

6. Residential Land Sufficiency within McMinnville

This chapter presents an evaluation of the sufficiency of vacant residential land in McMinnville to accommodate expected residential growth over the 2021 to 2041 period. This chapter includes an estimate of residential development capacity (measured in new dwelling units) and an estimate of McMinnville's ability to accommodate needed new housing units for the 2021 to 2041 period, based on the analysis in the housing needs analysis. The chapter ends with a discussion of the conclusions and recommendations for the housing needs analysis.

Statutory Guidance

The language of Goal 10¹ and ORS 197.296² refers to housing *need*: it requires communities to provide needed housing types for households at all income levels. Goal 10's broad definition of need covers all households—from those with no home to those with second homes. McMinnville is required to make a local Housing Needs Projection³ that determines the needed mix of housing types and densities that are: (1) consistent with the financial capabilities of present and future area residents of all income levels during the planning period, (2) consistent with adopted housing standards, (3) consistent with requirements of Goal 10, OAR 660-008⁴, and ORS 197.296, and (4) consistent with Goal 14⁵ requirements.

With a population over 25,000, McMinnville is subject to the provisions of ORS 197.296 which provides additional guidance on determining housing need. Specifically, ORS 197.296(5) requires cities consider five factors in determining needed density and mix. These factors are discussed in detail in Chapter 5.

The final determination of needed mix and density was:

- **Needed Housing Mix:** 55% single-family detached housing, 12% single-family attached housing, and 33% multifamily housing
- **Needed Housing Density:** 5.3 dwelling units per gross acre (average overall)

¹ Goal 10: Housing, <https://www.oregon.gov/lcd/OP/Documents/goal10.pdf>

² ORS 197.296, https://www.oregonlegislature.gov/bills_laws/ors/ors197.html

³ OAR 660-008-0005(4)

⁴ OAR 660-008, <https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=3058>

⁵ Goal 14: Urbanization, <https://www.oregon.gov/lcd/OP/Pages/Goal-14.aspx>

Residential Capacity Analysis

The Buildable Lands Inventory provides a *supply* analysis (buildable land by type), and the Housing Needs Analysis provided a *demand* analysis (population growth leading to demand for more residential development). The comparison of supply and demand allows the determination of land sufficiency.

There are two ways to get estimates of supply and demand into common units of measurement so that they can be compared: (1) housing demand can be converted into acres, or (2) residential land supply can be converted into dwelling units. A complication of either approach is that not all land has the same characteristics. Factors such as zone, slope, parcel size, and shape, can all affect the ability of land to accommodate housing. Methods that recognize this fact are more robust and produce more realistic results. This analysis uses the second approach: it estimates the ability of vacant residential lands within the UGB to accommodate new housing. This analysis, sometimes called a “capacity analysis,”⁶ can be used to evaluate different ways that vacant residential land may build out by applying different assumptions. The process is to estimate capacity based on historic densities and then to evaluate land use efficiency measures that would achieve housing needs.

McMinnville Capacity Analysis Results

The capacity analysis estimates the development potential of vacant residential land to accommodate new housing based on the needed densities by housing type.

Exhibit 1 shows that McMinnville’s vacant and partially vacant land has capacity to accommodate approximately 2,921 new dwelling units, before deducting acreage for the housing development forecast for 2018-2021 and before deducting lands needed for group quarters. We base this estimate on several assumptions:

- **Buildable residential land.** The capacity estimates start with the number of buildable acres in the residential plan designations and residential zones.
- **Water Zone 1 and Water Zone 2 land.** Land in Water Zone 1 are available to be serviced with water now. Based on discussions with McMinnville Public Works, land in Water Zone 2 will likely not be serviced with water for approximately 10 years.

⁶ There is ambiguity in the term *capacity analysis*. It would not be unreasonable for one to say that the “capacity” of vacant land is the maximum number of dwellings that could be built based on density limits defined legally by plan designation or zoning, and that development usually occurs—for physical and market reasons—at something less than full capacity. For that reason, we have used the longer phrase to describe our analysis: “estimating how many new dwelling units the vacant residential land in the UGB is likely to accommodate.” That phrase is, however, cumbersome, and it is common in Oregon and elsewhere to refer to that type of analysis as “capacity analysis,” so we use that shorthand occasionally in this memorandum.

- **Capacity in C-3 zone.** Previous findings in McMinnville’s 2013 Economic Opportunities Analysis, suggests a deficit of land in C-3 areas. For this reason, this analysis assumed no residential capacity in C-3 zoned areas.
- **Residential demand in unincorporated areas with city residential plan designation and county rural zoning.** These lands are not available to develop at urban densities until they annex. For this reason, this analysis did not assign new residential demand in County zoned areas. The capacity of these lands is estimated using McMinnville’s overall average density. This method allows ECONorthwest to calculate overall land needs (surpluses and deficits) under the assumption that these lands will be “available” once annexed over during the planning period.
- **Needed densities.** The capacity analysis assumes that new housing will develop at historical observed densities. The rationale and factual basis for the density assumptions is ORS 197.262(5), described in the previous section, “Factors Influencing the Needed Mix and Density Determination.” In essence, population is growing, and households are increasingly housing insecure due to rising housing costs and increased competition from wealthier households migrating into the jurisdiction. A majority of new housing developed in McMinnville, since 2000, was single-family detached housing which is unaffordable to most households in the region. In addition to these factors, as residents in McMinnville age, there will be more demand for smaller units for smaller households. McMinnville will need a larger share of single-family attached and multifamily housing than the community had in the past, which will result in higher densities.

Exhibit 1. Estimate of residential capacity on unconstrained vacant and partially vacant buildable land, McMinnville UGB, 2019

Source: Buildable Lands Inventory; Calculations by ECONorthwest. Note: DU is dwelling unit.

Zoning Districts	Total Unconstrained Buildable Acres	Density Assumption (DU/Gross Acre)	Capacity (Dwelling Units)
R-1 Single Family Residential	145	3.1	449
R-2 Single Family Residential	131	4.3	561
R-3 Two Family Residential	6	4.8	28
R-4 Multiple-Family Residential	21	6.1	127
O-R Office/Residential	0	6.3	3
C-3 General Commercial	61	21.9	-
County Zoning	358	4.9	1,753
Total	721	4.9	2,921

Exhibit 1 shows that McMinnville has 721 acres of unconstrained buildable lands, with capacity for 2,921 dwelling units using historical densities by zoning district (before deducting acreage for housing development between 2018 and 2021, before deducting land needed for group quarters, and by using historical densities by zoning district). Exhibit 2 shows that McMinnville

has 588 acres of unconstrained buildable lands in Zone 1,⁷ with capacity for 2,360 dwelling units (before deducting acreage for housing development between 2018 and 2021, before deducting land needed for group quarters, and by using historical densities by zoning district).

Exhibit 2. Estimate of residential capacity on unconstrained vacant and partially vacant buildable land in Water Zone 1, McMinnville UGB, 2019

Source: Buildable Lands Inventory; Calculations by ECONorthwest. Note: DU is dwelling unit.

Zoning Districts	Total Unconstrained Buildable Acres	Density Assumption (DU/Gross Acre)	Capacity (Dwelling Units)
R-1 Single Family Residential	109	3.1	338
R-2 Single Family Residential	86	4.3	368
R-3 Two Family Residential	6	4.8	28
R-4 Multiple-Family Residential	21	6.1	127
O-R Office/Residential	0	6.3	3
C-3 General Commercial	61	21.9	-
County Zoning	305	4.9	1,496
Total	588	4.9	2,360

Note: All housing development occurring between 2018 and 2021 is assumed to be in Water Zone 1 as Water Zone 2 will not be serviceable during that time. The report presents this deduction in the following sub-section.

Residential Land Sufficiency in McMinnville

The next step in the analysis of the sufficiency of residential land within McMinnville’s UGB is to compare the demand for housing by zoning designation with the capacity of land by zoning designation. This analysis is based on capacity by existing zoning and plan designations. If McMinnville’s Great Neighborhood Principles are implemented with a diverse housing zone, capacity may be spatially distributed in a different manner. This section presents the final land sufficiency results for McMinnville for the 2021 to 2041 planning period (20-year) and the 2021 to 2031 planning period (5- and 10-year). Notes about the final results:

- Results incorporate assumptions for land needed for group and land needed to accommodate new housing before 2021.
- Results reflect demand for new dwelling units which require *vacant and partially vacant lands*.⁸

⁷ The analysis assumes that Zone 2 acreage is available within the 20-year period planning period, but not before the 10-year period.

⁸ Forecasted demand for infill and redevelopment will not require vacant or partially vacant lands.

Land Sufficiency Results for 2021 to 2041 (20-year planning period)

Exhibit 3 shows that McMinnville has a deficit of land in the R-1, R-2, R-3, and R-4 residential zoning districts, for the 2021 to 2041 planning period. With the implementation of Great Neighborhood Principles, this density may be reallocated and redistributed to new zoning such as a diverse housing zone.

Land sufficiency results for the 2021 to 2041 planning period are summarized here:

- McMinnville's deficit of R-1 capacity (613 dwelling units) means that the City has an approximate deficit of 227 gross acres of R-1 land for residential uses (at 3.1 dwelling units per gross acre).
- McMinnville's deficit of R-2 capacity (613 dwelling units) means the City has an approximate deficit of 172 gross acres of R-2 land for residential uses (at 4.3 dwelling units per gross acre).
- McMinnville's deficit of R-3 capacity (788 dwelling units) means the City has an approximate deficit of 194 gross acres of R-3 land for residential uses (at 4.8 dwelling units per gross acre).
- McMinnville's deficit of R-4 capacity (891 dwelling units) means the City has an approximate deficit of 217 gross acres of R-4 land for residential uses (at 6.1 dwelling units per gross acre).
- McMinnville's O-R zone has no surplus or deficit of residential capacity.
- McMinnville's C-3 zone has no surplus or deficit of residential capacity. Technically, this designation does have surplus acres, however, this land may accommodate commercial uses.
- Areas with county zoning in McMinnville's UGB (e.g. EF-80, LDR9000, VLDR-1, and residential) have capacity of 1,753 dwelling units, which means the City has an approximate surplus of 358 gross acres of county zoned land (accounted for in total UGB capacity calculations). These acres would be reallocated to city zones upon annexation. The analysis will account for these acres as a reduction in the overall deficit in existing city residential zones. However, these lands are not available to develop at urban densities until they annex. This is consistent with McMinnville's UGMA with the county.

Exhibit 3. PRELIMINARY Comparison of capacity of existing residential land with need for new dwelling units, requiring vacant and partially vacant lands, and land surplus or deficit, McMinnville UGB, through 2041

Source: Calculations by ECONorthwest. Note: this table is preliminary because it shows land sufficiency *before* deducting land needed between 2018 and 2021 and *before* deducting land needed for group quarters.

Zoning Districts	2018 Capacity (Dwelling Units)	2021-2041 Demand (Dwelling Units)	2018 Capacity minus 2021-2041 Demand (Dwelling Units)	Approx. Land Surplus or (Deficit) Gross Acres
R-1 Single Family Residential	449	1,062	(613)	(198)
R-2 Single Family Residential	561	1,174	(613)	(143)
R-3 Two Family Residential	28	816	(788)	(164)
R-4 Multiple-Family Residential	127	1,018	(891)	(146)
O-R Office/Residential	3	-	3	0
C-3 General Commercial	0	-	0	0
Subtotal (City Limits)	1,168	4,070	(2,902)	(650)
County Zoning	1,753	-	1,753	358
Total	2,921	4,070	(1,149)	(292)

For the 2021 to 2041 planning period, 564 additional, needed group quarters were deducted from the housing forecast (see Exhibit 72). The analysis must still account for their land need. To accommodate new group quarters, at average multifamily densities of about 13.7 dwelling units per gross acre,⁹ McMinnville will need approximately 41 gross acres. For purposes of this analysis, new group quarters are assumed to occur on R-4 zoned lands.

Exhibit 3 shows that McMinnville already has a deficit of 144 gross acres of R-4 lands. Exhibit 4 shows that, after deducting 41 gross acres of land for group quarters from R-4, the new (revised) land deficit in R-4 is 186 gross acres.

Exhibit 4. Land Needed for Group Quarters, McMinnville UGB, 2021 to 2041

Source: Calculations by ECONorthwest. *Note: this analysis assumes one person per dwelling unit.

Variable	Assumption
New Population in Group Quarters	564
Needed Dwelling Units for Group Quarters*	564
Gross Density Assumption (multifamily)	13.7
Needed Gross Acres (R-4 lands)	(41)
Existing Land Deficit (R-4 lands)	(144)
Revised Land Sufficiency, gross acres, (R-4 lands)	(186)

This analysis also deducts land needed for new dwelling units before 2021. As Exhibit 5 shows, McMinnville will have demand for 581 new dwelling units before 2021. At average gross densities (4.9 dwelling units per gross acre), McMinnville will need 119 gross acres of land. We

⁹ Basis for density assumption is the historical net density for multifamily housing in McMinnville historically (2000 through July 2018).

applied this land need proportionally across McMinnville’s R-1, R-2, R-3, and R-4 zoned lands and then calculated revised land sufficiency results.

Exhibit 5. Land needed through 2041

Source: Calculations by ECONorthwest. Note1: revised land sufficiency in R-4 also reflects land needed for group quarters. Note2: The 119 gross acre assumption (land needed to accommodate housing development between 2018-2021) does not deduct housing units accommodated by infill/redevelopment and does not deduct land needed for group quarters.

Variable	Assumption
New Population (2018-2021)	1,480
Needed Dwelling Units (2018-2021)	581
Gross Density Assumption (average)	4.9
Needed Gross Acres (2018-2021)	(119)
R-1 Single Family Residential	(30)
R-2 Single Family Residential	(30)
R-3 Two Family Residential	(30)
R-4 Multiple-Family Residential	(30)
Existing Land Deficit, gross acres (2021-2041)	(692)
R-1 Single Family Residential	(198)
R-2 Single Family Residential	(143)
R-3 Two Family Residential	(164)
R-4 Multiple-Family Residential <i>(includes land need for group quarters)</i>	(187)
Revised Land Sufficiency, gross acres (2018-2041)	(810)
R-1 Single Family Residential	(227)
R-2 Single Family Residential	(172)
R-3 Two Family Residential	(194)
R-4 Multiple-Family Residential	(217)

Exhibit 6 presents the final land sufficiency results, for the period through 2041 planning period, to account for land needed for group quarters and land needed to accommodate new housing before 2021.

Exhibit 6. FINAL comparison of capacity of existing residential land with need for new dwelling units and group quarters, requiring vacant and partially vacant lands, and land surplus or deficit, McMinnville UGB, through 2041

Source: Calculations by ECONorthwest. Note: this table is final because it shows land sufficiency *after* deducting land needed between 2018 and 2021 and *after* deducting land needed for group quarters.

Zoning Districts	2018 Capacity (Dwelling Units)	2021-2041 Demand (Dwelling Units)	2018 Capacity minus 2021-2041 Demand (Dwelling Units)	Approx. Land Surplus or (Deficit) Gross Acres
R-1 Single Family Residential	449	1,062	(613)	(227)
R-2 Single Family Residential	561	1,174	(613)	(172)
R-3 Two Family Residential	28	816	(788)	(194)
R-4 Multiple-Family Residential	127	1,018	(891)	(217)
O-R Office/Residential	3	-	3	0
C-3 General Commercial	-	-	0	0
Subtotal (City Limits)	1,168	4,070	(2,902)	(810)
County Zoning	1,753	-	1,753	358
Total	2,921	4,070	(1,149)	(452)

Land Sufficiency Results for 2021 to 2026 (5-year planning period)

Exhibit 7 shows that, for the 2021 to 2026 planning period, McMinnville has a deficit of land in the R-3 and R-4 residential zones. McMinnville’s R-1 and R-2 zones have a surplus of residential capacity. McMinnville’s O-R and C-3 zone has no surplus or deficit of residential capacity. Technically, the C-3 designation does have surplus acres, however, this land may accommodate commercial uses. Areas with county zoning in McMinnville’s UGB (e.g. EF-80, LDR9000, VLDR-1, and residential) have surplus capacity until rezoned (1,496 dwelling units) which means the City has an approximate surplus of 305 gross acres of county zoned land that could offset deficits of city zoning in the aggregate. Offsetting land deficits by specific zone would require that said land is suitably located for the specific zoning (or could allow other lands to be redesignated). However, these lands are not available to develop at urban densities until they annex. This is consistent with McMinnville’s UGMA with the county.

Exhibit 7. PRELIMINARY Comparison of capacity of existing residential land with need for new dwelling units, requiring vacant and partially vacant lands (Excludes Zone 2), and land surplus or deficit, McMinnville UGB, through 2026

Source: Calculations by ECONorthwest. Note: this table is preliminary because it shows land sufficiency *before* deducting land needed between 2018 and 2021 and *before* deducting land needed for group quarters.

Zoning Districts	2018 Capacity (Dwelling Units)	2021-2026 Demand (Dwelling Units)	2018 Capacity minus 2021-2026 Demand (Dwelling Units)	Approx. Land Surplus or (Deficit) Gross Acres
R-1 Single Family Residential	338	259	79	25
R-2 Single Family Residential	368	288	80	19
R-3 Two Family Residential	28	198	(170)	(35)
R-4 Multiple-Family Residential	127	248	(121)	(20)
O-R Office/Residential	3	-	3	0
C-3 General Commercial	0	-	0	0
Subtotal (City Limits)	864	993	(129)	(11)
County Zoning	1,496	-	1,496	305
Total	2,360	993	1,367	295

For the 2021 to 2026 planning period, 138 additional, needed group quarters were deducted from the housing forecast (see Exhibit 73). The analysis must still account for their land need. To accommodate new group quarters, at average multifamily densities of about 13.7 dwelling units per gross acre,¹⁰ McMinnville will need approximately 10 gross acres. For purposes of this analysis, new group quarters are assumed to occur on R-4 zoned lands. Exhibit 7 shows McMinnville’s deficit of 20 gross acres of R-4 lands. Exhibit 10 shows the revised land deficit of 30 gross acres of R-4 zoned lands, after deducting land needed to accommodate group quarters.

Exhibit 8. Land Needed for Group Quarters, McMinnville UGB, 2021 to 2026

Source: Calculations by ECONorthwest. *Note: this analysis assumes one person per dwelling unit.

Variable	Assumption
New Population in Group Quarters	138
Needed Dwelling Units for Group Quarters*	138
Gross Density Assumption (multifamily)	13.7
Needed Gross Acres (R-4 lands)	(10)
Existing Land Deficit (R-4 lands)	(20)
Revised Land Sufficiency, gross acres, (R-4 lands)	(30)

This analysis also deducts land needed for new dwelling units before 2021. At average gross densities (4.9 dwelling units per gross acre), McMinnville will need 119 gross acres of land through 2021. We applied this land need proportionally across McMinnville’s R-1, R-2, R-3, and R-4 zoned lands and then calculated revised land sufficiency results.

¹⁰ Basis for density assumption is the historical net density for multifamily housing in McMinnville historically (2000 through July 2018).

Exhibit 9. Land needed through 2026

Source: Calculations by ECONorthwest. Note1: revised land sufficiency in R-4 also reflects land needed for group quarters. Note2: The 119 gross acre assumption (land needed to accommodate housing development between 2018-2021) does not deduct housing units accommodated by infill/redevelopment and does not deduct land needed for group quarters.

Variable	Assumption
New Population (2018-2021)	1,480
Needed Dwelling Units (2018-2021)	581
Gross Density Assumption (average)	4.9
Needed Gross Acres (2018-2021)	(119)
R-1 Single Family Residential	(30)
R-2 Single Family Residential	(30)
R-3 Two Family Residential	(30)
R-4 Multiple-Family Residential	(30)
Existing Land Deficit, gross acres (2021-2026)	(21)
R-1 Single Family Residential	25
R-2 Single Family Residential	19
R-3 Two Family Residential	(35)
R-4 Multiple-Family Residential <i>(includes land need for group quarters)</i>	(30)
Revised Land Sufficiency, gross acres (2018-2026)	(140)
R-1 Single Family Residential	(4)
R-2 Single Family Residential	(11)
R-3 Two Family Residential	(65)
R-4 Multiple-Family Residential	(60)

Exhibit 10 presents the final land sufficiency results, for the period through 2026 planning period, to account for land needed for group quarters and land needed to accommodate new housing before 2021.

Exhibit 10. FINAL comparison of capacity of existing residential land with need for new dwelling units and group quarters, requiring vacant and partially vacant lands (Excludes Zone 2), and land surplus or deficit, McMinnville UGB, through 2026

Source: Calculations by ECONorthwest. Note: this table is final because it shows land sufficiency *after* deducting land needed between 2018 and 2021 and *after* deducting land needed for group quarters.

Zoning Districts	2018 Capacity (Dwelling Units)	2021-2026 Demand (Dwelling Units)	2018 Capacity minus 2021-2026 Demand (Dwelling Units)	Approx. Land Surplus or (Deficit) Gross Acres
R-1 Single Family Residential	338	259	79	(4)
R-2 Single Family Residential	368	288	80	(11)
R-3 Two Family Residential	28	198	(170)	(65)
R-4 Multiple-Family Residential	127	248	(121)	(60)
O-R Office/Residential	3	-	3	0
C-3 General Commercial	-	-	0	0
Subtotal (City Limits)	864	993	(129)	(139)
County Zoning	1,496	-	1,496	305
Total	2,360	993	1,367	166

Land Sufficiency Results for 2021 to 2031 (10-year planning period)

Exhibit 11 shows that, for the 2021 to 2031 planning period, McMinnville has a deficit of land in the R-1, R-2, R-3, and R-4 residential zones. McMinnville's O-R and C-3 zone has no surplus or deficit of residential capacity. Technically, the C-3 designation does have surplus acres, however, this land may accommodate commercial uses. Areas with county zoning in McMinnville's UGB (e.g. EF-80, LDR9000, VLDR-1, and residential) have surplus capacity until rezoned (1,496 dwelling units) which means the City has an approximate surplus of 305 gross acres of county zoned land that could offset deficits of city zoning in the aggregate. Offsetting land deficits by specific zone would require that said land is suitably located for the specific zoning (or could allow other lands to be redesignated). However, these lands are not available to develop at urban densities until they annex. This is consistent with McMinnville's UGMA with the county.

Exhibit 11. PRELIMINARY Comparison of capacity of existing residential land with need for new dwelling units, requiring vacant and partially vacant lands (Excludes Zone 2), and land surplus or deficit, McMinnville UGB, through 2031

Source: Calculations by ECONorthwest. Note: this table is preliminary because it shows land sufficiency *before* deducting land needed between 2018 and 2021 and *before* deducting land needed for group quarters.

Zoning Districts	2018 Capacity (Dwelling Units)	2021-2031 Demand (Dwelling Units)	2018 Capacity minus 2021-2031 Demand (Dwelling Units)	Approx. Land Surplus or (Deficit) Gross Acres
R-1 Single Family Residential	338	524	(186)	(60)
R-2 Single Family Residential	368	583	(215)	(50)
R-3 Two Family Residential	28	404	(376)	(78)
R-4 Multiple-Family Residential	127	505	(378)	(62)
O-R Office/Residential	3	-	3	0
C-3 General Commercial	0	-	0	0
Subtotal (City Limits)	864	2,016	(1,152)	(250)
County Zoning	1,496	-	1,496	305
Total	2,360	2,016	344	55

For the 2021 to 2031 planning period, 279 additional, needed group quarters were deducted from the housing forecast (see Exhibit 73). The analysis must still account for their land need. To accommodate new group quarters, at average multifamily densities of about 13.7 dwelling units per gross acre,¹¹ McMinnville will need approximately 20 gross acres. For purposes of this analysis, new group quarters are assumed to occur on R-4 zoned lands.

Exhibit 11 shows McMinnville's deficit of 62 gross acres of R-4 lands. Exhibit 12 shows the revised land deficit of 82 gross acres of R-4 zoned lands, after deducting land needed to accommodate group quarters.

¹¹ Basis for density assumption is the historical net density for multifamily housing in McMinnville historically (2000 through July 2018).

Exhibit 12. Land Needed for Group Quarters, McMinnville UGB, 2021 to 2031

Source: Calculations by ECONorthwest. *Note: this analysis assumes one person per dwelling unit.

Variable	Assumption
New Population in Group Quarters	279
Needed Dwelling Units for Group Quarters*	279
Gross Density Assumption (multifamily)	13.7
Needed Gross Acres (R-4 lands)	(20)
Existing Land Deficit (R-4 lands)	(62)
Revised Land Sufficiency, gross acres, (R-4 lands)	(82)

This analysis also deducts land needed for new dwelling units before 2021. At average gross densities (4.9 dwelling units per gross acre), McMinnville will need 119 gross acres of land through 2021. We applied this land need proportionally across McMinnville's R-1, R-2, R-3, and R-4 zoned lands and then calculated revised land sufficiency results.

Exhibit 13. Land needed through 2031

Source: Calculations by ECONorthwest. Note1: revised land sufficiency in R-4 also reflects land needed for group quarters. Note2: The 119 gross acre assumption (land needed to accommodate housing development between 2018-2021) does not deduct housing units accommodated by infill/redevelopment and does not deduct land needed for group quarters.

Variable	Assumption
New Population (2018-2021)	1,480
Needed Dwelling Units (2018-2021)	581
Gross Density Assumption (average)	4.9
Needed Gross Acres (2018-2021)	(119)
R-1 Single Family Residential	(30)
R-2 Single Family Residential	(30)
R-3 Two Family Residential	(30)
R-4 Multiple-Family Residential	(30)
Existing Land Deficit, gross acres (2021-2031)	(271)
R-1 Single Family Residential	(60)
R-2 Single Family Residential	(50)
R-3 Two Family Residential	(78)
R-4 Multiple-Family Residential	(82)
<i>(includes land need for group quarters)</i>	
Revised Land Sufficiency, gross acres (2018-2031)	(389)
R-1 Single Family Residential	(90)
R-2 Single Family Residential	(80)
R-3 Two Family Residential	(108)
R-4 Multiple-Family Residential	(112)

Exhibit 14 presents the final land sufficiency results, for the period through 2031 planning period, to account for land needed for group quarters and land needed to accommodate new housing before 2021.

Exhibit 14. FINAL comparison of capacity of existing residential land with need for new dwelling units and group quarters, requiring vacant and partially vacant lands (Excluding Zone 2), and land surplus or deficit, McMinnville UGB, through 2031

Source: Calculations by ECONorthwest. Note: this table is final because it shows land sufficiency *after* deducting land needed between 2018 and 2021 and *after* deducting land needed for group quarters.

Zoning Districts	2018 Capacity (Dwelling Units)	2021-2031 Demand (Dwelling Units)	2018 Capacity minus 2021-2031 Demand (Dwelling Units)	Approx. Land Surplus or (Deficit) Gross Acres
R-1 Single Family Residential	338	524	(186)	(90)
R-2 Single Family Residential	368	583	(215)	(80)
R-3 Two Family Residential	28	404	(376)	(108)
R-4 Multiple-Family Residential	127	505	(378)	(112)
O-R Office/Residential	3	-	3	0
C-3 General Commercial	-	-	0	0
Subtotal (City Limits)	864	2,016	(1,152)	(389)
County Zoning	1,496	-	1,496	305
Total	2,360	2,016	344	(83)

Land Sufficiency Results for 2021 to 2067 (46-year planning period)

Exhibit 15 shows that, for the 2021 to 2067 planning period, McMinnville has a deficit of land in the R-1, R-2, R-3, and R-4 residential zones. McMinnville’s O-R and C-3 zone has no surplus or deficit of residential capacity. Technically, the C-3 designation does have surplus acres, however, this land may accommodate commercial uses. Areas with county zoning in McMinnville’s UGB (e.g. EF-80, LDR9000, VLDR-1, and residential) have surplus capacity until rezoned (1,496 dwelling units) which means the City has an approximate surplus of 358 gross acres of county zoned land that could offset deficits of city zoning in the aggregate. Offsetting land deficits by specific zone would require that said land is suitably located for the specific zoning (or could allow other lands to be redesignated). However, these lands are not available to develop at urban densities until they annex. This is consistent with McMinnville’s UGMA with the county.

Exhibit 15. PRELIMINARY Comparison of capacity of existing residential land with need for new dwelling units, requiring vacant and partially vacant lands, and land surplus or deficit, McMinnville UGB, through 2067

Source: Calculations by ECONorthwest. Note: this table is preliminary because it shows land sufficiency *before* deducting land needed between 2018 and 2021 and *before* deducting land needed for group quarters.

Zoning Districts	2018 Capacity (Dwelling Units)	2021-2067 Demand (Dwelling Units)	2018 Capacity minus 2021-2067 Demand (Dwelling Units)	Approx. Land Surplus or (Deficit) Gross Acres
R-1 Single Family Residential	449	2,496	(2,047)	(660)
R-2 Single Family Residential	561	2,779	(2,218)	(516)
R-3 Two Family Residential	28	1,924	(1,896)	(395)
R-4 Multiple-Family Residential	127	2,401	(2,274)	(373)
O-R Office/Residential	3	-	3	0
C-3 General Commercial	0	-	0	0
Subtotal (City Limits)	1,168	9,600	(8,432)	(1,943)
County Zoning	1,753	-	1,753	358
Total	2,921	9,600	(6,679)	(1,586)

For the 2021 to 2067 planning period, 1,330 additional, needed group quarters were deducted from the housing forecast (see Exhibit 73). The analysis must still account for their land need. To accommodate new group quarters, at average multifamily densities of about 13.7 dwelling units per gross acre,¹² McMinnville will need approximately 97 gross acres. For purposes of this analysis, new group quarters are assumed to occur on R-4 zoned lands. Exhibit 15 shows McMinnville’s deficit of 373 gross acres of R-4 lands. Exhibit 16 shows the revised land deficit of 470 gross acres of R-4 zoned lands, after deducting land needed to accommodate group quarters.

Exhibit 16. Land Needed for Group Quarters, McMinnville UGB, 2021 to 2067

Source: Calculations by ECONorthwest. *Note: this analysis assumes one person per dwelling unit.

Variable	Assumption
New Population in Group Quarters	1,330
Needed Dwelling Units for Group Quarters*	1,330
Gross Density Assumption (multifamily)	13.7
Needed Gross Acres (R-4 lands)	(97)
Existing Land Deficit (R-4 lands)	(373)
Revised Land Sufficiency, gross acres, (R-4 lands)	(470)

This analysis also deducts land needed for new dwelling units before 2021. At average gross densities (4.9 dwelling units per gross acre), McMinnville will need 119 gross acres of land through 2021. We applied this land need proportionally across McMinnville’s R-1, R-2, R-3, and R-4 zoned lands and then calculated revised land sufficiency results.

¹² Basis for density assumption is the historical net density for multifamily housing in McMinnville historically (2000 through July 2018).

Exhibit 17. Land needed through 2067

Source: Calculations by ECONorthwest. Note1: revised land sufficiency in R-4 also reflects land needed for group quarters. Note2: The 119 gross acre assumption (land needed to accommodate housing development between 2018-2021) does not deduct housing units accommodated by infill/redevelopment and does not deduct land needed for group quarters.

Variable	Assumption
New Population (2018-2021)	1,480
Needed Dwelling Units (2018-2021)	581
Gross Density Assumption (average)	5
Needed Gross Acres (2018-2021)	(119)
R-1 Single Family Residential	(30)
R-2 Single Family Residential	(30)
R-3 Two Family Residential	(30)
R-4 Multiple-Family Residential	(30)
Existing Land Deficit, gross acres (2021-2067)	(2,041)
R-1 Single Family Residential	(660)
R-2 Single Family Residential	(516)
R-3 Two Family Residential	(395)
R-4 Multiple-Family Residential <i>(includes land need for group quarters)</i>	(470)
Revised Land Sufficiency, gross acres (2018-2067)	(2,160)
R-1 Single Family Residential	(690)
R-2 Single Family Residential	(545)
R-3 Two Family Residential	(425)
R-4 Multiple-Family Residential	(500)

Exhibit 18 presents the final land sufficiency results, for the period through 2067 planning period, to account for land needed for group quarters and land needed to accommodate new housing before 2021.

Exhibit 18. FINAL comparison of capacity of existing residential land with need for new dwelling units and group quarters, requiring vacant and partially vacant lands, and land surplus or deficit, McMinnville UGB, 2021 to 2067

Source: Calculations by ECONorthwest. Note: this table is final because it shows land sufficiency *after* deducting land needed between 2018 and 2021 and *after* deducting land needed for group quarters.

Zoning Districts	2018 Capacity (Dwelling Units)	2021-2067 Demand (Dwelling Units)	2018 Capacity minus 2021-2067 Demand (Dwelling Units)	Approx. Land Surplus or (Deficit) Gross Acres
R-1 Single Family Residential	449	2,496	(2,047)	(690)
R-2 Single Family Residential	561	2,779	(2,218)	(545)
R-3 Two Family Residential	28	1,924	(1,896)	(425)
R-4 Multiple-Family Residential	127	2,401	(2,274)	(500)
O-R Office/Residential	3	-	3	0
C-3 General Commercial	-	-	0	0
Subtotal (City Limits)	1,168	9,600	(8,432)	(2,159)
County Zoning	1,753	-	1753.00	358
Total	2,921	9,600	(6,679)	(1,801)

Conclusions

McMinnville's UGB is forecast to grow from 36,238 people in 2021 to 47,498 people in 2041, an increase of 11,260 people. This population growth will occur at an average annual growth rate of 1.36%. In addition to population growth, McMinnville's households have grown smaller on average. After considering a number of factors, including household size and residential vacancy rates, McMinnville will have demand for about 4,424 new dwelling units over the 20-year planning period (2021 to 2041). McMinnville will have demand for about 1,079 new dwelling units and between 2026 and 2031, about 2,190 new dwelling units between 2021 and 2031, and about 10,435 new dwelling units between 2021 and 2067.

McMinnville will need to accommodate an average development trajectory of 221 *new* dwelling units annually over the 20-year planning horizon (to include 18 redevelopment/infill units per year). Over the 20-year planning period, McMinnville will accommodate 354 needed dwelling units through redevelopment and infill - these units will not require vacant or partially vacant lands. Accordingly, this will result in McMinnville needing to accommodate 4,070 needed new dwelling units on vacant and partially vacant buildable residential lands.

In the future, McMinnville will plan for an increased share of single-family attached dwelling units and multifamily units to meet the City's housing needs. Currently, about 68% of McMinnville's housing stock is single-family detached housing, 9% was single-family attached housing, and 23% was multifamily housing. Based on Project Advisory Committee recommendations, McMinnville will plan for a different mix in new housing, which will result in a slight change to McMinnville's aggregate overall mix of existing and new housing. McMinnville will plan for a decrease in share of single-family detached housing (55% of new housing stock) to provide opportunities for more single-family attached housing (12% of new housing) and multifamily housing (33% of new housing).

McMinnville is planning for slightly higher overall average density than it has in the past. As McMinnville shifts towards more single-family attached housing and multifamily housing, McMinnville's average housing density (for new dwelling units) will increase from 4.9 dwelling units per gross acre to 5.3 dwelling units per gross acre—an 8% increase.

McMinnville's existing deficit of relatively affordable housing on both sides of the affordability spectrum indicates a need for a wider range of housing types, for renters and homeowners. About 36% of McMinnville's households are cost burdened (paying more than 30% of their income on housing), including a cost burden rate of 52% for renter households. Without diversification of housing types, lack of affordability will continue to be a problem, possibly growing in the future if incomes continue to grow at a slower rate than housing costs. Under the current conditions, between 2021 and 2041, about:

- **965 of the forecasted new households will have incomes of \$25,150 or less.** These households often cannot afford market rate housing without government subsidy.
- **1,626 new households will have incomes between \$25,150 and \$60,359.** These households will need access to relatively affordable housing, such as single-family

detached housing (e.g. tiny homes, cottages, small-lot, and “traditional”), single-family attached housing (e.g. townhomes), and multifamily products (particularly “middle” housing types such as duplexes, tri- and quad-plexes, and apartments / multifamily condominiums).

- **1,833 new households will have incomes over \$60,359.** These households will need higher-amenity housing types such as single-family detached housing, single-family attached housing, and higher-end multifamily products (particularly condominiums).

McMinnville’s UGB will not accommodate all of McMinnville’s housing needs. Over the 20-year planning period, McMinnville has a deficit of capacity for 1,149 dwelling units which means the City has an approximate deficit of 452 gross acres, after deducting land needed for group quarters and to accommodate housing development between 2021 and 2041 (Exhibit 19). Residential capacity (in acres) for the 5-, 10-, 20-, and 46-year periods is summarized in Exhibit 20.

Exhibit 19. Summary of New Dwelling Units and Group Quarters, for the periods through 2026, through 2031, through 2041, and through 2067

Source: Calculations by ECONorthwest.

	New Dwelling Units & Group Quarters			
	5-Year (2021 to 2026)	10-Year (2021 to 2031)	20-Year (2021 to 2041)	46-Year (2021 to 2067)
Total New D.U.s:	1,079	2,190	4,424	10,435
Less Infill/Redev (8%)	(86)	(175)	(354)	(835)
Equals D.U.s requiring Vacant/Partially Vacant Land	993	2,015	4,070	9,600
Group Quarters (additional land need)	138	279	564	1,330

Exhibit 20. Summary of Residential Land Sufficiency, McMinnville UGB, for the periods through 2026, through 2031, through 2041, and through 2067

Source: Calculations by ECONorthwest. Note 1: The 661 acres is the portion of the 721 acres in residential plan and zone designations and does not include 61 acres in commercial zones which were not assigned residential capacity. Note 2: These calculations are before deducting needs for future nonresidential uses on residential lands from the buildable acres.

	Vacant and Partially Vacant Gross Acres						
	5-Year (2021 to 2026)		10-Year (2021 to 2031)		20-Year (2021 to 2041)	46-Year (2021 to 2067)	
Zone 1 and 2 Scenarios:	Zone 1 Acreage	Zone 1&2 Acreage	Zone 1 Acreage	Zone 1&2 Acreage	Zone 1&2 Acreage	Zone 1&2 Acreage	
Supply (2018)	527	661	527	661	661	661	
Demand (2018-2021)	119	119	119	119	119	119	
Surplus/Deficit	408	542	408	542	542	542	
Supply (2021)	408	542	408	542	542	542	
Demand (Post 2021)	243	243	492	492	994	2343	
Surplus/Deficit	166	300	(84)	50	(452)	(1,801)	