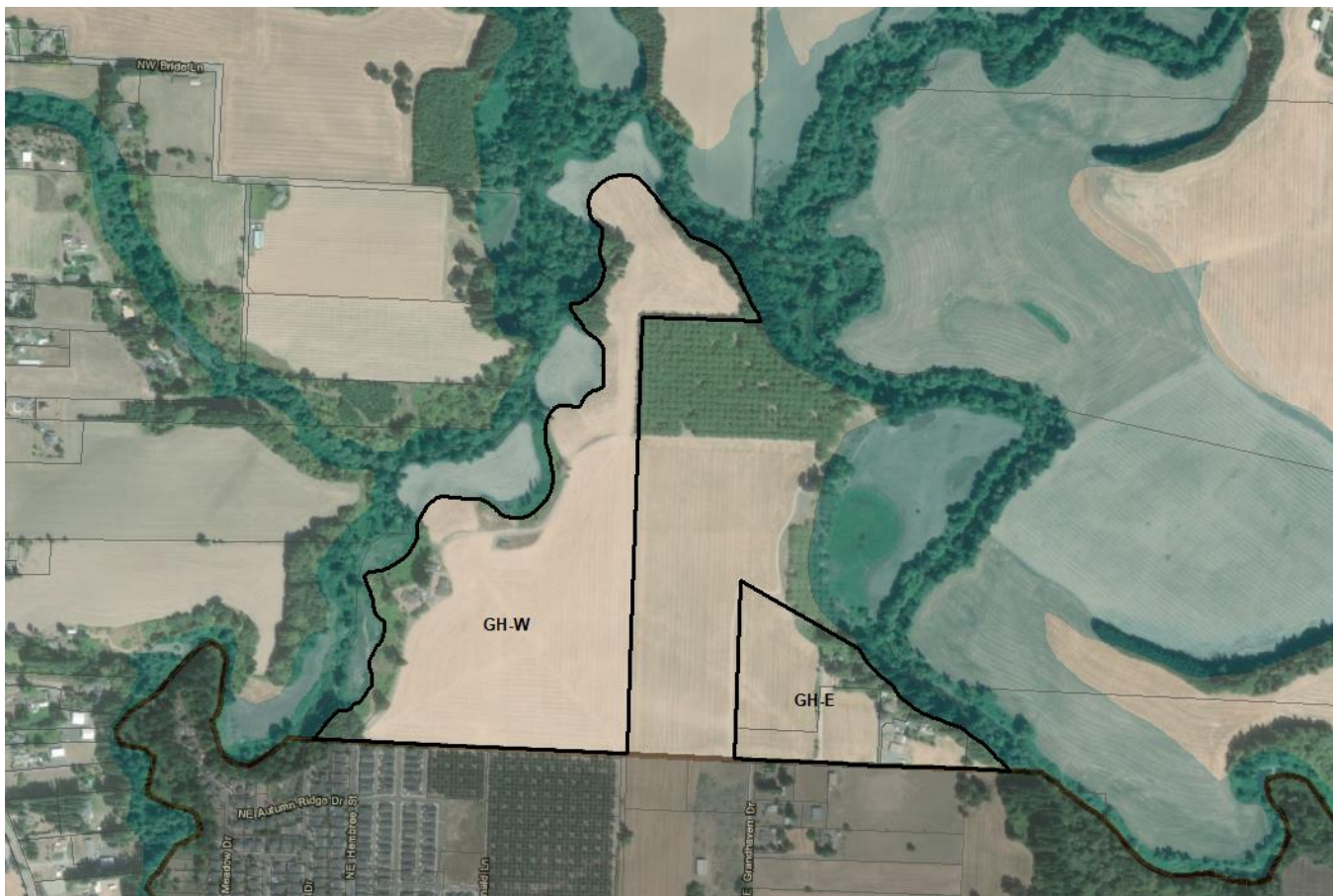
Grandhaven East

Study Area

- The majority of the study area is actively farmed for commodity crops, hay, or silage (Class 2 agricultural resource). There are a couple of single family dwellings on parcels that appear to be otherwise farmed.

Surrounding Area. Predominant Conflict Rating 2

- The GH-E study area is adjacent to the existing UGB to the south, but all other boundaries are adjacent to Exclusive Farm Use lands that are primarily in active agricultural use.
- The southern boundary of the study area is also adjacent to the Chegwyn conservation easement though, so while that land is within the UGB it is not available for urban levels of development.
- To the west and north are other actively farmed parcels, including an orchard and other planted areas of commodity crops, hay, or silage (all Class 2 agricultural resources). The area to the immediate west and north is within the Chegwyn conservation easement.
- To the east of the study area is the North Yamhill River floodplain, which is wooded but narrow in depth between the study area and the river. Across the river are other actively farmed areas of commodity crops, hay, or silage (all Class 2 agricultural resources).



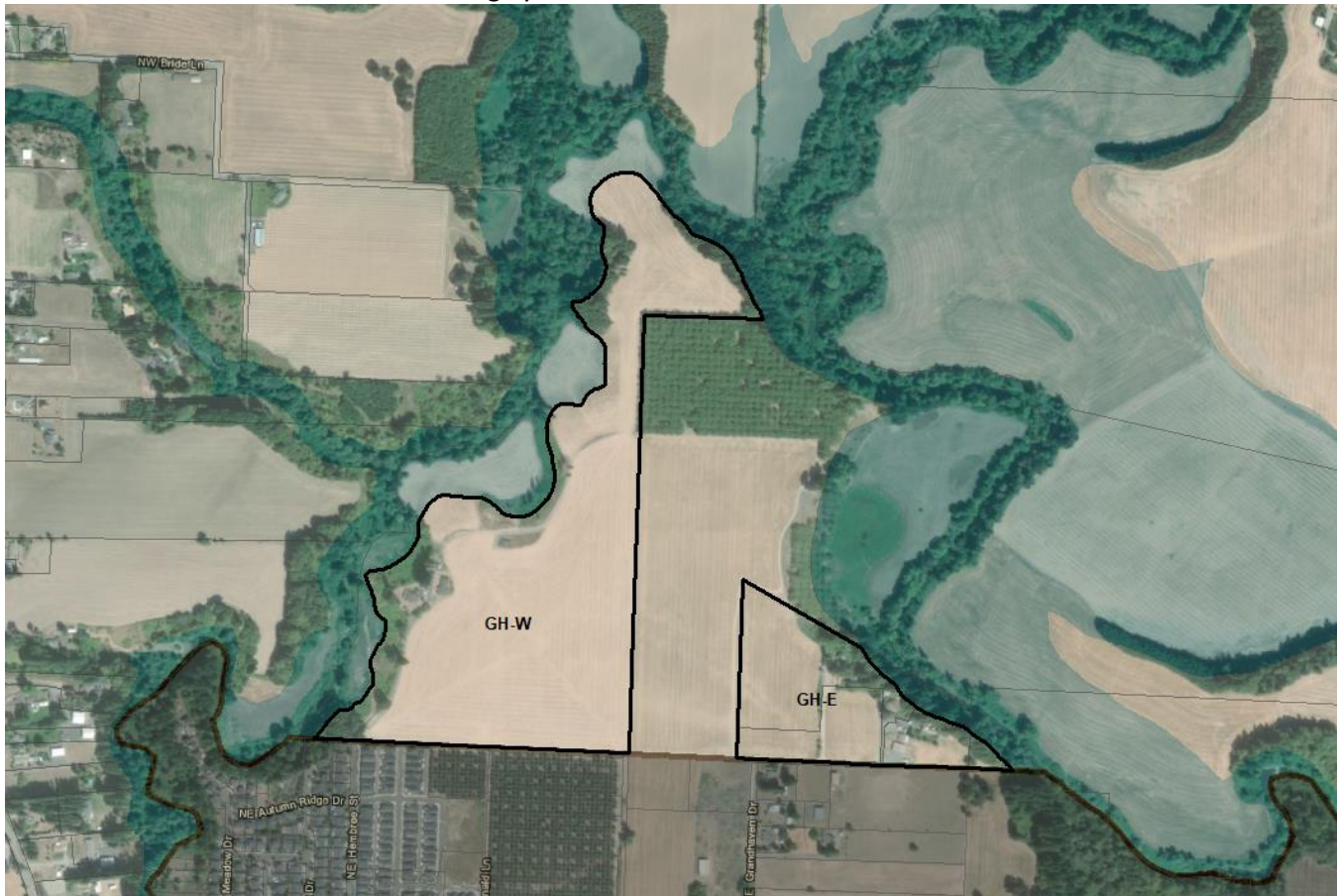
Grandhaven West

Study Area

- The entire study area is actively farmed for commodity crops, hay, or silage (Class 2 agricultural resource).

Surrounding Area. Predominant Conflict Rating 2

- The GH-W study area is adjacent to the existing UGB to the south, but all other boundaries are adjacent to Exclusive Farm Use lands that are primarily in active agricultural use.
- The area abuts agricultural uses to the north, which is a continuation of the actively farmed parcel (Class 2 agricultural resources) that is within the study area, but continues north into the North Yamhill River floodplain.
- To the east are other actively farmed parcels, including an orchard at the northern end and other planted areas of commodity crops, hay, or silage (all Class 2 agricultural resources). The area to the immediate east is within the Chegwyn conservation easement.



East of Airport

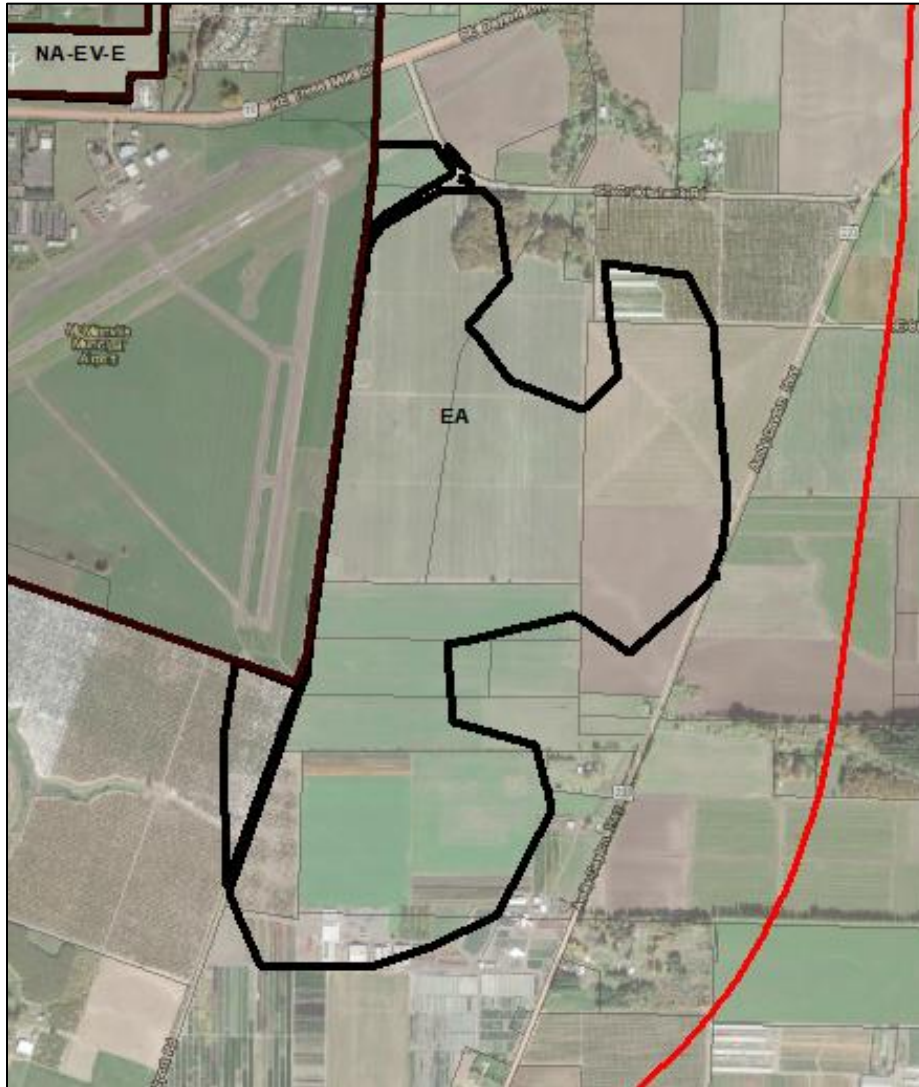
Study Area

- The majority study area is actively farmed for commodity crops, hay, or silage (Class 2 agricultural resource).
- Some tree nursery and orchards also exist within the study area (Class 2 agricultural resources)

Surrounding Area. Predominant Conflict Rating 2

- The GH-W study area is adjacent to the existing UGB to the west, which is the McMinnville airport.
- All other boundaries of the study area are adjacent to Exclusive Farm Use zoned lands in a range of agricultural uses.

- To the northeast is an orchard (Class 2 agricultural resource), and further to the north are areas actively farmed for commodity crops, hay, or silage (Class 2 agricultural resource).
- Orchards also exist to the southwest on the lands south of the airport (Class 2 agricultural resource)
- A majority of the lands to the east and south are actively farmed for commodity crops, hay, or silage (Class 2 agricultural resource). A nursery (Pacific Nursery) exists slightly further east from the study area boundary (Class 2 agricultural resource).



North of Baker Creek

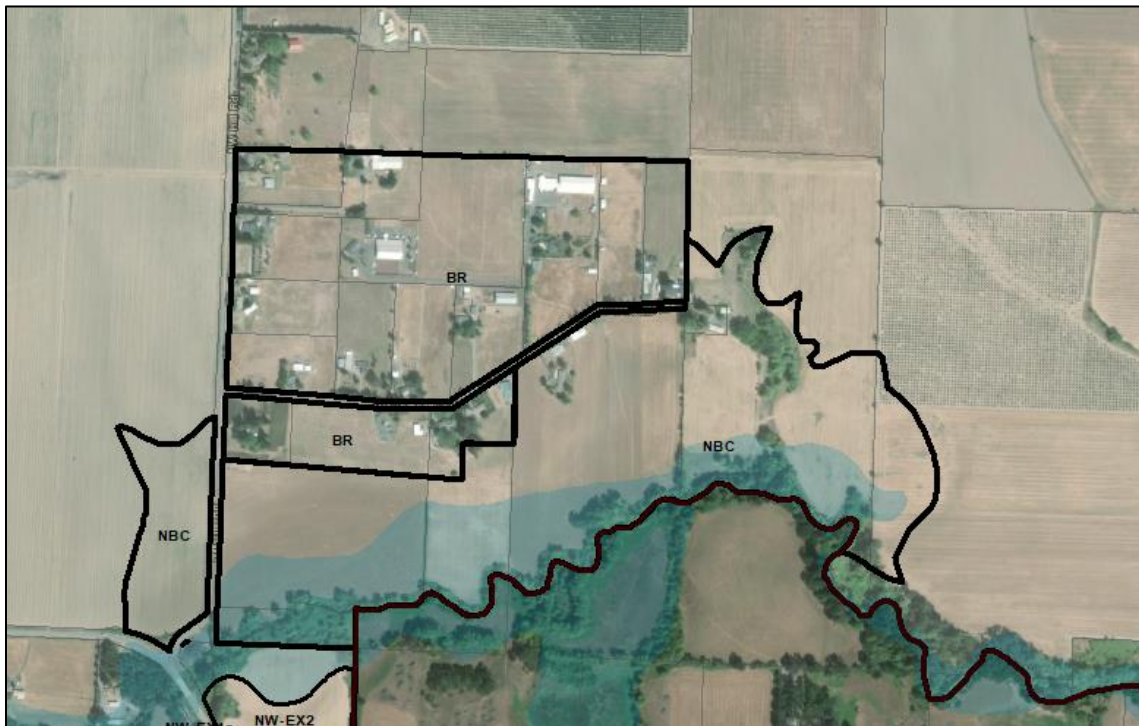
Study Area

- The majority study area is actively farmed for commodity crops, hay, or silage (Class 2 agricultural resource).

Surrounding Area. Predominant Conflict Rating 2

- The NBC study area is adjacent to the UGB on the south, but is separated from the UGB by Baker Creek.

- To the north exists the Brentano Exception area, which is zoned AF but primarily in residential use.
- The other study area boundaries to the west and east are adjacent to Exclusive Farm Use zoned lands that are in active agricultural use.
- To the east are agricultural uses that include primarily farmed areas of either commodity crops, hay, or silage (Class 2 agricultural resources).
- To the west of the study area and across Hill Road North are more recently planted orchards (also Class 2 agricultural resources).





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TECHNICAL MEMORANDUM #4

MGMUP UGB REMAND UPDATE

DATE: October 15, 2020
TO: Heather Richards, Planning Director
FROM: Chuck Darnell, Senior Planner
SUBJECT: Agricultural Adjacency Screening Process

This technical memorandum reviews the process and assumptions used to evaluate candidate UGB Study Areas for their impacts on and compatibility with agricultural lands. The evaluation of agricultural lands within each study area was completed to address Goal 14 (Urbanization) which requires cities to provide for an orderly and efficient transition from rural to urban land use. Goal 14 provides factors to consider in amending a UGB, with Factor 7 being the compatibility of proposed urban uses with nearby agricultural activities.

Agricultural Adjacency Analysis

To determine a numerical measure of how much of a study area would be in direct adjacency to agricultural lands, the total perimeter distance of each study area was calculated. Then, the perimeter distance of each study area that is adjacent to land that is available for agricultural activities was calculated. Land that was determined to be available for agricultural activities included Yamhill County zoning districts that allow for agricultural activities. The Yamhill County zoning districts that permit agricultural activities include the following:

- EF-20, EF-40, and EF-80 (Exclusive Farm Use District): Yamhill County Zoning Ordinance Section 402.02(A) allows the following, among other agriculture-related uses, as a permitted use: "Farm uses as defined in Subsection 402.10".
- AF-20, AF-40, and AF-80 (Agriculture/Forestry District): Yamhill County Zoning Ordinance Section 403.02(A) allows the following, among other agriculture-related uses, as a permitted use: "Farm uses as defined in Subsection 403.12(E)".
- AF -10 (Agriculture/Forestry Small Holding District): Yamhill County Zoning Ordinance Section 501.02(A) allows the following as a permitted use: "Farm uses".
- F-80 (Forestry District): Yamhill County Zoning Ordinance Section 401.02(E) allows the following as a permitted use "Farm use as defined in Section 402.10(C) of this ordinance".

A ratio was calculated by comparing of the portion of the study area that is adjacent to agricultural activities against the total perimeter distance of the study area. Study areas with a higher ratio would have more adjacency, and therefore more impact and less compatibility, with surrounding agricultural uses. Ratings were assigned to each study area as follows:

- Rating of 1: 80% or more of the perimeter of the study area is adjacent to lands available for agricultural activities

- Rating of 2: Between 51% and 79% of the perimeter of the study area is adjacent to lands available for agricultural activities
- Rating of 3: 50% or less of the perimeter of the study area is adjacent to lands available for agricultural activities

The table below summarizes the results of the agricultural adjacency screening process:

Study Area	Perimeter Length adjacent to Ag Zones (feet)	Total Perimeter	Percentage of study area boundary	Rating
<i>Exception Areas</i>				
Lawson Lane (LL)	3,673	4,651	79.0%	2
Old Sheridan Road (OSR)	5,720	9,148	62.5%	2
N-Fox Ridge - West (N-FR-W)	7,840	11,075	70.8%	2
Booth Bend Road (BR)	4,826	6,875	70.2%	2
Brentano Lane (BL)	8,895	8,895	100.0%	1
Westside Lane (WL)	2,953	6,258	47.2%	3
<i>Resource Areas</i>				
North of Olde Stone Village (NA-NOSV)	9,689	13,770	70.4%	2
Evergreen (NA-EV)	607	9,490	6.4%	3
Three Mile Lane East (TML-E)	6,662	17,759	37.5%	3
Three Mile Lane West (TML-W)	985	2,973	33.1%	3
Norton Lane East (NL-E)	6,331	8,489	74.6%	2
Norton Lane West (NL-W)	2,389	9,759	24.5%	3
Southwest 1 (SW-06)	4,424	11,125	39.8%	3
Southwest 03 (SW-03)	4,802	5,698	84.3%	1
Southwest 2 (SW-2)	4,333	9,234	46.9%	3
West of Old Sheridan Road 1 (W-OSR1)	20,052	20,052	100.0%	1
West of Old Sheridan Road 2 (W-OSR2)	16,284	16,962	96.0%	1
West Hills South (WH-S)	6,720	12,084	55.6%	2
West Hills 2 (WH2)	21,611	32,455	66.6%	2
North of Fox Ridge Road East (NFRR-E)	10,961	14,660	74.8%	2
Northwest Ext. 1a (NW-EX1a)	7,465	12,699	58.8%	2
Northwest Ext. 1b (NW-EX1b)	3,540	10,427	34.0%	3
Northwest Ext. 2 (NW-EX2)	2,489	3,598	69.2%	2
Grandhaven East (GH-E)	2,932	4,505	65.1%	2
Grandhaven West (GH-W)	9,307	11,112	83.8%	1
Airport East (EA)	21,953	28,107	78.1%	2
North of Baker Creek (NBC)	7,622	16,244	46.9%	3



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TECHNICAL MEMORANDUM #5

MGMUP UGB REMAND UPDATE

DATE: October 13, 2020
TO: Heather Richards, Planning Director
FROM: Chuck Darnell, Senior Planner
SUBJECT: Distance to Services Screening Process

This technical memorandum reviews the process and assumptions used to evaluate candidate UGB Study Areas for their distance to services. The evaluation of each study area's distance to services was completed to address Goal 14 (Urbanization) which requires cities to provide for an orderly and efficient transition from rural to urban land use. Goal 14 provides factors to consider in amending a UGB, with Factor 5 requiring the evaluation of environmental, energy, economic, and social consequences. This consideration of a study area's distance to services is relevant to energy and social consequences, in that further distances to services would require that trips for services would more likely be made by vehicle rather than by other alternative modes of transportation (transit, bicycle, or pedestrian). Therefore, an increased distance to services would increase the area's energy consumption and also increase social consequences for residents that may not have access to a vehicle for their mode of transportation.

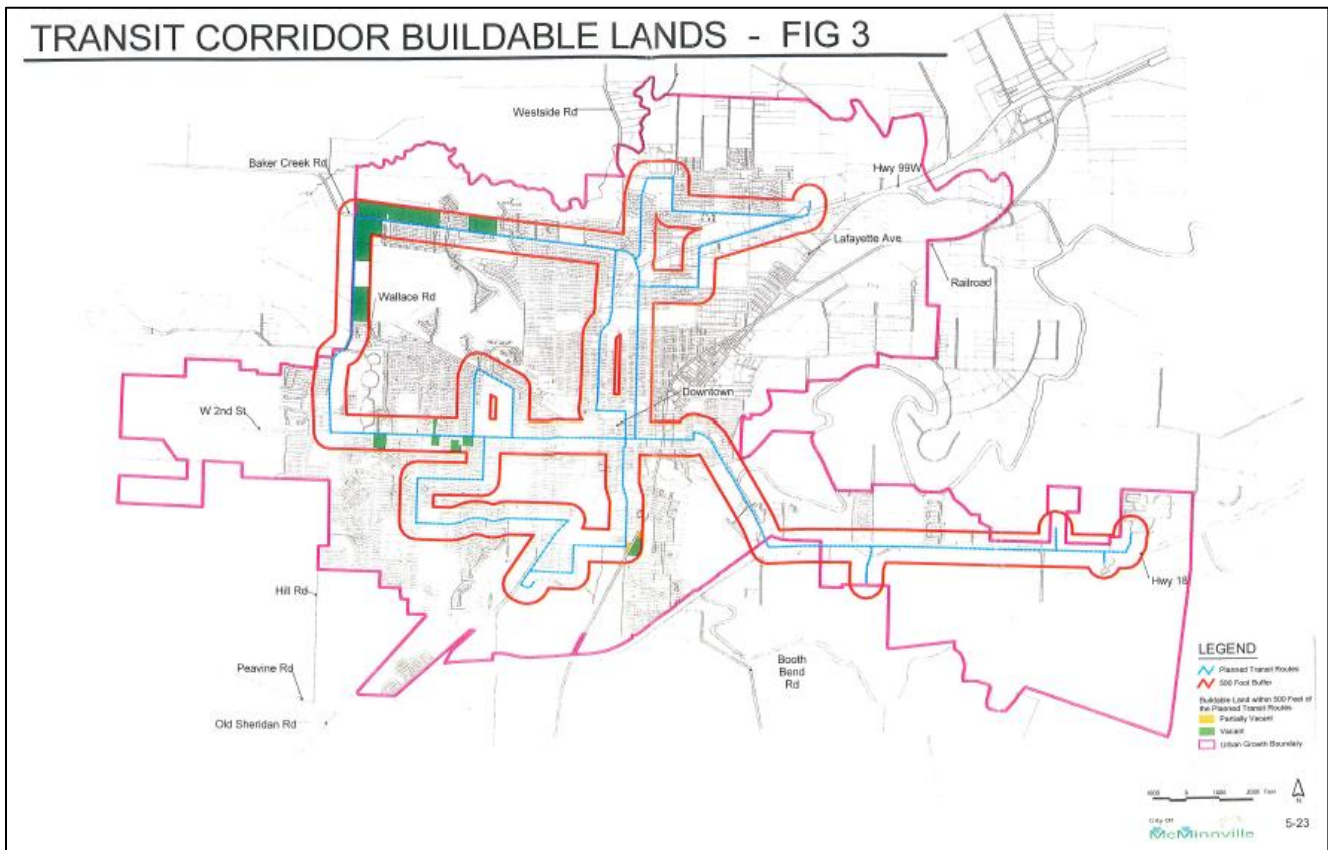
Distance to Services Analysis

A number of measures were used to evaluate a study area in regards to its proximity and distance to services. The measures that were selected included distance to public transit, distance to existing grocery stores, and distance to existing service nodes. While some services may be developed within study areas once they are brought into the UGB and if they are assigned commercial land need, the study areas were evaluated based on proximity to existing services only for consistency throughout the study areas. Because final UGB alternatives and specific study areas were not yet determined to identify potential new commercial service centers, a consistent analysis was completed using only existing services.

For all distance measurements, the distance was measured from the center of the study area to the service in question. This method of measuring distance was again completed to allow for a consistent application of measurement and equal comparison between study areas. To determine the center of the study area, GIS analysis was used to develop a "centroid", which is a geographic center point location within each study area polygon (i.e. boundary). This centroid, or center point location, was used in the measurement of the study area to the services in question.

Public Transit: The location of public transit that was used in this analysis was the Planned Transit Routes figure in the record. This figure is included in the record as Figure 5-23 (Pages 964-965 in the DLCD submittal of the

Court of Appeals Record - Document 8d (McMinnville Growth Management and Urbanization Plan)), and is shown below:



The distance between the study area and the planned transit route was measured as the linear distance from the study area centroid to the nearest planned transit route line.

Study areas were assigned a rating of 1, 2, or 3 as follows:

- Rating of 3: Study area centroid within ½ mile (2,640 feet) of transit
- Rating of 2: Study area centroid within 1 mile (5,280 feet) of transit
- Rating of 1: Study area centroid over 1 mile (5,280 feet) from transit

Grocery Stores: Grocery stores were selected as a service to include in this analysis as they are a principle source of needed goods for households, and are also often an anchor to other commercial services. For the purposes of this analysis, primarily large, chain grocery stores were selected. The one exception to this was Harvest Fresh Grocery & Deli, which is a smaller-scale and specialty grocery store, but was included in the analysis due to its central location in the downtown and city center. The grocery stores included in the analysis are listed below:

- Albertsons (615 SW Keck Circle Drive)
- Roth's Fresh Markets (1595 SW Baker Street)
- Harvest Fresh Grocery & Deli (251 NE 3rd Street)

- Grocery Outlet (568 NE Highway 99W)
- Safeway (2490 NE Highway 99W)
- WinCo Foods (2585 NE Highway 99W)

The parcels on which these grocery stores were selected, and the distance between the study area and the grocery store was measured as the distance from the study area centroid to the nearest property line of the nearest grocery store.

Study areas were assigned a rating of 1, 2, or 3 as follows:

- Rating of 3: Study area centroid within 1 mile (5,280 feet) of a grocery store
- Rating of 2: Study area centroid within 1.5 miles (7,920 feet) of a grocery store
- Rating of 1: Study area centroid over 1.5 miles (7,920 feet) from a grocery store

Service Nodes: Locations were identified within the existing UGB where commercial or institutional services may be available. The existing record identifies two locations in the city where certain characteristics of Neighborhood Activity Centers exist, which included the downtown area and the intersection of 2nd Street and Hill Road. However, in order to more consistently compare study areas that are located in all directions outward from the existing UGB, broader and simpler parameters were selected to identify potential “service nodes”. These parameters were that the service node must be located at the intersection of arterial streets, and must have properties with commercial zoning. The locations that met these parameters are listed below:

- Intersection of 2nd Street & Hill Road
- Intersection of Hill Road & Baker Creek Road
- Intersection of Old Sheridan Road & Highway 99W
- Intersection of 2nd Street & Adams Street (Highway 99W southbound)
- Intersection of Evans Street & Highway 99W
- Intersection of Lafayette Avenue & Highway 99W
- Intersection of Norton Lane & Highway 18

A point was created at the center of the intersection of the streets listed above. The distance between the study area and the service node was measured as the distance from the study area centroid to the point in the center of the intersection of the streets that serve as a service node.

Study areas were assigned a rating of 1, 2, or 3 as follows:

- Rating of 3: Study area centroid within ½ mile (2,640 feet) of a service node
- Rating of 2: Study area centroid within 1 mile (5,280 feet) of a service node
- Rating of 1: Study area centroid over 1 mile (5,280 feet) from a service node

Overall Rating: Using the three measures described above, each study area was assigned an overall rating of 1, 2, or 3, with ratings of 1 being assigned to study areas that are further from services and ratings of 3 being assigned to study areas that are closer to services. A table summarizing the analysis that resulted in the overall rating assignment is provided below:

Study Area	Distance to Transit (Feet)	Transit Rating	Distance to Service Node (Feet)	Nearest Service Node	Service Node Rating	Distance to Grocery Store (Feet)	Nearest Grocery Store	Grocery Store Rating	Total Rating
<u>Exception Areas</u>									
Lawson Lane (LL)	3,264	2	3,540	Norton/Hwy 18	2	6,251	Harvest Fresh	2	2
Old Sheridan Road (OSR)	4,951	2	5,863	OSR/Hwy 99	1	6,827	Roth's	2	2
North of Fox Ridge Road – West (NFRR-W)	10,235	1	10,426	Hill/BCR	1	17,404	Roth's	1	1
Booth Bend Road (BR)	3,069	2	5,790	Norton/Hwy 18	1	4,535	Albertsons	3	2
Brentano Lane (BL)	3,378	2	3,378	Hill/BCR	2	9,526	Grocery Outlet	1	2
Westside Road (WR)	2,008	3	4,758	Evans/Hwy 99	2	4,604	Grocery Outlet	3	3
<u>Resource Areas</u>									
North of Olde Stone Village (NA-NOSV)	2,846	2	8,300	Norton/Hwy 18	1	10,838	Safeway	1	1
Evergreen (NA-EV)	1,638	3	6,209	Norton/Hwy 18	1	11,675	Safeway	1	2
Three Mile Lane East (TML-E)	1,047	3	2,113	Norton/Hwy 18	3	8,707	Harvest Fresh	1	2
Three Mile Lane West (TML-W)	3,833	2	4,129	Norton/Hwy 18	2	5,754	Albertsons	2	2
Norton Lane East (NL-E)	2,700	2	2,719	Norton/Hwy 18	2	6,815	Safeway	2	2
Norton Lane West (NL-W)	1,825	3	4,928	Norton/Hwy 18	2	4,622	Harvest Fresh	3	3
Southwest 1 (SW-06)	3,326	2	3,941	OSR/Hwy 99	2	4,518	Roth's	3	2
Southwest 2 (SW-2)	2,807	2	2,801	2nd/Hill	2	6,925	Roth's	2	2
West of Old Sheridan Road 1 (W-OSR1)	8,524	1	8,982	2nd/Hill	1	10,069	Roth's	1	1
West of Old Sheridan Road 2 (W-OSR2)	5,757	1	6,402	2nd/Hill	1	7,596	Roth's	2	1
West Hills South (WH-S)	4,820	2	4,830	2nd/Hill	2	9,633	Roth's	1	2
West Hills 1 (WH1)	9,223	1	9,354	2nd/Hill	1	15,544	Roth's	1	1
West Hills 2 (WH2)	6,981	1	6,985	2nd/Hill	1	13,198	Roth's	1	1
North of Fox Ridge Road East (NFRR-E)	6,567	1	6,753	Hill/BCR	1	15,082	Harvest Fresh	1	1
Northwest Ext. 1a (NW-EX1a)	1,282	3	1,524	Hill/BCR	3	9,864	Grocery Outlet	1	2
Northwest Ext. 1b (NW-EX1b)	1,208	3	2,811	Hill/BCR	2	9,726	Harvest Fresh	1	2
Northwest Ext. 2 (NW-EX2)	687	3	684	Hill/BCR	3	9,145	Grocery Outlet	1	2



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TECHNICAL MEMORANDUM #6

MGMUP UGB REMAND UPDATE

DATE: October 15, 2020
TO: Heather Richards, Planning Director
FROM: Jamie Fleckenstein, Associate Planner
SUBJECT: Hazard Screening Process

This technical memorandum reviews the process and assumptions used to evaluate candidate UGB Study Areas for their hazard risk. The evaluation of hazard risk of each study area was completed to address Goal 14 (Urbanization) which requires cities to provide for an orderly and efficient transition from rural to urban land use. Goal 14 provides factors to consider in amending a UGB relative to hazard risk, with Factor 4 being the maximum efficiency of land uses within and on the fringe of the existing urban area, and Factor 5 being the Environmental, Energy, Economic, and Social Consequences.

Hazard Risk Analysis

A number of measures were used to evaluate the study areas for potential hazard risk. Those measures included determination of the percentage of a study area considered unbuildable, and the percentage of a study area with moderate constraints on buildable land, including high landslide risk and high liquefaction risk. Per ORS 197.761(2)-(3) land with slope of 25% or greater and land within the 100-year floodplain is considered to be unbuildable. Wildfire hazard to people and property was considered in study areas where applicable.

GIS data was used in the analysis of study areas to determine the percentage of land constrained by hazard risks. Sources for the data used are provided below:

- Landslide Hazard: DOGAMi, Oregon HazVu: Statewide Geohazards Viewer
 - <https://gis.dogami.oregon.gov/maps/hazvu/>
- Liquefaction Hazard: DOGAMi, Oregon HazVu: Statewide Geohazards Viewer
 - <https://gis.dogami.oregon.gov/maps/hazvu/>
- Slope: City of McMinnville, from DOGAMI Bare Earth Lidar, Oregon HazVu: Statewide Geohazards Viewer
 - <https://gis.dogami.oregon.gov/maps/hazvu/>
- Floodplain: FEMA, National Flood Insurance Program Flood Insurance Rate Maps (FIRMs) Maps and National Flood Hazard Layer (NFHL) Viewer
 - <https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html>
- Wildfire: OSU Libraries and Press/Institute for Natural Resources/Oregon Department of Forestry, Oregon Risk Explorer: Advanced Oregon Wildfire Risk Explorer Map Viewer

- https://tools.oregonexplorer.info/OE_HtmlViewer/index.html?viewer=wildfireplanning

Percentage of Unbuildable Land: To determine the percentage of hazard risks (flood, slopes greater than 25%) that render land unbuildable within a study area, GIS analysis of data within each study area was performed to calculate the floodplain and steep slope (slopes greater than 25%) acreages. These unbuildable areas were compared against the total acreage of the study area.

The following rating system was used:

- 1 - High Risk: more than 40% of the study area is hazard area rendering land unbuildable
- 2 – Medium Risk: 10% to 40% of the study area is hazard area rendering land unbuildable
- 3 – Low Risk: Less than 10% of the study area is hazard area rendering land unbuildable

Percentage of High Landslide Risk To determine the percentage of high landslide risk within a study area, GIS analysis of landslide hazard data within each study area was performed to calculate the high landslide hazard acreage. These high landslide hazard areas were compared against the total acreage of the study area.

The following rating system was used:

- 1 - High Risk: more than 40% of the study area is constrained by high landslide hazard
- 2 – Medium Risk: 10% to 40% of the study area is constrained by high landslide hazard
- 3 – Low Risk: Less than 10% of the study area is constrained by high landslide hazard

Percentage of High Liquefaction Risk: To determine the percentage of high liquefaction risk within a study area, GIS analysis of liquefaction hazard data within each study area was performed to calculate the high liquefaction hazard acreage. These high liquefaction hazard areas were compared against the total acreage of the study area.

The following rating system was used:

- 1 - High Risk: more than 40% of the study area is constrained by high liquefaction hazard
- 2 – Medium Risk: 10% to 40% of the study area is constrained by high liquefaction hazard
- 3 – Low Risk: Less than 10% of the study area is constrained by high liquefaction hazard

Consideration of Wildfire Risk: Wildfire hazard risk to people and property is a factor of risk to existing populations and structures. Therefore, this risk would not generally be present in undeveloped study areas with few to no structures or population. Where substantial amounts of structures and population did exist such that there was some wildfire hazard risk, the level of risk was considered vis a vis the potential risk of urbanizing a study area to add more density and development to an area subject to wildfire hazard. The potential for that hazard to spread to adjacent study areas was considered where a largely undeveloped study area was adjacent to a more developed study area subject to wildfire risk.

Overall Rating: Using the three measures described above for percentage of unbuildable land, landslide hazard, and liquefaction hazard, a composite rating was calculated for each study area. Because the rating system was the same for each of the three measures, the overall rating is an average of the three individual ratings. The composite rating of each study area is on a scale of 1 to 3, with ratings of 1 being assigned to study areas that were determined to have high hazard risk and ratings of 3 being assigned to study areas that were determined

to have low hazard risk. When a high hazard risk (landslide or liquefaction) is present over 50% of a study area, that rating score was given additional weight in the composite rating. Wildfire hazard was not incorporated into the overall composite rating because the data was not applicable to all study areas (i.e. undeveloped agricultural land), but considered in findings for individual study areas where applicable.

A description of each study area, and the analysis that resulted in its overall rating assignment, is provided below:

Exception Study Areas

Lawson Lane (LL)

The LL study area is adjacent to the South Yamhill River floodplain, and a small amount of the floodplain is within the study area boundary. A small amount of steep slopes within the study area is associated with the banks adjacent to the floodplain. Contiguous areas of low to moderate hazards are adjacent to the UGB on the northern portion of the study area.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
LL	18.1	0.2	0.1	0.3	1.7%	3

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
LL	18.1	0.0	0.0%	3

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
LL	18.1	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
LL	3	3	3	3.00

Old Sheridan Road (OSR)

The OSR study area exhibits minimal hazard conflicts. Moderate slope and landslide hazards are present along the Cozine Creek floodplain. Contiguous areas of low to moderate hazards are adjacent to the UGB.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
OSR	54.5	0.2	0.1	0.3	0.6%	3

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
OSR	54.5	0.0	0.0%	3

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
OSR	54.5	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
OSR	3	3	3	3.00

North of Fox Ridge Road – West (NFRR-W)

The NFRR-W study area exhibits moderate to high landslide hazards on the majority of the study area. Moderate to steep slopes are present throughout the south and west portions of the study area. A small band of low landslide hazards and slopes is present along the northern edge of the study area between the higher hazard areas and the adjacent Baker Creek floodplain.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
NFRR-W	116.3	0.0	23.3	23.3	20.0%	2

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
NFRR-W	116.3	54.2	46.6%	1

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
NFRR-W	116.3	3.6	3.1%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
NFRR-W	2	1	3	2.00

Booth Bend (BB)

The BB study area exhibits bands of moderate to high landslide hazards on the northern and eastern portion of the study area. Bands of moderate to steep slopes are present throughout the north and east portions of the study area. Areas of moderate to high hazards are associated with the South Yamhill River floodplain, which is present in the north and east portions of the study area.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
BB	40.2	10.0	5.1	15.1	37.6%	2

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
BB	40.2	6.4	15.9%	2

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
BB	40.2	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
BB	2	2	3	2.33

Brentano (BR)

The BR study area exhibits pockets of moderate landslide hazards on the northern and southern portions of the study area, and no high risk landslide hazards. The study area is almost entirely land with slopes of 10% or less, with some isolated areas of moderate slope.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
BR	91.8	0.0	0.2	0.2	0.2%	3

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
BR	91.8	0.0	0.0%	3

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
BR	91.8	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
BR	3	3	3	3.00

Westside Road (WR)

The WR study area exhibits bands of moderate to high landslide hazards on eastern and southern portions of the study area. Moderate to steep slopes are present throughout the eastern and southern portions of the study area. The Baker Creek floodplain is within the eastern portion of the study area, separating areas of lower hazards from the UGB.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
WR	35.4	8.3	5.7	14.0	39.5%	2

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
WR	35.4	6.1	17.2%	2

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
WR	35.4	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
WR	2	2	3	2.33

Resource Study Areas

North of Olde Stone Village (NA-NOSV)

The NA-NOSV study area exhibits minimal hazard conflicts. Contiguous areas of low to moderate hazards are adjacent to the UGB.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
NA-NOSV	279.0	0.0	0.0	0.0	0.0%	3

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
NA-NOSV	279.0	0.0	0.0%	3

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
NA-NOSV	279.0	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
NA-NOSV	3	3	3	3.00

Evergreen (NA-EV)

The NA-EV study area exhibits minimal hazard conflicts. Contiguous areas of low to moderate hazards are adjacent to the UGB.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
NA-EV	40.2	0.0	0.2	0.2	0.5%	3

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
NA-EV	40.2	0.0	0.0%	3

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
NA-EV	40.2	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
NA-EV	3	3	3	3.00

Three Mile Lane East (TML-E)

The TML-E study area is adjacent to the South Yamhill River floodplain, and a small amount of the floodplain is within the study area boundary. A small amount of steep slope and moderate to high landslide hazard within the study area is associated with the banks adjacent to the floodplain and a drainage that protrudes into the

western portion of the study area. Contiguous areas of low to moderate hazards are adjacent to the UGB on the northern portion of the study area.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
TML-E	201.7	3.5	7.7	11.2	5.6%	3

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
TML-E	201.7	11.3	5.6%	3

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
TML-E	201.7	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
TML-E	201.7	3	3	3.00

Three Mile Lane West (TML-W)

The TML-W study area is adjacent to the South Yamhill River floodplain, though no floodplain is within the study area boundary. A band of moderate slopes and landslide hazard divides smaller areas low hazards and slopes.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
TML-W	9.0	0.0	0.0	0.0	0.0%	3

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
TML-W	9.0	0.0	0.0%	3

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
TML-W	9.0	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
TML-W	3	3	3	3.00

Norton Lane East (NL-E)

The NL-E study area is adjacent to the South Yamhill River floodplain. A small amount of steep slope and moderate to high landslide risk within the study area is associated with the banks adjacent to the floodplain around the perimeter of the study area. Contiguous areas of low to moderate hazards are adjacent to the UGB on the northern portion of the study area.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
NL-E	81.5	0.0	6.8	6.8	8.3%	3

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
NL-E	81.5	8.0	9.8%	3

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
NL-E	81.5	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
NL-E	81.5	3	3	3.00

Norton Lane West (NL-W)

The NL-W study area is adjacent to the South Yamhill River floodplain to the east and the floodplain of a drainage to the west. A portion of those floodplains are within the study area boundary. Steep slope and moderate to high landslide hazard within the study area is associated with the banks adjacent to the floodplains. Isolated areas of low hazards are found between the floodplains and are non-contiguous.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
NL-W	61.4	35.9	7.7	43.6	71.0%	1

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
NL-W	61.4	9.7	15.8%	2

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
NL-W	61.4	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
NL-W	1	2	3	2.00

Southwest 1 (SW-06)

The SW-06 study area contains the floodplain of the Peavey Reservoir and associated drainages in the northeast corner of the study area. Moderate to steep slope areas and moderate landslide areas are associated with the banks along the floodplain. Contiguous areas of low to moderate hazards are adjacent to the UGB on the northern and southeastern portions of the study area.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
SW-06	158.0	16.7	0.8	17.5	11.1%	2

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
SW-06	158.0	0.0	0.0%	3

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
SW-06	158.0	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
SW-06	2	3	3	2.67

Southwest 2 (SW-2)

The SW-2 study area exhibits localized areas of moderate to high landslide and slope areas on the northern and western portions of the study area. A small area of floodplain is present in the southeast corner of the study area. Contiguous areas of low to moderate hazards are adjacent to the UGB throughout the study area.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
SW-2	120.0	3.6	1.7	5.3	4.4%	3

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
SW-2	120.0	8.5	7.1%	3

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
SW-2	120.0	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
SW-2	3	3	3	3.00

West of Old Sheridan Road 1 (W-OSR1)

The W-OSR1 study area contains the floodplain of the Cozine Creek which crosses the northern portion of the study area. Moderate to steep slope areas and moderate to high landslide areas are associated with the banks along the floodplain. A majority of the study area is a high liquefaction hazard area. A small contiguous area of low to moderate hazards is present north of the Cozine Creek floodplain. A large majority of the study area is high risk liquefaction soils, the presence of which outweighs the landslide and unbuildable category ratings. As a result, W-OSR1 is rated poor for its hazard risk due to its high amount of high risk liquefaction soils.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
W-OSR1	231.4	16.7	1.7	18.4	8.0%	3

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
W-OSR1	231.4	0.2	0.1%	3

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
W-OSR1	231.4	205.4	88.8%	1

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
W-OSR1	3	3	1	1

West of Old Sheridan Road 2 (W-OSR2)

The W-OSR2 study area is bisected by the floodplain of the Cozine Creek. Minimal moderate to steep slope areas and moderate landslide areas are associated with the banks along the floodplain. Contiguous areas of low to moderate hazards are present north and south of the Cozine Creek floodplain, and adjacent to the UGB.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
W-OSR2	313.8	27.3	1.2	28.5	9.1%	3

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
W-OSR2	313.8	0.0	0.0%	3

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
W-OSR2	313.8	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
W-OSR2	3	3	3	3.00

West Hills South (WH-S)

The WH-S study area features isolated areas of moderate to high landslide hazard and moderate to steep slopes in the eastern portion of the study area. The western portion of the study area adjacent to WH2 exhibits a contiguous area of moderate to steep slopes and moderate to high landslide hazard.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
WH-S	122.3	0.0	3.7	3.7	3.0%	3

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
WH-S	122.3	0.5	0.4%	3

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
WH-S	122.3	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
WH-S	3	3	3	3.00

West Hills 1 (WH1)

The WH1 study area exhibits moderate to high landslide hazard and moderate to steep slopes throughout the study area. Contiguous areas of low to moderate slope and moderate landslide hazard are generally located west of a contiguous band of steep slope and high landslide hazard found along the eastern edge of the study area. A portion of the Cozine Creek floodplain is present along the southern boundary of the study area.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
WH1	478.0	21.9	236.3	258.2	54.0%	1

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
WH1	478.0	222.6	46.6%	1

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
WH1	478.0	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
WH1	1	1	3	1.66

West Hills 2 (WH2)

The WH2 Study area features bands of steep slopes and isolated pockets of high landslide risk. The study area is primarily moderate slope and landslide hazards. A portion of the Cozine Creek floodplain is present along the southern boundary of the study area.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
WH2	431.9	3.8	44.4	48.2	11.2%	2

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
WH2	431.9	24.4	5.6%	3

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
WH2	431.9	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
WH2	2	3	3	2.67

North of Fox Ridge Road East (NFRR-E)

NFRR-E contains areas at risk of natural hazards. There is a small amount of high landslide susceptibility lands along the steep sloped ridge that runs diagonally through the eastern portion of the study area. However, a significant amount of the far western portion of the study area adjacent to the NFRR-W study area is located in an area of high landslide susceptibility, and the northernmost portions of the study area boundary are within areas of high soil liquefaction. NFRR-E has areas of low wildfire risk to people and property adjacent to the UGB and the NW-EX1b study area. It is adjacent to areas of moderate wildfire risk with the Hidden Hills and Fox Ridge Road study areas, and nearby to areas of high wildfire hazard risk to people and property. Urbanization of NFRR-E would introduce additional people and property adjacent to moderate to high wildfire risk areas, likely expanding that hazard into the study area. Therefore, because urbanization would likely lead to increased hazard risk, NFRR-E is rated poor for hazard risks.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
NFRR-E	189.1	0.0	17.4	17.4	9.2%	3

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
NFRR-E	189.1	48.2	25.5%	2

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
NFRR-E	189.1	22.9	12.1%	2

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
NFRR-E	3	2	2	1

Northwest Ext. 1a (NW-EX1a)

The NW-EX1a study area exhibits moderate to steep slopes and moderate to high landslide hazards associated the banks along the adjacent Baker Creek floodplain along the northern boundary of the study area. Contiguous areas of low to moderate hazards are adjacent to the UGB.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
NW-EX1a	78.2	0.0	1.6	1.6	2.0%	3

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
NW-EX1a	78.2	0.7	0.9%	3

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating

NW-EX1a	78.2	0.0	0.0%	3
Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
NW-EX1a	3	3	3	3.00

Northwest Ext. 1b (NW-EX1b)

The NW-EX1b study area exhibits moderate to steep slopes and moderate to high landslide hazards in the western portion of the study area and isolated areas of moderate to high landslide hazard and moderate to steep slopes in the eastern portion of the study area. Contiguous areas of low to moderate hazards are adjacent to the UGB.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
NW-EX1b	72.5	0.0	1.4	1.4	1.9%	3

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
NW-EX1b	72.5	15.1	20.8%	2

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
NW-EX1b	72.5	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
NW-EX1b	3	2	3	2.67

Northwest Ext. 2 (NW-EX2)

The NW-EX1a study area exhibits moderate to steep slopes and moderate to high landslide hazards associated with the banks along the adjacent Baker Creek floodplain along the northern boundary of the study area. Contiguous areas of low to moderate hazards are adjacent to the UGB.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
NW-EX2	15.5	0.0	0.4	0.4	2.6%	3

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
NW-EX2	15.5	0.4	2.6%	3

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
NW-EX2	15.5	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
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NW-EX2	3	3	3	3.00
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Grandhaven Conservation (GH-C)

The GH-C study area exhibits moderate to steep slopes and moderate to high landslide hazards associated with the banks along the adjacent South Yamhill River floodplain along the eastern boundary of the study area. Contiguous areas of low to moderate hazards are adjacent to the UGB.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
GH-C	51.4	0.0	1.9	1.9	3.7%	3

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
GH-C	51.4	3.5	6.8%	3

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
GH-C	51.4	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
GH-C	3	3	3	3.00

Grandhaven East (GH-E)

The GH-E study area exhibits moderate to steep slopes and moderate to high landslide hazards associated with the banks along the adjacent South Yamhill River floodplain along the eastern boundary of the study area. Contiguous areas of low to moderate hazards are adjacent to the UGB.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
GH-E	19.5	0.0	1.9	1.9	9.7%	3

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
GH-E	19.5	2.5	12.8%	2

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
GH-E	19.5	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
GH-E	3	2	3	2.67

Grandhaven West (GH-W)

The GH-W study area exhibits moderate to steep slopes and moderate to high landslide hazards associated with the banks along the adjacent South Yamhill River floodplain along the northern and western boundary of the study area. Contiguous areas of low to moderate hazards are adjacent to the UGB.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
GH-W	67.9	0.0	7.6	7.6	11.2%	2

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
GH-W	67.9	8.6	12.7%	2

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
GH-W	67.9	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
GH-W	2	2	3	2.33

East of Airport (EA)

The EA study area exhibits low landslide hazard throughout the study, minimal moderate landslide hazard in the southeastern portion of the study area, and no high landslide risk. Almost all of the study area is land with slopes of 10% or less.

Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
EA	493.4	0.0	0.5	0.5	0.1%	3

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
EA	493.4	0.0	0.0%	3

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
EA	493.4	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
EA	3	3	3	3.00

North of Baker Creek (NBC)

The NBC study area exhibits bands of moderate to high landslide hazards on the northern and southern portions of the study area. Bands of moderate to steep slopes are present throughout the northern and southern portions of the study area. A small band of low landslide hazards and slopes is between the band of moderate to high hazards on the northern edge of the study area and the Baker Creek floodplain along the southern portion of the study area.

Technical Memorandum #6 (MGMUP UGB Remand Update)

Date: October 15, 2020

Re: Hazard Risk Screening Process

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Study Area	Total Acres	Floodplain Acres	>25% Slope Acres	Total Unbuildable Acres	Unbuildable Percentage	Rating
NBC	118.7	39.2	4.3	43.5	36.6%	2

Study Area	Total Acres	High Landslide Risk Acres	High Landslide Risk Percentage	Rating
NBC	118.7	1.7	1.4%	3

Study Area	Total Acres	High Liquefaction Risk Acres	High Liquefaction Risk Percentage	Rating
NBC	118.7	0.0	0.0%	3

Study Area	Unbuildable Rating	High Landslide Risk Rating	High Liquefaction Risk Rating	Composite Hazard Risk Rating
NBC	2	3	3	2.66



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TECHNICAL MEMORANDUM #7

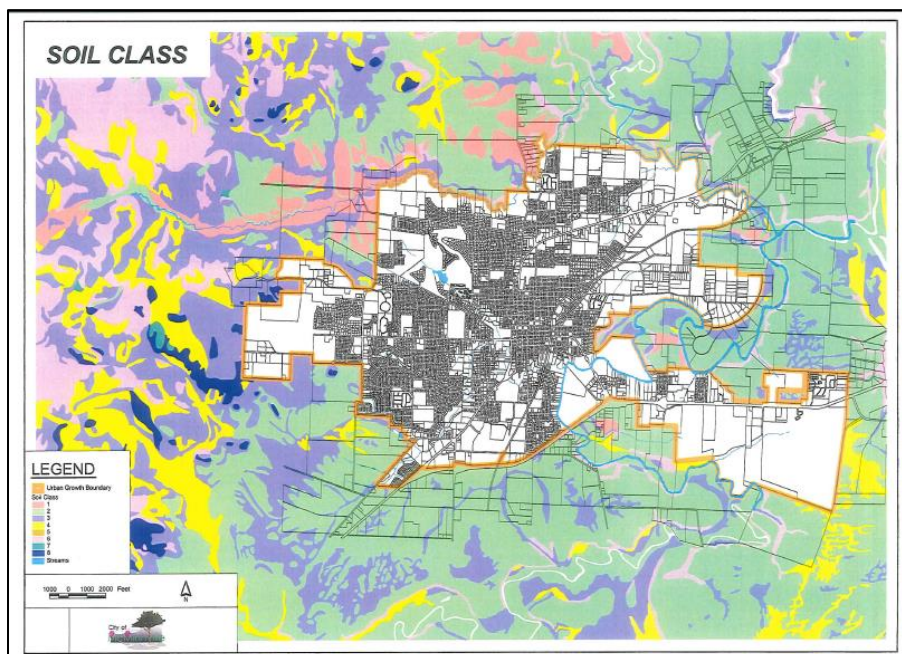
MGMUP UGB REMAND UPDATE

DATE: October 14, 2020
TO: Heather Richards, Planning Director
FROM: Chuck Darnell, Senior Planner
SUBJECT: High Value Agricultural Land Screening Process

This technical memorandum reviews the process and assumptions used to evaluate candidate UGB Study Areas for their impacts on agricultural lands. The evaluation of agricultural lands within each study area was completed to address Goal 14 (Urbanization) which requires cities to provide for an orderly and efficient transition from rural to urban land use. Goal 14 provides factors to consider in amending a UGB, with Factor 6 being the retention of agricultural land as defined.

High Value Agricultural Land Analysis

This analysis relied partially on soil data in the Court of Appeals record as documented in the Soil Class map included in the set of maps and figures in the DLCD's submittal of the Corrected Record for COA No. A134379. The Soil Class map from the Court of Appeals record is shown below:



The soil classifications in the soil data used in the analysis are based on non-irrigated capability classes. Capability classes were analyzed by Class I, Class II, Class III, and a grouping of all soil classes of Class IV and above, with a specific analysis of soil capability class only in another screening process (described in Technical Memorandum – Soil Priority). In addition to soil capability class, the high value agricultural land analysis identified other available measures of high value agricultural land described in ORS 215.710. ORS 215.710 provides a definition of high-value farmland that is specifically applicable to regulation of the placement of dwellings in farm or forest county zones, but was used in this analysis to identify other areas of higher agricultural value in the study areas.

In addition to Class I and Class II non-irrigated soils, ORS 215.710(3) states that “...high-value farmland, if in the Willamette Valley, includes tracts composed predominantly of the following soils in Class III or IV or composed predominantly of a combination of soils described in subsection (1) of this section and the following soils:

- (a) Subclassification IIIe, specifically, Bellpine, Bornstedt, Burlington, Briedwell, Carlton, Cascade, Chehalem, Cornelius, Cornelius Variant, Cornelius and Kinton, Helvetia, Hillsboro, Hullt, Jory, Kinton, Latourell, Laurelwood, Melbourne, Multnomah, Nekia, Powell, Price, Quatama, Salkum, Santiam, Saum, Sawtell, Silverton, Veneta, Willakenzie, Woodburn and Yamhill;
- (b) Subclassification IIIw, specifically, Concord, Conser, Cornelius Variant, Dayton (thick surface) and Sifton (occasionally flooded);
- (c) Subclassification IVe, specifically, Bellpine Silty Clay Loam, Carlton, Cornelius, Jory, Kinton, Latourell, Laurelwood, Powell, Quatama, Springwater, Willakenzie and Yamhill; and
- (d) Subclassification IVw, specifically, Awbrig, Bashaw, Courtney, Dayton, Natroy, Noti and Whiteson.”

Soil data that was used in the record provides details within the data attribute table on the sub-classifications of soils in the Class III and Class IV+ soil classifications. This data was used to identify areas that contain those soil sub-classifications identified in ORS 215.710(3). Specifically, the study areas include areas of the following soil sub-classifications:

- Subclassification IIIe - Carlton
- Subclassification IVe - Carlton
- Subclassification IIIe - Chehalem
- Subclassification IIIw – Dayton (thick surface)
- Subclassification IVw - Dayton
- Subclassification IIIe - Jory
- Subclassification IVe - Jory
- Subclassification IIIe - Laurelwood
- Subclassification IIIe - Nekia
- Subclassification IIIe - Willakenzie
- Subclassification IVe - Willakenzie
- Subclassification IIIe - Woodburn
- Subclassification IIIe - Yamhill
- Subclassification IVe - Yamhill

Another form of agricultural and resource land that was evaluated was land that was available for commercial forestry activities. Yamhill County zoning districts were analyzed within the study areas, and existing zoning districts that allow for commercial forestry activities were identified. The Yamhill County zoning districts that permit forestry activities and were within the UGB study areas include the following:

- F-80 (Forestry District): Yamhill County Zoning Ordinance Section 401.02(A) allows the following, among other forestry-related uses, as a permitted use “Forest operations or forest practices including, but not limited to, reforestation of forest land, road construction and maintenance, harvesting of a forest tree species, application of chemicals, and disposal of slash.”
- AF-20, AF-40, and AF-80 (Agriculture/Forestry District): Yamhill County Zoning Ordinance Section 403.02(F)(1) allows the following, among other forestry-related uses, as a permitted use: “Forest operations or forest practices including, but not limited to, reforestation of forest land, road construction and maintenance, harvesting of a forest tree species, application of chemicals, and disposal of slash.”
- AF -10 (Agriculture/Forestry Small Holding District): Yamhill County Zoning Ordinance Section 501.02(B) allows the following as a permitted use: “Propagation and harvesting of forest products”

The amount of combined Class I and Class II soils, other high value farmland soils described in ORS 215.710, and lands zoned for forestry uses, was identified within each study area. Each study area was given a rating based on the amount of these types of lands that were present within the study area boundary. Ratings were assigned to each study area as follows:

- Rating of 1: Greater than 80% of the study area is comprised of the high value agricultural lands described above
- Rating of 2: Between 50% and 80% of the study area is comprised of the high value agricultural lands described above
- Rating of 3: Less than 50% of the study area is comprised of the high value agricultural lands described above

A table compiling the analysis of all study areas is provided below.

Study Area	Total Acres	Class 1/2 Soils (Acres)	Class 1/2 Soils (% of Study Area)	ORS 215.710 Soils (Acres)	ORS 215.710 Soils (% of Study Area)	Commercial Forest Zoning (Acres)	Commercial Forest Zoning (% of Study Area)	Total High Value Ag (% of Study Area)	Rating
<i>Exception Areas</i>									
Lawson Lane (LL)	18.1	17.0	93.9%	1.0	5.6%	0.0	0.0%	99.5%	1
Old Sheridan Road (OSR)	54.5	50.9	93.4%	3.5	6.4%	25.2	46.2%	99.8%	1
North of Fox Ridge Road – West (NFRR-W)	116.3	1.9	1.7%	86.3	74.2%	3.1	2.7%	78.5%	2
Booth Bend Road (BR)	40.2	33.6	83.6%	1.3	3.3%	0.0	0.0%	87.0%	1
Brentano Lane (BL)	91.8	67.6	73.7%	16.5	18.0%	0.0	0.0%	91.6%	1
Westside Road (WR)	35.0	25.7	73.5%	0.0	0.0%	0.0	0.0%	73.5%	2
<i>Resource Areas</i>									
North of Olde Stone Village (NA-NOSV)	279.0	199.6	71.5%	79.3	28.4%	0.0	0.0%	100.0%	1
Evergreen (NA-EV)	40.2	16.1	40.0%	24.1	60.0%	0.0	0.0%	100.0%	1
Three Mile Lane East (TML-E)	201.7	179.9	89.2%	0.0	0.0%	0.0	0.0%	89.2%	1
Three Mile Lane West (TML-W)	9.0	6.9	76.5%	2.1	23.5%	0.0	0.0%	100.0%	1
Norton Lane East (NL-E)	81.5	71.6	88.0%	0.0	0.0%	0.0	0.0%	88.0%	1
Norton Lane West (NL-W)	61.4	27.0	44.0%	11.1	18.1%	0.0	0.0%	62.1%	2
Southwest 1 (SW-06)	158.0	124.8	79.0%	17.3	10.9%	0.0	0.0%	89.9%	1
Southwest 2 (SW-2)	120.1	89.2	74.3%	28.2	23.4%	0.0	0.0%	97.8%	1
West of Old Sheridan Road 1 (W-OSR1)	231.4	104.3	45.1%	127.1	54.9%	0.0	0.0%	100.0%	1
West of Old Sheridan Road 2 (W-OSR2)	313.8	168.3	53.6%	144.8	46.1%	0.0	0.0%	99.7%	1
West Hills South (WH-S)	122.3	7.8	6.3%	101.2	82.8%	0.0	0.0%	89.1%	1
West Hills 1 (WH1)	478.0	0.0	0.0%	248.3	51.9%	176.6	37.0%	88.9%	1
West Hills 2 (WH2)	431.9	4.8	1.1%	344.1	79.7%	63.7	14.8%	95.5%	1
North of Fox Ridge Road East (NFRR-E)	189.1	24.4	12.9%	104.2	55.1%	0.0	0.0%	68.0%	2
Northwest Ext. 1a (NW-EX1a)	78.2	62.3	79.7%	2.0	2.6%	0.0	0.0%	82.3%	1
Northwest Ext. 1b (NW-EX1b)	72.5	35.3	48.7%	37.2	51.3%	0.0	0.0%	100.0%	1
Northwest Ext. 2 (NW-EX2)	15.5	11.2	71.9%	0.0	0.0%	0.0	0.0%	71.9%	2
Grandhaven Conservation (GH-C)	51.4	48.7	94.7%	0.0	0.0%	0.0	0.0%	94.7%	1

Technical Memorandum #7 (MGMUP UGB Remand Update)

Date: October 14, 2020

Re: High Value Agricultural Land Screening Process

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Grandhaven East (GH-E)	19.5	17.6	89.9%	0.0	0.0%	0.0	0.0%	89.9%	1
Grandhaven West (GH-W)	67.9	53.7	79.1%	1.57	2.3%	0.0	0.0%	81.4%	1
Airport East (EA)	493.4	278.7	56.5%	214.7	43.5%	0.0	0.0%	100.0%	1
North of Baker Creek (NBC)	118.7	46.4	39.1%	0.0	0.0%	0.0	0.0%	39.1%	3



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TECHNICAL MEMORANDUM #8

MGMUP UGB REMAND UPDATE

DATE: October 15, 2020
TO: Heather Richards, Planning Director
FROM: Jamie Fleckenstein, Associate Planner
SUBJECT: Parks & Quasi-Public Facilities Screening Process

This technical memorandum reviews the process and assumptions used to evaluate candidate UGB Study Areas for their potential suitability for parks and quasi-public facilities. The evaluation of potential suitability for parks and quasi-public facilities of each study area was completed to address Goal 14 (Urbanization) which requires cities to provide for an orderly and efficient transition from rural to urban land use. Goal 14 provides factors to consider in amending a UGB, with Factor 4 being the maximum efficiency of land uses within and on the fringe of the existing urban area, and Factor 5 being the Environmental, Energy, Economic, and Social Consequences.

Suitability for Parks & Quasi-Public Facility Analysis

A number of measures were used to evaluate the suitability of a study for development of parks and/or quasi-public facilities such as schools. Those measures included determination if there is an existing or planned open space, park, or trail for a study area, and an evaluation of the suitability of a study area for a neighborhood park, community park, trail extension, and elementary school.

Several documents were used in the evaluation of the study areas, namely the Yamhill County Comprehensive Parks and Open Space Master Plan (June 19, 2003) and the City of McMinnville Parks, Recreation, and Open Space Master Plan (June, 1999). The Yamhill County Parks Vision Diagram (Figure 1 below) provides locations of existing county parks and state parks and scenic or natural areas, as well as existing and potential natural, cultural, and historic sites, and potential county park system anchors. Potential trails and connectors are also identified.

The City of McMinnville Parks, Recreation, and Open Space Master Plan (Figure 2 below) identifies existing and proposed parks of different categories, including Neighborhood Parks and Community Parks. Existing trails and bikeways are also identified on the Master Plan. The City of McMinnville Parks, Recreation, and Open Space Master Plan provides definitions of Neighborhood Parks, Community Parks, and Trails and Connectors within the McMinnville parks system, including size criteria and site selection criteria. The following definitions are excerpted from Table 1 – Park System Definitions from the City of McMinnville Parks, Recreation, and Open Space Master Plan:

Type of Facility	Definition	Size Criteria	Site Selection Criteria
Neighborhood Park	Neighborhood parks are the foundation of the parks and recreation system, providing accessible recreation and social opportunities to nearby residents. When developed to meet neighborhood recreation needs, school sites may serve as neighborhood parks.	5 to 13 acres	Neighborhood Parks should be located within a ½ mile radius of residences without crossing a major street for easy pedestrian and bicycle access. Neighborhood parks sites are generally level, and sites with natural aesthetic appeal are most desirable. Locating neighborhood parks next to other park system components, such as greenways, increases use and desirability. Neighborhood parks should be located adjacent to schools and fire stations whenever possible.
Community Park	Community parks provide a variety of active and passive recreational opportunities for all age groups. These parks are generally larger in size and serve a wider base of residents than neighborhood parks. Community parks often include developed facilities for organized group activity as well as facilities for individual and family activities.	Greater than 12 to 13 acres	The site should have physical characteristics appropriate for both active and passive recreation, such as suitable soils, positive drainage, varying topography, and a variety of vegetation. A naturally attractive site character is highly desirable. Land within the flood plain should generally be considered only if facilities are to be located above the 100-year flood elevation.
Trails and Connectors	A public access route for commuting and trail oriented recreational activities, includes sidewalks, bikeways, multi-use trails and paths.	Width of the trail and right-of-way depends on its intended use and location.	McMinnville’s trail system should be coordinated with the City’s <i>Transportation Master Plan</i> to create a pedestrian and bicycle system that connects all components of the park system and major community destinations. The trail system should provide access for people with disabilities and accommodate diverse recreational needs. Trail development is guided by site opportunities and constraints, such as pedestrian access, slop, natural resources, views, and drainage.

The City of McMinnville Parks, Recreation, and Open Space Planning Areas (Figure 3 below) identifies underserved areas within the park system planning area. An underserved area neighborhood is defined as:

- A neighborhood in which residents are not within a ½ mile of wither a neighborhood or community park; or
- A neighborhood where a major street separates residents from park facilities.

Figure 1: Yamhill County Parks Vision Diagram

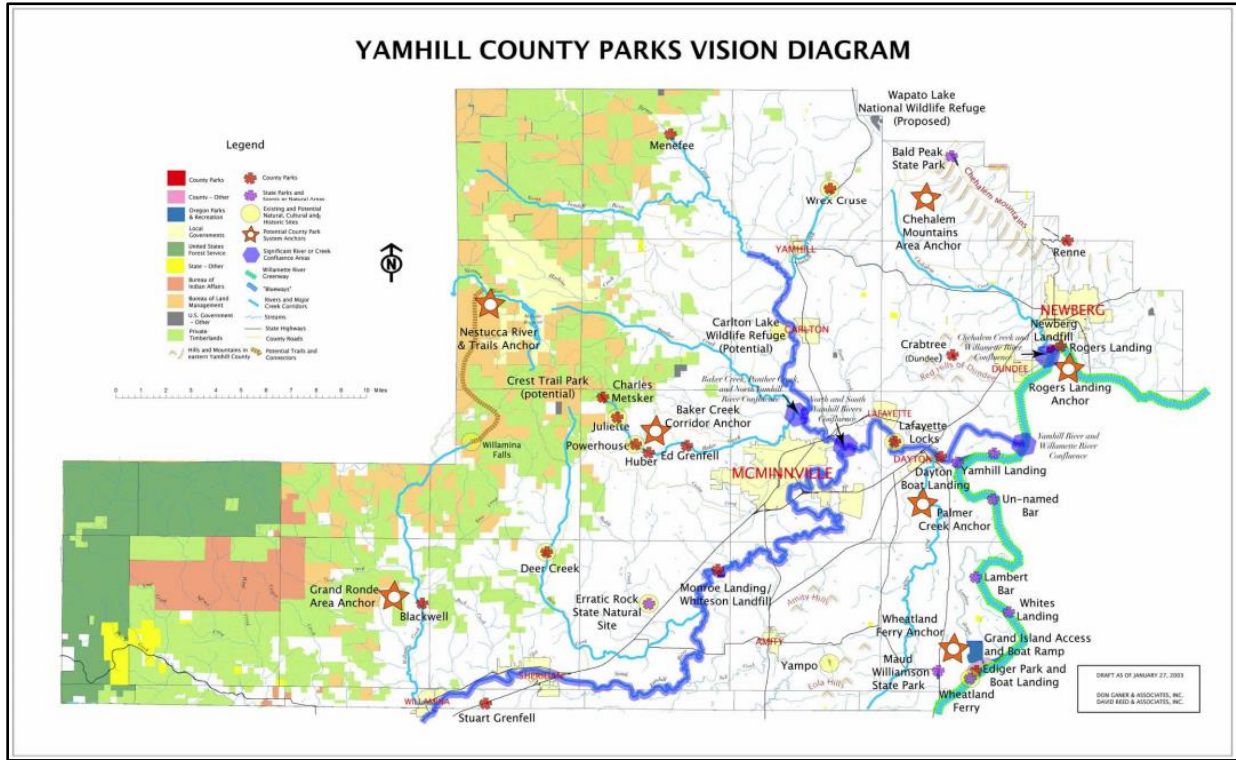
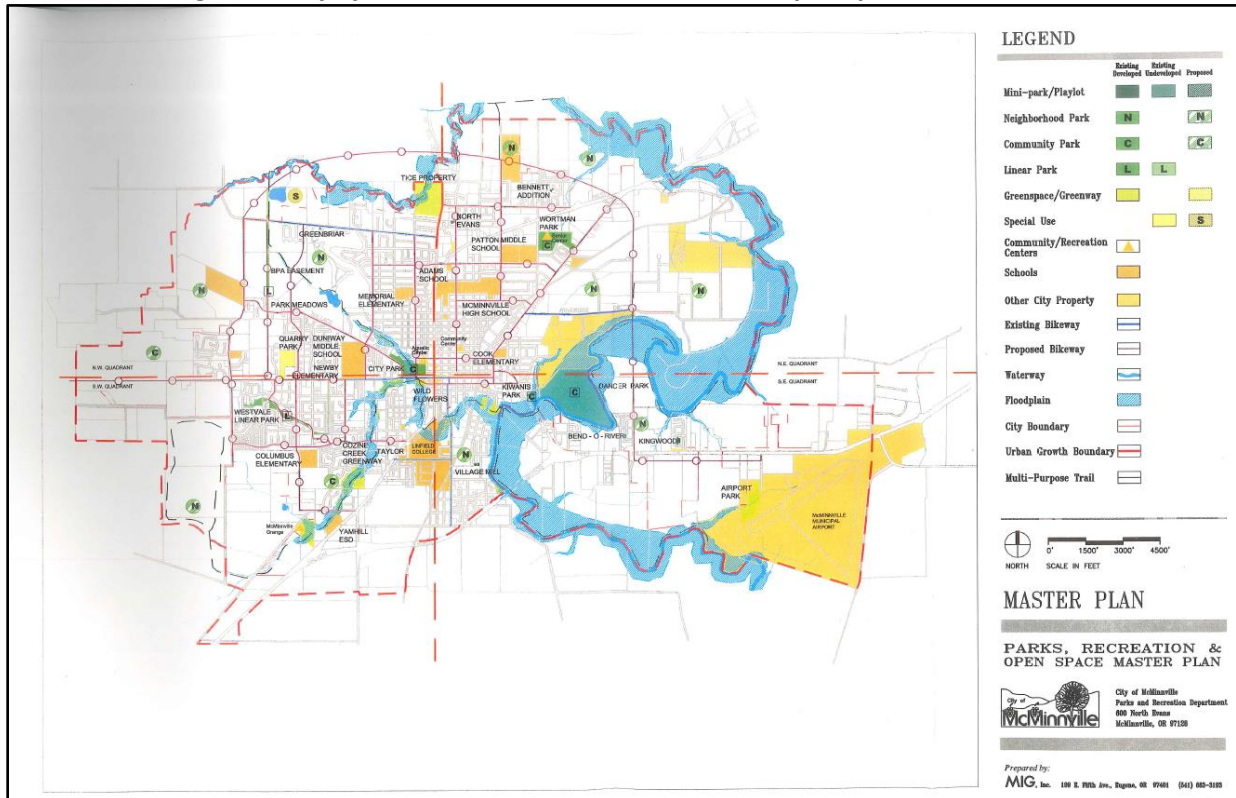


Figure 2: City of McMinnville Parks, Recreation & Open space Master Plan



LEGEND

	Existing	Existing/Developed	Proposed
Mini-park/Playlot	[Symbol]	[Symbol]	[Symbol]
Neighborhood Park	[Symbol]	[Symbol]	[Symbol]
Community Park	[Symbol]	[Symbol]	[Symbol]
Linear Park	[Symbol]	[Symbol]	[Symbol]
Greenspace/Greenway	[Symbol]	[Symbol]	[Symbol]
Special Use	[Symbol]	[Symbol]	[Symbol]
Community/Recreation Centers	[Symbol]	[Symbol]	[Symbol]
Schools	[Symbol]	[Symbol]	[Symbol]
Other City Property	[Symbol]	[Symbol]	[Symbol]
Existing Bikeway	[Symbol]	[Symbol]	[Symbol]
Proposed Bikeway	[Symbol]	[Symbol]	[Symbol]
Waterway	[Symbol]	[Symbol]	[Symbol]
Floodplain	[Symbol]	[Symbol]	[Symbol]
City Boundary	[Symbol]	[Symbol]	[Symbol]
Urban Growth Boundary	[Symbol]	[Symbol]	[Symbol]
Multi-Purpose Trail	[Symbol]	[Symbol]	[Symbol]

0' 1500' 3000' 4500'
NORTH
SCALE IN FEET

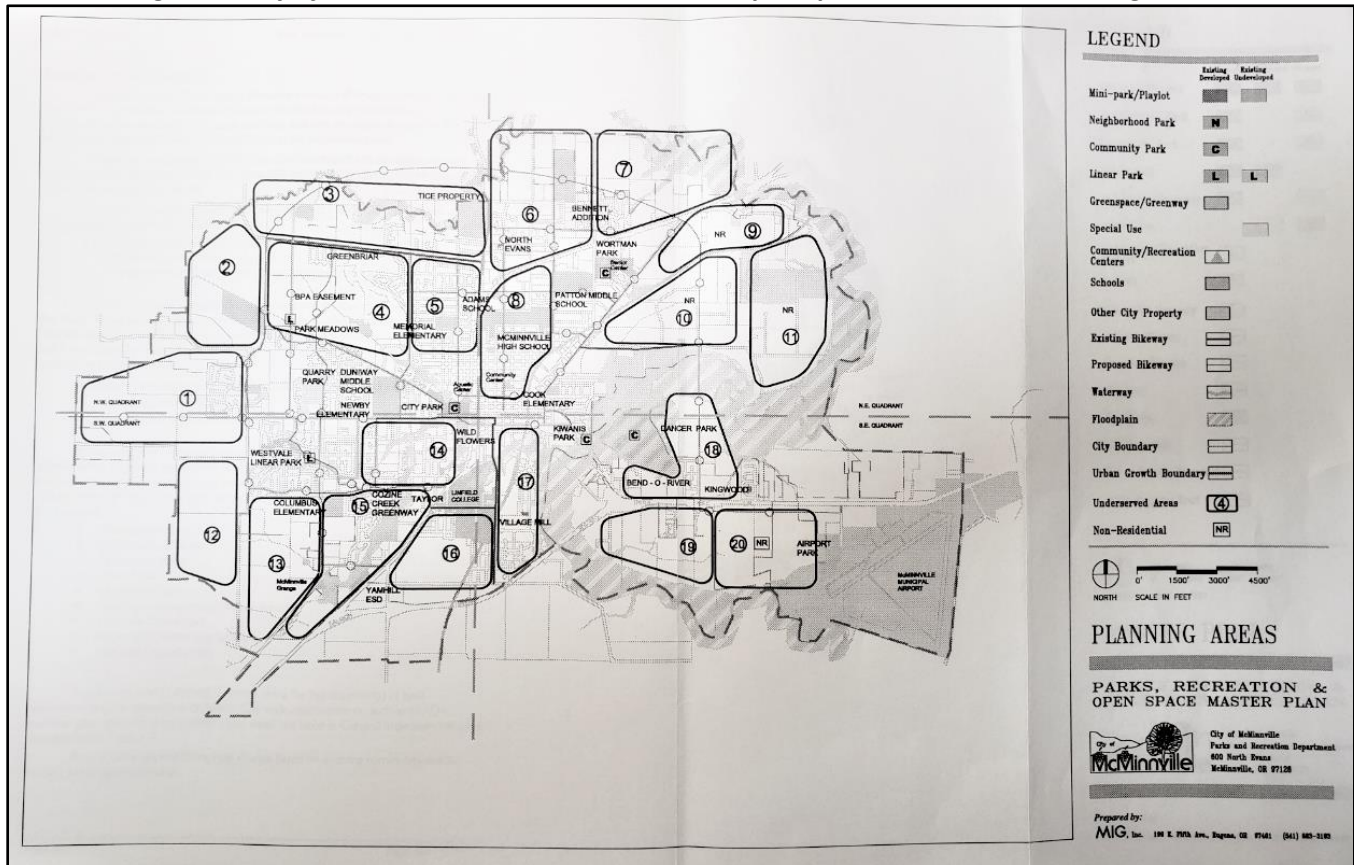
MASTER PLAN

PARKS, RECREATION & OPEN SPACE MASTER PLAN

City of McMinnville
Parks and Recreation Department
600 Park Drive
McMinnville, OR 97158

Prepared by:
MIG, Inc. 100 E. 7th St., Eugene, OR 97401 (541) 682-3155

Figure 3: City of McMinnville Parks, Recreation & Open Space Master Plan Planning Areas



Existing or Planned Open Space: To determine the presence of an existing open space within a study area, existing uses were examined through maps and aerial imagery to verify if a protected area was present within the study area. To determine if a future open space was planned for a study area, the Yamhill County Parks Vision Diagram from the Yamhill County Comprehensive Parks and Open Space Master Plan (June 19, 2003) and the City of McMinnville Parks, Recreation, and Open Space Master Plan (June, 1999) were compared against the study area boundary.

The following rating system was used:

- Yes: An existing or planned open space is present within study area boundary
- No: No existing or planned open space is present within study area boundary

Existing or Planned Park: To determine the presence of an existing park within a study area, existing uses were examined through maps and aerial imagery to verify if a designated park was present within the study area. To determine if a future park was planned for a study area, the Yamhill County Parks Vision Diagram from the Yamhill County Comprehensive Parks and Open Space Master Plan (June 19, 2003) and the City of McMinnville Parks, Recreation, and Open Space Master Plan (June, 1999) were compared against the study area boundary.

The following rating system was used:

- Yes: An existing or planned park is present within study area boundary
- No: No existing or planned park is present within study area boundary

Existing or Planned Trail: To determine the presence of an existing trail within a study area, existing uses were examined through maps and aerial imagery to see if a designated trail was present within the study area. To determine if a future park was planned for a study area, the Yamhill County Parks Vision Diagram from the Yamhill County Comprehensive Parks and Open Space Master Plan (June 19, 2003) and the City of McMinnville Parks, Recreation, and Open Space Master Plan (June, 1999) were compared against the study area boundary.

The following rating system was used:

- Yes: An existing or planned trail is present within study area boundary
- No: No existing or planned trail is present within study area boundary

Suitable for Neighborhood Park: Suitability of a study area for a neighborhood park was evaluated using the size criteria and site selection criteria as defined in Table 1 of the City of McMinnville Parks, Recreation, and Open Space Master Plan. Specifically, individual parcels within a study area were examined to determine if one or more parcels were of a minimum size to accommodate a 5-13 acre neighborhood park. Slope was considered, as neighborhood park sites area generally level. Additionally, a ½ mile service area around each study area was studied to observe the nearby population a neighborhood park would serve, and any barriers to access by that population. The study area's proximity to identified underserved areas as well as other park system components and schools and fire stations was considered. The assumption was that the presence of a minimum 5 acre parcel, generally level sites, a large urbanized area or potentially urbanizable area within a ½ mile service area, no major barriers to access, and a close proximity to other park system components and underserved areas all contribute to higher suitability.

The following rating system was used:

- Yes: Study area is generally suitable for a Neighborhood Park
- No: Study area is generally unsuitable for a Neighborhood Park

Suitable for Community Park: Suitability of a study area for a community park was evaluated using the size criteria and site selection criteria as defined in Table 1 of the City of McMinnville Parks, Recreation, and Open Space Master Plan. Specifically, individual parcels within a study area were examined to determine if one or more parcels were of a minimum size to accommodate a community park larger than 12 to 13 acres. Although community parks often have varying topography, physical characteristics of the land can create barriers to access community park facilities. The potential difficulty of access to a community park through hazard areas (i.e. flood plain, landslide hazards) and steep slopes was evaluated for each study area. The study area's proximity to identified underserved areas was also considered. The assumption was that the presence of a minimum 12 acre parcel, and no major barriers to access created by hazard areas or slopes, and a close proximity to underserved areas all contribute to higher suitability.

The following rating system was used:

- Yes: Study area is generally suitable for a Community Park
- No: Study area is generally unsuitable for a Community Park

Suitable for Trail Extension: Suitability of a study area for a trail extension was evaluated by examining the proximity of the study area to existing or proposed trails as identified in the City of McMinnville Parks, Recreation, and Open Space Master Plan. The assumption was that a generally flat study area adjacent to an existing or proposed trail network would be suitable for a trail extension.

The following rating system was used:

- Yes: Study area is generally suitable for a Trail Extension
- No: Study area is generally unsuitable for a Trail Extension

Suitable for Elementary School: The McMinnville School District policies do not provide general guidance on site selection criteria, but rather authorizes “[...] the school board to study and purchase sites when in the best interest of the district.” The Oregon Department of Education also does not provide school site selection criteria. Elementary school sites in the McMinnville School District are generally between 9 and 15 acres in size, and flat. This appears to be confirmed by the Parks, Recreation, and Open Space Master Plan which states that school sites may serve as neighborhood parks. Therefore, the assumption is that school sites have the same characteristics as neighborhood park sites – 5 to 13 acres in size and generally level, and if a study area is generally suitable for a neighborhood park, then it is generally suitable for an elementary school.

The following rating system was used:

- Yes: Study area is generally suitable for an Elementary School
- No: Study area is generally unsuitable for an Elementary School

Overall Rating: Using the seven measures described above, each study area was assigned an overall rating of 1, 2, or 3, with ratings of 1 being assigned to study areas that were determined to have lower suitability for parks and quasi-public facilities and ratings of 3 being assigned to study areas that were determined to have higher suitability parks and quasi-public facilities. A description of each study area, and the analysis that resulted in its overall rating assignment, is provided below:

Exception Study Areas

Lawson Lane (LL)

The LL study area has no existing or proposed public parks or trails identified within its boundary. The study area is parcelized and developed with low density residential housing. Existing parcels are not of a minimum size to accommodate a neighborhood or community park, or elementary school. Consolidation of lots to achieve a parcel greater than 5 acres to support a park facility or school would likely displace existing housing. The study area is identified as an underserved area for parks, and is separated from other existing residential neighborhoods inside the UGB by Highway 18, a barrier to access of parks/quasi-public facilities by the population within the ½ mile service area radius of the study area. The study area has limited hazards and slope that would present other barriers to access or facility development. The study area is not adjacent to any existing or proposed trail systems. Overall, the lack of large, undeveloped parcels within the study area and barriers to access limit the overall suitability of Lawson Lane for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
LL	No	No	No	No	No	No	No	1

Old Sheridan Road (OSR)

The OSR study area has no existing or proposed public parks or trails identified within its boundary. The study area is parcelized and developed with primarily low density residential housing. Existing parcels are not of a minimum size to accommodate a neighborhood or community park, or elementary school. Consolidation of lots

to achieve a parcel greater than 5 acres to support a park facility or school would likely displace existing housing. The study area is adjacent to an underserved area for parks within the UGB, but is separated from other existing residential neighborhoods inside the UGB by its geographic location relative to existing neighborhoods, Highway 18 and Old Sheridan Road would be barriers to access of parks/quasi-public facilities within the study area if surrounding areas were to urbanize. The study area has limited hazards and slope that would present other barriers to access or facility development. The study area is not adjacent to any existing or proposed trail systems. Overall, the lack of large, undeveloped parcels within the study area and barriers to access limit the overall suitability of Old Sheridan Road for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
OSR	No	No	No	No	No	No	No	1

North of Fox Ridge Road – West (NFRR-W)

The NFRR-W study area has no existing or proposed public parks or trails identified within its boundary. The study area is parcelized and developed with primarily low density residential housing. Existing parcels are not of a minimum size to accommodate a neighborhood or community park, or elementary school. Consolidation of lots to achieve a parcel greater than 5 acres to support a park facility or school would likely displace existing housing. The study area would serve a limited population within its ½ mile service area for a neighborhood park. The study area is primarily moderate to high landslide soils and has areas of moderate to steep slopes that would present barriers to access or park/school facility development. The study area is not adjacent to any existing or proposed trail systems. Overall, the lack of large, undeveloped parcels within the study area and barriers to access and development limit the overall suitability of North of Fox Ridge Road-West for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
NFRR-W	No	No	No	No	No	No	No	1

Booth Bend (BB)

The BB study area has no existing or proposed public parks or trails identified within its boundary. The Parks Master Plan indicates a proposed trail on the opposite side of the river adjacent to the study area, so it is not suitable for a trail extension. The study area is parcelized and developed with primarily low density residential housing. Existing parcels are not of a minimum size to accommodate a neighborhood or community park, or elementary school. Consolidation of lots to achieve a parcel greater than 5 acres to support a park facility or school would likely displace existing housing. The study area is separated from existing residential neighborhoods within its ½ mile service area for a neighborhood park by Highway 18 and limited access points. The study area has moderate to high landslide soils and has areas of moderate to steep slopes in the eastern and northern portion of the study area that could present barriers to access or park/school facility development. Overall, the lack of large, undeveloped parcels within the study area and potential barriers to access and development limit the overall suitability of Booth Bend for parks and quasi-public facilities.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
BB	No	No	No	No	No	No	No	1

Brentano (BR)

The BR study area has no existing or proposed public parks or trails identified within its boundary. The study area is parcelized and developed with primarily low density residential housing. Existing parcels are of a minimum size to accommodate a neighborhood or community park, or elementary school, however development of park or quasi-public facilities may displace existing housing. The study area would serve a limited population within its ½ mile service area for a neighborhood park. The study area presents minimal landslide and slope hazards that would be barriers to access or park/school facility development. The study area is not adjacent to any existing or proposed trail systems. Overall, although parcels within the study area are sufficiently sized for public/quasi-public facilities and have minimal hazard barriers, the existing residential development on those lots limits the suitability for these facilities in the study area.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
BR	No	No	No	Yes	Yes	No	Yes	2

Westside Road (WR)

The WR study area has no existing or proposed public parks or trails identified within its boundary. The Parks Master Plan indicates a proposed trail on the opposite side of the Baker Creek adjacent to the study area, so it is not suitable for a trail extension. The study area is adjacent to an area identified as underserved for parks, though Chegwyn Farms Neighborhood Park was recently built in the area. The study area is parcelized and developed with primarily low density residential housing. Existing parcels are not of a minimum size to accommodate a neighborhood or community park, or elementary school. Consolidation of lots to achieve a parcel greater than 5 acres to support a park facility or school would likely displace existing housing. The study area is separated from residential neighborhoods inside the UGB within its ½ mile service area for a neighborhood park by Baker Creek and its floodplain. The study area has bands of moderate to high landslide soils and has areas of moderate to steep slopes that would present barriers to access or park/school facility development. Overall, the lack of large, undeveloped parcels within the study area and barriers to access and development limit the overall suitability of Westside Road for parks and quasi-public facilities.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
WR	No	No	No	No	No	No	No	1

Resource Study Areas

North of Olde Stone Village (NA-NOSV)

The NA-NOSV study area has no existing or proposed public parks or trails identified within its boundary. The study area is primarily large, undeveloped parcels with little to no slope or other hazards. Existing parcels are of a minimum size to accommodate a neighborhood or community park, or elementary school, but desired

features for a community park such as varied topography are not present. The study area would serve a limited population within its ½ mile service area for a neighborhood park, and has limited adjacency to other study areas that could urbanize. The study area is not adjacent to any existing or proposed public trail systems. Overall, although parcels are generally large, undeveloped, and could accommodate a park or school, the relative isolation of the study area from existing or future residential populations within limit the overall suitability of North of Fox Ridge Road-West for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
NA-NOSV	No	No	No	Yes	Yes	No	Yes	2

Evergreen (NA-EV)

The NA-EV study area has no existing or proposed public parks or trails identified within its boundary. The study area has large, undeveloped parcels with little to no slope or other hazards. Existing parcels are of a minimum size to accommodate a neighborhood or community park, or elementary school, but desired features for a community park such as varied topography are not present. The study area would serve a limited population within its ½ mile service area for a neighborhood park, and has limited adjacency to other study areas that could urbanize. Although separated by Highway 18, the study area is within a ½ mile of Galen McBee Airport Park. The study area is not adjacent to any existing or proposed public trail systems. Overall, although parcels are generally large, undeveloped, and could accommodate a park or school, the relative isolation of the study area from existing or future residential populations limit the overall suitability of Evergreen for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
NA-EV	No	No	No	Yes	Yes	No	Yes	2

Three Mile Lane East (TML-E)

The TML-E study area has no existing or proposed public parks or trails identified within its boundary, but the study area is adjacent to floodplain with an identified future trail in the McMinnville Parks, Recreation, and Open Space Master Plan. The study area has large, undeveloped parcels with little to no slope and minimal hazard areas. Existing parcels are of a minimum size to accommodate a neighborhood or community park, or elementary school. Although existing neighborhoods in the UGB within a ½ mile radius of the study area are separated by Highway 18, a considerable population could develop in the study area and adjacent study areas if they were to urbanize. The study area is within a ½ mile of Galen McBee Airport Park. Overall, parcels are generally large, undeveloped, flat, and could accommodate a park or school and could serve a considerable future residential population south of Highway 18, making Three Mile Lane East highly suitable for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
TML-E	No	No	No	Yes	Yes	Yes	Yes	3

Three Mile Lane West (TML-W)

The TML-W study area has no existing or proposed public parks or trails identified within its boundary, but the study area is adjacent to floodplain with an identified future trail in the McMinnville Parks, Recreation, and Open Space Master Plan. Existing parcels within the study area are not of a minimum size to accommodate a neighborhood or community park, or elementary school, and consolidation of lots could displace existing housing and development. The study area has minimal hazard areas and slopes that would be a barrier to access or facility development. The study area is identified as an underserved area for parks, and is separated from other existing residential neighborhoods inside the UGB by Highway 18, a barrier to access of parks/quasi-public facilities by the population within the ½ mile service area radius of the study area. Overall, the lack of large, undeveloped parcels within the study area and barriers to access and development limit the overall suitability of Three Mile Lane West for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
TML-E	No	No	No	No	No	Yes	No	1

Norton Lane East (NL-E)

The NL-E study area has no existing or proposed public parks or trails identified within its boundary, but the study area is adjacent to floodplain with an identified future trail in the McMinnville Parks, Recreation, and Open Space Master Plan. Areas of moderate to high landslide soils and moderate to steep slopes within the study area adjacent to the floodplain would present barriers to access a future trail via a trail extension. Parcels within the study area are of a minimum size to accommodate park or school facilities, and are relatively flat with no major areas of hazards that would be a barrier to access. The study area is adjacent to an existing residential neighborhood inside the UGB that falls within the ½ mile service area for a neighborhood park. The study area is considered an underserved area by the McMinnville Parks Master Plan. Overall, parcels are generally large, undeveloped, flat, and could accommodate a park or school and could serve an underserved residential population north of Highway 18, making Norton Lane East highly suitable for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
NL-E	No	No	No	Yes	Yes	No	Yes	3

Norton Lane West (NL-W)

The NL-W study area has no existing or proposed public parks or trails identified within its boundary, but is adjacent to Joe Dancer Park and in close proximity to Riverside Dog Park. Floodplain areas are present on the east and west sides of the study area, and areas of moderate to high landslide soils and moderate to steep slopes between the floodplain areas could present barriers to access and development of park or school facilities. Parcels within the study area are of a minimum size to accommodate park or school facilities. The study area is adjacent to an existing residential neighborhood inside the UGB that falls within the ½ mile service area for a neighborhood park. Overall, although the parcels are large, undeveloped, and could accommodate a park or school and could serve an existing residential population, barriers to access and development and proximity to existing park facilities limit the overall suitability of Norton Lane West for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
NL-E	No	No	No	Yes	Yes	No	Yes	2

Southwest 1 (SW-06)

The SW-06 study area has no existing or proposed public parks or trails identified within its boundary. The area is identified as an underserved area in the McMinnville Parks Master Plan, though Discovery Park was recently built within a ½ mile of the study area. Parcels within the study area are of a minimum size to accommodate park or school facilities. The study area is adjacent to an existing residential neighborhood inside the UGB that falls within the ½ mile service area for a neighborhood park. A narrow band of floodplain and moderate slopes separate the existing residential neighborhood to the northeast from the study area, and could be a barrier to access park or school facilities. The study area is adjacent to or in close proximity to other study areas (W-OSR2, SW-2, OSR) that could yield residential populations within a ½ mile of SW-06 should they urbanize. Overall, parcels within the study area are generally large, undeveloped, flat, and could accommodate a park or school and could serve an existing underserved residential population and future residential areas if adjacent study areas urbanize, making Southwest 1 highly suitable for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
SW-06	No	No	No	Yes	Yes	No	Yes	3

Southwest 2 (SW-2)

The SW-2 study area has no existing or proposed public parks within its boundary, but a proposed multi-purpose trail is identified within the study area boundary in the McMinnville Parks, Recreation and Open Space Master Plan. The area is identified as an underserved area in the McMinnville Parks Master Plan. The study area is a single parcel that is of a minimum size to accommodate park or school facilities. The study area is primarily flat, with localized areas of moderate slopes and moderate to high landslide hazard. The study area is adjacent to an existing residential neighborhood inside the UGB that falls within the ½ mile service area for a neighborhood park. The study area is adjacent to or in close proximity to other study areas (W-OSR2, WH-S) that could yield residential populations within a ½ mile of SW-2 should they urbanize. Also within a ½ mile of the study area are West Hills Neighborhood Park and West McMinnville Linear Park. Overall, parcels within the study area are generally large, undeveloped, flat, and could accommodate a park or school and could serve an existing underserved residential population and future residential areas if adjacent study areas urbanize, making Southwest 2 highly suitable for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
SW-2	No	No	Yes	Yes	Yes	Yes	Yes	3

West of Old Sheridan Road 1 (W-OSR1)

The W-OSR1 study area has no existing or proposed public parks or trails identified within its boundary. Parcels within the study area are generally level and of a minimum size to accommodate park or school facilities. Minimal existing residential development falls within the ½ mile service area for a neighborhood park. The

study area is adjacent to or in close proximity to other study areas (W-OSR2) that could yield residential populations within a ½ mile of W-OSR1 should they urbanize. All but the northern edge of the study area is in a high liquefaction hazard area, presenting a significant barrier to facility development. Overall, parcels within the study area are large, undeveloped, flat, and could accommodate a park or school, but limited nearby residential population and high liquefaction hazard areas limit the suitability of West of Old Sheridan Road 1 for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
W-OSR1	No	No	No	No	Yes	No	No	1

West of Old Sheridan Road 2 (W-OSR2)

The W-OSR2 study area has no existing public parks or trails within its boundary, but a proposed multi-purpose trail and neighborhood park is identified within the study area boundary in the McMinnville Parks, Recreation and Open Space Master Plan. The area is identified as an underserved area in the McMinnville Parks Master Plan. The study area is a single parcel that is of a minimum size to accommodate park or school facilities. The study area is primarily flat, with a floodplain bisecting it. The study area is adjacent to an existing residential neighborhood inside the UGB that falls within the ½ mile service area for a neighborhood park. The study area is adjacent to or in close proximity to other study areas (W-OSR1, SW-2, WH-S, SW-06) that could yield residential populations within a ½ mile of W-OSR2 should they urbanize. Also within a ½ mile of the study area is West Hills Neighborhood Park. Overall, parcels within the study area are generally large, undeveloped, flat, and could accommodate a park or school and could serve an existing underserved residential population and future residential areas if adjacent study areas urbanize, making West of Old Sheridan Road 2 highly suitable for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
W-OSR2	No	Yes	Yes	Yes	Yes	Yes	Yes	3

West Hills South (WH-S)

The WH-S study area has no existing or proposed public parks or trails within its boundary. The area is identified as an underserved area in the McMinnville Parks Master Plan, though West Hills Neighborhood Park was recently built adjacent to the study area. Parcels within the study area are of a minimum size to accommodate park or school facilities. The eastern portion of the study area is primarily flat, with localized areas of moderate slopes and moderate to high landslide hazard, and the western portion is primarily moderate landslide hazard and moderate slopes. The study area is adjacent to an existing residential neighborhood inside the UGB that falls within the ½ mile service area for a neighborhood park, though the study area is adjacent to a neighborhood park. The study area is adjacent to or in close proximity to other study areas (W-OSR2, WH2, SW-2) that could yield residential populations within a ½ mile of WH-S should they urbanize. Overall, parcels within the study area are generally large, undeveloped, flat, and could accommodate a park or school and could serve an existing underserved residential population and future residential areas if adjacent study areas urbanize, making West Hills South highly suitable for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
WH-S	No	No	No	Yes	Yes	No	Yes	3

West Hills 1 (WH1)

The WH1 study area has no existing or proposed public parks or trails identified within its boundary and is adjacent to an area identified as underserved in the McMinnville Parks Master Plan. Parcels within the study area are of a minimum size to accommodate park or school facilities. The study area is characterized by moderate to steep slopes and moderate to high landslide hazard throughout. The general lack of level land makes the study area not suitable for neighborhood parks or schools. The study area is adjacent to an existing rural residential neighborhood in adjacent study areas, but the presence of moderate to steep slopes and moderate to high landslide hazards would present a barrier to the development and access of park and school facilities. Overall, although the parcels are large, undeveloped, and could accommodate a park or school, barriers to access and development limit the overall suitability of West Hills 1 for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
WH-1	No	No	No	No	Yes	No	No	1

West Hills 2 (WH2)

The WH2 study area has no existing or proposed public parks or trails identified within its boundary and is adjacent to an area identified as underserved in the McMinnville Parks Master Plan. Parcels within the study area are of a minimum size to accommodate park or school facilities. The study area is characterized by moderate to steep slopes and moderate to high landslide hazard throughout. The general lack of level land makes the study area not suitable for neighborhood parks or schools. The study area is adjacent to an existing rural residential neighborhood in adjacent study areas, but the presence of moderate to steep slopes and moderate to high landslide hazards would present a barrier to the development and access of park and school facilities. Overall, although the parcels are large, undeveloped, and could accommodate a park or school, barriers to access and development limit the overall suitability of West Hills 2 for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
WH-2	No	No	No	No	Yes	No	No	1

North of Fox Ridge Road East 1 (NFRR-E1)

The NFRR-E1 study area has no existing or proposed public parks or trails identified within its boundary and is adjacent to an area identified as underserved in the McMinnville Parks Master Plan. Parcels within the study area are of a minimum size to accommodate park or school facilities. The study area has areas of moderate to steep slopes, and the western portion of the study area is high landslide hazard, making it not suitable for neighborhood parks or schools. The study area is adjacent to an existing rural residential neighborhoods in an NFRR-W and other study areas that could urbanize with residential development, but the presence of moderate to steep slopes and moderate to high landslide hazards would present a barrier to the development and access of park and school facilities. Overall, although the parcels are generally large, undeveloped, and could

accommodate a park or school, barriers to access and development limit the overall suitability of North of Fox Ridge Road East 1 for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
NFRR-E1	No	No	No	No	Yes	No	No	1

North of Fox Ridge Road East 2 (NFRR-E2)

The NFRR-E2 study area has no existing or proposed public parks or trails identified within its boundary and is adjacent to an area identified as underserved in the McMinnville Parks Master Plan. Parcels within the study area are of a minimum size to accommodate park or school facilities. The study area has areas of moderate to steep slopes throughout, and the eastern portion of the study area has high landslide hazard areas. The general lack of level land makes the study area not suitable for neighborhood parks or schools. The study area is adjacent to an existing rural residential neighborhoods in an NW-EX1a and other study areas that could urbanize with residential development, but the presence of moderate to steep slopes and moderate to high landslide hazards would present a barrier to the development and access of park and school facilities. Overall, although the parcels are generally large, undeveloped, and could accommodate a park or school, barriers to access and development limit the overall suitability of North of Fox Ridge Road East 2 for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
NFRR-E2	No	No	No	No	Yes	No	No	1

Northwest Ext. 1a (NW-EX1a)

The NW-EX1a study area has no existing or proposed public parks or trails identified within its boundary. The study area is generally parcelized and developed with low density residential housing, though one existing parcel is of a minimum size to accommodate a neighborhood or community park, or elementary school. The study area is identified as an underserved area for parks, though NW Neighborhood Park was recently built with a ½ mile radius of the study area, and is adjacent to McMinnville School District property. The Parks Master Plan states neighborhood parks should be located adjacent to schools whenever possible. The study area has limited hazards and slope that would present other barriers to access or facility development. The study area is not adjacent to any existing or proposed trail systems. Overall, a parcel within the study area is large, undeveloped, flat, and could accommodate a park or school and could serve an existing underserved residential population and future residential areas if adjacent study areas urbanize, making Northwest Ext. 1a highly suitable for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
NW-EX1a	No	No	No	Yes	Yes	No	Yes	3

Northwest Ext. 1b (NW-EX1b)

The NW-EX1b study area has no existing public parks or trails identified within its boundary, but a proposed neighborhood park is identified within the study area boundary in the McMinnville Parks, Recreation and Open Space Master Plan. The study area is identified as an underserved area in the McMinnville Parks Master Plan, though NW Neighborhood Park was recently built within a ½ mile radius of the study area, and is adjacent to McMinnville School District property. The study area is separated from NW Neighborhood Park by an arterial street, Hill Road, and therefore is not within the park's service area. Also within a ½ mile radius of the study area are rural and urban residential neighborhoods, and several adjacent study areas that could urbanize, as well as NW Neighborhood Park. Parcels within the study area are of a minimum size to accommodate park or school facilities. The western portion of the study area has moderate to high landslide hazards areas that would be a barrier to facility development and access. The eastern portion of the study area is relatively flat with an isolated area of moderate to high landslide hazard, making it suitable for a neighborhood park or school. Overall, parcels within the study area are generally large, undeveloped, flat, and could accommodate a park or school and could serve an existing underserved residential population and future residential areas if adjacent study areas urbanize, making Northwest Ext. 1b highly suitable for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
NW-EX1b	No	Yes	No	Yes	Yes	No	Yes	3

Northwest Ext. 2 (NW-EX2)

The NW-EX2 study area has no existing or proposed public parks or trails within its boundary. The study area is identified as an underserved area in the McMinnville Parks Master Plan. The study area is a single parcel that is of a minimum size to accommodate park or school facilities. The study area is primarily flat, with localized areas of moderate slopes and moderate to high landslide hazard to the north of the study area that would not be a barrier to facility access or development. The study area is adjacent to an existing rural residential development and urban residential neighborhood inside the UGB that falls within the ½ mile service area for a neighborhood park, however Hill Road and Baker Creek Road are barriers to access. Also within a ½ mile of the study area is the BPA trail and future public parks in the Baker Creek North development. Overall, the study area is generally large, undeveloped, flat, and could accommodate a park or school, making Southwest 2 highly suitable for parks and schools.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
NW-EX2	No	No	No	Yes	Yes	No	Yes	3

Grandhaven Conservation (GH-C)

The GH-C study area is an existing conservation easement and is a protected open space. The study area has no existing or proposed public parks within its boundary, but the McMinnville Parks Master Plan indicates a proposed trail through the study area. The study area is adjacent to an area identified as underserved for parks, though Chegwyn Farms Neighborhood Park was recently built in the area. The study area is a single parcel that is of a minimum size to accommodate park or school facilities. The study area is primarily flat, with localized areas of moderate slopes and moderate to high landslide hazard adjacent to the floodplain that would not be a barrier to facility access or development. The study area is within a ½ mile of an existing urban residential

neighborhood inside the UGB, and adjacent to two study areas that could urbanize. Because the conservation easement does not permit development, the site is not suitable for school facilities. Overall, the study area is generally large, undeveloped, flat, and could accommodate a park, making Grandhaven Conservation highly suitable for parks.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
GH-C	Yes	No	Yes	Yes	Yes	Yes	No	3

Grandhaven East (GH-E)

The GH-E study area has no existing or proposed public parks within its boundary, but the McMinnville Parks Master Plan indicates a proposed trail through the study area. The study area is adjacent to an area identified as underserved for parks, though Chegwyn Farms Neighborhood Park was recently built in the area. The study area has parcels of a minimum size to accommodate park or school facilities. The study area is primarily flat, with localized areas of moderate slopes and moderate to high landslide hazard adjacent to the floodplain that would not be a barrier to facility access or development. The study area is within a ½ mile of an existing urban residential neighborhood inside the UGB and adjacent to the private conservation easement in GH-C. Overall, the study area is generally large, undeveloped, flat, and could accommodate a park, making Grandhaven East highly suitable for parks.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
GH-E	No	No	Yes	Yes	Yes	Yes	Yes	3

Grandhaven West (GH-W)

The GH-W study area has no existing or proposed public parks within its boundary, but the McMinnville Parks Master Plan indicates a proposed trail through the study area. The northern portion of the study area is identified in the Yamhill County Parks Vision Diagram as a “Significant River or Creek Confluence Area”. The study area is adjacent to an area identified as underserved for parks, though Chegwyn Farms Neighborhood Park was recently built in the area. The study area is within a ½ mile of an existing urban residential neighborhood inside the UGB and adjacent to the private conservation easement in GH-C as well McMinnville School District property to the south. The study area has parcels of a minimum size to accommodate park or school facilities. The study area is primarily flat, with localized areas of moderate slopes and moderate to high landslide hazard adjacent to the floodplain that would not be a barrier to facility access or development. Overall, the study area is generally large, undeveloped, flat, and could accommodate a park, making Grandhaven West highly suitable for parks.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
GH-W	No	No	Yes	Yes	Yes	Yes	Yes	3

East of Airport (EA)

The EA study area has no existing or proposed public parks or trails within its boundary. The study area is primarily large, undeveloped parcels with little to no slope or other hazards. Existing parcels are of a minimum size to accommodate a neighborhood or community park, or elementary school, but desired features for a community park such as varied topography are not present. The study area would serve a limited population within its ½ mile service area for a neighborhood park, and has limited adjacency to other study areas that could urbanize. The study area is not adjacent to any existing or proposed public trail systems. Overall, although parcels are generally large, undeveloped, and could accommodate a park or school, the relative isolation of the study area from existing or future residential populations limit the overall suitability of East of Airport for parks and quasi-public facilities.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
EA	No	No	No	Yes	Yes	No	Yes	2

North of Baker Creek (NBC)

The NBC study area has no existing or proposed public parks within its boundary. The Parks Master Plan identifies a proposed trail along Baker Creek within the study area. The study area is adjacent to an area identified as underserved for parks. The study area is within a ½ mile of an existing urban residential neighborhood inside the UGB, though it is separated by Baker Creek and its floodplain. The study area has parcels of a minimum size to accommodate park or school facilities. The study area has contiguous flat areas, separated by a band of generally moderate slopes and moderate to high landslide hazard adjacent to the floodplain that would not be a barrier to facility access or development. Overall, the study area could accommodate a park or quasi-public facilities, making North of Baker Creek highly suitable for parks.

Study Area	Ex. or Planned Open Space	Ex. or Planned Park	Ex. or Planned Trail	Suitable for Neighborhood Park	Suitable for Community Park	Suitable for Trail Ext.	Suitable for Elem. School	Overall Rating
NBC	No	No	Yes	Yes	Yes	Yes	Yes	3



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TECHNICAL MEMORANDUM #9

MGMUP UGB REMAND UPDATE

DATE: October 6, 2020
TO: Heather Richards, Planning Director
FROM: Tom Schauer, Senior Planner
SUBJECT: Analysis of Slope Impacts on Density for the Hillcrest Planned Development in McMinnville's West Hills

This technical memorandum provides information about the effects of slope on density associated with land use applications and development in McMinnville. Specifically, it provides analysis of subdivisions in areas that predominantly contain slopes over 10%. Other communities have similarly documented impacts of slope and residential density.

This memo primarily documents the **effects** of slope on density. It doesn't provide an exhaustive discussion of the **reasons** associated with differences in density in more steeply sloped areas, but does summarize some of the major reasons for differences in density in sloped areas.

- Standards for maximum street grades for fire/public safety access affect the lot configuration and street layout.
- Mass grading often results in creation of small building pads close to the street, with steeper grade differentials which are absorbed into lots between the parallel streets being relegated to other portions of the lot which must be steeper in order to establish building pads near the street.

With these considerations, it is often untenable to meet the City's block length and block perimeter standards due to issues associated with street layout to avoid exceeding the maximum street grades as well as accessibility requirements associated with sidewalk and intersection slopes. These are key components of the City's goals for well-connected neighborhoods, yet they can be challenging to achieve in more steeply sloped areas. Streets generally follow along gradual contours, and cross-streets can't be extended directly up steeper hills on the cross slopes. The Planned Development process allows for flexibility regarding block length and perimeter standards to address slope constraints, but to the detriment of these goals of connectivity. Even with the reduction in street connectivity which may occur, these predominantly steeper-sloped areas are still not achieving densities consistent with the average densities achieved in the same zones on flatter ground which do achieve street connectivity standards.

Methods

LIDAR data allows for slope analysis. Comparing pre-development LIDAR-derived slope data to approved subdivision plans provides a basis for calculating density based on slope. In 2010, DOGAMI obtained LIDAR data for an area which includes the McMinnville area, including "bare-earth" LIDAR that provides the ground elevation without regard to features such as tree canopy cover. The Hillcrest Planned Development, a multi-phase residential Planned Development (PD) and subdivision, was approved in the West Hills in 2006 and amended in 2017. This comprises most of the sloped area within the West Hills which has obtained land use approvals for subdivision.

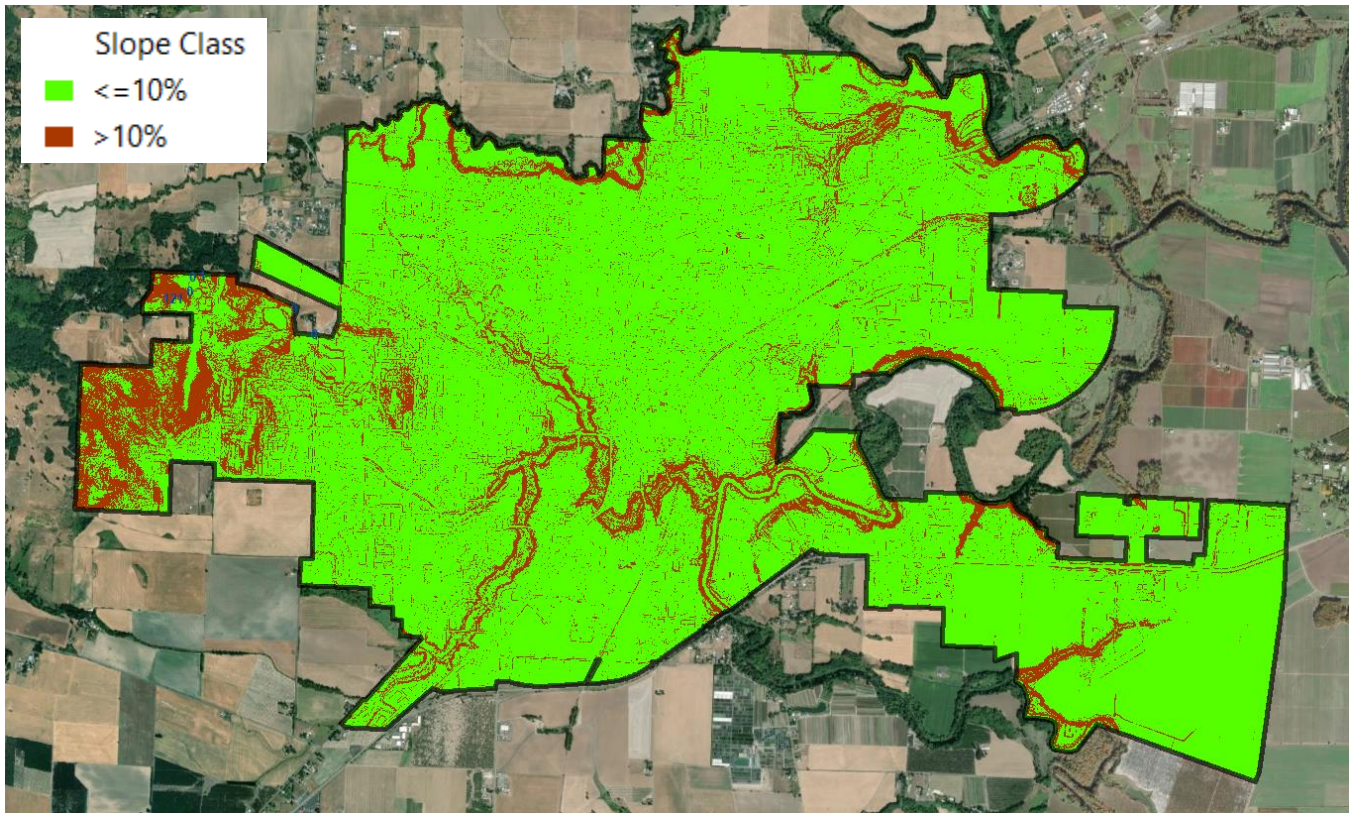
Some of the phases in this PD were developed before the LIDAR was obtained. Therefore, for some phases, the LIDAR reflects the contours after the land was graded, and in some cases after lots were developed. However, several phases in the PD approval were either developed after the LIDAR was obtained or have not yet developed. That provides the basis to determine the pre-development slope conditions. Analysis of the areas that developed before the LIDAR was obtained does not provide for the same pre-development condition analysis, since the development grading has already occurred. Therefore, the remaining areas which developed after the LIDAR was obtained, or which have not yet developed, were analyzed. This includes multiple phases comprised of approximately 132 acres.

Findings

The majority of the McMinnville UGB is located on land that has slopes of 10 percent or less. Approximately 84% of the UGB has slopes of 10% or less. Approximately 16% of the UGB has slopes of greater than 10%.

Most of the steeper slopes within the UGB are associated with the landforms in the westerly portion of the UGB, predominantly the West Hills, and also along the banks of the major streams within the UGB.

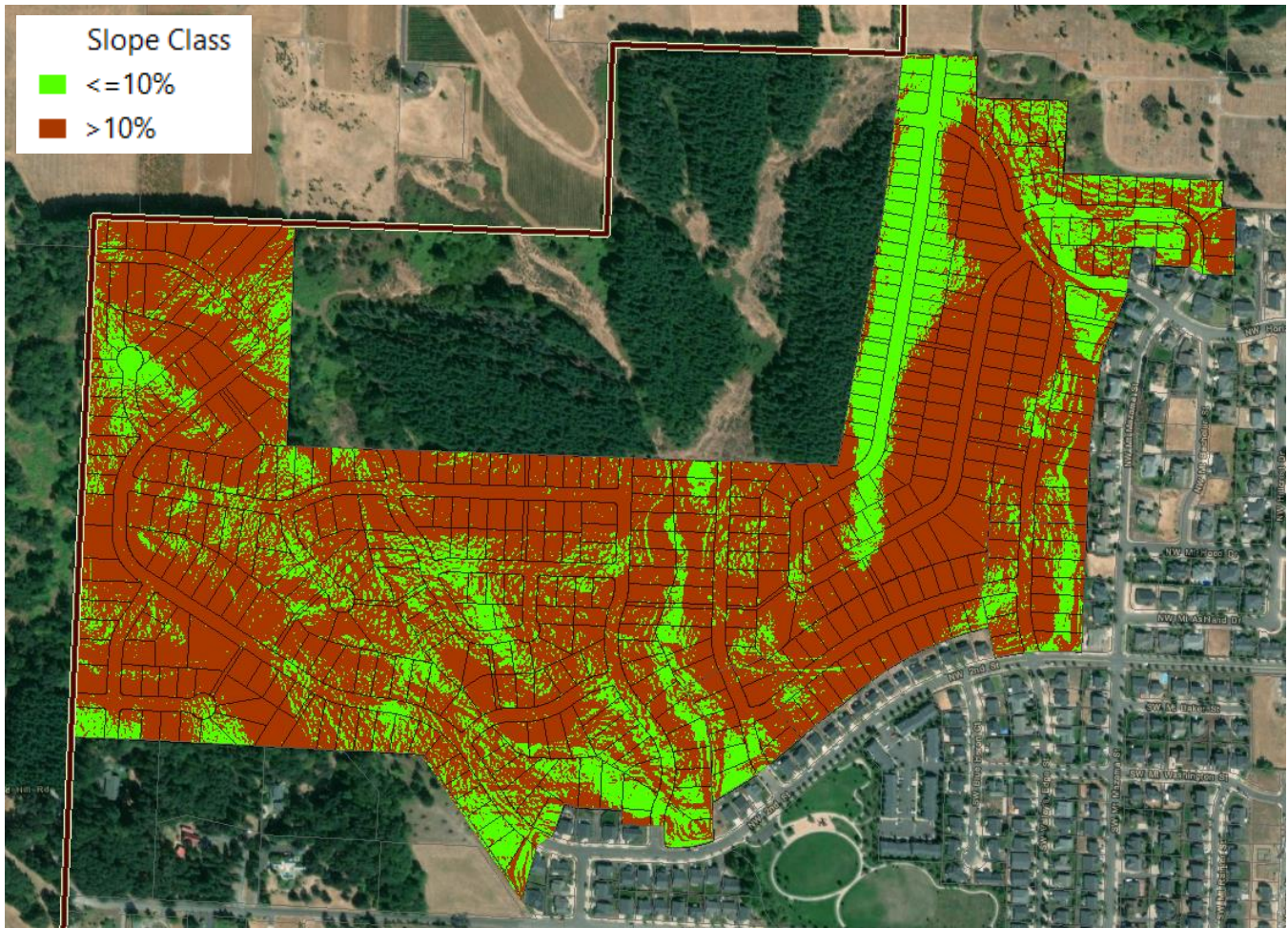
Figure 1: Slopes by Class within the UGB



Source: 2010 DOGAMI LIDAR

One land use approval, the Hillcrest Planned Development (PD), includes much of the land in the West Hills which is comprised of slopes over 10%. Within the Hillcrest PD phases that haven't yet developed or developed after the 2010 LIDAR was obtained, the majority contains slopes over 10%. Approximately 73% of the land in those phases is comprised of slopes over 10%. The property is zoned R-2 PD. The majority of R-2 zoned subdivisions in the UGB have occurred on land that is predominantly <=10% slope.

Figure 2: Slopes within Hillcrest PD phases which haven't yet developed or which developed Post-LIDAR



Source: 2010 DOGAMI LIDAR

Hillcrest PD post-LIDAR phases (Zoned R-2 PD)

(Brookshire 1&2, Hillcrest 6, 7, 8, 9-10), Northridge, Valley's Edge 4, 5, 6, West Hills 1-5)

Gross Acres: 132.2 gross acres

 <=10% Slope: 35.2 acres (27%)

 >10% Slope: 97 acres (73%)

Capacity: 488 dwelling units on buildable lots

Density: 3.7 du/gross acre

The gross density of these phases averages 3.7 du/gross acre, even with block lengths that exceed the City's block length and perimeter standards where slopes necessitated longer block lengths so as to not exceed standards for maximum grade for fire access and accessibility.

In contrast, the housing needs analysis that provides the data for the MGMUP found the average gross density achieved in the R-2 zone for the historical analysis period was 4.3 du/gross acre.

Technical Memorandum #9 (MGMUP UGB Remand Update)

Date: October 6, 2020

Re: Analysis of Slope Impacts on Density for the Hillcrest Planned Development in McMinnville's West Hills

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This area, comprised predominantly, but not exclusively, of slopes greater than 10% is achieving densities below the average gross density observed during the analysis period, including many subdivision in the flatter portions of the UGB which have the same zoning.



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TECHNICAL MEMORANDUM #10

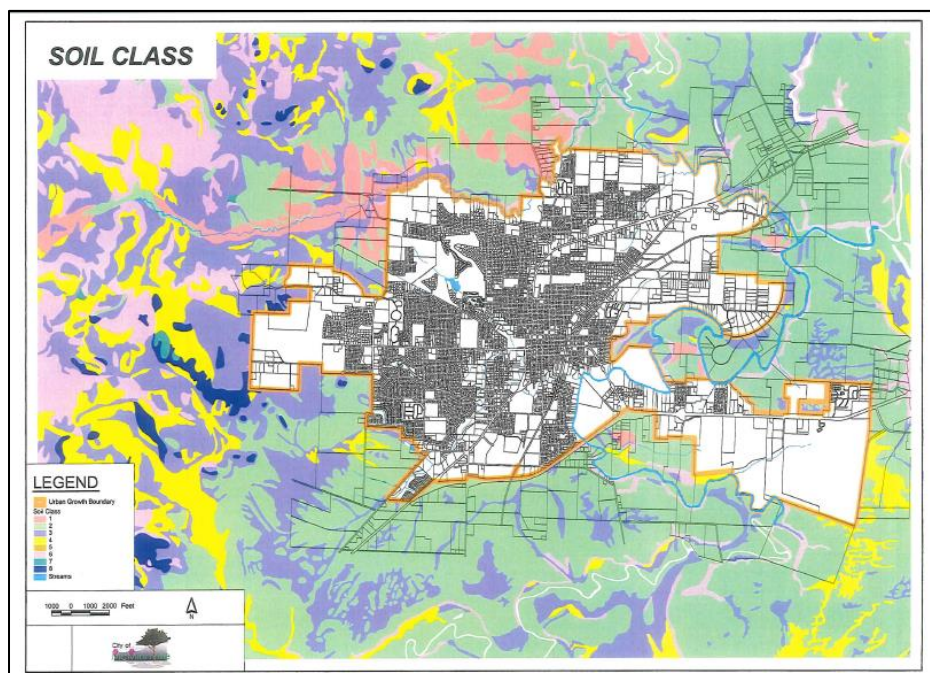
MGMUP UGB REMAND UPDATE

DATE: October 14, 2020
TO: Heather Richards, Planning Director
FROM: Chuck Darnell, Senior Planner
SUBJECT: Soil Priority Screening Process

This technical memorandum reviews the process and assumptions used to evaluate candidate UGB Study Areas for their impacts on high priority soil types and productivity classes. The evaluation of soil types and productivity classes within each study area was completed to address Goal 14 (Urbanization) which requires cities to provide for an orderly and efficient transition from rural to urban land use. Goal 14 provides factors to consider in amending a UGB, with Factor 6 being the retention of agricultural land as defined, with Class I being the highest priority for retention and Class VI the lowest priority.

Soil Priority Analysis

This analysis relied on soil data in the Court of Appeals record as documented in the Soil Class map included in the set of maps and figures in the DLCDC's submittal of the Corrected Record for COA No. A134379. The Soil Class map from the Court of Appeals record is shown below:



The soil classifications used in the analysis are based on non-irrigated capability classes. Capability classes were analyzed by Class I, Class II, Class III, and a grouping of all soil classes of Class IV and above.

Soil capability classes were determined for each study area, and each study area was given a rating based on the amount of higher priority soil classes that were present within the study area boundary. Ratings were assigned to each study area as follows:

- Rating of 1: Greater than 50% of the study area is comprised of Class I or Class II soils
- Rating of 2: Greater than 50% of the study area is comprised of Class III soils
- Rating of 3: Greater than 50% of the study area is comprised of Class IV or higher soils

An individual analysis of each study area is provided below. A table compiling the analysis of all study areas is provided at the end of the technical memorandum.

Study areas were also analyzed for the level of continuity of various soil classifications within the study area. The level of continuity was evaluated based on visual inspection of the study area’s variation or uniformity in soil classifications. Higher levels of continuity and uniformity of individual soil types may provide opportunities for access to areas of lower priority soils for retention (Class III and above) with lesser impacts on areas of higher priority soils (Class I and Class II). A description of the continuity and uniformity of the soil types within each study area is provided below, along with a general assignment of either low, moderate, or high continuity. Low continuity assignments were given to study areas where access to lower priority soils for retention (Class III and above) would be impossible or difficult to provide without impacts to higher priority soils (Class I and Class II). Alternatively, high continuity assignments were given to study areas where access to lower priority soils for retention (Class III and above) could occur from the existing UGB with little to no impact to higher priority soils (Class I and Class II).

Exception Study Areas

Lawson Lane (LL)

Lawson Lane	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	4.5	12.5	1.1	0.0	18.1	1
Percentage	24.7%	69.2%	6.1%	0.0%	100.0%	

The LL study area is almost entirely Class I and Class II (about 94%) soils. Class II soils exist on the north and south, with band of Class I in the center of the study area between areas of Class II soils. Class III soils are located in southern portion of study area, which would require access through the Class I and Class II soil areas.

Old Sheridan Road (OSR)

Old Sheridan Road	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	0.0	50.9	3.6	0.0	54.5	1
Percentage	0.0%	93.4%	6.6%	0.0%	100.0%	

The OSR study area is almost entirely Class II (93.4%) soils. Small band of Class III soil adjacent to existing UGB, but in a finger that extends in a band to the south, surrounded on all other sides by Class II soils within the study area.

North of Fox Ridge Road – West (NFRR-W)

North of Fox Ridge Road - West	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	0.0	1.9	65.4	49.0	116.3	2
Percentage	0.0%	1.7%	56.2%	42.2%	100.0%	

The NFRR-W study area is almost entirely Class III and Class IV+ (98.4%) soils. Areas of Class IV+ are along entry road to subdivision, and southeastern portion of study area (which would not be adjacent to other UGB unless WH1 and NFFR-E1 study areas were included in UGB).

Booth Bend Road (BB)

Booth Bend Road	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	0.0	33.6	1.3	5.2	40.2	1
Percentage	0.0%	83.6%	3.3%	13.0%	100.0%	

The NFRR-W study area is predominately Class II soils (83.6%). A band of lower quality soils exists in the eastern portion of the study area, associated with the edge of the floodplain.

Brentano Lane (BL)

Brentano Lane	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	19.1	48.5	17.2	7.0	91.8	1
Percentage	20.8%	52.8%	18.7%	7.6%	100.0%	

A majority of the BL study area is either Class I or Class II soils (73.6%). The Class I soils are located in relatively large pockets along the existing Brentano Lane right-of-way. Areas of Class II soils are primarily north of the existing Brentano Lane right-of-way. The Class III soils within the study area exist in multiple bands running north to south in the central and northeastern portions of the study area. Areas of Class IV+ soils are located in the southern portion of the study area.

Westside Road (WR)

Westside Road	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	19.7	6.0	1.7	7.6	35.0	1
Percentage	56.3%	17.2%	4.9%	21.6%	100.0%	

The WR study area is predominately Class I and Class II soils (73.4%), with over half (56.3%) of the study area being Class I soils (highest quality). The main western and central portions of the study area, which are adjacent to Westside Road, are Class I soils. There is a band of Class IV+ soils south and east of the Class I soils, and then pockets of Class II and Class III soils further east of that and closer to Baker Creek and its floodplain. Most of these areas of lower quality soils (Class III and Class IV+) are not immediately accessible from Westside Road, and would require access through the higher quality (Class I) soil areas.

Resource Study Areas

North of Olde Stone Village (NA-NOSV)

North of Olde Stone Village	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	0.0	199.6	79.3	0.1	279.0	1
Percentage	0.0%	71.5%	28.4%	0.0%	100.0%	

The NA-NOSV study area has Class III soils located generally around the center of study area, but those Class III soils are arranged in a speckled pattern that is intermixed with Class II soils. Therefore, access to the Class III areas would still have impact to some higher value soil areas that are intermixed with the Class III soils. The perimeters of the study area, along the western, northern, and eastern boundaries, are primarily Class II soils.

Evergreen (NA-EV)

Evergreen	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	0.0	16.1	24.1	0.0	40.2	2
Percentage	0.00%	40.03%	59.97%	0.00%	100.00%	

Similar to the NA-NOSV study area, Class III soils are present within the NA-EV study area but are arranged in a speckled pattern that is intermixed with Class II soils. Therefore, access to the Class III areas would still have impact to some higher value soil areas that are intermixed with the Class III soils. Some portions of the study area with Class III soils could be accessed directly from the existing UGB without impact to or through Class II soil areas.

Three Mile Lane East (TML-E)

Three Mile Lane East	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	9.8	170.1	0.0	21.8	201.7	1
Percentage	4.9%	84.3%	0.0%	10.8%	100.0%	

The TML-E study area is predominately Class II (84.3%), with the Class II soils located in a large continuous area adjacent to the current UGB. Areas of Class IV+ soils are located on the southern fringes of the study area, near the river and floodplain, which would only be accessible through Class II soil areas.

Three Mile Lane West (TML-W)

Three Mile Lane West	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	0.2	6.7	2.1	0.0	9.0	1
Percentage	1.7%	74.8%	23.5%	0.0%	100.0%	

The TML-W study area contains some Class III soils (23.4%), but that Class III soil is located in a band that runs through the center of the study area with Class II soils located both to the north and the south making up most of the remainder of the study area (74.8%).

Norton Lane East (NL-E)

Norton Lane East	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	21.0	50.7	0.8	9.0	81.5	1
Percentage	25.8%	62.2%	0.9%	11.1%	100.0%	

The NL-E study area is predominately Class I and Class II soils (88.0%), which exist in the majority of the central portions of the study area. Areas of Class IV+ soils are only present in narrow bands along the perimeter of the study area near the river and floodplain. Access to those Class IV+ soil areas would be required through the areas of higher value soils (Class I and Class II).

Norton Lane West (NL-W)

Norton Lane West	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	0.0	27.0	23.2	11.2	61.4	2
Percentage	0.0%	44.0%	37.7%	18.2%	100.0%	

The breakdown of the soil classifications within the NL-W study area did not specifically meet the >50% thresholds established for the evaluation and rating system. However, over 50% of the study area is comprised of Class III soils or above (Class III+), so the study area was assigned a rating of 2. The NL-W study area has a somewhat equal distribution of the soil classification groups present, but with low continuity of any individual soil classification. Bands of Class II soils run through the length of study area from west to east, with bands of Class III soils and Class IV+ soils on either side to the northwest and southeast along the length of the study area.

Southwest 1 (SW-06)

Southwest 1	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	0.0	124.8	21.1	12.0	158.0	1
Percentage	0.0%	79.0%	13.4%	7.6%	100.0%	

The SW-06 study area includes a band of Class III and Class IV+ soils near the existing UGB, which follows the existing drainageway and floodplain. The majority of the remainder of the study area, making up the central portion of the study area south of the drainageway and floodplain, is predominately Class II soils (79.0% of study area), with a few bands and pockets of Class III and Class IV+ along the western boundary near Hill Road.

Southwest 2 (SW-2)

Southwest 2	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	0.0	89.2	28.1	2.7	120.1	1
Percentage	0.0%	74.3%	23.4%	2.2%	100.0%	

The SW-2 study area is predominately Class II soils (74.3%). There are some pockets of Class III soils in the north-central, southwest, and southeast portions of the study area, but those areas are surrounded by Class II soil areas. The SW-2 study area includes a small amount (2.2%) of Class IV+ soils, which are located in the area of the existing earthen mound located in the northwestern portion of the study area.

West of Old Sheridan Road 1 (W-OSR1)

West of Old Sheridan Road 1	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	0.0	104.3	127.1	0.0	231.4	2
Percentage	0.0%	45.1%	54.9%	0.0%	100.0%	

The W-OSR1 study area includes a relatively continuous area of Class III soils in northern portion of study area, adjacent to areas of Class III and Class IV+ soils located within the adjacent study area (W-OSH2). Pockets of Class II soil exist in portions of the northwest corner and southern half of study area, which result in lower continuity of soil classifications in those portions of the study area.

West of Old Sheridan Road 2 (W-OSR2)

West of Old Sheridan Road 2	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	0.0	168.3	121.8	23.7	313.8	1
Percentage	0.0%	53.6%	38.8%	7.6%	100.0%	

The W-OSR2 study area includes a relatively continuous area of Class III and Class IV+ soils, located in a band through the middle of study area. The northern portion of the study area, adjacent to the existing UGB along Hill Road and also adjacent to the SW-2 study area to the north, is mainly Class II soils. Class II soils also exist along the southern portion of the study area, south of the band of Class III and Class IV+ soils described above.

West Hills South (WH-S)

West Hills South	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	0.0	7.8	98.7	15.8	122.3	2
Percentage	0.0%	6.3%	80.8%	12.9%	100.0%	

The WH-S study area is predominately Class III soils (80.8%), together with Class IV+ soils (12.9%) in the higher elevations near the western edge of study area. The areas of Class III soils are adjacent to existing UGB, so could be accessed with no impact to higher priority soils (Class I or Class II soils). The areas of Class II soils are only located in two small pockets within the study area.

West Hills 1 (WH1)

West Hills 1	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	0.0	0.0	71.0	407.0	478.0	3
Percentage	0.0%	0.0%	14.8%	85.2%	100.0%	

The WH1 study area is predominately Class IV+ soils (85.2%), with bands of Class III soils along the study area boundaries. There are no higher priority (Class I or Class II) soil classifications within the study area.

West Hills 2 (WH2)

West Hills-2 (East)	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	0.0	4.8	310.4	116.7	431.9	2
Percentage	0.0%	1.1%	71.9%	27.0%	100.0%	

The WH2 study area is predominately Class III soils (71.9%), with small pockets and areas of Class IV+ soils that are mainly located along the existing UGB boundary before the study area transitions to a more continuous area of Class III soils.

North of Fox Ridge Road East (NFRR-E)

North of Fox Ridge Road East	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	3.0	21.4	104.8	60.0	189.1	2
Percentage	1.6%	11.3%	55.4%	31.7%	100.0%	

The NFRR-E1 study area is predominately Class III and Class IV+ soils (about 87%). Small pockets of Class II soils are present along the center of the study area and a very small band of Class I soils (1.6%) exist along the northern boundary of the study area.

Northwest Ext. 1a (NW-EX1a)

Northwest Ext. 1a	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	45.9	16.4	8.8	7.0	78.2	1
Percentage	58.7%	21.0%	11.3%	9.0%	100.0%	

The NW-EX1a study area is predominately Class I and Class II soils (79.7%), and also exhibits a non-continuous pattern of soil types. The areas of Class III or Class IV+ soils that exist in the study area in narrow bands in the center of the study area that are surrounded by Class I soils, so they would be difficult to access without impacting higher value soils (Class I or Class II).

Northwest Ext. 1b (NW-EX1b)

Northwest Ext. 1b	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	16.6	18.8	34.4	2.8	72.5	2
Percentage	22.9%	25.9%	47.4%	3.8%	100.0%	

The NW-EX1b study area is separated by a portion of the existing UGB (High School site). The portion of the study area north of the existing UGB is completely Class I and Class II soils. The portion of the study area south and west of High School site contains all of the study area’s Class III and Class IV+ soils. A small pocket of Class II soils is located immediately adjacent to Hill Road, which may be impacted to access the Class III and IV+ soil areas. The distribution of soil types within the study area did not meet the >50% groupings established for the ratings. However, over 50% is in Class III+, so the study area was assigned a rating of 2.

Northwest Ext. 2 (NW-EX2)

Northwest Ext. 2	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	11.2	0.0	1.3	3.0	15.5	1
Percentage	71.9%	0.0%	8.6%	19.5%	100.0%	

The NW-EX2 study area is predominately Class I soils (71.9%), with the Class I soils making up the main central portion of study area adjacent to Baker Creek Road. The areas of Class III and Class IV+ soils, which make up the remainder of the study area (28.1%), are located along the northern boundary of study area in a band that is adjacent to Baker Creek and the floodplain. These areas of lower priority soils (Class III and Class IV+) would need to be accessed through the Class I soils within the main portion of the study area.

Grandhaven Conservation (GH-C)

Grandhaven Conservation	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	0.0	48.7	0.0	2.7	51.4	1
Percentage	0.0%	94.7%	0.0%	5.3%	100.0%	

The GH-C study area is predominately Class II soils (94.7%), with the Class II soils making up the main central portion of study area adjacent to the existing UGB. The areas of Class IV+ soils are located along the northern boundary of the study area in a band that is adjacent to Yamhill River and the floodplain. These areas of lower priority soils (Class IV+) would need to be accessed through the Class II soils within the main portion of the study area.

Grandhaven East (GH-E)

Grandhaven East	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	0.0	17.6	0.0	2.0	19.5	1
Percentage	0.0%	89.9%	0.0%	10.1%	100.0%	

The GH-E study area is predominately Class II soils (89.9%), with the Class II soils making up the main portion of study area adjacent to the existing UGB. The areas of Class IV+ soils are located along the eastern boundary of the study area in a band that is adjacent to Yamhill River and the floodplain. These areas of lower priority soils (Class IV+) would need to be accessed through the Class II soils within the main portion of the study area.

Grandhaven West (GH-W)

Grandhaven West	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	0.0	53.7	1.6	12.6	67.9	1
Percentage	0.0%	79.1%	2.3%	18.6%	100.0%	

The GH-W study area is predominately Class II soils (79.1%), with the Class II soils making up the main central portion of study area adjacent to the existing UGB. The areas of Class III and Class IV+ soils are located along the western and northern boundaries of the study area in a band that is adjacent to Yamhill River and the floodplain. These areas of lower priority soils (Class III and Class IV+) would need to be accessed through the Class II soils within the main portion of the study area.

East of Airport (EA)

East of Airport	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	0.0	278.7	2.9	211.8	493.4	1
Percentage	0.0%	56.5%	0.6%	42.9%	100.0%	

The EA study area has a small amount (2.9 acres or 0.6%) of Class III soils in small pockets within the study area. There are also bands of Class IV+ soils located throughout the entire study area. There is a larger band of these Class IV+ soils in the northern half of the study area. However, the Class IV+ soils in the southern half of the study area are arranged in more of a speckled pattern that is intermixed with Class II soils. Some areas of the larger band of Class IV+ soils in the northern half of the study area could be accessed from Airport Road and therefore not impact areas of higher quality (Class II) soils. However, other areas where the lower quality (Class III and Class IV+) soils are more speckled, access to those soils may require impact to higher value soil areas. Due

to over half (56.5%) of the study area being Class II soils, the study area was rated low for soil priority and classification.

North of Baker Creek (NBC)

North of Baker Creek	Class I	Class II	Class III	Class IV+	Total	Rating
Acres	46.4	0.0	48.5	23.8	118.7	2*
Percentage	39.1%	0.0%	40.9%	20.0%	100.0%	

**The study area's soil composition did not meet the >50% groupings used to assign ratings to study areas. However, >50% of the study area is Class III soils and above, so the study area received a rating of 2 (Standard rating of 2 was assigned to study areas with >50% Class III soils).*

The NBC study area has a fairly evenly distributed range of soil classes, with bands of different soil classes located through the study area from west to east. Two pockets of Class I soils exist along the norther boundary of the study area. A band of Class IV+ soils fills out the remainder of the northern portion of the study area, followed by a band of Class III soils to the south and a band of Class I soils further south along the southern boundary of the study area. Over half (60.9%) of the study area are Class III and Class IV+ soils, and these areas of soils are continuous through the center of the study area, which could provide for some access to the lower quality (Class III and Class IV+) soils without impacting higher quality (Class I) soils. Due to the fairly even distribution of soil classes, the study area was rated moderately for soil priority and classification.

Study Area	Total Acres	Acres				Percentage				Total %	Continuity	Rating
		Class I	Class II	Class III	Class IV+	Class I	Class II	Class III	Class IV+			
<i>Exception Areas</i>												
Lawson Lane (LL)	18.1	4.5	12.5	1.1	0.0	24.7%	69.2%	6.1%	0.0%	100.0%	Moderate	1
Old Sheridan Road (OSR)	54.5	0.0	50.9	3.6	0.0	0.0%	93.4%	6.6%	0.0%	100.0%	Low	1
North of Fox Ridge Road – West (NFRR-W)	116.3	0.0	1.9	65.4	49.0	0.0%	1.7%	56.2%	42.2%	100.0%	Moderate	2
Booth Bend Road (BR)	40.2	0.0	33.6	1.3	5.2	0.0%	83.6%	3.3%	13.0%	100.0%	Moderate	1
Brentano Lane (BL)	91.8	19.1	48.5	17.2	7.0	20.8%	52.8%	18.7%	7.6%	100.0%	Low	1
Westside Lane (WL)	35.0	19.7	6.0	1.7	7.6	56.3%	17.2%	4.9%	21.6%	100.0%	Low	1
<i>Resource Areas</i>												
North of Olde Stone Village (NA-NOSV)	279.0	0.0	199.6	79.3	0.1	0.0%	71.5%	28.4%	0.0%	100.0%	Moderate	1
Evergreen (NA-EV)	40.2	0.0	16.1	24.1	0.0	0.0%	40.0%	60.0%	0.0%	100.0%	Moderate	2
Three Mile Lane East (TML-E)	201.7	9.8	170.1	0.0	21.8	4.9%	84.3%	0.0%	10.8%	100.0%	Low	1
Three Mile Lane West (TML-W)	9.0	0.2	6.7	2.1	0.0	1.7%	74.8%	23.5%	0.0%	100.0%	Moderate	1
Norton Lane East (NL-E)	81.5	21.0	50.7	0.8	9.0	25.8%	62.2%	0.9%	11.1%	100.0%	Low	1
Norton Lane West (NL-W)	61.4	0.0	27.0	23.2	11.2	0.0%	44.0%	37.7%	18.2%	100.0%	Low	2
Southwest 1 (SW-06)	158.0	0.0	124.8	21.1	12.0	0.0%	79.0%	13.4%	7.6%	100.0%	Moderate	1
Southwest 2 (SW-2)	120.1	0.0	89.2	28.1	2.7	0.0%	74.3%	23.4%	2.2%	100.0%	Moderate	1
West of Old Sheridan Road 1 (W-OSR1)	231.4	0.0	104.3	127.1	0.0	0.0%	45.1%	54.9%	0.0%	100.0%	Moderate	2
West of Old Sheridan Road 2 (W-OSR2)	313.8	0.0	168.3	121.8	23.7	0.0%	53.6%	38.8%	7.6%	100.0%	Moderate	1
West Hills South (WH-S)	122.3	0.0	7.8	98.7	15.8	0.0%	6.3%	80.8%	12.9%	100.0%	High	2
West Hills 1 (WH1)	478.0	0.0	0.0	71.0	407.0	0.0%	0.0%	14.8%	85.2%	100.0%	High	3
West Hills 2 (WH2)	431.9	0.0	4.8	310.4	116.7	0.0%	1.1%	71.9%	27.0%	100.0%	High	2



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TECHNICAL MEMORANDUM #11

MGMUP UGB REMAND UPDATE

DATE: October 16, 2020
TO: Heather Richards, Planning Director
FROM: Tom Schauer, Senior Planner
SUBJECT: UGB Study Areas Buildable Acres and Capacity Analysis

This technical memorandum summarizes information about the methods used to determine buildable acres and development capacity for the UGB study areas.

Capacity of the “Phase 1” areas which were previously included in the UGB (Riverside South, Redmond Hill Road, Fox Ridge Road, and the Northwest High School site) is included in and accounted for in the record. Land in the Northwest High School site is deducted from the land need for schools.

For the remaining “Phase 2” study areas outside the UGB, the following analysis occurred:

- **1. Land Use and Development Status.** Determine land use for tax lots or portions within the study areas, and assign a development status.
 - **Public/Quasi-Public/Institutional.**
 - **Committed.** Sites with uses such as water reservoirs, cemeteries, churches, utility substations, etc. were classified as committed.
 - **Available to Meet Specific Need.** A portion of NL-W located outside of the floodplain, which is publicly owned, was evaluated for suitability for industrial use and retained in the inventory as buildable. Portions on the northwest side of the road with less than 10% slope were assigned capacity for industrial use.
 - **Business.** Developed business sites with buildings and parking areas were identified as committed.
 - **Residential.** Regardless of the predominant use of the property, any tax lot or portion identified with a dwelling within the study area was classified as residential for purposes of these buildable land and capacity calculations.

- **Developed.** Any tax lot or portion within the study area with a dwelling within the study area was classified as developed if the area of that tax lot or portion was less than one acre. In addition, any tax lot with a dwelling within a Measure 49 platted subdivision was classified as developed.

If a developed residential lot is split by the UGB where the home is in the UGB and a small portion of the back yard of the property is outside the UGB, that is also classified as developed.

- **Partially Vacant.** All other tax lots or portions with a dwelling within a study area were classified as partially vacant. Through aerial photography analysis and review of the prior analysis in the record, a deduction was made for the areas occupied by existing residential development and ancillary uses, and buildable acres were assigned to the remaining portion of the tax lot. On large agricultural properties with agricultural buildings located elsewhere on the property isolated from the dwelling, no deduction was made for those buildings, assuming they would not remain if the property was subdivided in the future. The residential development on these properties ranges from smaller homes on a smaller portion of a lot to larger estates with a home and additional site improvements including hardscaped and landscaped yards, outdoor living spaces and garden areas, outbuildings, and driveways, circulation, and parking occupying more than an acre. The predominant range was ½-acre to 1-1/2 acres of occupied area on a site.

For the areas that weren't previously discussed in the record, there are two additional areas where the majority of existing dwellings are located: Approximately 38 existing dwellings associated with the Measure 49 subdivision in NW-EX1a (West Wind) and approximately 35 existing dwellings in NFRR-W (Hidden Hills).

- **Vacant.** Except as noted above, tax lots or portions with no dwelling within the study area are classified as vacant. This includes properties which have agricultural buildings but no dwellings. No existing constraints associated with existing development are assumed for these. Capacity of vacant lots is based on buildable acres, except that vacant platted lots within the Measure 49 subdivision are assigned capacity of one dwelling per lot.

- **2. Natural and Physical Constraints.**

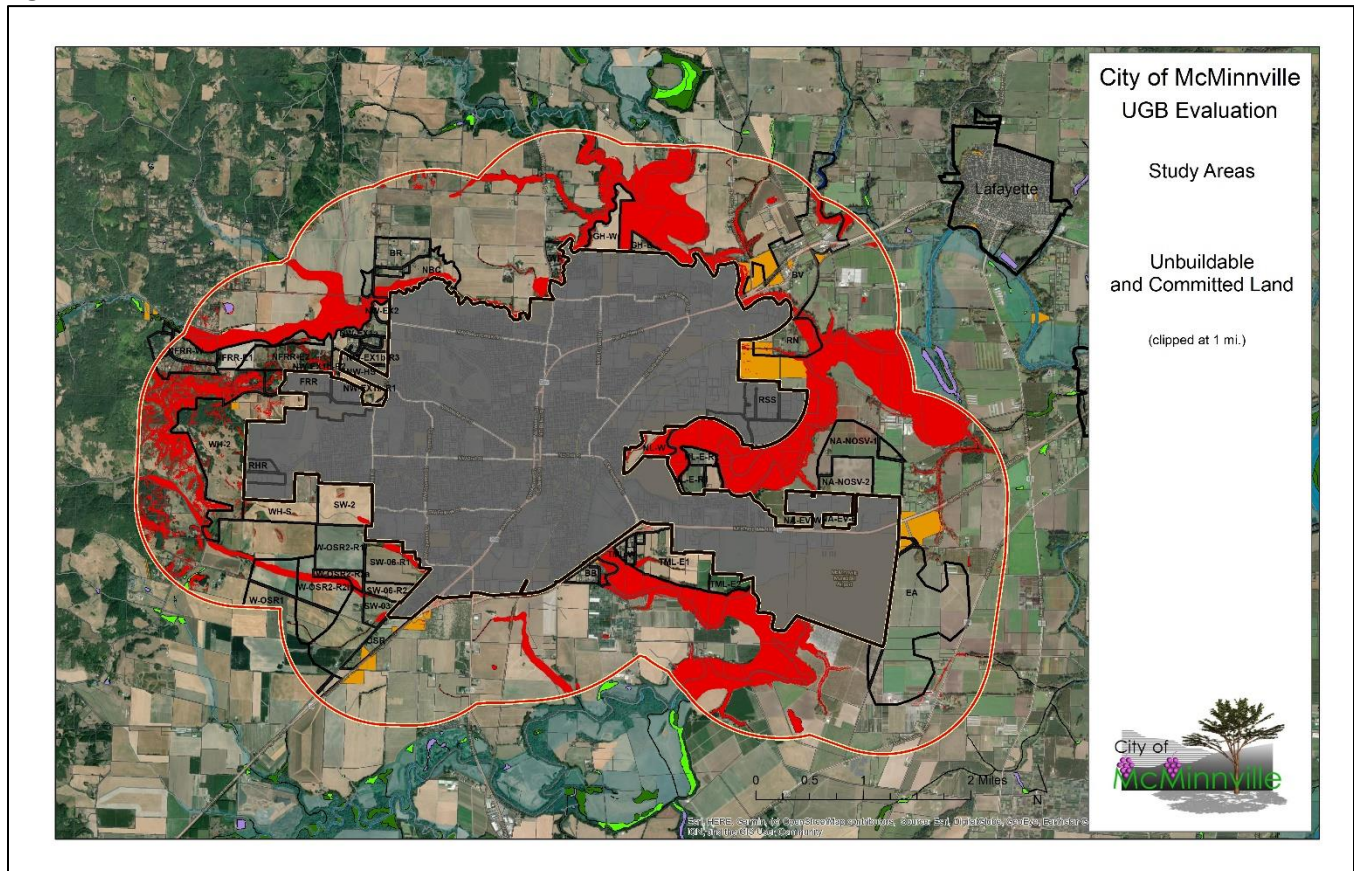
- After the earlier step of excluding unbuildable areas from the study area, there remained unbuildable portions of study areas interspersed within the study areas that precluded removal of just the unbuildable portions. Therefore, those constraints were accounted for in calculating the buildable acres and capacity of study areas by deducting unbuildable acres from gross acres. The same methodology was applied to calculate those constrained areas and deduct them from gross acres to determine buildable acres. Consistent with the methodology in the record, constraints of flood hazard, steep slopes of 25% or greater, and wetlands were applied to study areas. The land within the Chegwyn conservation easement (Instrument #20090315) in the Grandhaven vicinity previously excluded that land as unbuildable. These constraints were

combined into a single constraint layer, so overlapping constraints would not be double counted.

- These constraints were used to determine unbuildable portions of properties in the study areas. Other Goal 7 hazards which have been mapped were NOT applied as “unbuildable” constraints if they were not previously applied as constraints in the record, such as liquefaction susceptibility and landslide susceptibility.
- **3. Combined Development and Natural/Physical Constraints.** The committed and unbuildable constraints layers were mapped in GIS and joined to avoid double counting properties constrained by natural/physical and development constraints. The committed portions of partially vacant properties were then deducted where they occurred outside of those areas. *See Figure 1.* These constraints were then subtracted from gross acres in tax lots or portions within the study areas to determine buildable acres within the study areas.
- **4. Buildable Acres and Capacity.** The above step provided the buildable acres for the study areas. Capacity was assigned to the exception areas by applying R-1 (3.5 du/gross acre) or R-2 (4.3 du/gross acre) density factors to buildable acres for exception areas, applied consistent with the record and the identified need. For each resource area, acreage within three slope classes was calculated: 0-10%, >10% to 25%, and >25%. No capacity was applied to the areas with >25% slope. Slopes of 0-10% were assigned capacity at a density factor of 6.25 du/gross acre, average for all housing types after deducting density of previously met need. For areas with slope of >10% to 25%, the R-2 density factor was applied, consistent with the density used as an efficiency measure that previously rezoned areas within the West Hills area in the current UGB from R-1 to R-2. A separate technical memo describes the limitations on achieving higher densities in sloped areas. The resulting calculations provide the buildable acres and capacity for each study area. In addition, this allows for analysis of the efficiency of each study area by calculating and comparing for DUs per gross acre in tax lots and DUs per buildable acre in tax lots for each study area. Buildable acres assigned to non-residential uses were deducted from the buildable acres for residential use and the residential capacity analysis was adjusted accordingly.

Attachment A is a table providing the results of this analysis of buildable acres and capacity.

Figure 1. Unbuildable and Committed Land



Attachment A

Study Area Calculations (Phase 2 Study Areas)																									
Study Area	Type	Gross Ac				Combined Constraints (FP,SS,WL,Pub,Full Dev)				Gross Ac-CC Subtotal			Dev/Constrained Ac Portions of PV			Bld Ac			Density		Res Cap			Avg DU/ Gross Ac	Avg DU/ Bld Ac
		0-10% Slope	10-25% Slope	25+% Slope	SUM	0-10%	10-25%	25+%	SUM	0-10%	10-25%	SUM	0-10%	10-25%	SUM	0-10%	10-25%	SUM	0-10%	10-25%	0-10%	10-25%	SUM	0-10%	10-25%
Exception Areas																									
LL	Exception	16.3	1.7	0.1	18.1	1.4	0.1	0.1	1.6	14.9	1.6	16.5	9	0	9	5.9	1.6	7.5	4.3	4.3	25	7	32	1.8	4.3
OSR	Exception	52.8	1.6	0.1	54.5	8.2	0.4	0.1	8.7	44.6	1.2	45.8	9.3	0	9.3	35.3	1.2	36.5	3.5	3.5	124	4	128	2.3	3.5
NFRR-W	Exception	38.4	54.6	23.3	116.3	0.0	0.0	23.3	23.3	38.4	54.6	93.0	35	0	35	3.4	54.6	58.0	4.3	4.3	15	235	249	2.1	4.3
BB	Exception	31.0	4.1	5.1	40.2	4.7	2.4	5.1	12.1	26.3	1.7	28.1	10.0	0.0	10	16.3	1.7	18.0	3.5	3.5	57	6	63	1.6	3.5
BR	Exception	85.1	6.5	0.2	91.8	0	0.0	0.2	0.2	85.1	6.5	91.8	8.0	0.0	8	77.1	6.5	83.6	4.3	4.3	331	28	359	3.9	4.3
WR	Exception	22.1	7.5	5.7	35.0	4.3	2.1	5.7	12.1	17.8	5.5	26.7	7.0	0.0	7	10.8	5.5	16.3	3.5	3.5	38	19	57	1.6	3.5
RN (Industrial Only)*	Exception	68.3	20.7	6.0	95.0	28.3	10.7	6.0	45.0	40.0	10.0	50.0	3.7	10.0	13.7	36.3	0.0	36.3	N/A-Industrial Only	N/A-Industrial Only				N/A-Industrial Only	N/A-Industrial Only
Resource Areas																									
SUM NA-NOSV (1+2)	Resource	277.8	1.2	0.0	279.0	0.0	0.0	0.0	0.0	277.8	1.2	278.9	4	0	4	273.8	1.2	274.9	6.25	4.3	1,711	5	1,716	6.2	6.2
SUM NA-EV (E+W) (E: Commercial Only)*	Resource	39.3	0.6	0.2	40.2	0.0	0.0	0.2	0.2	39.3	0.6	39.9	0	0	0	39.3	0.6	39.9	6.25	4.3	246	3	248	6.2	6.2
SUM TML-E (1+2)	Resource	173.6	20.4	7.7	201.7	2.6	1.6	7.7	11.8	171.0	18.9	189.9	3.5	0	3.5	167.5	18.9	186.4	6.25	4.3	1,047	81	1,128	5.6	6.1
TML-W	Resource	6.7	2.2	0.0	9.0	0.3	0.1	0.0	0.5	6.4	2.1	8.5	1	0	1	5.4	2.1	7.5	6.25	4.3	34	9	43	4.8	5.7
SUM NL-E (R1+R2)	Resource	69.0	5.6	6.8	81.5	0.0	0.0	6.8	6.8	69.0	5.6	74.6	3	0	3	66.0	5.6	71.6	6.25	4.3	412	24	437	5.4	6.1
NL-W (Industrial Only)*	Resource	36.5	17.1	7.7	61.4	36.5	17.1	7.7	61.4	0.0	0.0	0.0	0	0	0	0.0	0.0	0.0	6.25	4.3	0	0	0	0.0	0.0
SUM SW-06 (R1+R2)	Resource	147.5	9.7	0.8	158.0	15.7	3.2	0.8	19.7	131.8	6.5	138.3	1	0	1	130.8	6.5	137.3	6.25	4.3	818	28	845	5.4	6.2
SW-03	Resource	38.5	2.8	0.6	41.9	6.1	0.7	0.6	7.3	32.4	2.1	34.5	3.75	0	3.75	28.6	2.1	30.7	6.25	4.3	179	9	188	4.5	6.1
SW-2	Resource	110.9	7.4	1.7	120.1	3.6	0.0	1.7	5.3	107.3	7.4	114.7	0	0	0	107.3	7.4	114.7	6.25	4.3	671	32	702	5.9	6.1
W-OSR1	Resource	226.7	3.0	1.7	231.4	13.9	1.3	1.7	16.9	212.8	1.7	214.5	0	0	0	212.8	1.7	214.5	6.25	4.3	1,330	7	1,337	5.8	6.2
SUM W-OSR2 (R1+R2)	Resource	309.2	3.4	1.2	313.8	25.0	2.0	1.2	28.2	284.2	1.5	285.7	2.5	0	2.5	281.7	1.5	283.2	6.25	4.3	1,761	6	1,767	5.6	6.2
WH-S	Resource	97.9	20.7	3.7	122.3	0.0	0.0	3.7	3.7	97.9	20.7	118.5	0	0	0	97.9	20.7	118.5	6.25	4.3	612	89	701	5.7	5.9
WH-2	Resource	104.6	282.9	44.4	431.9	3.2	3.1	44.4	50.8	101.4	279.8	381.1	7.5	3.25	10.75	93.9	276.5	370.4	6.25	4.3	587	1,189	1,776	4.1	4.8
SUM NFRR-E (1+2)	Resource	95.6	76.1	17.5	189.1	0.9	0.2	17.5	18.5	94.7	75.9	170.6	0	0	0	94.7	75.9	170.6	6.25	4.3	592	326	918	4.9	5.4
NW-EX1a	Resource	68.8	7.7	1.6	78.2	27.5	2.2	1.6	31.4	41.3	5.5	46.8	1	0	1	40.3	5.5	45.8	6.25	4.3			218	2.8	4.8
SUM NW-EX1b (R1+R2+R3)	Resource	61.3	9.7	1.4	72.5	0.4	0.3	1.4	2.2	60.9	9.4	70.3	3	0	3	57.9	9.4	67.3	6.25	4.3	362	40	402	5.6	6.0
NW-EX2	Resource	12.7	2.4	0.4	15.5	0.1	0.1	0.4	0.6	12.6	2.3	14.9	0	0	0	12.6	2.3	14.9	6.25	4.3	79	10	89	5.7	5.9
GH-E	Resource	16.7	1.0	1.9	19.5	0.5	0.1	1.9	2.5	16.1	0.9	17.1	1.5	0	1.5	14.6	0.9	15.6	6.25	4.3	92	4	96	4.9	6.1
GH-W	Resource	53.6	6.7	7.6	67.9	0.0	0.0	7.6	7.6	53.6	6.7	60.2	1	0	1	52.6	6.7	59.2	6.25	4.3	329	29	357	5.3	6.0
EA	Resource	489.0	4.0	0.5	493.4	8.9	0.0	0.5	9.4	480.1	4.0	484.0	0.0	0.0	0	480.1	4.0	484.1	6.25	4.3	3,000	17	3,017	6.1	6.2
NBC	Resource	99.5	14.9	4.3	118.7	32.0	3.8	4.3	40.2	67.5	11.1	79.4	2.0	0.0	2	65.5	11.1	76.6	6.25	4.3	409	47	457	3.9	6.0

*Note: During study area analysis, maximum residential capacity was calculated for some areas that have since been determined to be suitable only for commercial or industrial designation in the UGB proposal.

Buildable acres for areas designated as exclusively commercial or industrial in the Draft UGB proposal have subsequently been updated in the Draft UGB proposal calculations to reflect the buildable commercial or industrial acres for those areas, based on flatter slope suitable for commercial and industrial



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TECHNICAL MEMORANDUM #12

MGMUP UGB REMAND UPDATE

DATE: October 15, 2020
TO: Heather Richards, Planning Director
FROM: Chuck Darnell, Senior Planner
SUBJECT: Urban Integration Screening Process

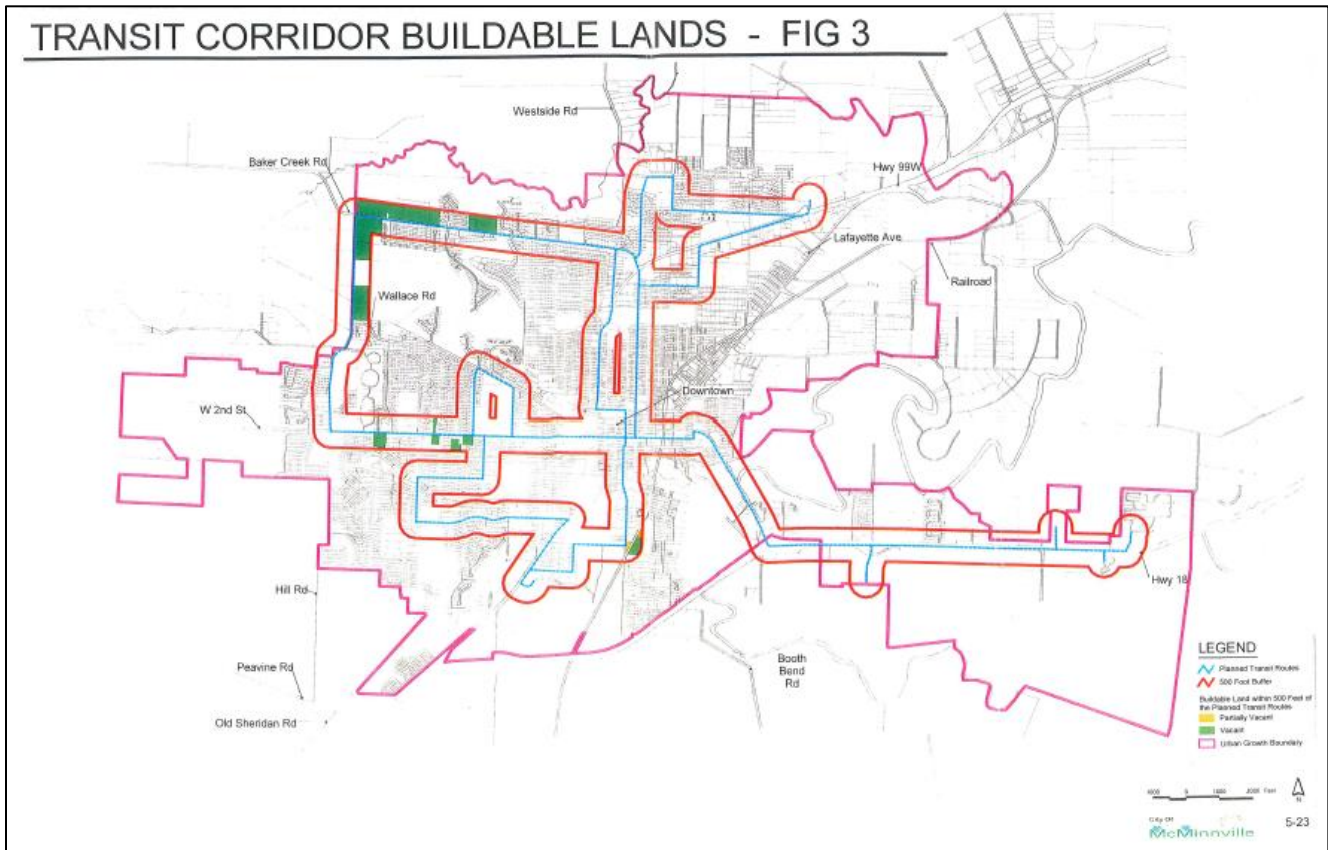
This technical memorandum reviews the process and assumptions used to evaluate candidate UGB Study Areas for their potential urban integration into the existing UGB. The evaluation of potential urban integration of each study area was completed to address Goal 14 (Urbanization) which requires cities to provide for an orderly and efficient transition from rural to urban land use. Goal 14 provides factors to consider in amending a UGB, with Factor 4 being the maximum efficiency of land uses within and on the fringe of the existing urban area.

Urban Integration Analysis

A number of measures were used to evaluate how well a study area could be integrated into the existing UGB, thereby creating an orderly and efficient transition from rural to urban use and allowing for the maximum efficiency of land uses within and on the fringe of the existing urban area. Those measures included distance to public transit, neighborhood continuity, bike and pedestrian suitability, and the continuity of buildable lands.

Public Transit: For the measurement of distance to public transit, the distance was measured from the center of the study area to the nearest planned transit route line. This method of measuring distance was completed to allow for a consistent application of measurement and equal comparison between study areas. To determine the center of the study area, GIS analysis was used to develop a “centroid”, which is a geographic center point location within each study area polygon (i.e. boundary). This centroid, or center point location, was used in the measurement of distances. The distance between the study area and the planned transit route was measured as the linear distance from the study area centroid to the nearest planned transit route line.

The location of public transit that was used in this analysis was the Planned Transit Routes figure in the record. This figure is included in the record as Figure 5-23 (Pages 964-965 in the DLCD submittal of the Court of Appeals Record - Document 8d (McMinnville Growth Management and Urbanization Plan)), and is shown below:



Study areas were assigned a rating of 1, 2, or 3 as follows:

- Rating of 3: Study area centroid within ½ mile (2,640 feet) of transit
- Rating of 2: Study area centroid within 1 mile (5,280 feet) of transit
- Rating of 1: Study area centroid over 1 mile (5,280 feet) from transit

Neighborhood Continuity: Neighborhood continuity was evaluated through examination of maps, aerial imagery, and site visits where necessary to determine existing uses. Neighborhood continuity was used to measure potential urban integration because the continuity of the existing built environment and existing neighborhoods was assumed to allow for the most efficient transition from rural to urban use at the edges of the existing urban area, and also allow for the maximum efficiency of land uses within and on the fringe of the existing urban area. Neighborhood continuity was primarily evaluated based on the location of a study area and its relationship to surrounding built areas of residential and commercial land uses. Particular emphasis was focused on the opportunity for street connectivity, the ability to extend existing grid street patterns, and alignment with surrounding streets and intersections. This focus on street connectivity was based on the assumption that areas with better street connections to existing areas would result in less need for right-of-way dedication and extension, and increase connectivity for all travel modes between the existing urban area and newly developed urban areas.

Study areas were assigned a rating of 1, 2, or 3 for their level of neighborhood continuity, with a rating of 1 having less continuity with the existing UGB and ratings of 3 having more continuity with the existing UGB.

Bike and Pedestrian Suitability: Each study area was evaluated for its potential suitability for bike and pedestrian travel. The ability for a study area to support bike and pedestrian modes of travel was used to measure potential urban integration under the assumption that an area that is supportive of bike and pedestrian travel would be more compact and therefore more of a maximum efficiency of land uses within and on the fringe of the existing urban area. Suitability for bike and pedestrian travel was evaluate primarily by the presence of slopes within the study area, with more sloped areas assumed to result in more difficult bike and pedestrian travel. A comparison to the rating of a study area for neighborhood continuity and street connectivity was also used to evaluate a study area for bike and pedestrian suitability, under the assumption that better street connectivity and continuity would result in increased bike and pedestrian accessibility.

Study areas were assigned a rating of 1, 2, or 3 for their level of bike and pedestrian suitability, with a rating of 1 assigned to study areas less suitable for bike and pedestrian travel and ratings of 3 assigned to study areas more suitable for bike and pedestrian travel.

Buildable Land Continuity: Each study area was evaluated for the level of continuity of buildable land within the study area. The continuity of buildable land was used to measure potential urban integration under the assumption that areas of continuous buildable land that are not impeded by constraints or existing development would allow for more compact urban development, and therefore more of a maximum efficiency of land uses within and on the fringe of the existing urban area. Each study area was evaluated through examination of maps and aerial imagery to identify locations of constraints (those areas identified as not buildable in the buildable lands inventory) and existing dwellings or parcels (those existing parcels that have dwellings and therefore have less development capacity).

Study areas were assigned a rating of 1, 2, or 3 for their level of buildable land continuity, with a rating of 1 assigned to study areas with discontinuity or separation of buildable lands and ratings of 3 assigned to study areas with more continuity of buildable lands.

Overall Rating: Using the four measures described above, each study area was assigned an overall rating of 1, 2, or 3, with ratings of 1 being assigned to study areas that were determined to have less ability for urban integration and ratings of 3 being assigned to study areas that were determined to have more ability for urban integration. A description of each study area, and the analysis that resulted in its overall rating assignment, is provided below:

Exception Study Areas

Lawson Lane (LL)

The LL study area, on its own, is disconnected from the existing UGB by Highway 18 and is therefore isolated from other built areas of the UGB. The study area is over ½ mile from public transit, as measured to Norton Lane because the planned transit route line on Highway 18 is not accessible from the study area. Neighborhood continuity is low due to the location of the study area and separation from the existing UGB, which is further east along the frontage road (Stratus Avenue). The study area has limited or no slopes, but suitability for bike and pedestrian travel is also low, again due to the location of the study area and the separation from the existing UGB. If the Three Mile Lane East (TML-E) study area, which is immediately adjacent to the east, were included in the UGB, levels of neighborhood continuity, new street connectivity, and bike and pedestrian

connectivity could be much improved. The study area’s buildable lands are almost entirely within existing parcels that contain existing single family homes and dwelling units. Therefore, the study area’s buildable lands are in partially vacant portions of the parcelized study area, so continuity of buildable lands is low.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
LL	3,264	Low	Low	Low	1

Old Sheridan Road (OSR)

The OSR study area is located in a linear manner extending outward from the existing UGB, resulting in some disconnect and isolation from the existing UGB. The nearest planned public transit is nearly one mile away at the intersection of Highway 99W and Keck Circle. There is one existing public street (SW Taylor Drive) that is stubbed out at the northern boundary of the study area, which would provide for connectivity to that existing neighborhood. However, the linear extension and shape of the study area results in the westernmost portions of the study area being disconnected from the remainder of the existing UGB and bound by large roadways in Old Sheridan Road and Highway 18. Therefore, neighborhood continuity was assigned a low rating. The study area has limited slopes, but due to the disconnect of the westernmost portions of the study area from the remainder of the existing UGB and the adjacency to large, non-pedestrian friendly streets in Old Sheridan Road and Highway 18, the study area was assigned a low rating for bike and pedestrian suitability. The study area’s buildable lands are entirely within existing parcels that contain existing single family homes and dwelling units. There are also two parcels of public and institutional ownership, in a McMinnville Water and Light substation and a church, that separate buildable lands. Therefore, the study area’s buildable lands are in partially vacant portions of the parcelized study area, so continuity of buildable lands is low.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
OSR	4,951	Low	Low	Low	1

North of Fox Ridge Road – West (NFRR-W)

The NFRR-W study area, on its own, is disconnected and separated from the existing UGB. The study area is nearly two miles from planned public transit, as measured in a direct line westbound from the study area centroid to Hill Road. Neighborhood continuity and suitability for bike and pedestrian travel were assigned low ratings due to the study area’s location and disconnect from the existing UGB. Slopes also exist within the study area that would further limit the ease of bike and pedestrian travel within the study area. The entire study area is primarily existing single family homes on platted lots (Hidden Hills subdivisions). There are some vacant lots within the study area’s platted parcels, but the remainder of the buildable lands in the study area would be in partially vacant portions of parcels. Slope constraints exist in the western portion of the study area that span multiple lots, which together with the parcelization, results in a low rating for continuity of buildable lands.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
NFRR-W	10,235	Low	Low	Low	1

Booth Bend Road (BR)

Neighborhood continuity and suitability for bike and pedestrian modes of transportation are low, due to the study area’s location. The study area is separated from the UGB by Highway 18. While an existing grade-separated crossing exists of Booth Bend Road over Highway 18, this crossing presents a barrier to the continuity of neighborhood grid street patterns and connectivity with existing neighborhoods in the UGB. For the same reasons, bike and pedestrian suitability is low. The study area is mostly flat, with some steeper slopes within the eastern portion of the study area along the floodplain, but for the same connectivity issues noted above, the study area is rated low for bike and pedestrian suitability. Slope constraints exist in the eastern portion of the study area that would further limit bike and pedestrian travel within the study area. The study area is primarily existing single family homes on lots ranging from one to 3.5 acres in size. Therefore, all of the buildable lands in the study area would be in partially vacant portions of parcels. Slope constraints exist in the eastern portion of the study area that span multiple lots, and there are also areas of unbuildable lands within the floodplain along the eastern boundary of the study area. Together with the parcelization, these characteristics result in a low rating for continuity of buildable lands and an overall low rating for the study area’s suitability for urban integration.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
BR	3,069	Low	Low	Low	1

Brentano Lane (BL)

Neighborhood continuity and suitability for bike and pedestrian modes of transportation are low, due to the study area’s location and disconnect from the existing UGB. The study area is adjacent to the UGB to the south, but is still separated from the UGB by Baker Creek. The only connectivity to the study area, without a new crossing of Baker Creek, would be required from Hill Road North (north of Baker Creek Road) which would limit opportunities for extension of any neighborhood grid street networks. Bike and pedestrian suitability is also rated low due to these connectivity issues, even though most of the study area is flat. However, there are some areas of moderate slopes along the southern boundary of the study area, which would further limit bike and pedestrian transportation within the study area. Overall, the combination of low neighborhood continuity and bike and pedestrian suitability, moderate ratings for distance to transit, and only moderate continuity of buildable land, resulted in an overall low rating for the BR study area’s suitability for urban integration.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
BL	3,378	Low	Low	Moderate	1

Westside Road (WR)

The WR study area is located less than ½ mile from planned public transit at the intersection of Evans Street and Burnett Road. Neighborhood continuity and suitability for bike and pedestrian modes of transportation are low, due to the study area’s location and disconnect from the existing UGB. The study area is adjacent to the UGB to the east and south, but is separated from the UGB by Baker Creek. The only connectivity to the study area, without a new crossing of Baker Creek, would be required from Westside Road which would limit opportunities for extension of any neighborhood grid street networks. Bike and pedestrian suitability is also rated low due to

these connectivity issues. The western portions of the study area are flat, but there are areas of steep slopes within the eastern half of the study area associated with the areas that begin to slope into the Baker Creek floodplain. These slopes would further limit bike and pedestrian transportation within the study area. The study area is primarily existing single family homes on parcels ranging from about 2 to about 4 acres in size. Therefore, all of the buildable lands in the study area would be in partially vacant portions of parcels. However, most of the parcels within the study area are either already partitioned or of a long, narrow shape that may limit further division and access for infill development. In addition, the eastern portion of many lots contain areas of steep slopes and floodplain that are unbuildable. These characteristics result in a low rating for continuity of buildable lands, and together with the low ratings for neighborhood continuity and bike and pedestrian suitability, the overall urban integration rating for the study area is low.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
WR	2,008	Low	Low	Low	1

Resource Study Areas

North of Olde Stone Village (NA-NOSV)

The NA-NOSV study area is slightly over a half mile from planned public transit, which is shown with a planned route ending at the Olde Stone Village property to the south. However, connectivity of the study area to surrounding UGB lands is low, as there is no exiting public street connection with the Olde Stone Village property to the study area. The only available street connectivity would be from Loop Road, which does not provide continuity with the only adjacent residential use. Therefore, the rating for neighborhood continuity is low. Similarly, while the study area is flat and does not contain sloped area, the disconnect from other neighborhoods in the UGB and the Three Mile Lane corridor results in a low rating for bike and pedestrian suitability. The continuity of buildable lands is high, as the majority of the study area is vacant land. Only two smaller parcels exist with single family homes, and the remainder of the study area is vacant parcels.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
NA-NOSV	2,846	Low	Low	High	2

Evergreen (NA-EV)

The NA-EV study area is less than a half mile from planned public transit, as measured to the planned route ending at the Olde Stone Village property to the east because the planned transit route line on Highway 18 is not accessible from the study area. Connectivity of the study area to surrounding UGB lands is primarily through the adjacency to the frontage road along the southern boundary of the study area. There are no exiting public street connections between the study area and the Olde Stone Village property to the east, and the study area is separated from other residential uses to the west by a planted vineyard. Therefore, neighborhood continuity is low. The study area is flat, and due to its proximity to the planned frontage road along the southern boundary of the study area, bike and pedestrian suitability was assigned a moderate rating. The continuity of buildable lands is high, as the entire study area is vacant land.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
NA-EV	1,638	Low	Moderate	High	2

Three Mile Lane East (TML-E)

The TML-E study area is close to a planned public transit route at the southern end of the existing Norton Lane right-of-way, which actually terminates at the northern boundary of the study area and would allow for an easy extension of transit services into the study area. Neighborhood continuity was assigned a moderate rating. There are not existing neighborhoods adjacent to the study area, but Norton Lane exists as a collector and major connecting street to the study area that could allow for the establishment of an integrated street network within the study area. Also, existing parcels immediately to the north of the study area are zoned and planned for higher density residential uses, which would allow for the planned connectivity and interaction between these uses and the study area. Similarly, the study area was assigned a moderate rating for bike and pedestrian suitability. There are no significant sloped areas within the study area, and the ability to establish an integrated street network off of the major connecting street (Norton Lane) creates opportunity for bike and pedestrian accessibility within the study area. Buildable land has high continuity within the study area. About half of the study area is in vacant parcels, and other parcels are large with only one single family home that provide large areas of partially vacant lands. Some constraints exist within the study area along the drainageway and adjacent to the floodplain near the southern boundary of the site, but not in a manner that would completely separate areas of buildable lands.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
TML-E	1,047	Moderate	Moderate	High	3

Three Mile Lane West (TML-W)

The TML-W study area, on its own, is disconnected from the existing UGB by Highway 18 and is therefore isolated from other built areas of the UGB. The study area is over ½ mile from public transit, as measured to Norton Lane because the planned transit route line on Highway 18 is not accessible from the study area. Neighborhood continuity is low due to the location of the study area and separation from the existing UGB, which is further east along the frontage road (Stratus Avenue). The study area has limited or no slopes, but suitability for bike and pedestrian travel is also low, again due to the location of the study area and the separation from the existing UGB. If the Three Mile Lane East (TML-E) or Lawson Lane (LL) study areas, which are immediately adjacent to the east, were included in the UGB, levels of neighborhood continuity, new street connectivity, and bike and pedestrian connectivity could be much improved. The study area’s buildable lands are entirely within existing parcels that contain existing single family homes and dwelling units. Therefore, the study area’s buildable lands are in partially vacant portions of the parcelized study area, so continuity of buildable lands is low.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
TML-W	3,833	Low	Low	Low	1

Norton Lane East (NL-E)

The NL-E study area is located just over a half mile from the planned public transit on Norton Lane. Neighborhood continuity was assigned a moderate rating, as Norton Lane exists within the study area as a major connecting street and other neighborhood connectivity could be available through the northerly extension of an existing stubbed out street (NE Haven Lane). However, the western half of the study area is separated from the subdivision to the south and its only connectivity to that neighborhood would be through Norton Lane. Bike and pedestrian suitability is high, given that there are no significant sloped areas and there is an opportunity for connections on Norton Lane and establishment of new street network off of that major street connection. The study area is also located north of Highway 18, which would not require a crossing of the highway to access other areas of the UGB and city center. The continuity of buildable lands is high, as about half of the study area is vacant parcels. Some smaller parcels exist with single family homes that result in partially vacant lands, but the remainder of the study area is vacant parcels. The only areas of constraints and unbuildable lands exist is slopes along the edges of the study area adjacent to the floodplain along the study area boundaries.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
NL-E	2,700	Moderate	High	High	3

Norton Lane West (NL-W)

The NL-W study area is almost entirely surrounded by the existing UGB. It is located just over a half mile from planned public transit. Neighborhood continuity was assigned a moderate rating, based on the street connectivity through Brooks Street (Joe Dancer Park entrance street) and the potential extension of 5th Street through existing unimproved right-of-way east of Oregon Street. The study area is in close proximity to downtown and existing neighborhoods to the west, and with the street connectivity would have high bike and pedestrian connectivity. There are some slopes at the edges of the study area, but the proximity to surrounding UGB and Joe Dance Park with trails results in a high rating for bike and pedestrian suitability. However, the study area has no buildable acres based on the record.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
NL-W	2,700	Moderate	High	Low	2

Southwest 1 (SW-06)

The SW-06 study area is located over a half mile to planned public transit at the intersection of Fellows Street and Cypress Street. The study area is somewhat separated from the existing UGB by the Peavey Reservoir floodplain and drainageway, which separates the study area along the northern boundary from the existing UGB. However, adjacent to Hill Road and Old Sheridan Road provide opportunities for street connectivity for new streets within the study area, as well as opportunities for alignment with SW Mitchell Drive across Old Sheridan Road for connectivity to the currently somewhat isolated Creekside Meadows/Cozine Woods subdivisions. The study area is flat with no significant slopes, and together with the adjacency to Hill Road and Old Sheridan Road and the opportunities for connectivity to the UGB along those major streets, bike and pedestrian suitability was assigned a high rating. A majority of the study area is vacant land, with some smaller parcels with existing single family homes, resulting in a high level of buildable land continuity.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
SW-06	3,326	Moderate	High	High	3

Southwest 2 (SW-2)

The SW-2 study area is just over a half mile from planned public transit at the intersection of Hill Road and 2nd Street. Neighborhood continuity is high, as there are many opportunities for street connectivity and alignment. Multiple existing streets are stubbed out adjacent to northern boundary of study area (Mt. Jefferson Street, Mt. St. Helens Street, and Westhills Drive). There are also multiple opportunities for grid street alignment with existing street intersections along the study area’s Hill Road frontage (Tamarack Street, Fellows Street, and Phyllis Drive). Similarly, suitability for bike and pedestrian travel was also assigned a high rating, due to the opportunity for street connectivity and accessibility, along with the lack of slopes within the study area. Continuity of buildable land is also high, as the entire study area is vacant. The only unbuildable areas are in small constraint areas in a floodplain area in the southeastern corner of the study area and some slopes around the existing earthen mound.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
SW-2	2,807	High	High	High	3

Southwest 03 (SW-03)

The SW-03 study area is just over one mile from planned public transit at the intersection of Fellows & Cypress Streets. The study area on its own separated from existing UGB, and separated from study area to the north by Cozine Creek. This results in moderate ratings for neighborhood continuity and bike and pedestrian suitability. Continuity of buildable land is high, as the entire study area is primarily vacant with the exception of a couple of existing home sites. The only unbuildable areas are in small constraint areas in a floodplain area along the northern boundary of the study area.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
SW-03	5,351	Moderate	Moderate	High	2

West of Old Sheridan Road 1 (W-OSR1)

The W-OSR1 study area, on its own, is disconnected from the existing UGB. It is over a mile and a half from the nearest planned public transit route at the intersection of Fellows Street and Cypress Street. Neighborhood continuity is low due to the lack of connectivity to the existing UGB. The study area has frontage on Peavine Road, Old Sheridan Road, and Highway 18, but not in areas that are connected to any UGB street or neighborhood grid street pattern. Lack of slopes, but low neighborhood continuity and street connectivity rating, lead to a low assignment for bike and pedestrian suitability. Continuity of buildable lands are high, as almost the entire study area is vacant parcels with only unbuildable areas along floodplain in northern portion of study area.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
W-OSR1	8,524	Low	Low	High	1

West of Old Sheridan Road 2 (W-OSR2)

The W-OSR2 study area is located over one mile from the nearest planned public transit route at the intersection of Fellows Street and Cypress Street. The study area is fairly disconnected from the existing UGB, with the only adjacency to the existing UGB along a small segment of the northern portion of the study area adjacent to Hill Road. There is an opportunity for alignment of street connectivity with the intersection of SW Alexandria Street, but new grid network would all be west of Hill Road and disconnected from other existing neighborhoods, resulting in a low neighborhood continuity rating. The study area is adjacent to the Southwest 1 (SW-06) and Southwest 2 (SW-2) study areas, and if either of those study areas were included in the UGB, levels of neighborhood continuity, new street connectivity, and bike and pedestrian connectivity could be much improved. The study area is flat with no significant slopes, but based on the lack of connectivity to the existing UGB and neighborhoods, results in a moderate rating for bike and pedestrian suitability. Continuity of buildable lands are high, as almost the entire study area is vacant parcels with only unbuildable areas along floodplain. However, the floodplain and constraint area is located through the center of the study area, which does separate the vacant buildable lands.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
W-OSR2	5,757	Low	Moderate	High	2

West Hills South (WH-S)

The WH-S study area is located nearly one mile from planned public transit at the intersection of Hill Road and 2nd Street. Opportunities for neighborhood continuity are high, with the study area’s adjacency to Redmond Hill Road and other existing UGB areas along the northern boundary. Other existing public streets exist that provide opportunity for extension and alignment of street intersections (Heath Street, Grayson Street, and SW Valley’s Edge Street) that increase opportunity for connectivity and accessibility. This opportunity for connectivity is positive for bike and pedestrian suitability as well, but some sloped areas within the western portions of the study area result in a moderate rating for bike and pedestrian suitability. Continuity of buildable lands is high, as study area is only two existing parcels, one being a large vacant parcel and one being a large parcel with only one dwelling. Some constraints exist, but only in limited areas of slopes in the western portion of the study area.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
WH-S	4,820	High	Moderate	High	3

West Hills 1 (WH1)

The WH1 study area is separated from the existing UGB and is located nearly two miles from the nearest planned public transit at Hill Road. Due to disconnect from the exiting UGB and the presence of sloped areas, both neighborhood continuity and bike and pedestrian suitability ratings are low. Continuity of buildable lands

is also low, as the study area is separated from areas to the east toward the existing UGB by a significant area of unbuildable lands that contain slopes at over 25% grades.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
WH-1	9,223	Low	Low	Low	1

West Hills 2 (WH2)

The WH2 study area is adjacent to the existing UGB to the east, but is located over a mile from planned public transit at the intersection of Hill Road and 2nd Street. Neighborhood continuity is moderate, as there are opportunities for extensions of Fox Ridge Road and Redmond Hill Road into the study area, which could serve as major street connections to establish new street networks from. Direct connection to adjacent neighborhood grid street patterns is limited, as the Hillcrest/West Hills master plan and tentative subdivision includes two streets (E Street and G Street) stubbed out at the west boundary of the existing UGB and adjacent to the WH-2 study area. However, those connections are multiple phases out from the existing platted subdivisions and in areas that do not yet have availability of water services to allow development. Buildable land continuity is moderate, as the study area is primarily vacant in larger vacant parcels and a few larger parcels with single family dwellings. However, slope constraints do exist in multiple areas throughout the study area, resulting in the moderate buildable land continuity rating.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
WH-2	6,981	Moderate	Low	Moderate	1

North of Fox Ridge Road East (NFRR-E)

The NFRR-E study area is only adjacent to the existing UGB along a portion of its southern boundary, which is adjacent to the Fox Ridge Road Exception area. Opportunities for neighborhood continuity are low, as the study area would be a linear peninsula extending outward from the existing UGB. The only existing adjacent right-of-way is in Hidden Hills Lane, which would not exist if the NFRR-W study area is not included in the UGB. Other than the adjacent Hidden Hills Lane, there is no public right-of-way currently adjacent to the study area and opportunities for street connections are somewhat limited by the presence of parcelized lands and some public utilities (the McMinnville Water and Light reservoir property) south of the study area within the existing UGB. The eastern boundary of the study area is adjacent to the West Wind Country Estates subdivision (which is in the NW-EX1a study area), which does have a proposed public right-of-way and street within the second phase of the subdivision (the western, vacant parcel immediately west of the existing platted lots). However, this second phase has not been platted and the underlying zoning of the property is for Exclusive Farm Use. Due to the lack of access, street connectivity to the NFRR-E study area is limited and presents limited opportunity for the extension of a neighborhood grid street system. The lack of connectivity to surrounding lands results in a low neighborhood continuity rating. Similarly, the lack of connectivity with the existing UGB, along with slopes that are present within the study area, result in a low rating for bike and pedestrian suitability.

If the Northwest Ext 1a (NW-EX1a) or Northwest Ext 1b (NW-EX1b) study areas, which are immediately adjacent to the east, were included in the UGB, levels of neighborhood continuity, new street connectivity, and bike and

pedestrian connectivity could be improved slightly, however issues of slope will still limit continuity and connectivity.

Continuity of buildable lands is moderate, as the majority of the study area is vacant. However, there are areas of unbuildable land, due to greater than 25% slopes, that run diagonally through the eastern portion of the study and limit the continuity of the vacant buildable lands. Areas of continuous buildable land do exist in the north and northwest portions of the study area, but would be separated from the existing UGB to the south and other adjacent study areas, should they be included in the UGB, to the east.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
NFRR-E	6,567	Low	Low	Moderate	1

Northwest Ext. 1a (NW-EX1a)

The NW-EX1a study area is located less than a half mile to planned public transit, with the eastern boundary of the study area being located immediately adjacent to the right-of-way with the planned transit route (Hill Road). Opportunities for neighborhood continuity are moderate, as the completion of the street network within the existing West Wind Country Estates subdivision would complete the street network and connectivity within that subdivision. However, northern portions of the study area have no street connectivity to the existing subdivision lots to the south, requiring new access and circulation from Baker Creek Road or Hill Road without opportunity for alignment with any other local streets across from those potential access points. Bike and pedestrian suitability is also moderate, as the study area is relatively flat without any significant slopes, but does not have a high neighborhood continuity rating. Buildable land continuity is low within the study area, and the study area is primarily platted lots with existing single family homes. There are some vacant lots and vacant areas within the study area, but most of the buildable land is in partially vacant parcels that are parcelized, so the buildable land is not continuous.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
NW-EX1a	1,282	Moderate	Moderate	Low	2

Northwest Ext. 1b (NW-EX1b)

The NW-EX1b study area is located less than a half mile to planned public transit, with the eastern boundary of the study area being located immediately adjacent to the right-of-way with the planned transit route (Hill Road). The study area is located adjacent to Hill Road, with opportunities for alignment and extension of existing streets and intersections (Wallace Road and Cottonwood Drive), which provide high opportunity for neighborhood continuity. This adjacency and opportunity for connectivity with surrounding streets and neighborhoods is positive for bike and pedestrian travel, but some slopes exist in the western portions of the study area, leading to a moderate bike and pedestrian suitability rating. Buildable land continuity is high, as about half of the study area is vacant and other portions of the study area are larger parcels with single family homes, providing large areas of vacant and partially vacant lands that are continuous.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
NW-EX1b	1,208	High	Moderate	High	3

Northwest Ext. 2 (NW-EX2)

The NW-EX2 study area is located very close to planned public transit at the intersection of Hill Road and Baker Creek Road. The study area is also located adjacent to Baker Creek Road, but has no opportunity for connectivity to adjacent local streets to align with or provide extension of neighborhood grid street networks. The adjacent tentative subdivision, Baker Creek North, has no planned street extensions to the western boundary of the study area, resulting in low neighborhood continuity. Bike and pedestrian suitability is moderate, as the study area is adjacent to Baker Creek Road and the existing UGB, but has low direct connectivity to surrounding neighborhoods. Buildable land continuity is high, as nearly the entire study area is buildable and vacant, with some limited constraints in slopes along northern boundary adjacent to floodplain.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
NW-EX2	687	Low	Moderate	High	2

Grandhaven East (GH-E)

The GH-E study area is located over a half mile from planned public transit directly southbound in NE 27th Street. The study area is adjacent to Grandhaven Drive at the southern boundary of the study area, however neighborhood continuity is low due to the study area being completely surrounded by the Chegwyn conservation easement that prohibits urban levels of development. The study area is flat without any significant slopes, but the low neighborhood continuity rating leads to a moderate rating for bike and pedestrian suitability. Buildable land continuity is low as the study area is only three parcels, with two of those parcels containing existing single family homes. Therefore, the study area's buildable lands are in partially vacant portions of the parcelized study area, so continuity of buildable lands is low.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
GH-E	3,847	Low	Moderate	Low	1

Grandhaven West (GH-W)

The GH-W study area is located over a half mile from planned public transit at the intersection of Burnett Road and Hembree Street. Neighborhood continuity is high, as the study area is immediately adjacent to existing platted neighborhoods. Multiple existing streets are stubbed out adjacent to northern boundary of study area (Hembree Street, Joel Street, McDonald Lane (as right-of-way), and Newby Street (as right-of-way) which provide opportunities for street connectivity and extension of existing neighborhood grid street patterns. Bike and pedestrian suitability is also high, based on the high neighborhood continuity rating and the lack of significant sloped areas. Buildable land continuity is also high, as the study area is one single parcel with a single family home. There are some limited constraints in some slopes, but these are only along the northern boundary of the study area adjacent to the floodplain, resulting in large areas of continuous vacant buildable land.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
GH-W	3,865	High	High	High	3

East of Airport (EA)

The EA study area is located over a mile from planned public transit at the entrance to Olde Stone Village on Highway 18. Neighborhood continuity and suitability for bike and pedestrian modes of transportation are low, due to the study area’s location and disconnect from the existing UGB. Buildable land continuity is high, as the study area is largely vacant, consists of relatively few parcels, and has limited constraints. However, the poor ratings for neighborhood continuity, bike and pedestrian suitability, and transit result in an overall low rating for the study area.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
EA	5,389	Low	Low	High	1

North of Baker Creek (NBC)

Neighborhood continuity and suitability for bike and pedestrian modes of transportation are low, due to the study area’s location and disconnect from the existing UGB. The study area is adjacent to the UGB to the south, but is still separated from the UGB by Baker Creek. The only connectivity to the study area, without a new crossing of Baker Creek, would be required from Hill Road North (north of Baker Creek Road) which would limit opportunities for extension of any neighborhood grid street networks. Bike and pedestrian suitability is also rated low due to these connectivity issues, even though most of the study area is flat. However, there are some areas of moderate slopes along the northern boundary of the study area and steep slopes (over 25%) along the southern boundary of the study area, which would further limit bike and pedestrian transportation within the study area. The study area consists of only six parcels, two of which are portions of parcels that extend further outside of the study area. Two parcels within the study area have single family homes. One of those parcels is small and surrounded by a parcel that is vacant, and other parcel is larger with one single family home and rest of parcel vacant. The remaining parcels are primarily vacant and in agricultural use, so areas of vacant and buildable land are fairly continuous throughout the study area. Based on these characteristics, continuity of buildable land was rated high in the NBC study area.

	Distance to Transit (Feet)	N-hood Continuity	Bike/Ped Suitability	Buildable Land Continuity	Overall Rating
NBC	2,405	Low	Low	High	2



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TECHNICAL MEMORANDUM #13

MGMUP UGB REMAND UPDATE

DATE: October 6, 2020
TO: Heather Richards, Planning Director
FROM: Tom Schauer, Senior Planner
SUBJECT: Efficiency Measures - Evaluation

This technical memorandum provides information about the efficiency measures in MGMUP Table 16 below and discusses actions the City has taken to achieve efficiencies and the extent achieved, as they relate to those items listed in the table.

Table 16. Summary of land supply and capacity, existing McMinnville UGB and proposed UGB expansion areas

	Land Need (measured in dwelling units)	Land Need (measured in acres)	Gross Density
Housing:			
Housing unit need	6,014	1053.00	5.7
Housing unit capacity (inside UGB)	2,949		
Unmet housing unit need	3,065	538.00	5.7
Proposed Measures To Increase Residential Land Capacity (inside UGB):			
Allow ADU's in residential zones	200	35.09	
Rezone portion of West Hills from R-1 to R-2	204	35.79	
Rezone other residential and non-residential properties	80	14.04	
Direct increased density to transit corridors	90	15.79	
Direct increased density to Northwest Neighborhood Activity Center	238	41.75	
Direct increased density to Grandhaven Neighborhood Activity Center	143	25.09	
Add downtown upper floor housing opportunities to buildable land inventory	61	10.70	
Total Proposed Measures Adjustments	1,016	178.25	

1. Allow ADUs in residential zones

This efficiency measure was adopted and the efficiency assumptions were incorporated into the land need calculations.

2. Rezone portion of West Hills from R-1 to R-2

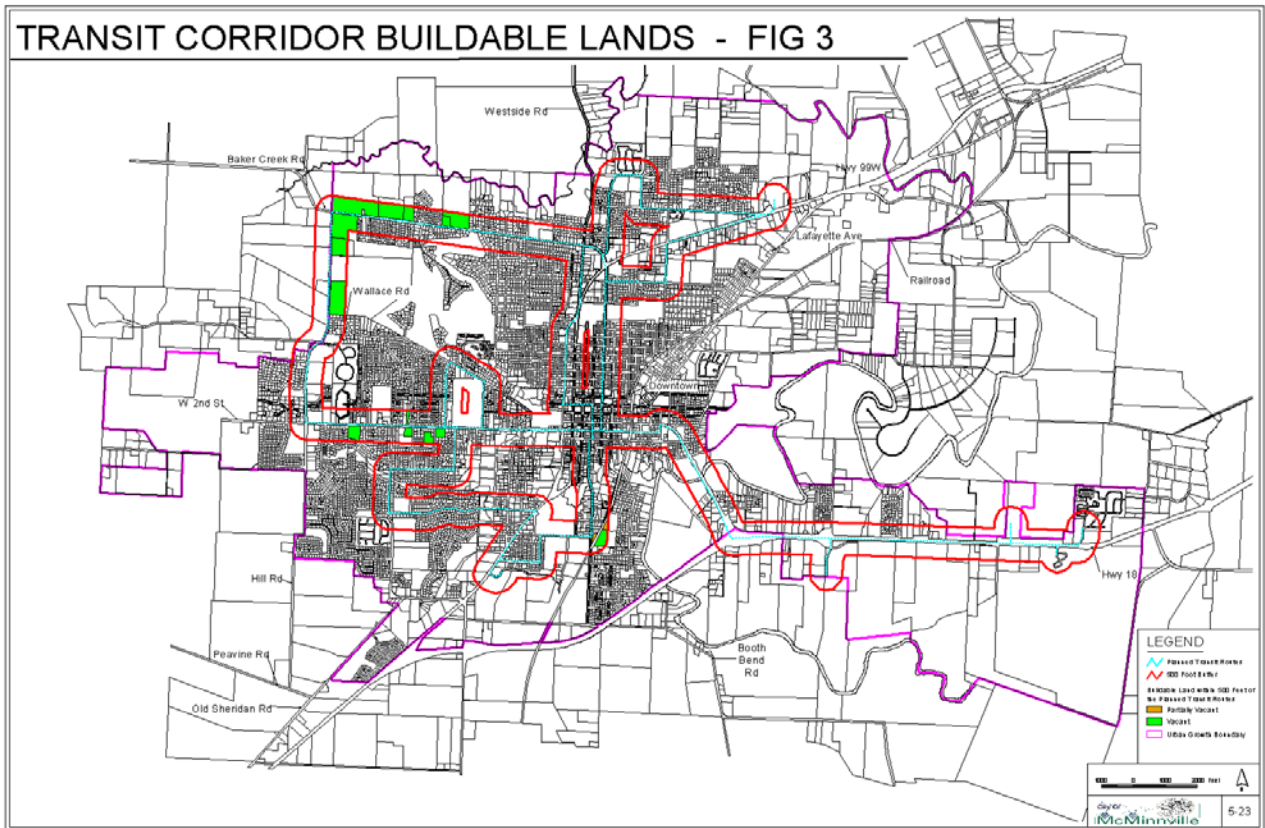
This efficiency measure was adopted and the efficiency assumptions were incorporated into the land need.

3. Rezone other residential and non-residential properties –

A table of proposed properties for rezoning was adopted as part of the land-use efficiencies. All but three of the properties were rezoned as planned. Some of the properties have since developed and the increased dwelling unit efficiency is 99 dwelling units. (See attached Properties Rezoned Table).

4. Increase density on transit corridors

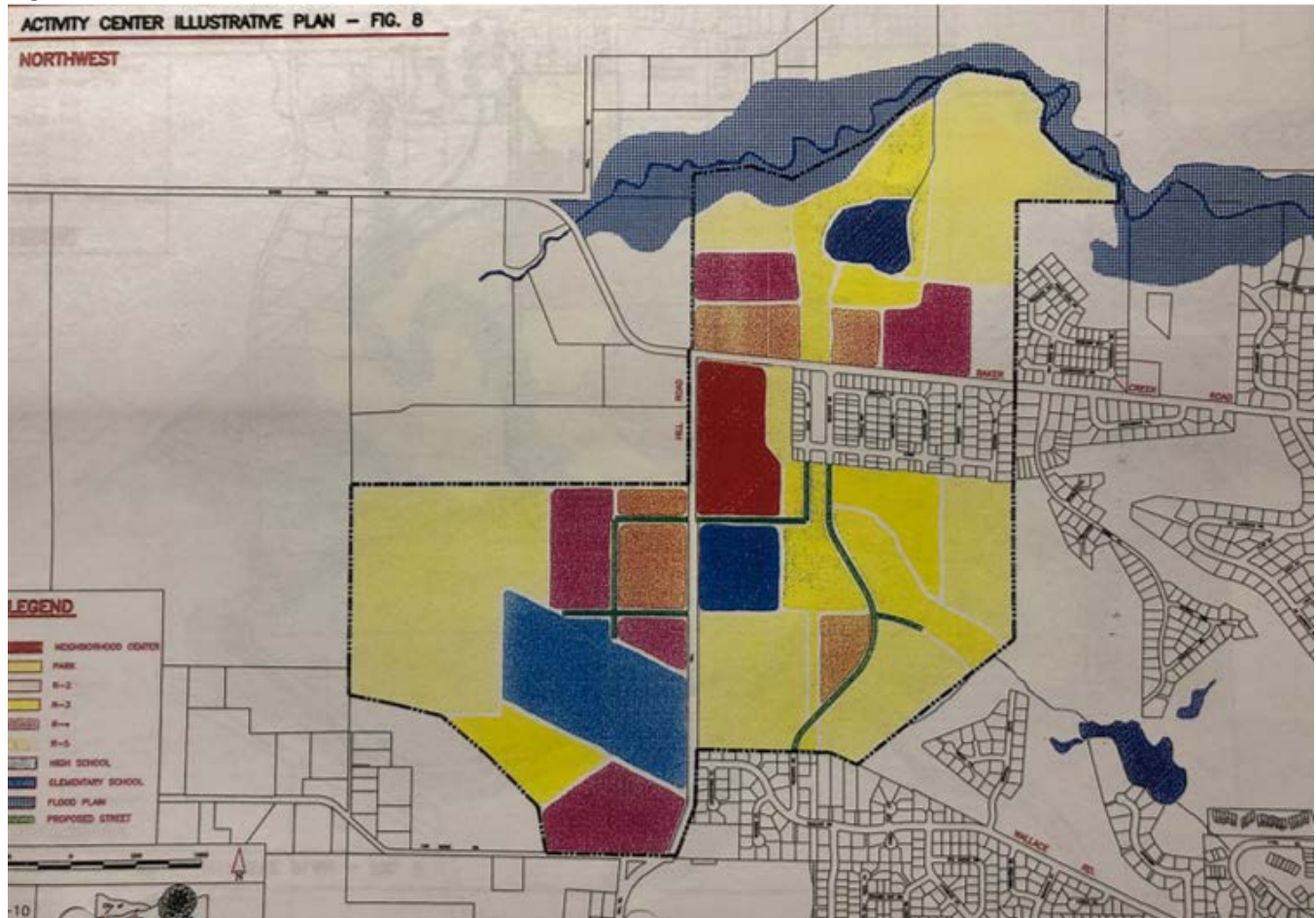
One of the city’s efficiency measures was to increase residential density within ½ mile of the planned transit corridors. In 2003, the city adopted a comprehensive plan policy encouraging higher density housing within ½ mile of the planned transit corridor. Since this efficiency measure was first proposed 21 properties have been rezoned and developed for a net increase in housing units of 237 dwelling units. (See attached Rezones within Transit Corridor (1/2 mile) Table).



5. Increase density in the northwest area at the corner of Hill Road and Baker Creek Road

The efficiency measures were assumed to achieve efficiency of 238 DUs in the northwest area of the UGB at the corner of Hill Road and Baker Creek Road through the implementation of a planned Neighborhood Activity Center with a combination of higher density residential zoning and lower density residential zoning. This was to be achieved through the inclusion of higher density zoning, including R-4 and R-5 zoning on land in the UGB north of Baker Creek Road, and a smaller portion of R-5 zoning south of Baker Creek Road in the southeasterly portion of the area.

Figure 1. Northwest Area at the Corner of Hill Road and Baker Creek Road



Since the MGMUP was appealed, the City was not able to move forward with the Neighborhood Activity Center overlay and this property did not develop as the efficiency measure planned.

The property however did recently receive an approved land-use decision for a R-4 planned development. This memorandum will examine whether or not the efficiency measure was achieved through another action.

The original comprehensive plan designation for this property was a combination of a commercial and residential zoning, with 10 acres in commercial zoning and 45.32 acres in residential zoning. The buildable lands inventory assigned a R2 residential capacity (4.3 du/acre) to the land with a residential designation and no housing units to the land with a commercial designation. (The comprehensive plan designation was passed by an ordinance that prohibited housing in this particular property designation.) The total amount of dwelling units assigned to this property in the buildable lands inventory was 194 dwelling units.

Recently the City Council approved a comprehensive plan amendment and a R-4 planned development on this property that planned for 280 dwelling units on the residentially designated land and 120 dwelling units on the commercially designated property (the prohibition on housing was repealed). (Ordinances No. 5084 – 5089, 2020). This resulted in an overall efficiency of 206 additional dwelling units in this area.

Baker Creek North			
Land Use	Gross Density (proposed)	Size	Number of Units
R-4	5.75	48.7	280
C-3	18.12	6.62	120
Total # of Units			400

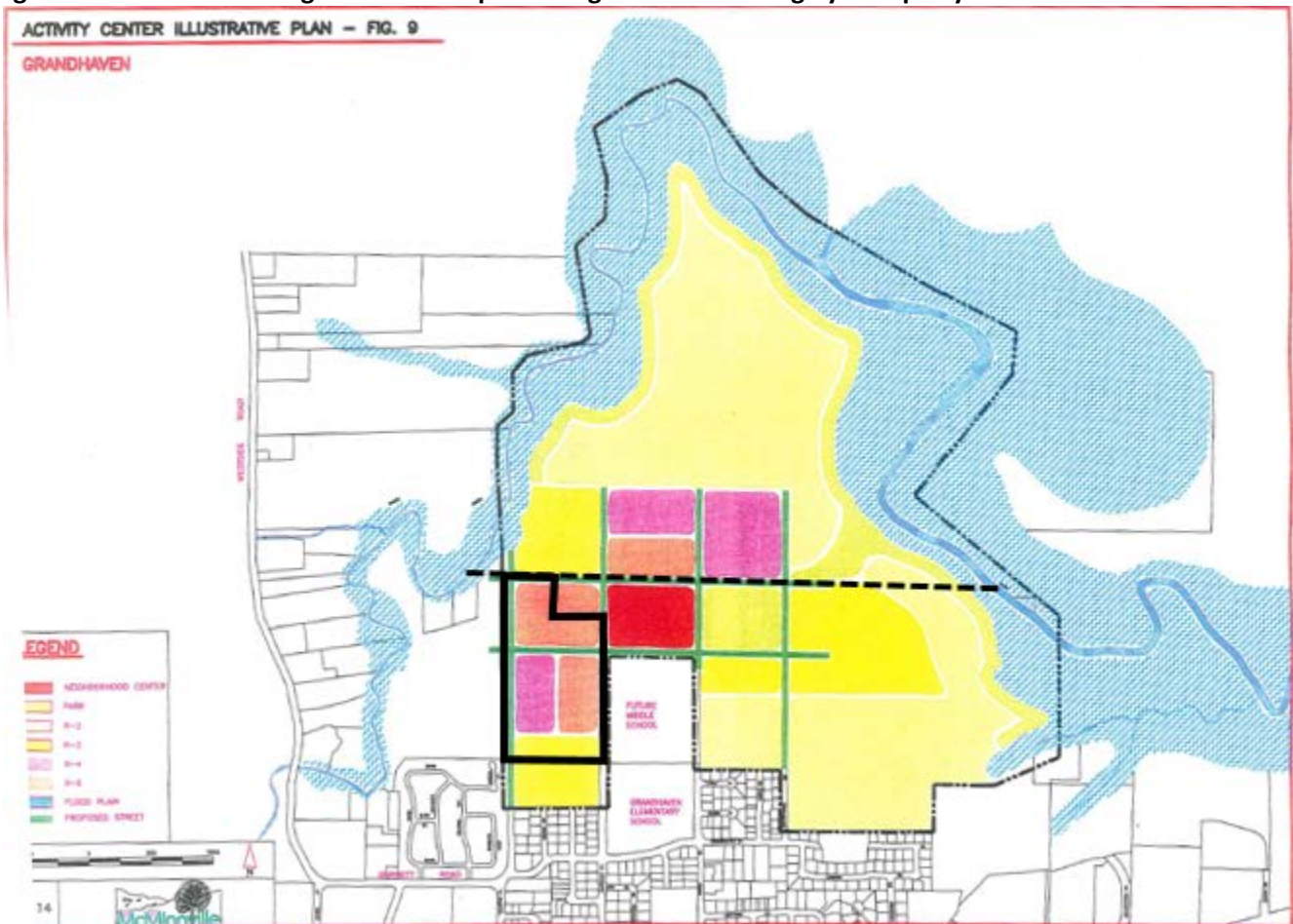
The property on the south side of Baker Creek Road maintained the same density as originally planned in the buildable lands inventory.

Total efficiency achieved = 276 dwelling units.

6. Increase density in the Grandhaven Neighborhood

The efficiency measures were assumed to achieve efficiency of 143 DUs in the Grandhaven neighborhood through higher density zoning associated with a planned Neighborhood Activity Center. .

Figure 2. Grandhaven Neighborhood Map Showing Location of Chegwyn Property



Since the MGMUP was appealed, the City was not able to move forward with the Neighborhood Activity Center overlay and this property did not develop as the efficiency measure planned.

The property however did recently receive an approved land-use decision for a R-4 planned development (Ordinance No. 4953, 2012). This memorandum will examine whether or not the efficiency measure was achieved through another action.

Tax lot R4409 2100, approximately 22 gross acres, was assigned 107 dwelling units in the 2003 BLI, assumed to develop at a low density residential. .

However, in 2012, this property was rezoned from EF-80 to R-4 PD (Ord 4953), for the Chegwyn Planned Development. Construction is nearing completion on the last phase of this development, which will yield 168 dwelling units for all phases. This is achieved with a mix of housing types including 102 bungalows, 36 multi-family units, 1 duplex, and 28 small-footprint, small-lot cottages.

This achieved a net increase of 61 dwellings over the 107 dwelling capacity assigned to this property in the 2003 BLI.

7. Add downtown upper floor housing opportunities to buildable land inventory

The City has adopted standards allowing additional opportunities for upper floor housing, and in some cases allowing densities which exceed the R-4 densities which typically apply in commercial zones, upon certain findings including those associated with infrastructure capacity. This efficiency measure is already reflected in the BLI and need assumptions.

REVISED EFFICIENCIES

Proposed Efficiency Measure	2003	2020
Allow ADUs in Residential Zones	200	200
Rezone Portion of West Hills from R-1 to R-2	204	204
Rezone Other Residential and Non-Residential Land	80	95
Direct Increased Density to Transit Corridor	90	237
Direct Increased Density to Northwest Neighborhood Activity Center Baker Creek Planned Development – Remand Update	238	276
Direct Increased Density to Grandhaven Neighborhood Activity Center Chegwyn Village Planned Development – Remand Update	143	61
Add downtown upper floor housing opportunities to downtown buildable lands inventory	61	61
TOTAL:	1,016	1,134

Rezones within Transit Corridor (1/2 mile)

Tax Lot	Lot Size	Rezone From	Rezone To	Developed	Number of Units	Increased # of Units = Land-Use Efficiency	Subdivision name	Year of Rezone	Transit Corridor
R4422 03404	2.02 acres	R-1	R-3 PD	Yes	10	3	Norton Estates	2003	NE 3 Mile Lane/Hwy 18
R4420CB01400	1.94 acres	R-1	R-4 PD	Yes	12	6	Brookside Estates	2003	NW 2 nd Street
R4418 00300(p)	14.83 acres	EF-40	R-2 PD	Yes	62	0	Cottonwood	2003	NW Hill Road
R4420CB01200	2.88 acres	R-2	R-4 PD	Yes	30 sfa	18	Maple Leaf Townhomes	2003	NW 2 nd Street
R4409 04600	11.3 acres	EF-40	R-2 PD	Yes	47	0	Gerhard Phase 2	2004	NE 27 th Street
R4418 00302(p)	17.93 acres	EF-80	R-2 PD	Yes	59	(-18)	Cottonwood 1 st Addition	2004	NW Hill Road
R4429BC03100	2.0 acres	R-2 PD	R-2 PD	Yes	9	1	Heather Meadows	2004	SW Fellows Street
R4418 00302(p)	36.4 acres	EF-80	R-1 PD	Yes	89	(-38.4)	Michelbook Meadow/Park Meadows 3 rd , 4 th , & 5 th Additions	2005	NW Hill Road
R4417 01001	5.15 acres	EF-80	R-1	Partially	8	(-10)	Norwegian Wood	2006	NW Baker Creek Road
R4419DB03900 R4419DB04000	2.22 acres	R-1	R-4	Yes	21 sfa	14	Pemberly Townhomes	2006	NW Hill Road NW 2 nd Street
R4422 03400 R4422 03401	20.3 acres	EF-80	R-2 PD	Yes 7.27 acres is a church	33	-23	Norton Crest	2006	NE 3 Mile Lane/Hwy 18
R4420CA02100	.80 acres	R-1	R-4	Yes	6 sfa	4	Eckman Addition	2006	NW 2 nd Street
R4422DC00100 R4422DC00200	3.0 acres	R-1	R-2 PD	Yes	9	(-1.5)	Berkey Estates	2006	NE 3 Mile Lane/Hwy 18
R4422DD00300	7.19 acres	R-1/FP	R-4/FP	Yes	29	4	Whispering Meadows	2006	NE 3 Mile Lane/Hwy 18
R4421DD00600	3.47 acres	R-1/VLDR	R-4 PD	Partially	35	23	Aspire Community	2010	NE 3 Mile Lane/Hwy 18
R4422CD01700	2.83 acres	R-2	R-4	No		12		2012	NE 3 Mile Lane/Hwy 18
R4418 00200 R4418 00203 R4418 00205	40 acres 3.337 acres MF	EF-80/R-1	R-1 PD	Yes	213 70 MF		Baker Creek West Baker Creek East	2017	NW Hill Road NW Baker Creek Road
R4416BC03200 R4416BC03201	4.6 acres	EF-80/R-2	R-4	Yes	120 MF	101	Evans Street Apartments	2017	NE Evan Street
R4420CB00100 R4420CB00101 R4420CB00102	1.11 acres	R-1	R-4	No	21	18		2017	NW 2 nd Street
R4423 00900	4.93 acres	AH	R-4	Yes	66 MF	23	Evergreen Valley Apartments	2017	NE 3 Mile Lane/Hwy 18
R4427 00701	4.93	C-3 PD	C-3 PD	No	MF			2018	NE 3 Mile Lane/Hwy 18
R4418 00100(p)	6.62 acres	C-3 PD	C-3 PD	No	Up to 120 MF				NW Hill Road NW Baker Creek Road
R4409DC01100	2.93	R-1	R-3	No	17	7	Monika Subdivision	2019	NE 27 th Street
R4419AD01500	.23 acres	R-1	R-4	No	8 MF	7		2019	NW 2 nd Street
R4427 00400 R4427 00404 R4427 00405	6.98 acres	C-3 PD	C-3 PD	No	MF			2020	NE 3 Mile Lane/Hwy 18
TOTAL:						237			



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TECHNICAL MEMORANDUM #14

MGMUP UGB REMAND UPDATE

DATE: September 25, 2020
TO: Heather Richards, Planning Director
FROM: DJ Heffernan, Planner
SUBJECT: Suitability of Study Areas for Commercial and Multi-Family Development

This technical memorandum reviews the process and assumptions used to evaluate candidate UGB Study Areas for their relative suitability to host commercial and multi-story housing developments.

Commercial Suitability Analysis

This analysis relied on GIS mapping using DOGAMI Bare Earth Lidar, Oregon HazVu: Statewide Geohazards Viewer. The data were used to project slope characteristics and hazards in the study area. The analysis applied to areas considered “buildable”, and exclude land in flood plains, land with slopes in excess of 25%, and land already committed to developed uses.

Commercial land uses and larger multi-story housing developments are investment properties. Capitalizing these investments depend on rent income from lease payments. Owners of these properties must compete for financing and tenancy in the regional market place. Properties with rent that is out of line with prevailing conditions in the market place will struggle to survive. In this context, the development conditions that are prevalent in the existing built environment tend to exert significant influence on new development. New development that tries to capitalize significantly higher costs than existing developments incur may have difficulty attracting tenants and succeeding.

It is a fact that in McMinnville, most investment properties have been developed along major road corridors with relatively flat terrain. Developing commercial uses in areas that do not have similar terrain is challenged by the need to capitalize higher site development and construction costs. Higher front-end costs usually translate into higher leasing costs. The market will bear higher costs up to a point, especially when vacancy rates are low and tenant income is healthy. Over time, however, the competitive nature of the market place tends to flatten out disparities in rent and forces “outliers” to conform to prevailing conditions.

In this context, commercial and multi-family investment projects will seek areas whose site development characteristics are relatively similar in cost to existing developed areas. This means that study areas with relatively flat terrain, which do not impose cost premiums on future rents, will be favored more than sites that are more expensive and risky to develop. In order to meet identified land needs, the City must adapt its planning to the realities of the market place and locate future commercial and multi-family housing investment in locations that can succeed.

Investment Property Rating Criteria

The relative capability of study areas to support investment-grade commercial and multi-family housing developments was rated on four factors. The availability of relatively flat development sites, availability of development parcels on flat terrain greater than 20 acres, transportation connectivity or the ability to effect necessary connectivity, and east of annexation, which is necessary to obtain urban services and development approval at sufficient scale to support these activities. The tables below show how ratings were calculated.

Table DC-1: Commercial Suitability Based on Slope

Study Area	Total Acres	Buildable	<10% Slope	Rating
<u>Exception Areas</u>				
Lawson Lane (LL)	18.1	7.5	5.9	1
Old Sheridan Road (OSR)	54.5	36.5	35.3	1
N-Fox Ridge - West (N-FR-W)	116.3	58.0	3.4	1
Booth Bend Road (BR)	40.2	18.1	16.3	1
Brentano Lane (BL)	91.8	83.8	77.1	0
Westside Lane (WL)	35.0	19.7	10.8	1
<u>Resource Areas</u>				
N of Old Stone	279.0	274.9	273.8	3
NA-EV-E	40.2	39.9	39.3	1
Three Mile Lane East	201.7	186.4	167.5	3
Three Mile Lane West	9.0	7.5	5.4	1
Norton Lane East	81.5	71.6	66.0	2
Norton Lane West	61.4	54.0	36.0	1
SW - 06	158.0	137.3	130.8	3
SW-03	41.9	30.7	28.6	1
SW II	120.1	114.7	107.3	3
W of Old Sheridan-1	231.4	214.5	212.8	3
W of Old Sheridan-2	313.8	283.2	281.7	3
West Hills-South	122.3	118.5	97.9	3
West Hills-2	431.9	370.4	93.9	3
N of Fox Ridge-East	189.1	170.6	94.7	3
NW-Ext 1a (Northern)	78.2	45.8	40.3	1
NW-Ext 1b (Southern)	72.5	67.3	57.9	2
NW-Ext 2	15.5	14.9	12.6	1
Grandhaven-E	19.5	15.6	14.6	1
Grandhaven-W	67.9	59.2	52.6	2
Airport East (EA)	493.4	484.0	480.1	3
North of Baker Creek (NBC)	118.7	77.4	65.5	2

Ratings: 1 - >50 acres moderate slope; 2 – 50 acres to 79 acres; 3 – 80 or more acres moderate slope.

Table DC-2: Parcel Size and Connectivity

Study Area	Large Parcels (>20 acres)	Rating	Transportation Connectivity	Rating	Annexation Feasibility	Rating
<u>Exception Areas</u>						
Lawson Lane (LL)	Few/None	1	Local	2	>200-ft	1
Old Sheridan Road (OSR)	Few/None	1	Collector	3	Adjacent	3
N-Fox Ridge - West (N-FR-W)	Few/None	1	Private	1	>200-ft	1
Booth Bend Road (BR)	Few/None	1	Local	2	<200-ft	2
Brentano Lane (BL)	Few/None	1	Local	2	>200-ft	1
Westside Lane (WL)	Few/None	1	Collector	3	>200-ft	1
<u>Resource Areas</u>						
N of Old Stone						
NA-EV-E	Many/All	3	Local	2	Adjacent	3
Three Mile Lane East	Few/None	1	Collector	3	Adjacent	3
Three Mile Lane West	Many/All	3	Collector	3	Adjacent	3
Norton Lane East	Few/None	1	Local	2	>200-ft	1
Norton Lane West	~2-4	2	Local	2	Adjacent	3
SW - 06	~2-4	2	Local	2	Adjacent	3
SW-03	Many/All	3	Collector	3	Adjacent	3
SW II	~2-4	2	Collector	3	>200-ft	1
W of Old Sheridan-1	Many/All	3	Collector	3	>200-ft	1
W of Old Sheridan-2	Many/All	3	Local	2	>200-ft	1
West Hills-South	Many/All	3	Local	2	Adjacent	3
West Hills-2	Many/All	3	Local	2	Adjacent	3
N of Fox Ridge-East	Many/All	3	Local	2	>200-ft	1
NW-Ext 1a (Northern)	Many/All	3	Private	1	>200-ft	1
NW-Ext 1b (Southern)	Few/None	1	Collector	3	Adjacent	3
NW-Ext 2	~2-4	2	Collector	3	Adjacent	3
Grandhaven-E	Few/None	1	Collector	3	Adjacent	3
Grandhaven-W	Few/None	1	Local	2	Adjacent	3
Airport East (EA)	Many/All	3	Local	2	>200-ft	1
North of Baker Creek (NBC)	Many/All	3	Local	2	>200-ft	1
	Many/All	3	Local	2	>200-ft	1

Ratings: assigned as shown

Table DC-3: Composite Rating

Study Area	Slope Suitability Rating	Large Parcels Rating	Connectivity Rating	Annexation Rating	Combined Rating
<u>Exception Areas</u>					
Lawson Lane (LL)	1	1	2	1	1
Old Sheridan Road (OSR)	1	1	3	3	2
N-Fox Ridge - West (N-FR-W)	1	1	1	1	1
Booth Bend Road (BR)	1	1	2	2	2
Brentano Lane (BL)	0	1	2	1	1
Westside Lane (WL)	1	1	3	1	2
<u>Resource Areas</u>					
N of Old Stone	3	3	2	3	3
NA-EV-E	1	1	3	3	2
Three Mile Lane East	3	3	3	3	3
Three Mile Lane West	1	1	2	1	1
Norton Lane East	2	2	2	3	2
Norton Lane West	1	2	2	3	2
SW - 06	3	3	3	3	3
SW-03	1	2	3	1	2
SW II	3	3	3	1	3
W of Old Sheridan-1	3	3	2	1	1
W of Old Sheridan-2	3	3	2	3	3
West Hills-South	3	3	2	3	3
West Hills-2	3	3	2	1	2
N of Fox Ridge-East	3	3	1	1	2
NW-Ext 1a (Northern)	1	1	3	3	2
NW-Ext 1b (Southern)	2	2	3	3	3
NW-Ext 2	1	1	3	3	2
Grandhaven-E	1	1	2	3	2
Grandhaven-W	2	3	2	1	2
Airport East (EA)	3	3	2	1	2
North of Baker Creek (NBC)	2	3	2	1	2

Ratings: 1 - High risk; 2 – Moderate risk, 3 – Low risk



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TECHNICAL MEMORANDUM #15

MGMUP UGB REMAND UPDATE

DATE: August 25, 2020
TO: Heather Richards, Planning Director
FROM: DJ Heffernan, Planner
SUBJECT: Comparative Review of Study Areas for Goal 5 and Natural Resources

This technical memorandum reviews the process and assumptions used to evaluate candidate UGB Study Areas for their impacts on natural resources and inventoried Goal 5 resources.

Natural Resources Analysis

This analysis relied on Yamhill County's Comprehensive Plan Goal 5 Element and the Oregon Department of Fish and Wildlife Habitat Conservation Plan. Resources considered included fish habitat, especially for threatened species, aquatic habitat for amphibians and reptiles identified as species of concern, and upland habitat for avian, mammalian, and invertebrate species of concern.

Fish Habitat

Figure 1 is from the Yamhill County Comprehensive Plan Goal 5 Element and it shows significant habitat resources for resident and anadromous fish species in the county. The area highlighted in yellow is the greater McMinnville area. Notable resources include anadromous spawning and rearing habitat for Coho and Chinook salmon and steelhead, migration routes for these species, and habitat for resident trout and warm water species. McMinnville's policy that does not allow urban development in flood plains provides protection of this habitat from urban encroachment. Any areas added to the UGB that are proximate to mapped fish habitat would also be protected. As a consequence, there are no urbanization conflicts with identified fish habitat.

Aquatic Reptiles

There are two species of concern in the McMinnville Area: Western Pond turtle and Painted turtles. The latter are found in riparian areas bordering the North and South Yamhill River and Baker Creek. These areas are protected from direct urbanization impacts by restrictions against development in the river floodplains. Western Pond turtles are an upland species that are mapped in three locations in the McMinnville area. These include the ponds in the Michelbrook County Club golf course, a quarry pond north of Fox Ridge Road just west of Hill Road, and a series of ponds south of HWY 99 near the Cascade Steel Rolling Mill.

Avian Species of Concern

There are a number of listed species of concern that inhabit the McMinnville area. Riparian species include Yellow Breasted Chat, Kingfishers, and other aquatic-oriented species. They occupy flood plain areas that are protected from development. Outside of flood plains, land with slopes >25% also are protected from

development, which may provide some measure of habitat protection depending on management practices. There are a number of species of concern that occupy habitat on buildable land in study areas where urbanization would be detrimental. Figure 2 shows habitat occupied by three species of concern: western Bluebird, Olive-sided Flycatcher, and White-breasted Nuthatch. There are other species of concern in the McMinnville area but they tend to overlap the same areas as these. What stands out in the image is that the species are only present at the margins of developed urban areas. They generally are not present in urbanized areas. They also are largely missing in areas that are disturbed by farming. Study areas in which urbanization would most adversely impact these species of concern include the western portion of Grandhaven-W, Westside Road, West Hills-2, North of Fox Ridge Road (east and west), and the western portion of NW-Ext_1b.

Figures 6, 7, and 8 show details for habitat range for the three primary species of concern that were analyzed: Olive-sided Flycatcher, Western Bluebird, and White-breasted Nuthatch. These species were selected because they tend to occupy upland and riparian/flood plain areas that could be impacted by the UGB decision. The source for the map information is from the Oregon Department of Fish and Wildlife, Compass Wildlife Mapping tool that is accessible at this link: <https://www.dfw.state.or.us/maps/compass/index.asp>

Conservation Opportunity and Strategy Habitat Areas

Figure 3 shows mapped areas of concern related to habitat that supports multiple species of concern. It aligns closely with Figure 2. Study areas where urbanization would have the most impact outside protected steep slopes and flood plains include West Hills 2, and North of Fox Ridge Road. More information about ODFW's Conservation Strategy is available at: <https://www.dfw.state.or.us/conservationstrategy/index.asp>

To assess the impact of urban expansion on these resources, a Natural Resources rating was assigned based on the presence of significant resource areas and the likelihood of harm if urbanization occurred. Habitat in riparian corridors is largely protected from urban development when in mapped flood plains where development generally is not allowed. The same is true for land that has slopes >25%. In other areas, urbanization poses risk habitat important to species of concern. The evidence for this risk is apparent in Figure 2 where species presence is not noted in urbanized areas and agricultural but is present in less disturbed areas immediately adjacent to urban development. For this reason, study areas that contain functioning habitat for species of concern outside protected areas rated poor for urban expansion while study areas lacking habitat favorable to species of concern rated high.

Other Inventoried Goal 5 Resources Analysis

There are other types of Goal 5 resources present in the McMinnville Area. First there are three working surface mines in the McMinnville area that operate under permits issued by the Oregon Department of Geology and Mineral Industries (DOGMI).

The first is a sand and gravel pit in the West of Old Sheridan Road-2 Study Area near the intersection of Peavine Road and Youngsberg Hill Road.

Unnamed Gravel Pit - Point Information

Commodity	sand and gravel
Site	gravel pit
Synonym	unnamed or NA
Mining District	unnamed or NA
Section, T. R.	Sec. su T. 4S R. 5W

Page 3

Workings surface

Exploration/mine workings

Reference

A second is the Penland Bar Pit near the confluence of Cozine Creek and the South Yamhill River.

Penland Bar Pit - Point Information

Commodity sand and gravel

Site Penland Bar Pit

Synonym unnamed or NA

Mining District unnamed or NA

Section, T. R. Sec. 21 T. 4S R. 4W

Workings surface

Exploration/mine workings

Reference Oregon Department of Geology and Mineral Industries Mineral Land Regulation and Reclamation files

A third is Muhs Quarry, located north of Fox Ridge Road near a pond that was excavated for crushed rock.

Muhs Quarry - Point Information

Commodity stone, crushed

Site Muhs quarry

Synonym unnamed or NA

Mining District unnamed or NA

Section, T. R. SW Sec. 18 T. 4S R. 4W

Workings surface

Exploration/mine workings

Reference Oregon Department of Geology and Mineral Industries Mineral Land Regulation and Reclamation files

The two latter sites are inside the McMinnville UGB. Figure 4 shows their locations. None present conflicts with future urban development once they close and the sites reclaimed. They may present opportunities for recreation and habitat enhancement.

There is an unusual rock outcrop in the Southwest 2 Study Area that may be of archeological significance. This feature is not mapped as a Goal 5 resource but should be investigated as such if and when development occurs. Information about how to conduct an archaeological investigation is available at: <https://www.oregon.gov/oprd/OH/Pages/archaeology.aspx>

There are many inventoried historic sites and buildings in McMinnville and the surrounding area. Some of these Goal 5 resources are catalogued with Oregon State Parks, State Historic Preservation Office (SHPO). McMinnville also has resource sites and buildings listed on the National Register of Historic Places. Some historic sites and buildings may be located in the UGB Study Areas. The identification of these historic Goal 5 resources in the

SHPO heritage database provides a measure of protection for them in as much as their historic status would be revealed as part of a development application review process. Generally, urban development is compatible with historic resources provided the owners of these resources desire to keep them intact. Inventoried historic resources can be researched here. <http://heritagedata.prd.state.or.us/historic/>

State Inventoried Wetland Resources

McMinnville has not conducted a local wetland resources inventory. The City relies on inventories conducted at the time of development to identify local wetlands. There are inventoried resource sites that have been mapped by the state. They are shown in Figure 5 below. Most of the mapped resources, which display in different shades of green on the map, are located in flood plains and as such are protected from development impacts by the City's flood plain protection ordinance.

The map shows a few emergent and forest wetlands outside of riverine flood plains, such as the small emergent wetland that is located north of the McMinnville Wastewater Treatment Plant west of the Riverside North exception area, and the forest/emergent wetland complex adjacent to Peavey Reservoir near the S. Peavey Road / SW Cypress Ln. intersection in the SW-06 Study Area. Unmapped wetland resources likely occur in the area that have not been delineated and mapped. Their identification awaits development review and/or initiation of a local wetland inventory process. These resources are protected by a combination of the City's Goal 5 review process and Goal 7 Hazard regulations.

Figure 1 – Yamhill County Fish Habitat

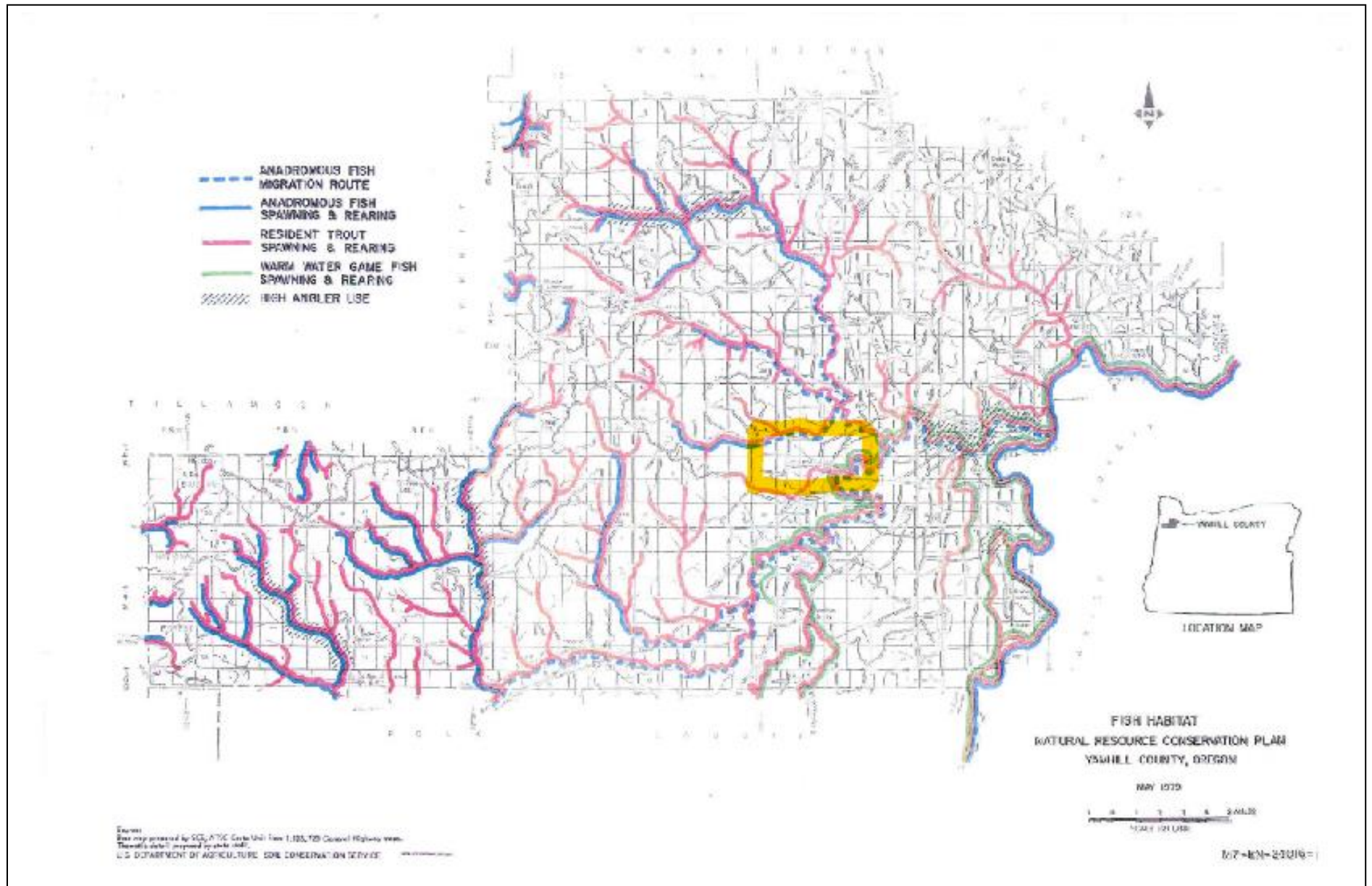


Figure 2 – Avian Habitat for Three Indicator Species of Concern

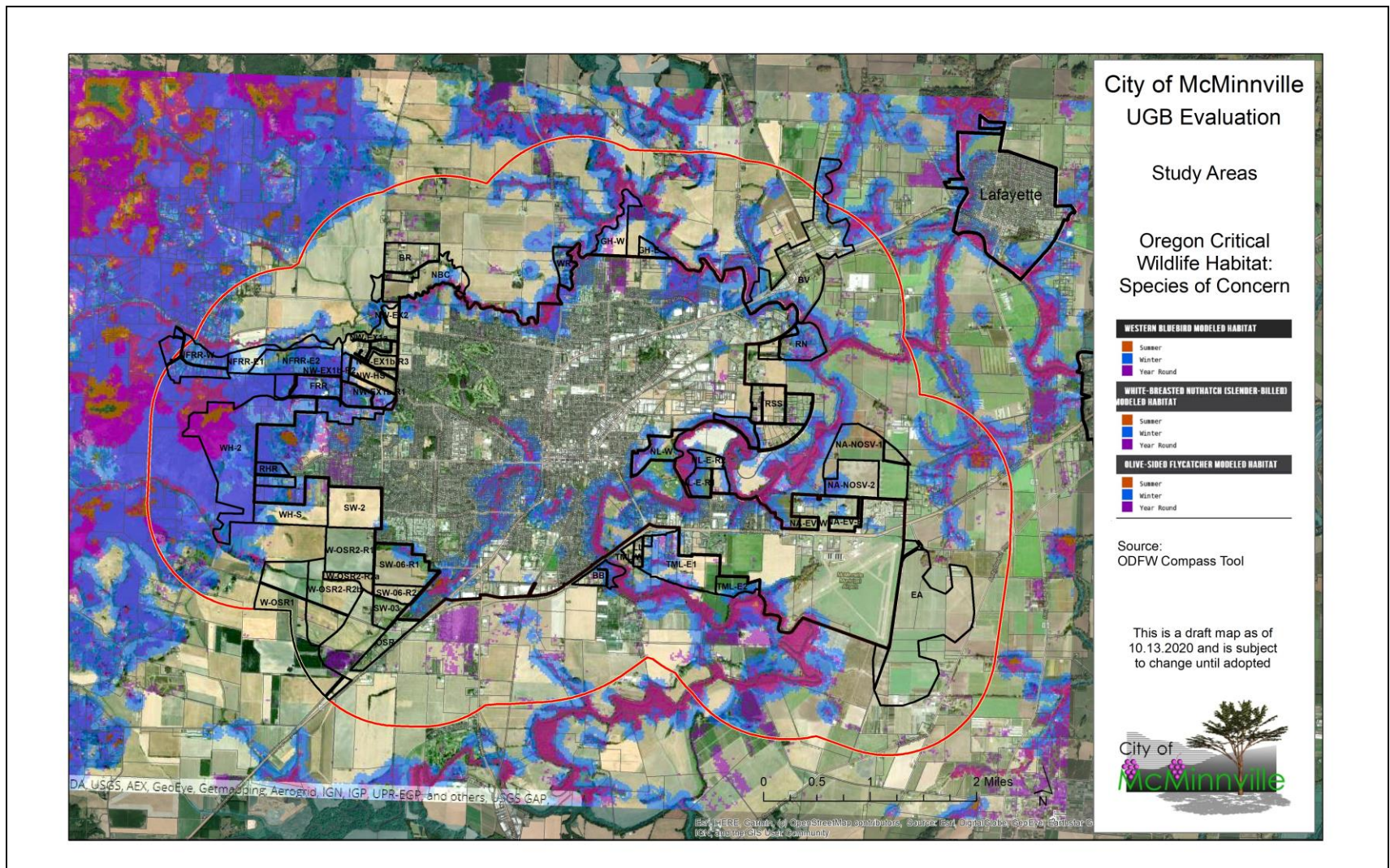


Figure 3 – Conservation Opportunity and Strategy Habitat Areas

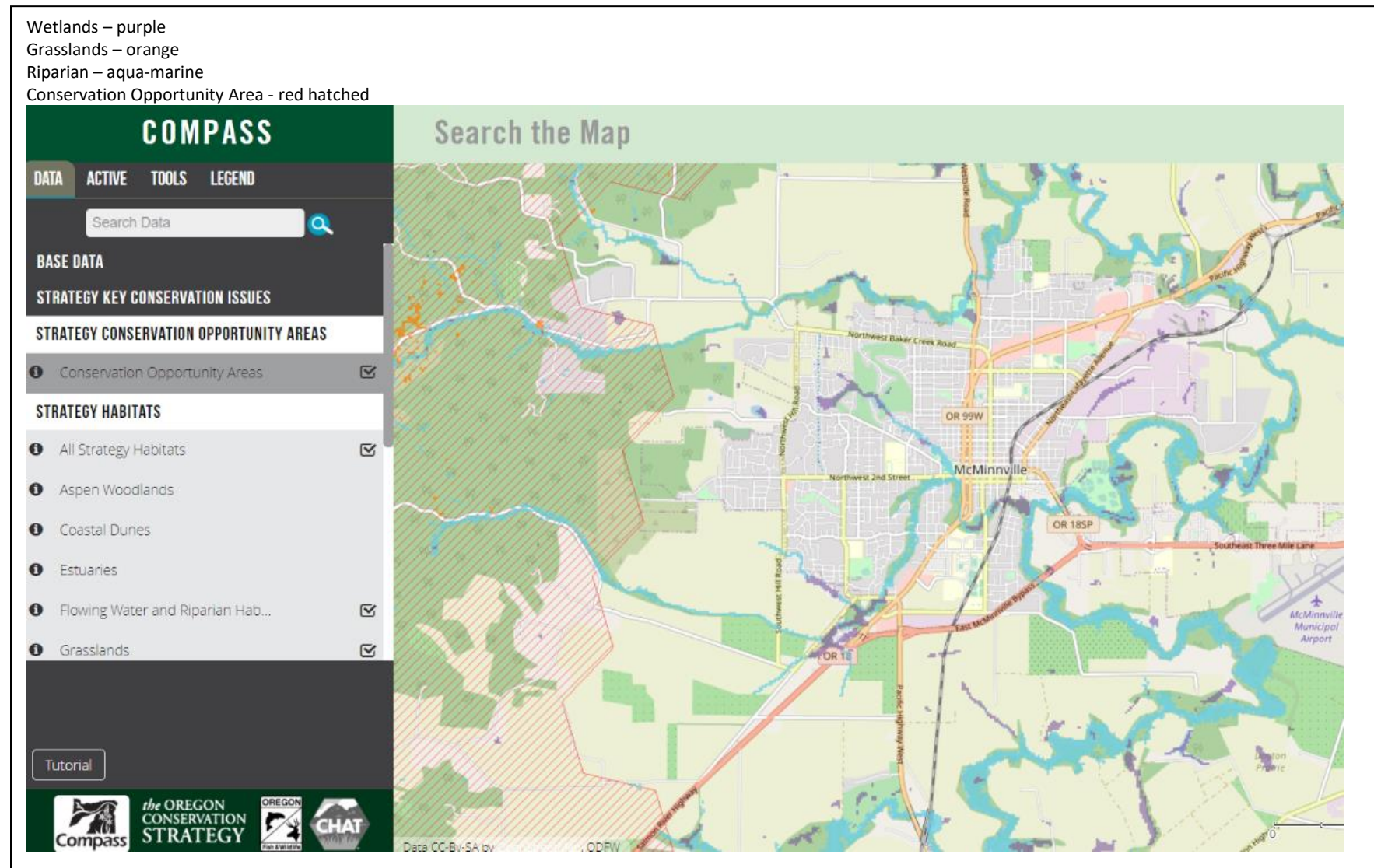


Figure 4 – DOGAMI Surface Mining Permits and Rock Outcrop Site

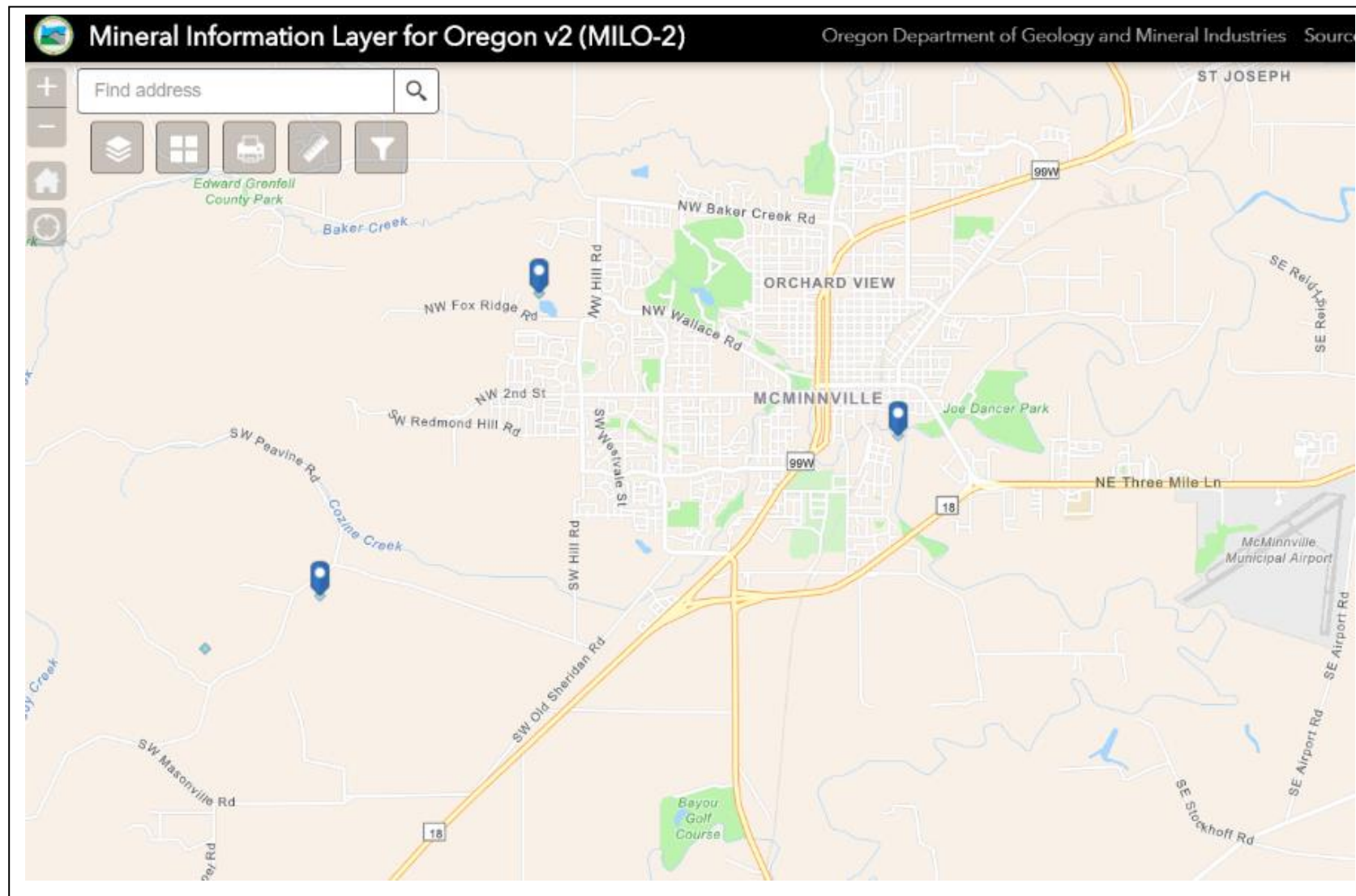


Figure 5 – State Wetland Resource Sites

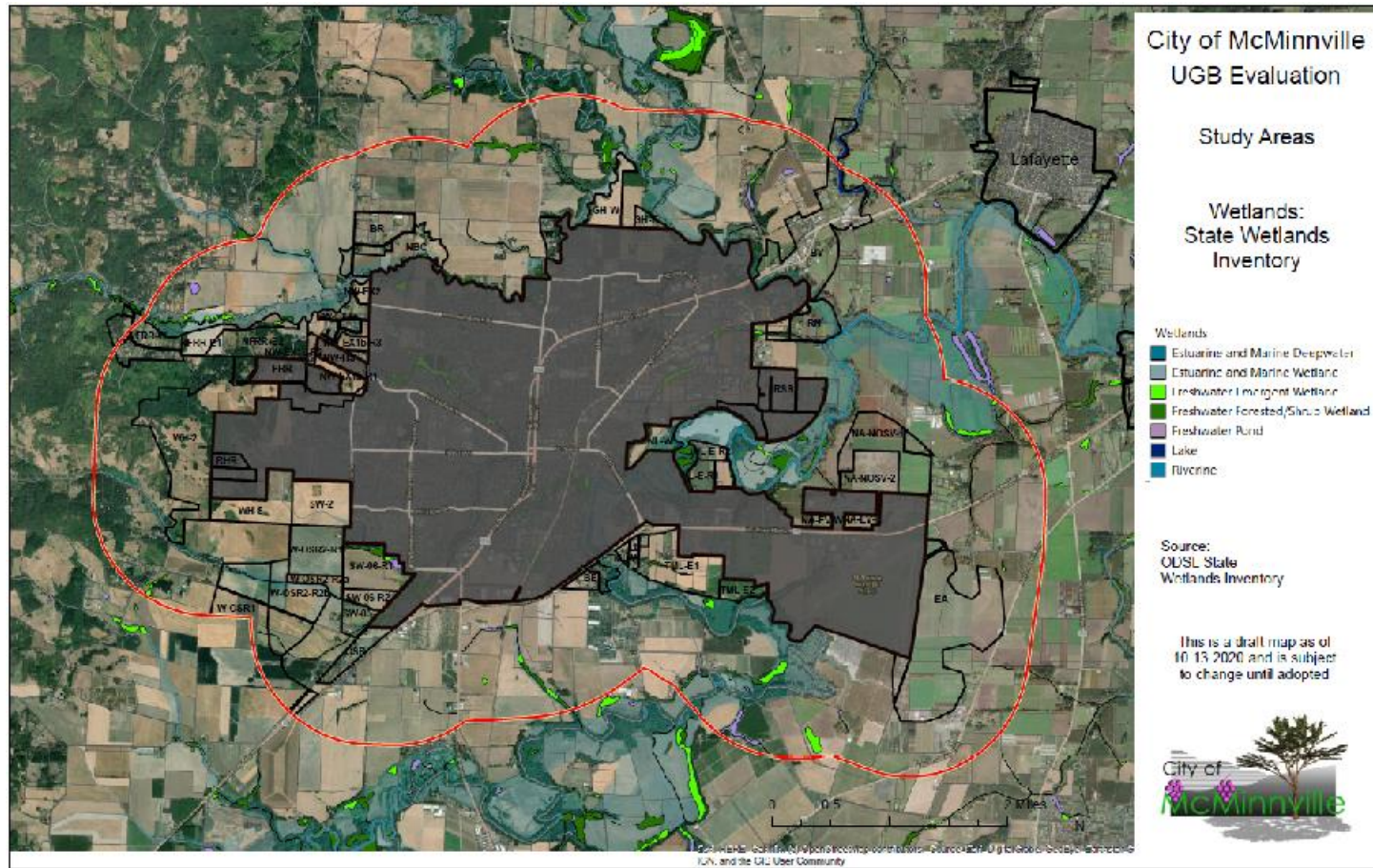


Figure 6 – Olive-sided Flycatcher Critical Habitat

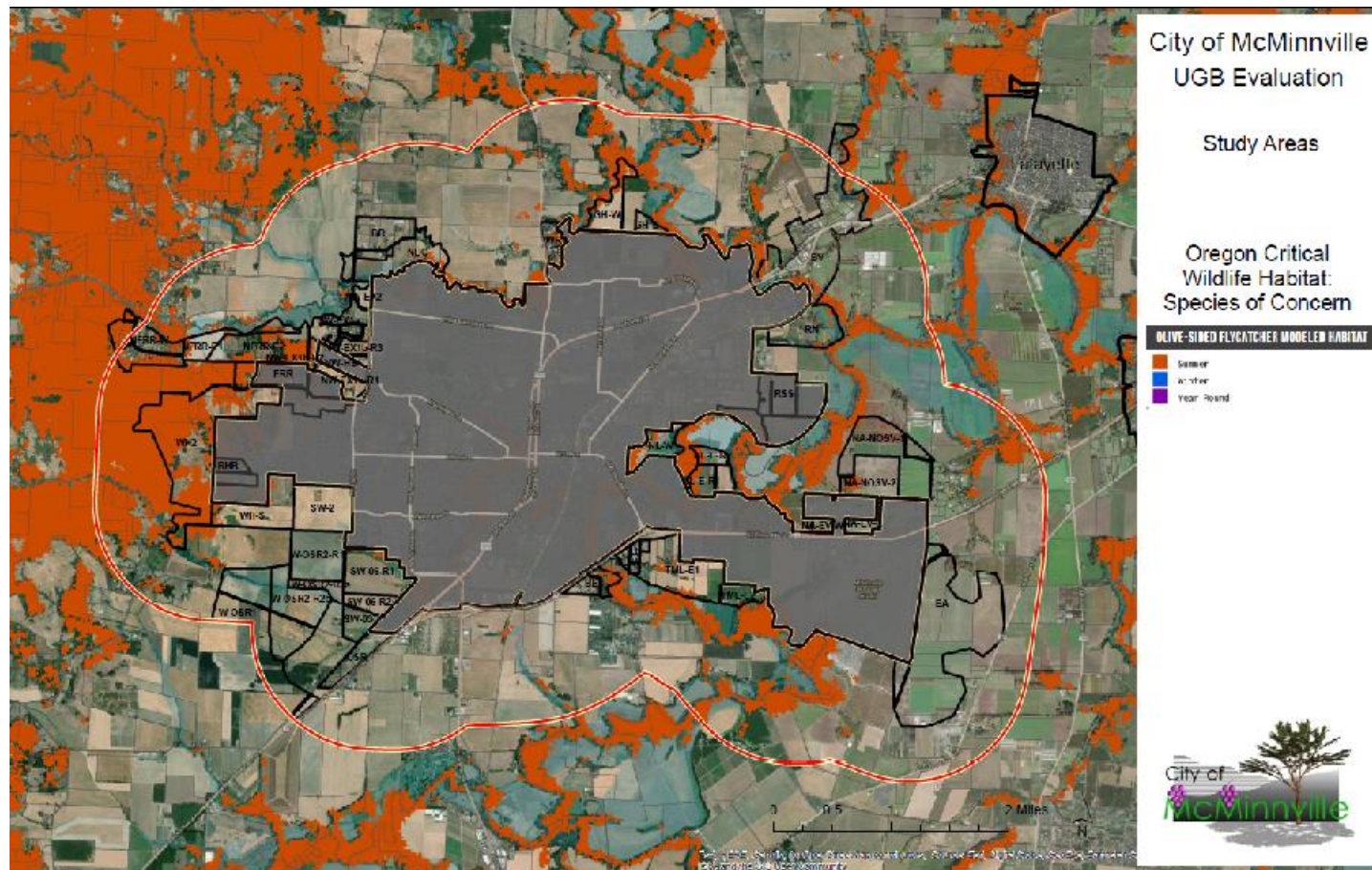


Figure 7 – Western Bluebird Critical Habitat

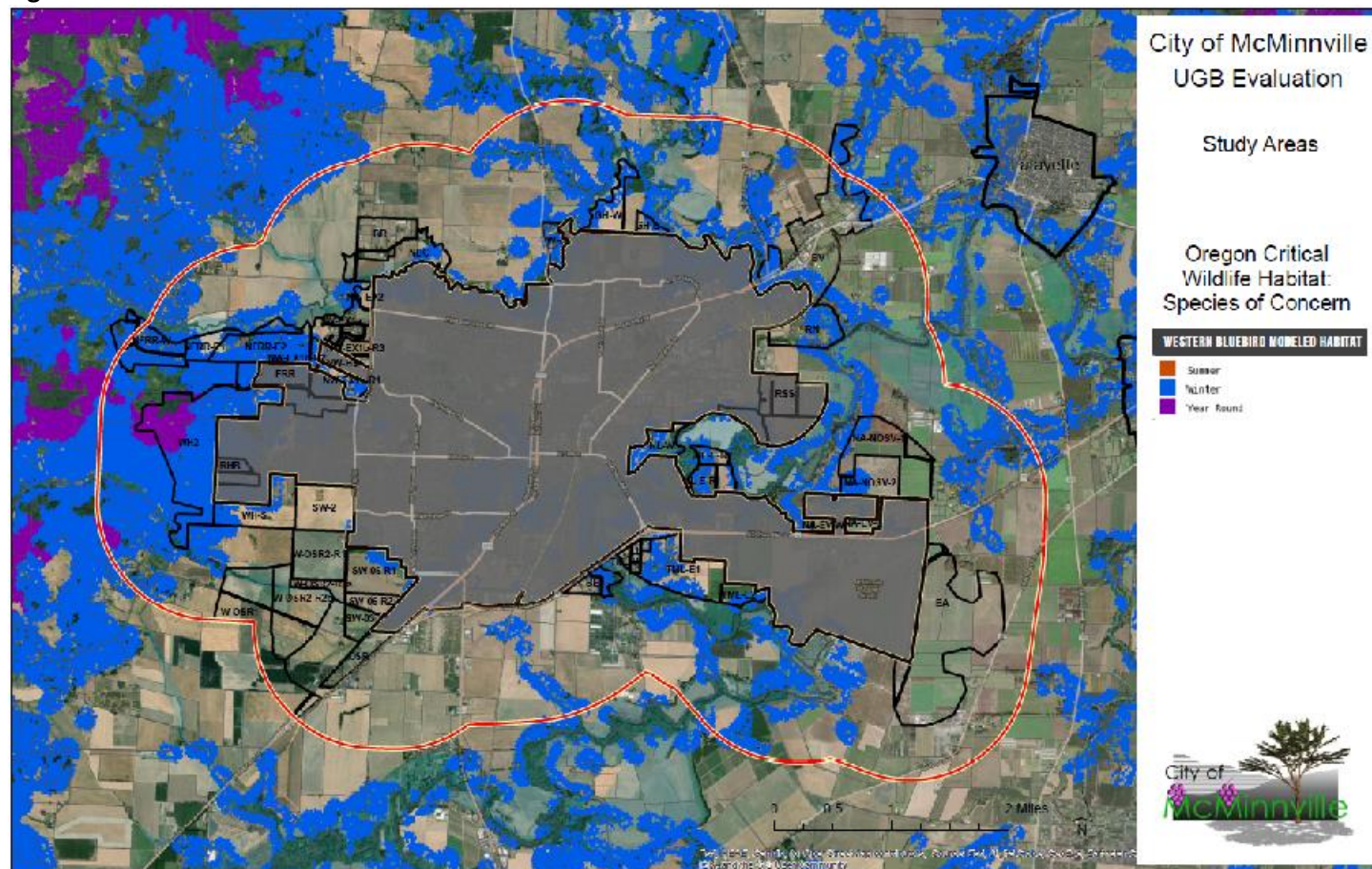
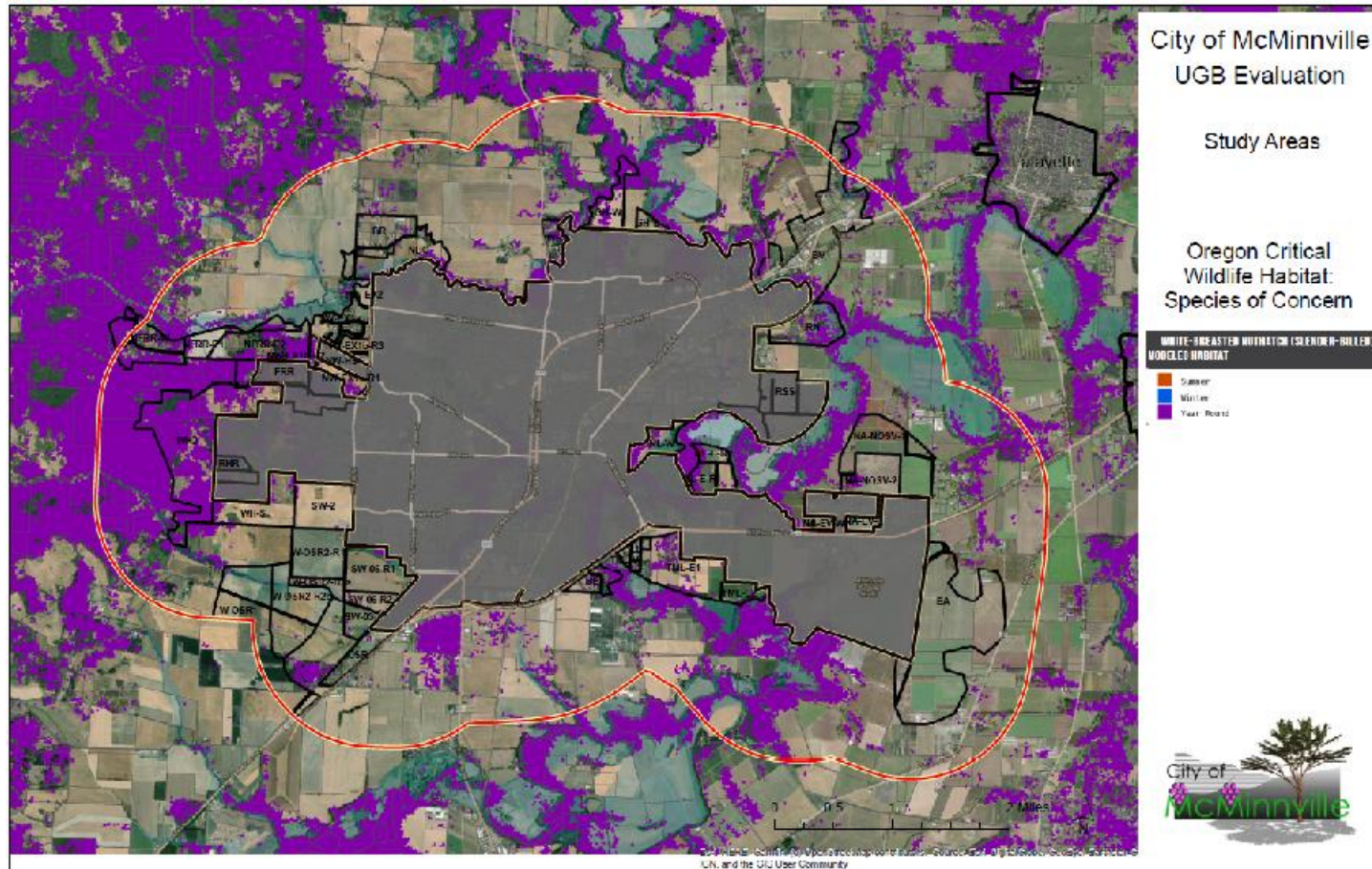


Figure 8 – White-breasted Nuthatch Critical Habitat





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TECHNICAL MEMORANDUM #16

MGMUP UGB REMAND UPDATE

DATE: September 25, 2020
TO: Heather Richards, Planning Director
FROM: DJ Heffernan, Planner
SUBJECT: Comparative Review of Study Areas for Development Costs

This technical memorandum reviews the process and assumptions used to evaluate candidate UGB Study Areas for their relative development construction cost attributes.

Development Cost Analysis

This analysis relied on GIS mapping using City of McMinnville GIS mapping information obtained from DOGAMI Bare Earth Lidar, Oregon HazVu: Statewide Geohazards Viewer. The data were used to project slope characteristics for study areas. The analysis only applied to areas considered “buildable”; it excluded land in flood plains, land with slopes in excess of 25%, and land already committed to developed uses.

Buildable land was grouped into two categories. Land with slopes greater than 10% but less than 25%, which is referred to as having moderate slope, and land with slope characteristics less than 10%. Areas with moderate slope are more likely to be subject to special permitting and development restrictions in order to mitigate site stabilization and fire risk. McMinnville requires all development whose access is from roads with slopes greater than 12% must include a fire suppression sprinkler system. Also, the design for vertical foundation and retaining walls that are more than 4' high must be engineered and approved by the building official. This is virtually a universal requirement on building sites with more than 10% slope, which require significant excavation to level the sites. A building site with 100" depth on a 10% slope will have a 10-foot change in elevation, which is roughly a 1-story change in elevation. These sites frequently feature vertical foundation or retaining walls or step-back terracing. The latter results in greater land consumption than for similar developments on sites with less slope. These added requirements increase construction and development costs directly and indirectly.

The analysis also evaluated areas mapped by the State of Oregon Department of Geology and Mineral Industries (DOGAMI) that are at high risk of landslide and liquefaction hazard. Landslides may be triggered by earthquakes or intense rainfall events. Liquefaction is triggered by earthquake events. Development is not prohibited in areas subject to these risks, but additional requirements during development review and permitting influence development costs. Typical requirements include foundation design and site grading plans prepared by a geotechnical engineer. Development in high hazard areas may also come with limitations on development density as a condition of approval to mitigate the risk of catastrophic failure. These conditions increase land development costs directly because of additional engineering services, and indirectly because of reduced development density and rent.

The City verified the scale of the effect that slope has on development costs in a study prepared by Portland State University. The study examined site development costs for 96 single family and multi-family development projects in the Willamette Valley. That analysis found significant differences in site development costs between development on flat sites, on mildly sloped sites and especially on moderately sloped sites. The marginal cost increase related to increased site development expenses on a per unit basis was between 24% and 47% for subdivisions, and between 37% and 99% for multi-story apartment projects. A copy of the report is attached in Exhibit A.

Development Cost Rating Criteria

The relative differential in development costs between study areas was evaluated by assessing the difference in buildable land with moderate slope in each study area, and by the amount of land in each area subject to high landslide or liquefaction hazards. Tables below show how ratings were calculated.

Table DC-1: Cost Variance Ratings Based on Slope

Study Area	Total Acres	Buildable Acres	10% - 24%	Buildable % >10%	Site Cost Rating
<u>Exception Areas</u>					
Lawson Lane (LL)	18.1	7.5	1.6	21.05%	3
Old Sheridan Road (OSR)	54.5	36.5	1.2	3.36%	3
N-Fox Ridge - West (N-FR-W)	116.3	58.0	54.6	94.14%	1
Booth Bend Road (BR)	40.2	18.0	0.0	0.00%	3
Brentano Lane (BL)	91.8	83.6	0.0	0.00%	3
Westside Lane (WL)	35.0	16.3	5.5	33.74%	2
Subtotal	355.8	219.9	62.9		
<u>Resource Areas</u>					
N of Old Stone	279.0	274.9	1.2	0.44%	3
NA-EV-E	40.2	39.9	0.6	1.50%	3
Three Mile Lane East	201.7	186.4	18.9	10.14%	3
Three Mile Lane West	9.0	7.5	2.1	28.39%	2
Norton Lane East	81.5	71.6	5.6	7.88%	3
Norton Lane West	61.4	53.7	17.1	31.92%	2
SW - 06	158.0	137.3	6.5	4.71%	3
SW-03	41.9	30.7	2.1	6.92%	3
SW II	120.1	114.7	7.4	6.45%	3
W of Old Sheridan-1	231.4	214.5	1.7	0.77%	3
W of Old Sheridan-2	313.8	283.2	1.5	0.51%	3
West Hills-South	122.3	118.5	20.7	17.43%	3
West Hills-2	431.9	370.4	276.5	74.66%	1
N of Fox Ridge-East	189.1	170.6	75.9	44.46%	2
NW-Ext 1a (Northern)	78.2	45.8	5.5	11.98%	3
NW-Ext 1b (Southern)	72.5	67.3	9.4	13.99%	3
NW-Ext 2	15.5	14.9	2.3	15.45%	3

Grandhaven-E	19.5	15.6	0.9	5.97%	3
Grandhaven-W	67.9	59.2	6.7	11.25%	3
Airport East (EA)	493.4	484.1	0.0	0%	3
North of Baker Creek (NBC)	118.7	76.6	0.0	0%	3

Ratings: 1 - Areas with/>50% moderate slope; 2 - Areas w/25% to 49%, 3 - areas w/<24% moderate slope.

Table DC-2: Hazard Related Cost Ratings

Study Area	High	High Shake/ Liquefaction	Hazard Rating
	Landslide Constraints		
<u>Exception Areas</u>			
Lawson Lane (LL)	3	3	3
Old Sheridan Road (OSR)	3	3	3
N-Fox Ridge - West (N-FR-W)	1	3	2
Booth Bend Road (BR)	2	3	2.5
Brentano Lane (BL)	3	3	3
Westside Lane (WL)	2	3	2.5
<u>Resource Areas</u>			
N of Old Stone	3	3	3
NA-EV-E	3	3	3
Three Mile Lane East	3	3	3
Three Mile Lane West	3	3	3
Norton Lane East	3	3	3
Norton Lane West	2	3	2.5
SW - 06	3	3	3
SW-03	3	3	3
SW II	3	3	3
W of Old Sheridan-1	3	1	2
W of Old Sheridan-2	3	3	3
West Hills-South	3	3	3
West Hills-2	3	3	3
N of Fox Ridge-East	2	2	2
NW-Ext 1a (Northern)	3	3	3
NW-Ext 1b (Southern)	2	3	2.5
NW-Ext 2	3	3	3
Grandhaven-E	2	3	2.5
Grandhaven-W	2	3	2.5
Airport East (EA)	3	3	3
North of Baker Creek (NBC)	3	3	3

Ratings: 1 - High risk; 2 – Moderate risk, 3 – Low risk

Table DC-3: Composite Rating

Study Area	Site Cost Rating	Hazard Rating	Combined Rating
<u>Exception Areas</u>			
Lawson Lane (LL)	3	3	3
Old Sheridan Road (OSR)	3	3	3
N-Fox Ridge - West (N-FR-W)	1	2	1
Booth Bend Road (BR)	3	2	3
Brentano Lane (BL)	3	3	3
Westside Lane (WL)	2	2	2
<u>Resource Areas</u>			
N of Old Stone	3	3	3
NA-EV-E	3	3	3
Three Mile Lane East	3	3	3
Three Mile Lane West	2	3	2
Norton Lane East	3	3	3
Norton Lane West	2	2	2
SW - 06	3	3	3
SW-03	3	3	3
SW II	3	3	3
W of Old Sheridan-1	3	2	3
W of Old Sheridan-2	3	3	3
West Hills-South	3	3	3
West Hills-2	1	3	2
N of Fox Ridge-East	2	2	2
NW-Ext 1a (Northern)	3	3	3
NW-Ext 1b (Southern)	3	2	3
NW-Ext 2	3	3	3
Grandhaven-E	3	2	3
Grandhaven-W	3	2	3
Airport East (EA)	3	3	3
North of Baker Creek (NBC)	3	3	3

Ratings: 1 - High risk; 2 – Moderate risk, 3 – Low risk



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TECHNICAL MEMORANDUM #17

MGMUP UGB REMAND UPDATE

DATE: October 6, 2020
TO: Heather Richards, Planning Director
FROM: Heather Richards, Planning Director
SUBJECT: High Density Residential Development – Within Existing UGB

This technical memorandum provides information about the development of high density residential housing within the existing UGB for the MGMUP.

The 2001 Housing Needs Analysis identified the need for 72 acres of High Density Residential Housing as a housing type to meet the future residential needs of McMinnville for the planning horizon of 2003-2023. (Table 8, Appendix B).

The original intention was that half of this need would be achieved within the Neighborhood Activity Centers located within the existing UGB and half within the Neighborhood Activity Centers planned for the expansion area. Since the Plan was appealed, the Neighborhood Activity Centers did not move forward and the land within the City of McMinnville identified for these special districts has since been developed.

In order to ensure that the adequate amount of high density residential housing (R-5) that was identified in Table 8 is achieved, staff reviewed multifamily developments that have been constructed since the Plan was first developed, and identified 35.27 acres of high density residential development within the existing UGB (see attached Table).

These developments have already been calculated as part of the revised land-use efficiencies identified in Technical Memorandum #13 so they should not be impactful to the overall residential housing land need.

High Density Residential Developments

Tax Lot	Lot Size	Rezone From	Rezone To	Developed	Number of Units	Subdivision name	Year of Rezone	Location
R4420CB01200	2.88 acres	R-2	R-4 PD	Yes	30 sfa	Maple Leaf Townhomes	2003	NW 2 nd Street
R4419DB03900 R4419DB04000	2.22 acres	R-1	R-4	Yes	21 sfa	Pemberly Townhomes	2006	NW Hill Road NW 2 nd Street
R4420CA02100	.80 acres	R-1	R-4	Yes	6 sfa	Eckman Addition	2006	NW 2 nd Street
R4421DD00600	3.47 acres	R-1/VLDR	R-4 PD	Partially	35	Aspire Community	2010	NE 3 Mile Lane/Hwy 18
R4416BC03200 R4416BC03201	4.6 acres	EF-80/R-2	R-4	Yes	120 MF	Evans Street Apartments	2017	NE Evan Street
R4420CB00100 R4420CB00101 R4420CB00102	1.11 acres	R-1	R-4	No	21		2017	NW 2 nd Street
R4423 00900	4.93 acres	AH	R-4	Yes	66 MF	Evergreen Valley Apartments	2017	NE 3 Mile Lane/Hwy 18
R4418 00100(p)	6.62 acres	C-3 PD	C-3 PD	No	Up to 120 MF			NW Hill Road NW Baker Creek Road
R4419AD01500	.23 acres	R-1	R-4	No	8 MF		2019	NW 2 nd Street
R4422DD07603	2.12 acres	O-R PD		Yes	33	Sunflower Park	2005	NE 3 Mile Lane/Hwy 18
R4415 1000	4.87 acres	C-3		Yes	132	Lafayette Place	2014-16	NE Highway 99W
R4415 01100	1.42 acres	C-3		Yes	15	Sunnyside Apts		
TOTAL:	35.27 acres							



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TECHNICAL MEMORANDUM #18

MGMUP UGB REMAND UPDATE

DATE: November 3, 2020
TO: Heather Richards, Planning Director
FROM: DJ Heffernan, Planner
SUBJECT: Study Area Review for Social Justice Criteria related to Goal 14 Location Factor 5 – Energy, Environment, Economy and Social Consequences

This technical memorandum review the process and assumptions used to evaluate candidate UGB Study Areas for their impacts on Economic and Social Consequences per Goal 14 Location Factor 5. The Social Justice ratings relied on data and analysis developed for other criteria that also had applicability to socio-economic outcomes in urbanized areas. In particular, the applied criteria measures assess the relative suitability of study areas to accommodate affordable housing, the relative cost to provide public facilities, which influences housing affordability, to accommodate alternative transportation modes and travel without access to an automobile, and for proximity to and suitability for locating commercial services, schools, parks, and other public/semi-public uses, which may reduce the need to rely on an automobile.

The matrix below explains the criteria that were used to develop a rating score for social justice. Table SJ-2 on the following pages shows that ratings that resulted from applying the criteria.

Criteria	Purpose	Metric Basis
Affordable Housing Suitability	Compare relative capacity of land able to support affordable housing	Percentage of buildable acres with slope below 10%
Public Facilities Cost	Compare relative costs to deliver essential public facilities.	Combined cost/dwelling for water, sewer, and roads.
Site Development Costs	Compare the percentage of buildable acres that are subject to high site development costs.	Percentage of area that has slopes more than 10%
Housing Type Suitability	Compare the suitability of study areas to accommodate higher density housing.	The City's traditional zoning districts and dwelling capacity were used as a proxy to establish the ability of a study area to accommodate housing variety.

Technical Memorandum #18 (MGMUP UGB Remand Update)

Date: November 3, 2020

Re: Social Justice Rating Criteria

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Distance to Services	Distance to a combination of transit and shopping districts.	Distance obstacles today were mitigated if the study area, or an area nearby, was deemed suitable for an NAC district based on siting criteria for NACs.
Public and Semi-public Uses	Area suitability for siting a neighborhood park or elementary school.	Minimum size and slope requirements for a park or school: 10 acres and flat terrain had to be met to achieve better ratings for Park and Schools.
Composite Rating	Rating scores were summed and averaged for a composite score.	Fractional ratings were rounded to nearest whole number.

Table SJ-1: Social Justice Criteria Ratings
Social Justice

Study Area	Total Acres	Buildable Acres	Bld Ac 0-10% Slope	Affordable Suitability (Percentage <10% Slope)	Rating	Pub-Facility Cost/ Unit H2O, Sewer, Trans	Rating	Site Cost Rating	Variety of Housing Types	Service Distance now	Rating
<u>Exception Areas</u>											
Lawson Lane (LL)	18.1	7.5	5.9	79.0%	2	\$ 49,896	1	3	1	3,540	2
Old Sheridan Road (OSR)	54.5	36.5	35.3	96.6%	3	\$ 24,759	2	3	1	5,863	1
N-Fox Ridge - West (N-FR-W)	116.3	58.0	3.4	5.9%	1	\$ 41,048	1	1	1	10,426	1
Booth Bend Road (BR)	40.2	18.0	18.0	100.0%	3	\$ 27,715	1	3	1	5,790	1
Brentano Lane (BL)	91.8	83.6	83.6	100.0%	3	\$ 25,065	2	3	1	3,378	2
Westside Lane (WL)	35.0	16.3	10.8	66.3%	2	\$ 85,583	1	2	1	4,758	1
Subtotal	355.9	219.9	157.0								
<u>Resource Areas</u>											
N of Old Stone	279.0	274.9	273.8	99.6%	3	\$ 22,928	2	3	3	8,300	1
NA-EV-E	40.2	39.9	39.3	98.5%	3	\$ 22,944		3	2	6,209	1
Three Mile Lane East	201.7	186.4	167.5	89.9%	3	\$ 12,488	3	3	3	2,113	3
Three Mile Lane West	9.0	7.5	5.4	71.6%	2	\$ 30,751	1	2	2	4,129	1
Norton Lane East	81.5	71.6	66.0	92.1%	3	\$ 16,651	3	3	3	2,719	2
Norton Lane West	61.4	-	0.0		1			3	0	4,928	1
SW - 06	158.0	137.3	130.8	95.3%	3	\$ 13,608	3	3	3	3,941	2

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Date: November 3, 2020

Re: Social Justice Rating Criteria

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Study Area	Total Acres	Buildable Acres	Bld Ac 0-10% Slope	Affordable Suitability (Percentage <10% Slope)	Rating	Pub-Facility Cost/ Unit H2O, Sewer, Trans	Rating	Site Cost Rating	Variety of Housing Types	Service Distance now	Rating
SW-03	41.9	30.7	28.6	93.1%	3	\$ 13,631	3	3	2	5,047	1
SW II	120.1	114.7	107.3	93.5%	3	\$ 16,844	3	3	3	2,801	2
W of Old Sheridan-1	231.4	214.5	212.8	99.2%	3	\$ 16,278	3	3	1	8,982	1
W of Old Sheridan-2	313.8	283.2	281.7	99.5%	3	\$ 13,792	3	3	3	6,402	1
West Hills-South	122.3	118.5	97.9	82.6%	3	\$ 15,446	3	3	3	4,830	1
West Hills-2	431.9	370.4	93.9	25.3%	1	\$ 28,097	1	1	2	6,985	1
N of Fox Ridge-East	189.1	170.6	94.7	55.5%	2	\$ 21,671	2	2	3	6,753	1
NW-Ext 1a (Northern)	78.2	45.8	40.3	88.0%	3	\$ 23,964	2	3	2	1,524	3
NW-Ext 1b (Southern)	72.5	67.3	57.9	86.0%	3	\$ 19,891	2	3	2	2,811	2
NW-Ext 2	15.5	14.9	12.6	84.6%	3	\$ 22,787	2	3	1	684	3
Grandhaven-E	19.5	15.6	14.6	94.0%	3	\$ 29,451	1	3	1	4,169	1
Grandhaven-W	67.9	59.2	52.6	88.8%	3	\$ 20,367	2	3	3	5,901	1
Airport East (EA)	493.4	484.1	484.1	100.0%	3	\$ 21,689	2	3	3	11,521	1
North of Baker Creek (NBC)	118.7	76.6	76.6	100.0%	3	\$ 19,061	2	3	3	2,536	1

Technical Memorandum #18 (MGMUP UGB Remand Update)

Date: November 3, 2020

Re: Social Justice Rating Criteria

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Subtotal 3146.8 2783.9 2338.5

Median \$ 19,891

Mean \$ 24,311

Housing Suitability Rating

High

>80% Suitable

<17000

All zones

Average

>50% Suitable

17 - 27K

R2 - R4

Low

<50% Suitable

>27000

SFR only

Table SJ-1: Social Justice Rating Worksheet (continued)

Study Area	NAC Suitability	Service Distance Rating	Parks and Schools	Composite Rating	Comments
<i>Exception Areas</i>					
Lawson Lane (LL)	No	2	1	1.7	
Old Sheridan Road (OSR)	No	1	1	1.8	
N-Fox Ridge - West (N-FR-W)	No	1	1	1.0	
Booth Bend Road (BR)	No	1	1	1.7	
Brentano Lane (BL)	No	2	2	2.2	
Westside Lane (WL)	No	1	1	1.3	
Subtotal					
<i>Resource Areas</i>					
N of Old Stone	No	1	2	2.3	
NA-EV-E	No	1	2	1.8	
Three Mile Lane East	Yes	3	3	3.0	
Three Mile Lane West	No	1	1	1.5	
Norton Lane East	No	2	3	2.8	
Norton Lane West	No	1	2		
SW - 06	Yes	3	3	3.0	
Study Area	No	1	3	2.5	
SW-03	Yes	3	3	3.0	
SW II	No	1	1	1.0	
W of Old Sheridan-1	No	1	3	2.7	This area is in a high liquefaction risk zone and cannot be developed at urban density. The City will not annex land with this risk so it cannot urbanize.
W of Old Sheridan-2	No	1	3	2.7	
West Hills-South	No	1	2	2.3	
West Hills-2	No	1	1	1.2	

Technical Memorandum #18 (MGMUP UGB Remand Update)

Date: November 3, 2020

Re: Social Justice Rating Criteria

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Study Area	NAC Suitability	Service Distance Rating	Parks and Schools	Composite Rating	Comments
N of Fox Ridge-East	No	1	1	1.8	This area contains high landslide areas that cannot be developed at urban density. The City will not annex land with this risk.
NW-Ext 1a (Northern)	No	3	3	2.7	
NW-Ext 1b (Southern)	No	2	3	2.5	
NW-Ext 2	No	3	3	2.5	
Grandhaven-E	No	1	3	2.0	
Grandhaven-W	No	1	3	2.5	
Airport East (EA)	No	1	3	2.5	
North of Baker Creek (NBC)	No	1	3	2.5	



City of McMinnville
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231 NE Fifth Street
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TECHNICAL MEMORANDUM #19

MGMUP UGB REMAND UPDATE

DATE: November 12, 2020
TO: Heather Richards, Planning Director
FROM: Tom Schauer, Senior Planner
SUBJECT: UGB NL-W Boundary

As part of “Phase 2” of the Urban Growth Boundary (UGB) amendment, the City of McMinnville is proposing inclusion of a property owned by McMinnville Water & Light (MWL). On its western boundary, it abuts properties on SE Anne Street and N Oregon Street which back up to the MWL property.

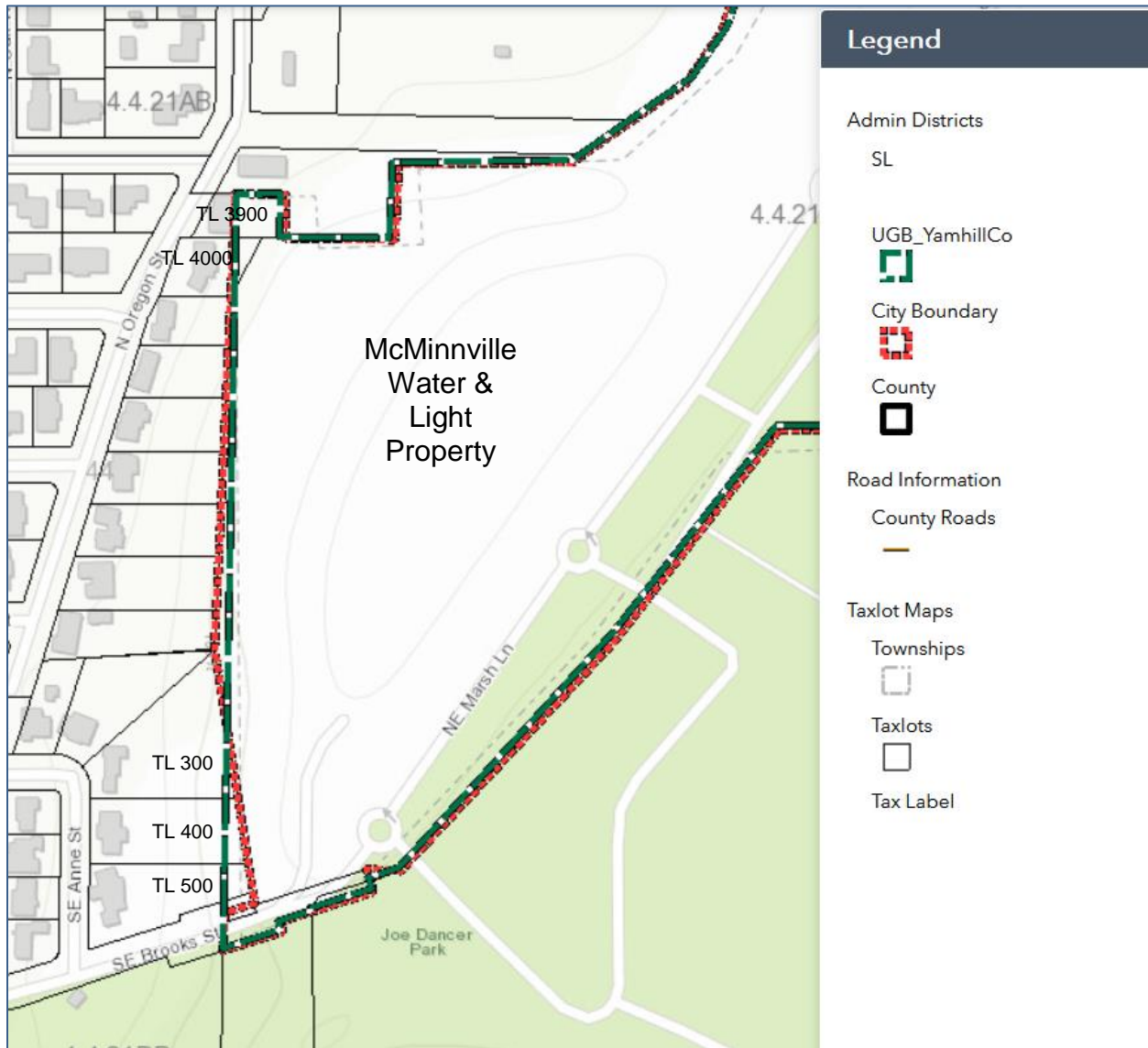
It appears there may have previously been some minor mapping errors in this area that we are seeking to correct at this time, as follows. Some properties in this area currently appear to be split by the Urban Growth Boundary (UGB), where the main front portions are inside the UGB and the rear portions are outside the UGB. Therefore, the City is including the rear portions of these properties in the proposed UGB amendment to ensure it doesn’t leave a small gap or “island” surrounded by the UGB. *Please see the attached map.*

Some properties may also be split by City limits. The proposed UGB amendment doesn’t affect whether a portion of a property is inside or outside of City limits, and it doesn’t change the zoning of the property regarding how the property can be used. Should the rear portions of one or more of these properties be outside City limits, and if any of the owners should wish to pursue annexation and rezoning of that portion in the future, the City would waive the fees for a rezone to the applicable City zoning.

In reviewing this issue, City staff researched several source materials, including old hard copy planning maps, historic annexation ordinances, historic subdivision plats, and assessment records and maps. Staff has concluded that the most prudent course of action is to include the portions of properties as part of the Phase 2 UGB amendment in an abundance of caution. This ensures they are included, avoiding any potential gap or island surrounded by the UGB.

This includes five tax lots in the NL-W area in addition to the McMinnville Water & Light property: Altogether, the portions of those five tax lots total about 0.35 acres:

- R4421AC 03900, 440 NE Oregon Street, (0.14 acre portion)
- R4421AC 04000, 424 NE Oregon Street, (0.04 acre portion)
- R4421DB 00300, 100 SE Anne Street, (0.03 acre portion)
- R4421DB 00400, 124 SE Anne Street, (0.08 acre portion)
- R4421DB 00500, 148 SE Anne Street, (0.06 acre portion)





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TECHNICAL MEMORANDUM #20

MGMUP UGB REMAND UPDATE

DATE: November 4, 2020
TO: Heather Richards, Planning Director
FROM: Tom Schauer, Senior Planner
SUBJECT: Data Sources

This memo summarizes the data sources which were used for the mapping and to perform GIS analysis. GIS data was obtained from agencies and organizations identified below. Much of the data is also viewable and/or downloadable from the agency websites provided below. Some data is available from multiple sources and sites.

Tax Lots and Tax Lot Data: Yamhill County Assessor

- Public GIS 2019
- <https://www.yamhillcountymaps.com/>

Zoning/Exception Areas: Yamhill County Planning

- Zoning Map
- <https://www.yamhillcountymaps.com/>

Street and Geographic Feature Labels: ESRI

- Street Labels Map Service
- <https://www.arcgis.com/home/webmap/viewer.html>

Aerial Photography: ESRI

- World Imagery Map Service
- <https://www.arcgis.com/home/webmap/viewer.html>

Flood Hazard: FEMA

- National Flood Hazard Layer (NFHL) Viewer
- <https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html>

Earthquake Liquefaction (Soft Soil) Susceptibility: DOGAMI

- Oregon HazVu: Statewide Geohazards Viewer
- <https://gis.dogami.oregon.gov/maps/hazvu/>

Technical Memorandum #20 (MGMUP UGB Remand Update)

Date: November 4, 2020

Re: Data Sources

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Landslide Susceptibility: DOGAMI

- Oregon HazVu: Statewide Geohazards Viewer
- <https://gis.dogami.oregon.gov/maps/hazvu/>

Expected Earthquake Shaking: DOGAMI

- Oregon HazVu: Statewide Geohazards Viewer
- <https://gis.dogami.oregon.gov/maps/hazvu/>

Wildfire Susceptibility: USFS/ODF

- Advanced Oregon Wildfire Risk Explorer
- https://tools.oregonexplorer.info/OE_HtmlViewer/index.html?viewer=wildfireplanning

Wetlands: ODSL

- Statewide Wetlands Inventory
- <https://maps.dsl.state.or.us/swi/>

Oregon Critical Wildlife Habitat - Species of Concern: ODFW

- Compass Tool
- <https://dfw.state.or.us/maps/compass/>

LIDAR: DOGAMI

- LIDAR Viewer
- <https://gis.dogami.oregon.gov/maps/lidarviewer/>

Some data and mapping was the result of performing GIS geoprocessing, analysis, and/or classification of one or more data sources above for study areas, including data noted below.

- **Hillshade, slope, slope classification, and elevation contours:** LIDAR
- **Water pressure zones:** LIDAR/Jacobs Engineering
- **Non-irrigated soil capability class:** NRCS, Court of Appeals Record
- **High value farmland:** NRCS and elevation data classified based on ORS/OAR

Agency Acronyms:

DOGAMI: Oregon Department of Geology and Mineral Industries

FEMA: Federal emergency Management Agency

ODF: Oregon Department of Forestry

ODFW: Oregon Department of Fish and Wildlife

ODSL: Oregon Department of State Lands

USFS: Unites States Forest Service