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City of McMinnville
Housing Needs Analysis

June 2019

Prepared for:

City of McMinnville

***Draft* REPORT**

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1. Introduction

This report presents a Housing Needs Analysis (HNA) for the City of McMinnville. It is intended to comply with statewide planning policies that govern planning for housing and residential development, including Goal 10 (Housing), applicable statutes, including ORS 197.296, and OAR 660 Division 8. The methods used for this study generally follow the *Planning for Residential Growth* guidebook, published by the Oregon Transportation and Growth Management Program (1996).

Consistent with Statewide Planning Goal 10, the HNA documents McMinnville's housing needs for the 20-year period from 2021 through 2041[1] It is more comprehensive than the state requires, looking at housing needs for a 5, 10, 20, and 50-year period. The shorter-term analyses are intended to identify immediate housing needs and strategies given current land need deficiencies, and the 50-year analysis can provide a basis for the establishment of Urban Reserve Areas (URAs).

ECONorthwest developed this report in tandem with development of the Housing Strategy, which is a separate freestanding document, but is referenced and discussed herein.

Background

The City of McMinnville initially adopted an Urban Growth Boundary (UGB) in January 1981, intended to meet needs for a 20-year period from 1980-2000. The City of McMinnville last initiated a Housing Needs Analysis in 2000 for a planning period of 2000-2020 as part of a comprehensive review of its 20-year needs. It was subsequently updated to a 2003-2023 period.

In 2007-2008, the City submitted a UGB amendment to DLCD for inclusion of 1,188 gross acres resulting in a total inclusion request of 890 buildable acres (of which 537 buildable acres were designated to meet identified housing needs) in addition to adoption of a number of land use efficiency measures. This UGB amendment was subsequently appealed on a number of issues, and ultimately the Court of Appeals found that the city had not justified its inclusion of high-value farmland, instead of rural residential "exception" areas, and agricultural areas of poorer soils.

Final action on the appeal was a Court of Appeals remand in July 2011 approving inclusion of only 217 buildable acres of exception-only land in the UGB for residential use, meeting only a portion of the identified residential land need. The other 320 acres of the 537-acre identified buildable residential need remaining unmet. To partially address residential land needs, the

[1] ORS 197.296(2) requires cities to "demonstrate that its comprehensive plan or regional framework plan provides sufficient buildable lands within the urban growth boundary established pursuant to statewide planning goals to accommodate estimated housing needs for 20 years. The 20-year period shall commence on the date initially scheduled for completion of the periodic or legislative review." McMinnville anticipates adopting the Housing Needs Analysis no earlier than 2021. As a result, this report presents housing needs for the 2021 to 2041 period.

City has since approved some plan amendments and rezones from lower to higher density residential designations. Other than some smaller non-residential to residential plan amendments and zone changes, no additional land has been added to the residential plan designation since land was added in 2007-2008, as subsequently reduced by amendments required by the 2011 Court of Appeals decision.

Annexation of residentially designated land within the unincorporated UGB has been subject to approval by city voters since an initiative passed in May 1996 until the practice was largely overturned statewide by Senate Bill 1573 in 2016.[2] Annexations of land in McMinnville from 1996-2016 totaled 468.4 acres with at least 190 of those acres designated for uses other than housing.

The city has changed considerably since the time the last UGB review was initiated. From 2000 to 2017, McMinnville added nearly 7,166 residents, accounting for 34% of Yamhill County's growth over that period. In the same time, McMinnville added about 3,250 new dwelling units. McMinnville's population has grown a little older on average and has become slightly more ethnically diverse since 2000, consistent with statewide trends.

This report provides McMinnville with a factual basis to update the Housing Element of the City's Comprehensive Plan, zoning code, and to support future planning efforts related to housing and options for addressing unmet housing needs in McMinnville. It provides information that will inform future planning efforts, including a review of the McMinnville UGB and establishment of URAs. It provides the City with information about the housing market in McMinnville and describes the factors that will affect future housing demand and need in McMinnville, such as changing demographics and housing preferences. This analysis will help decision makers understand whether McMinnville has enough land to accommodate growth over the next 5, 10, 20, and 50 years.

Framework for a Housing Needs Analysis

Economists view housing as a bundle of services for which people are willing to pay: shelter certainly, but also proximity to other attractions (job, shopping, recreation), amenities (type and quality of fixtures and appliances, landscaping, views), prestige, and access to public services (quality of schools). Because it is impossible to maximize all these services and simultaneously minimize costs, households must, and do, make tradeoffs. What they can get for their money is influenced both by economic forces and government policy. Moreover, different households will value what they can get differently. They will have different preferences, which in turn are a function of many factors like income, age of household head, number of people and children in the household, number of workers and job locations, number of automobiles, and so on.

Thus, housing choices of individual households are influenced in complex ways by dozens of factors. The housing market in Yamhill County and McMinnville are the result of the individual decisions of thousands of households, (McMinnville has over 12,000 households, and Yamhill

[2] https://olis.leg.state.or.us/liz/2016R1/Measures/Overview/SB1573.

County has nearly 40,000 households). These points help to underscore the complexity of projecting what types of housing will be built in McMinnville between 2021 and 2041.

The complex nature of the housing market was demonstrated by the unprecedented boom and bust during the past two decades. This complexity does not eliminate the need for some type of forecast of future housing demand and need, with the resulting implications for land demand and consumption. Such forecasts are inherently uncertain. Their usefulness for public policy often derives more from the explanation of their underlying assumptions about the dynamics of markets and policies than from the specific estimates of future demand and need.

Statewide Planning Goal 10 and Related Policies

The passage of the Oregon Land Use Planning Act of 1974 (ORS Chapter 197) established the Land Conservation and Development Commission (LCDC) and the Department of Land Conservation and Development (DLCD). The Act required the Commission to develop and adopt a set of statewide planning goals. Goal 10 addresses housing in Oregon and provides guidelines for local governments to follow in developing their local comprehensive land use plans and implementing policies.

At a minimum, local housing policies must meet the requirements of Goal 10 and the statutes and administrative rules that implement it (ORS 197.295 to 197.314, ORS 197.475 to 197.490, and OAR 600-008).[3] Goal 10 requires incorporated cities to complete an inventory of buildable residential lands and to encourage the availability of adequate numbers of housing units in price and rent ranges commensurate with the financial capabilities of its households.

Goal 10 defines needed housing types as "housing types determined to meet the need shown for housing within an urban growth boundary at particular price ranges and rent levels."

ORS 197.303(1) defines "needed housing" as follows:

> As used in ORS 197.307, "needed housing" means all housing on land zoned for residential use or mixed residential and commercial use that is determined to meet the need shown for housing within an urban growth boundary at price ranges and rent levels that are affordable to households within the county with a variety of incomes, including but not limited to households with low incomes, very low incomes and extremely low incomes, as those terms are defined by the United States Department of Housing and Urban Development under 42 U.S.C. 1437a. "Needed housing" includes the following housing types:
>
> (a) Attached and detached single-family housing and multiple family housing for both owner and renter occupancy;
>
> (b) Government assisted housing;

[3] ORS 197.296(1)-(9) only applies to cities with populations over 25,000.

(c) Mobile home or manufactured dwelling parks as provided in ORS 197.475 to 197.490;

(d) Manufactured homes on individual lots planned and zoned for single-family residential use that are in addition to lots within designated manufactured dwelling subdivisions; and

(e) Housing for farmworkers.

DLCD provides guidance on conducting a housing needs analysis in the document *Planning for Residential Growth: A Workbook for Oregon's Urban Areas*, referred to as the Workbook. In addition, cities with a population of 25,000 or more (including McMinnville) are required to comply with ORS 197.296(1)-(9) and must conduct an analysis of housing need by housing type and density range to determine the number of needed dwelling units and amount of land needed for each needed housing type in the next 20-years (ORS 197.296(3)(b)).

Broadly, ORS 197.296(2) requires cities to demonstrate that its comprehensive plan provides sufficient buildable lands within the urban growth boundary to accommodate estimated housing needs for 20 years. Section 6 requires cities to conduct a buildable land inventory and analyze housing needs and residential land needs. If the conclusion of that analysis is the housing need determined pursuant is greater than the housing capacity determined, the city must either (1) amend its urban growth boundary to include sufficient buildable lands to accommodate housing needs for the next 20 years; or (2) amend land use regulations to include new measures that "demonstrably increase the likelihood that residential development will occur at densities sufficient to accommodate housing needs for the next 20 years without expansion of the urban growth boundary;" or (3) adopt a combination of (1) and (2).

In summary, McMinnville must identify needs for all of the housing types listed above as well as adopt policies that increase the likelihood that needed housing types will be developed. This housing needs analysis was developed to meet the requirements of Goal 10 and its implementing administrative rules and statutes. This report references relevant state guidance in relation to various elements of the HNA.

A Note About Housing Needs

As described in the "Framework for a Housing Needs Analysis" above, the nature of the housing market and housing needs are complex. Provisions of statute that discuss "needed mix" and "needed density" read as if, after conducting an analysis of historical and forecast trends, that the city can apply a formula to arrive at a "correct" determination of "needed mix" and "needed density" to ensure that housing needs are met for the next twenty years of population growth, but are met within a fairly rigid formula of science that does not take into account market and choice. In effect, this would require the City to determine the "needed" housing type and density for each household and aggregate the results for all households to arrive at the needed mix of housing types and the average needed density for the planning period. It presumes that households fit into categories that are uniform in their housing needs, preferences, choices, and trade-offs, and that the City could determine the "correct" aggregate housing choices. Meeting housing needs should also reflect community values and provide

opportunities for a range of housing options to meet needs in the community, from affordable housing for the residents with the lowest incomes to "executive" housing options.

This formula further assumes that housing needs are reduced to type (three broad categories – single family detached, single family attached and multifamily), mix, and density. It further assumes these are the sole, or at least most critical, factors that allow cities to meet housing need. Without explicitly stating it, these components of housing "need" are reduced to a proxy for affordability across income levels, while failing to account for other aspects of the housing market that may be more critical to addressing housing need and choice across the income spectrum. It is demonstrably true that density does not necessarily equate to affordability. Further, state law currently prohibits cities from directly addressing some aspects of the housing market that may be more critical to meeting housing needs, specifically ORS 197.309 (which enables inclusionary zoning, but places restrictions on when it can be applied).

The required analysis also ignores the fact that some historic trends may be the result of factors that have artificially distorted the market and provision of housing supply in different ways, including past regulatory constraints that may have influenced the housing market, which become embedded in the trend analysis of housing need.

In reality, the City is zoning for housing opportunities in which households can make choices about housing that meets their needs providing choices consistent with their preferences and those needs, and preferences may change for them during the planning period. This interpretation is consistent with the language of Goal 10: "plans shall encourage the availability of adequate numbers of needed housing units at price ranges and rent levels which are commensurate with the financial capabilities of Oregon households and allow for flexibility of housing location, type and density."

Household preference will lead to housing choices, where a household may have a choice of different housing options that reflect trade-offs. For example, when it comes to affordability, there may be different housing choices that are equally affordable. A household may choose an ownership opportunity that results in slight cost-burden but allows them to establish ownership and equity, rather than a rental opportunity at a lower price-point that doesn't result in cost burden.

While housing type and density can be factors in housing costs, they are not determinant. Other factors than housing type and density can have a significant impact on housing cost and preference. These factors include:

- Location within the region and/or city. Locational factors and neighborhood amenities can dramatically affect housing cost. Locational choices relative to neighborhoods, amenities, schools, access to services etc. can determine preferences and housing costs. In some cases, the cost/square foot in the highest density multi-family developments in the most desirable neighborhoods can be significantly higher than larger single-family detached housing in a neighborhood a few miles

away. To create equity and inclusion the city needs to be cognizant of ensuring that neighborhoods are equitable and that housing types are equally distributed.

- Square footage, materials, and amenities. These factors can be significant in determining housing cost. Census data suggests that the size of both single- and multifamily units continues to increase.
- Household formation. Some people may select different options for household formation to increase housing choice opportunities. For example, some individuals or extended families may prefer to share housing in a larger house in a neighborhood and share costs and/or social supports rather than live separately in individual units which may be separately more expensive for each individual and/or lack the social supports.
- Housing sub-types. Within the three broad categories of housing types specified in statute (single-family detached, single-family attached, and multi-family) are numerous sub-types. Some sub-types might have more in common with other housing types. For example, a cottage cluster might be comprised of detached-single family homes, but with smaller footprints and higher density, where they are more comparable in density and affordability to other housing types than they are to large-lot single family homes with significantly more square footage. In this case, it could be more appropriate to plan for opportunity/flexibility to achieve densities and affordability with different housing types, rather than plan for a specific mix of the three specified housing types.

In short, housing needs can, and do, change over time. The statutes imply that the "needed mix" identified at the start of the planning period is the "correct mix" and must be achieved over the course of the planning period. It treats needed mix and density as something that is determinant rather than predictive. If households make different housing choices than were initially expected or predicted, the statutes imply the city has not achieved the "correct mix" and must adjust to ensure the correct mix rather than recognizing its predictions may not have accurately reflected the socioeconomic and demographic characteristics or housing choices of its current and future residents. The law is set up to treat housing mix as destiny data – treating housing mix and density as a given to be adhered to rather than a forecast. While the population growth that provides the basis for future planning is described as a "forecast," and planning for employment land is described as "economic opportunities," planning for housing is instead described as "needed mix and density" rather than a housing forecast of opportunities for different housing types.

This suggests that the numbers in a population forecast are predictive and subject to change, but that the demographic and socioeconomic components inherent in that same forecast are not. It further assumes that the city can determine the complex factors that determine the "right" housing choice for households. A self-fulfilling planning scheme can be overly rigid and may drive households to select housing options because they are available rather than a preferred choice.

The statutes appear to be more concerned with "needed density and mix" identified at the beginning of the planning period as an absolute, more so than consideration of housing preference or considerations of options that are affordable to households commensurate with their incomes. In effect, the metrics (e.g., density and mix) for "needed housing" can be more concerned with urbanization goals than with housing needs (particularly affordability since density does not necessarily equate to affordability). If we only measure things because they are measurable, it doesn't mean we are measuring the right things or are making progress on the things we should be measuring, which may be more difficult to measure.

The above discussion isn't intended to conflate housing need with the housing market. On the contrary, the housing needs analysis and residential lands needs analysis must address housing needs for those who lack housing, those who are at risk of losing housing, those who are not being served by the housing market, and those who have the narrowest choice of housing options commensurate with their incomes. There are many in the community who lack viable housing opportunities or choices. The market may continue to operate without responding to, or being able to respond to, housing needs for those residents, absent market interventions.

The housing needs analysis and resulting housing strategy will require creativity to meet the housing challenges that lie ahead and provide pathways to opportunity. Rigid thinking about housing type, mix, density, and segregated zoning will not lead to the creative solutions McMinnville seeks to meet the housing challenges head-on while creating great neighborhoods of enduring value that provide opportunity to future generations. Further, narrow thinking about the term "needed housing" can lead to replication of the worst examples of planning from the past, however well-intentioned. Affordability achieved through the warehousing of people doesn't provide a pathway to opportunity or upward mobility.

While "needed mix" and "needed density" are statutory components of a housing needs analysis typically conducted in advance of a housing strategy, simultaneously pre-determining both of these variables fails to leave open flexible options to provide more creative solutions that could result if basing a residential land needs analysis on one of these variables and leaving the other variable open to be addressed through a responsive and creative housing strategy that provides greater flexibility in how the needs are met over time without adherence to rigid categories.

As the City of McMinnville continues to discuss housing needs and constructs a housing strategy to respond to the need, the City should strive for flexibility to allow for market innovation over the planning horizon to ensure that the need is truly being met with choice option. Additionally, the City of McMinnville has recently adopted "Great Neighborhood Principles" to ensure that everyone in McMinnville can live in a great neighborhood regardless of income. These principles strive for equity and inclusion in residential neighborhoods and will be an important dynamic of how McMinnville is able to respond to the housing need of its future residents in a meaningful way with enduring value.

Public Process

At the broadest level, the purpose of the project was to understand how much McMinnville will grow over the next 5, 10, 20, and 46 years. The project has two components (1) technical analysis (the BLI and HNA), and (2) housing strategies (provided in a separate document). Both benefit from public input. The technical analysis requires a broad range of assumptions that influence the outcomes; the housing strategy is a series of high-level policy choices that will affect McMinnville residents. Public engagement during the project was accomplished through the three primary avenues described below.[4]

Project Advisory Committee Meetings

The City of McMinnville and ECONorthwest solicited public input from an ad-hoc Project Advisory Committee. The Project Advisory Committee met six times[5] to discuss project assumptions, results, and implications. There was also a joint meeting of the Project Advisory Committee and City Council. The project relied on the Project Advisory Committee to:

- Review draft work products, advise on public involvement, and consider public input when making recommendations.
- Advise the project team on matters regarding housing needs, market conditions, and the buildable lands inventory in McMinnville.
- Work collaboratively with, and provide guidance to, the staff and consultant project team in the preparation of the McMinnville Housing Needs Analysis.
- Work collaboratively with, and provide guidance to, the staff and consultant project team in the preparation of the McMinnville Housing Strategy. Provide input on goals, strategies, and actions that address McMinnville's housing needs in a way that fits with and enhances quality of life in the community.

Public ~~Meetings~~Open House

The City of McMinnville and ECONorthwest solicited input from the general public at ~~two public meetings. The first engagement was an~~ a public open house, held on February 5, 2019. The open house consisted of eight information stations, related to the preliminary results of the Housing Needs Analysis and the Buildable Lands Inventory, and two public comment stations. ~~The second engagement was a public meeting, held on…~~INSERT DATEAs work proceeds on evaluation of actions in the Housing Strategy, there will be additional public engagement.

[4] In addition to Project Advisory Committee meetings, public meetings, and stakeholder focus groups, the City of McMinnville also maintained a project website and social media presence.

[5] Project Advisory Committee meeting dates with the consultant team: July 17, 2018; November 14, 2018; December 18, 2018; March 7, 2019; and May 21, 2019.

Project Advisory Committee meeting dates without the consultant team: January 16, 2019 and ~~***Meeting 7***.~~June 13, 2019.

Stakeholder Focus Groups

The City of McMinnville and ECONorthwest solicited feedback at ~~two~~ a stakeholder focus group~~s~~. The purpose of the focus group~~s~~ was to provide an opportunity for small group discussion and input of key issues. The purpose of the ~~first~~ focus group, held on January 25, 2019, was to have a targeted discussion with realtors, developers, and housing providers to learn about what they see as opportunities and constraints associated with housing development in McMinnville for the next 5, 10, 20 and 50 years. ~~The purpose of the second focus group, held on…INSERT DATE was to solicit feedback on the housing strategy.~~

Organization of this Report

The rest of this document is organized as follows:

- **Chapter 2. Residential Buildable Lands Inventory** presents the methodology and results of McMinnville's inventory of residential land.
- **Chapter 3. Historical and Recent Development Trends** summarizes the state, regional, and local housing market trends affecting McMinnville's housing market.
- **Chapter 4. Demographic and Other Factors Affecting Residential Development in McMinnville** presents factors that affect housing need in McMinnville, focusing on the key determinants of housing need: age, income, and household composition. This chapter also describes housing affordability in McMinnville relative to the larger region.
- **Chapter 5. Housing Need in McMinnville** presents the forecast for housing growth in McMinnville, describing housing need by density ranges and income levels.
- **Chapter 6. Residential Land Sufficiency within McMinnville** estimates McMinnville's residential land sufficiency needed to accommodate expected growth over the planning period.
- **Appendix A. Residential Buildable Lands Inventory** provides details on the process and methods for conducting the analysis as well as findings.
- **Appendix B. Scenario Modeling** provides details about the impact of housing mix assumptions. ECONorthwest presented these scenarios to the Project Advisory Committee to inform their housing mix assumption recommendation.

2. Residential Buildable Lands Inventory

This chapter summarizes the residential buildable lands inventory (BLI) for the McMinnville UGB. The buildable lands inventory analysis (BLI) complies with statewide planning Goal 10, ORS 197.296(4), and OAR 660-008. A detailed discussion of methods and additional results is presented in Appendix A.

The BLI has the following main steps: (1) establish the residential land base (parcels or portion of parcels with appropriate zoning), (2) classify parcels by development status, (3) identify and deduct development constraints, including environmental and other constraints, (4) summarize total buildable area by zone. "Buildable lands" are properties classified as "vacant" or "partially vacant" which have at least some development capacity after deducting constrained areas. Those will be assigned capacity for new residential development. Calculations must also be made about how much of that land will be needed for streets and other land uses expected to occur on residential lands. That will reduce the amount of those lands available for residential development. Assumptions are also made about the extent of infill and redevelopment expected to occur on other lands.

The BLI is based on data and development status of land in late 2018. Since the planning period for this analysis is 2021-2041, McMinnville used the forecast to estimate acres that will may develop between 2018 and 2021, as described in this report. The City could review the BLI in 2021 to determine actual changes in buildable lands between 2018 and 2021.

Categorizing Lands

The buildable lands inventory classifies all residential (and commercial land where housing is a permitted use) into categories.

Development Status

A key step in the buildable lands analysis is to classify each tax lot into a set of mutually exclusive categories based on development status. For the purpose of this study, all residential tax lots in the UGB are classified into one of the following categories:

- *Vacant land.* Tax lots that have no structures or have buildings with very little improvement value are considered vacant. For the purpose of this inventory, lands with improvement values under $10,000 are considered vacant (not including lands that are identified as having mobile homes), unless aerial imagery or City staff determined that the tax lot is no longer vacant in the verification step.
- *Partially vacant land.* Partially vacant tax lots are those occupied by a use, but which contain enough land to be developed further. Generally, these are lots that have more

than a half-acre of buildable land, after removing constraints and developed land from the total acreage.[6] This was refined through visual inspection of recent aerial photos.

- *Developed land*. Developed land is developed at densities consistent with zoning and has improvements that make it unlikely to redevelop during the analysis period. Lands not classified as vacant or partially vacant are considered developed.
- *Public or exempt land*. Except as noted below, lands in public or semi-public ownership are considered unavailable for development. This includes lands in Federal, State, County, or City ownership. Public lands were identified using the Yamhill County Assessment property tax exemption codes and ownership field. Exempt lands owned by a non-profit housing developer which are vacant or partially vacant are considered available for development and are inventoried accordingly.

Development constraints

Consistent with state guidance on buildable lands inventories, ECONorthwest deducted portions of residential tax lots that fall within certain constraints from the vacant and partially vacant lands (e.g. wetlands and steep slopes). We used categories consistent with OAR 660-008-0005(2):

- *Lands within floodplains and floodways*. Flood Insurance Rate Maps from the Federal Emergency Management Agency (FEMA), as well as land in McMinnville's Flood Plain zone and plan designation, were used to identify lands in floodways and 100-year floodplains.
- *Land within natural resource protection areas*. The National Wetlands Inventory was used to identify areas within wetlands.
- *Land within landslide hazards*.[7] The DOGAMI SLIDO database and landslide susceptibility datasets were used to identify lands with landslide hazards. ECONorthwest included lands with "very high" or "high" susceptibility to landslides in the constrained area. The City is proposing a policy interpreting the mapped DOGAMI hazards for purposes of the BLI, which can be reviewed upon further study if necessary.
- *Land with slopes over 25%*. Lands with slopes over 25% are considered unsuitable for residential development.

[6] Under the safe harbor established in OAR 660-024-0050 (2)(a), the infill potential of developed residential lots of one-half acre or more may be determined by subtracting one-quarter acre (10,890 square feet) for the existing dwelling and assuming that the remainder is buildable land. Cities with population greater than 25,000, including McMinnville, are not eligible for this safe harbor. However, other cities that ECONorthwest has worked with have successfully justified similar threshold assumptions and the Public Advisory Committee (PAC) for this project considered this a reasonable method to address infill potential of developed residential lots in McMinnville.

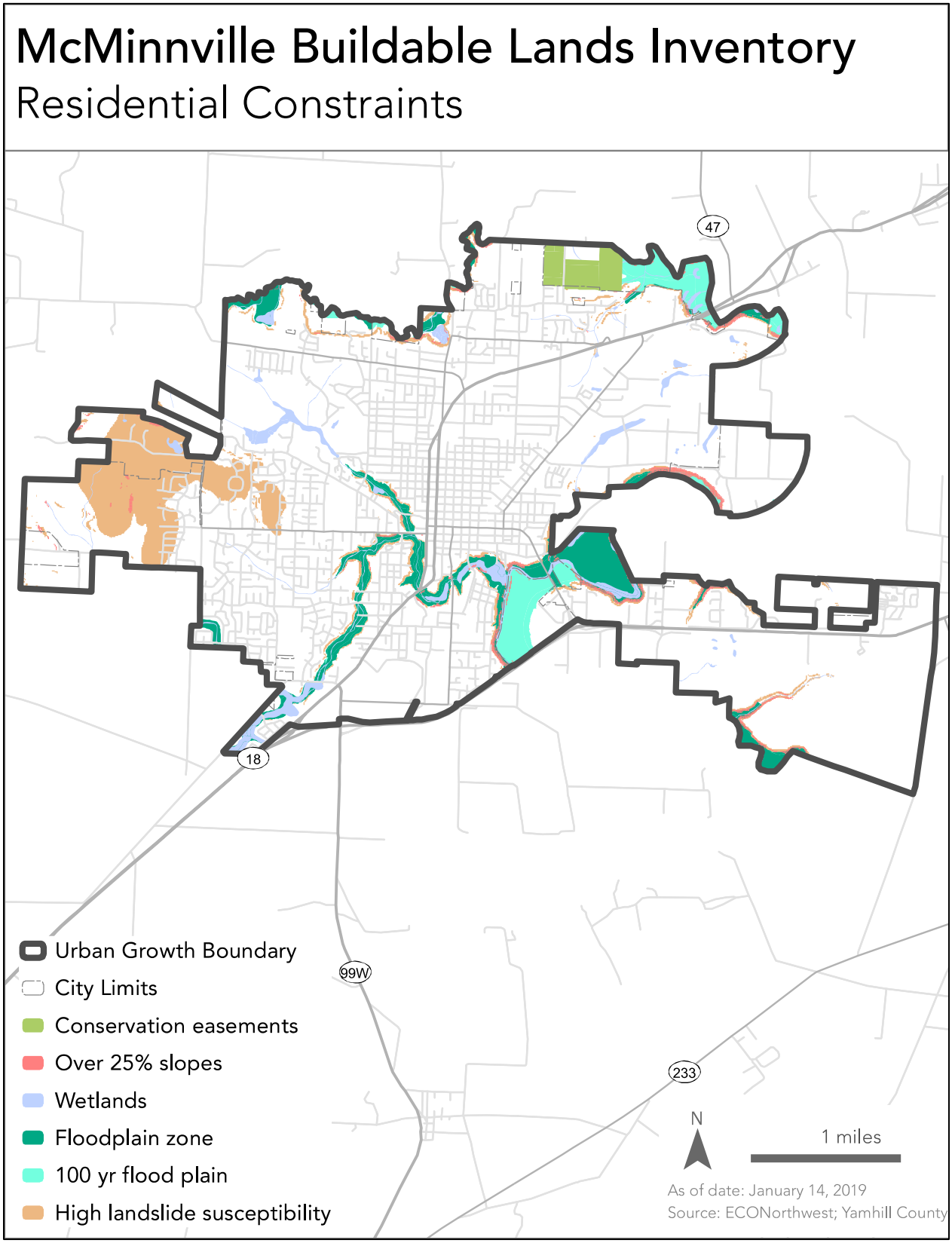
[7] The City of McMinnville will need to adopt Comprehensive Plan policies regarding buildable lands assumptions in areas with high- and very-high landslide susceptibility. Current comprehensive plan policies addressing this hazard do not exist. Should future studies find that the City can address issues by engineering, the City could add associated acreage back into the BLI.

- *Land with conservation easements.* Lands within conservation easements, as identified by City staff, were included in the constrained area.

After deducting constraints, vacant and partially vacant lands that have remaining development capacity are classified as "buildable lands".

Exhibit 1 maps the development constraints used for the residential BLI.

Exhibit 1. Residential Development Constraints, McMinnville UGB, 2018



Buildable Lands Inventory Results

Land Base

Exhibit 2~~Exhibit 2~~ shows the residential land base in McMinnville by plan designation and zone. It also allocates the properties and acreage in the land base between Water Pressure Service Zone 2 and all other areas as described below. The land base is comprised of those properties within the UGB with zoning or a plan designation that permits residential use. This is predominantly properties with a residential plan designation and/or zone. It also includes commercial plan designations and zones that also allow residential uses. The land base excludes plan designations/zones that don't allow for residential use, such as industrial zones and the floodplain zone.

The results show that the McMinnville UGB has 4,749 total acres in the residential land base in 9,854 tax lots. This analysis includes Commercial zones C-3 and O-R, which allow residential uses, and excludes zones that do not allow residential uses, including Industrial zones, C-1, C-2, and F-P zones.[8] Of the total acres in the UGB, about 918 acres (19%) are in the R-1 Single Family Residential zone, about 1,326 acres (28%) are in the R-2 Single Family Residential zone, about 386 acres (8%) are in the R-3 Two Family Residential zone, and about 664 acres (14%) are in the R-4 Multiple-Family Residential zone.

ECONorthwest also identified land in the Water Pressure Service Zone 2 contour due to additional considerations for capacity. Properties in Services Zone 2 are in the UGB but will be unable to develop until a water storage tank and associated water infrastructure are built to serve properties in Service Zone 2. The Zone 2 area covers properties within three zoning or plan designations—R-1, R-2 (within City limits), and in the residential plan designation (within the unincorporated UGB). Exhibit 2 shows the acreage in tax lots that is either completely within or partially within Zone 2, and the remaining acreage in tax lots not in Zone 2 is defined as Zone 1.[9] Of the 4,749 acres in the land base, 272 acres (6%) are in Zone 2.

[8] The F-P zone and plan designation were included in the development constraints. Tax lots partially in the F-P zone and a residential zone were assigned the adjacent residential zone and the overlapping floodplain area was calculated in the constraint deductions.

[9] Some lots that fell within Zone 2 were excluded from Zone 2 acreage based on discussion with City staff. These included lots that were not subject to Zone 2 requirements, such as lots in a platted subdivision (most of those are authorized to develop using private booster pumps for water pressure in the interim). Lots partially in Zone 2 were split and acreages were calculated separately using the Intersect tool in GIS.

Exhibit 2. Land Base: Residential acres by classification and zone, McMinnville UGB, 2018
Source: City of McMinnville, Yamhill Co., ECONorthwest. *Note: The numbers in the table may not sum to the total as a result of rounding. Note: all lands in county zones are in the residential plan designation.*

Zone/Plan Designation	Number of taxlots	Percent	Total taxlot acreage			Percent (total acreage)
			Zone 1	Zone 2	Total	
City Limits, by Zone						
R-1 Single Family Residential	1,928	20%	857	61	**918**	19%
R-2 Single Family Residential	4,357	44%	1,248	78	**1,326**	28%
R-3 Two Family Residential	1,225	12%	386	-	**386**	8%
R-4 Multiple-Family Residential	1,322	13%	664	-	**664**	14%
O-R Office/Residential	72	1%	25	-	**25**	1%
C-3 General Commercial	758	8%	613	-	**613**	13%
UGB, by County Zone or Plan Des.						
EF-80 (County Zone)	11	0%	117	-	**117**	2%
LDR9000 (County Zone)	1	0%	3	-	**3**	0%
VLDR-1 (County Zone)	2	0%	3	-	**3**	0%
Residential Plan Des.	178	2%	563	133	**695**	15%
Total	**9,854**	**100%**	**4,477**	**272**	**4,749**	**100%**

Development Status

Properties within the residential land base were classified into the Development Status categories described above. (Vacant, partially vacant, developed, public/exempt). The constraints shown in Exhibit 1 were then overlaid and applied to those properties.

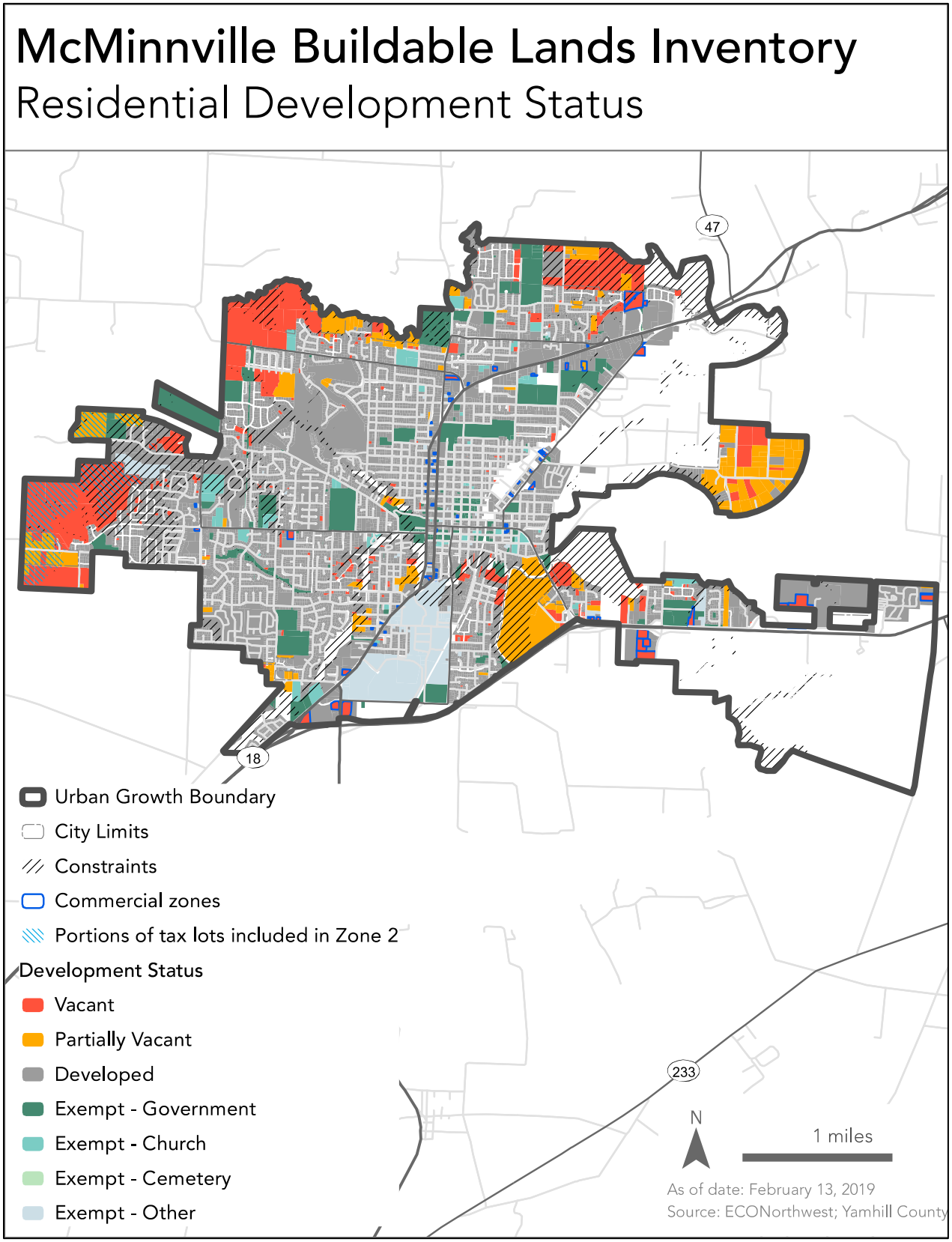
Exhibit 3 shows all land in the residential land base by development and constraint status. Of the total residential land base, about 65% of McMinnville's total residential land (3,100 acres) is committed, 20% (928 acres) is constrained, and 15% (721 acres) is unconstrained buildable acres.

Exhibit 3. Residential land by zone and constraint status, McMinnville UGB, 2018
Source: City of McMinnville, Yamhill Co., ECONorthwest. *Note: The numbers in the table may not sum to the total as a result of rounding.*

	Total acres			Committed acres			Constrained acres			Buildable acres		
Zone/Plan Designation	Zone 1	Zone 2	Total	Zone 1	Zone 2	Total	Zone 1	Zone 2	Total	Zone 1	Zone 2	Total
City Limits, by Zone												
R-1 Single Family Residential	857	61	**918**	595	0	**596**	153	25	178	109	36	**145**
R-2 Single Family Residential	1,248	78	**1,326**	990	-	**990**	172	33	206	86	45	**131**
R-3 Two Family Residential	386	-	**386**	347	-	**347**	33	-	33	6	-	**6**
R-4 Multiple-Family Residential	664	-	**664**	529	-	**529**	114	-	114	21	-	**21**
O-R Office/Residential	25	-	**25**	22	-	**22**	2	-	2	0	-	**0**
C-3 General Commercial	613	-	**613**	535	-	**535**	17	-	17	61	-	**61**
UGB, by County Zone or Plan Des.		-	**0**	0	-	**0**	0	-	0	0	-	**0**
EF-80 (County Zone)	117	-	**117**	18	-	**18**	31	-	31	68	-	**68**
LDR9000 (County Zone)	3	-	**3**	0	-	**0**	0	-	0	3	-	**3**
VLDR-1 (County Zone)	3	-	**3**	1	-	**1**	0	-	0	2	-	**2**
Residential Plan Des.	563	133	**695**	56	8	**63**	274	73	347	232	52	**285**
Total	**4,477**	**272**	**4,749**	**3,092**	**8**	**3,100**	**796**	**131**	**928**	**588**	**133**	**721**

Exhibit 4 on the following page shows residential land by development status with constraints overlaid.

Exhibit 4. Residential Land Base by Development Status, McMinnville UGB, 2018



Vacant Buildable Land

Exhibit 5 shows buildable acres (i.e., acres in tax lots that have capacity after constraints are deducted) for vacant and partially vacant land by zone and plan designation. Of McMinnville's 721 unconstrained buildable residential acres, about 61% are in tax lots classified as vacant, and 39% are in tax lots classified as partially vacant.

Exhibit 5. Buildable acres in vacant and partially vacant tax lots by zone, McMinnville UGB, 2018
Source: City of McMinnville, Yamhill Co., ECONorthwest. Note: The numbers in the table may not sum to the total as a result of rounding.

Zone/Plan Designation	Total Buildable acres			Buildable acres on vacant lots			Buildable acres on partially vacant lots		
	Zone 1	Zone 2	**Total**	Zone 1	Zone 2	**Total**	Zone 1	Zone 2	**Total**
City Limits, by Zone									
R-1 Single Family Residential	109	36	**145**	84	34	**118**	25	2	**27**
R-2 Single Family Residential	86	45	**131**	74	45	**119**	12	-	**12**
R-3 Two Family Residential	6	-	**6**	5	-	**5**	1	-	**1**
R-4 Multiple-Family Residential	21	-	**21**	16	-	**16**	5	-	**5**
O-R Office/Residential	0	-	**0**	0	-	**0**	0	-	**0**
C-3 General Commercial	61	-	**61**	59	-	**59**	1	-	**1**
UGB, by County Zone or Plan Des.	0	-	**0**	0	-	**0**	0	-	**0**
EF-80 (County Zone)	68	-	**68**	63	-	**63**	5	-	**5**
LDR9000 (County Zone)	3	-	**3**	3	-	**3**	0	-	**0**
VLDR-1 (County Zone)	2	-	**2**	0	-	**0**	2	-	**2**
Residential Plan Des.	232	52	**285**	50	6	**56**	183	47	**229**
Total	**588**	**133**	**721**	**354**	**85**	**438**	**234**	**48**	**283**

The Exhibits on the following pages map McMinnville's buildable vacant and partially vacant residential land and resulting buildable lands after deducting constraints. Exhibit 6 shows vacant and partially vacant lots with constraints overlaid. Exhibit 7 shows buildable *lots*: those vacant and partially vacant parcels that have at least some development capacity after deducting constraints and Exhibit 8 shows the unconstrained buildable *acres* on those buildable parcels.

Exhibit 6. Vacant and Partially Vacant Residential Lots with Constraints Overlaid, McMinnville UGB, 2018

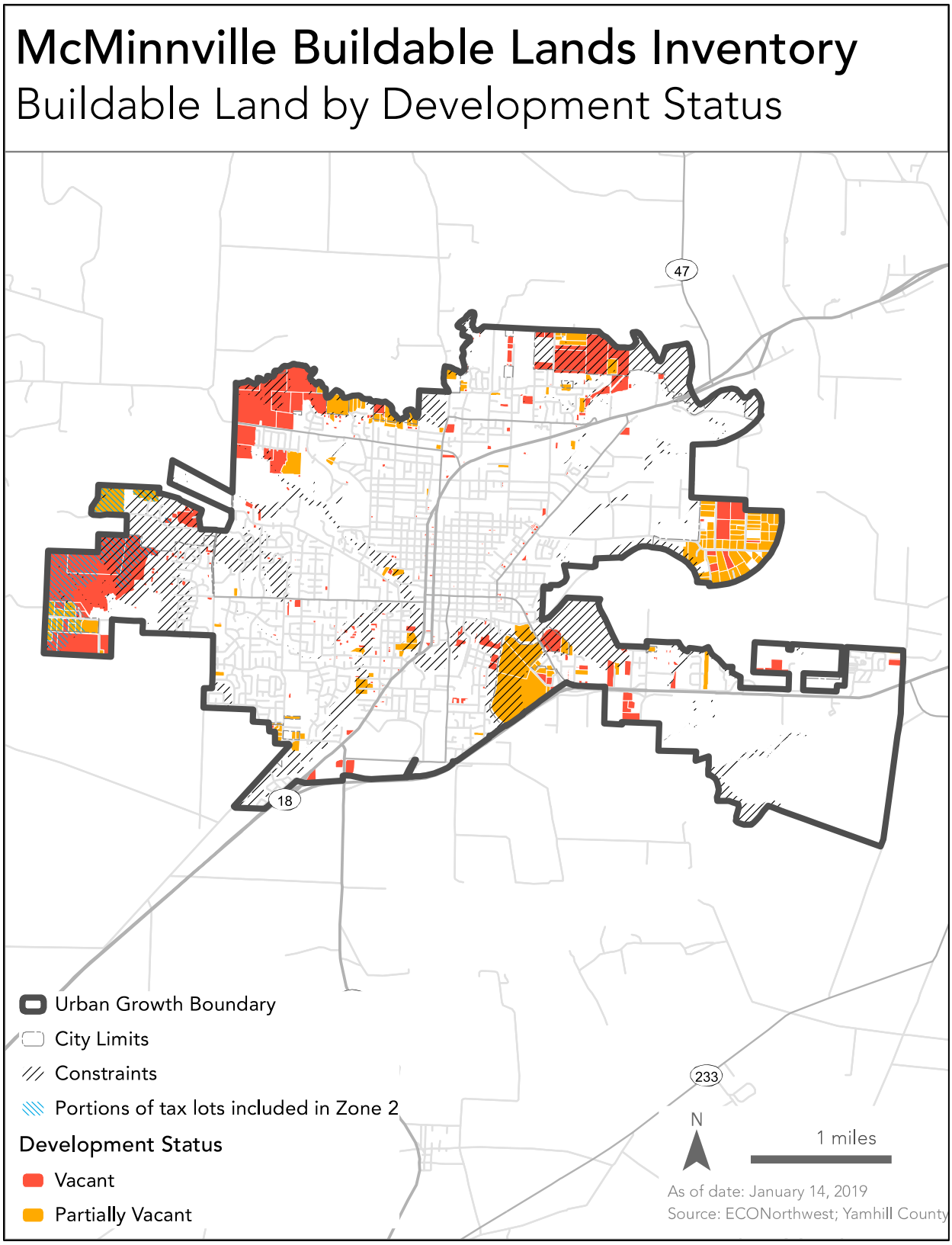


Exhibit 7. Buildable Lots with Development Capacity

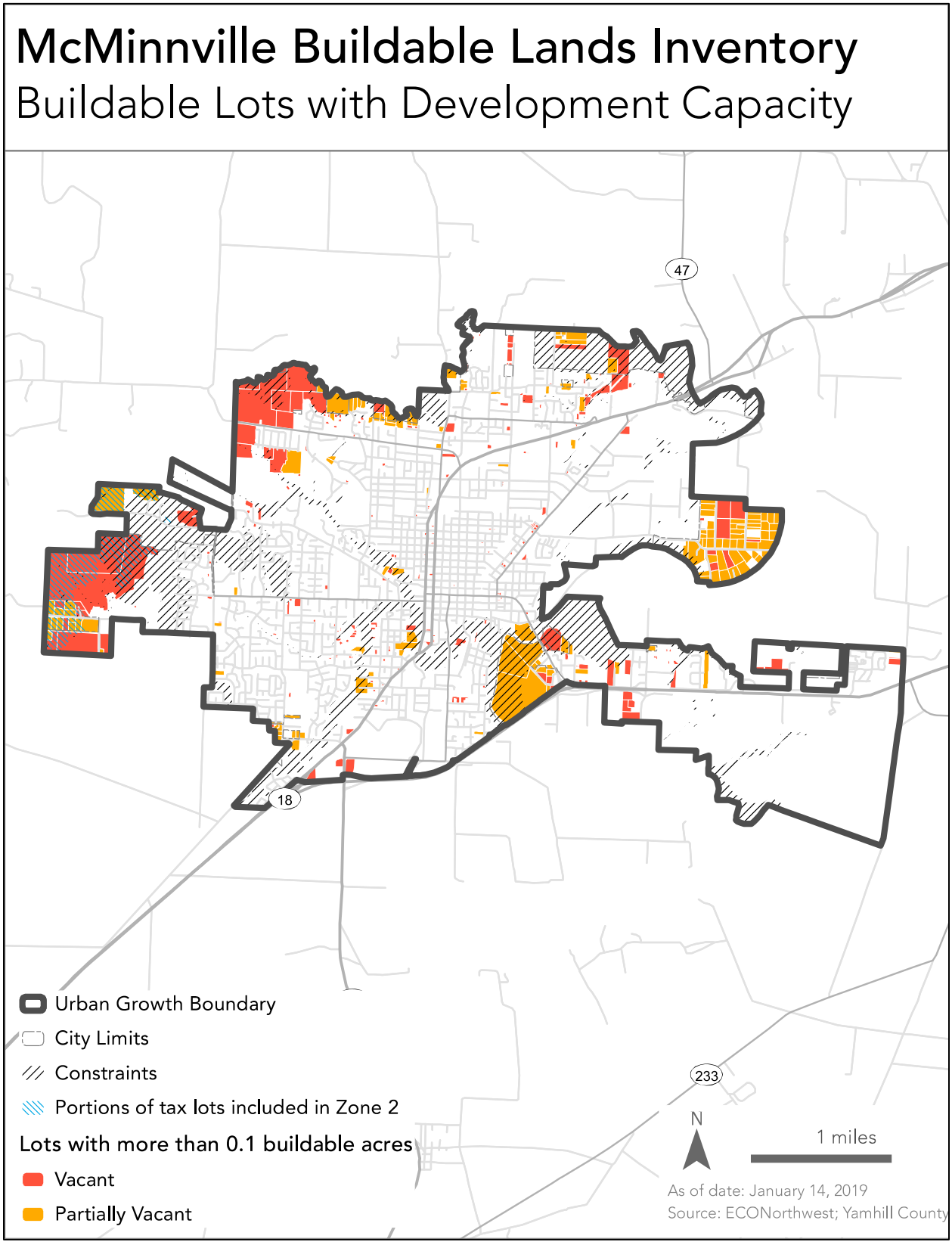
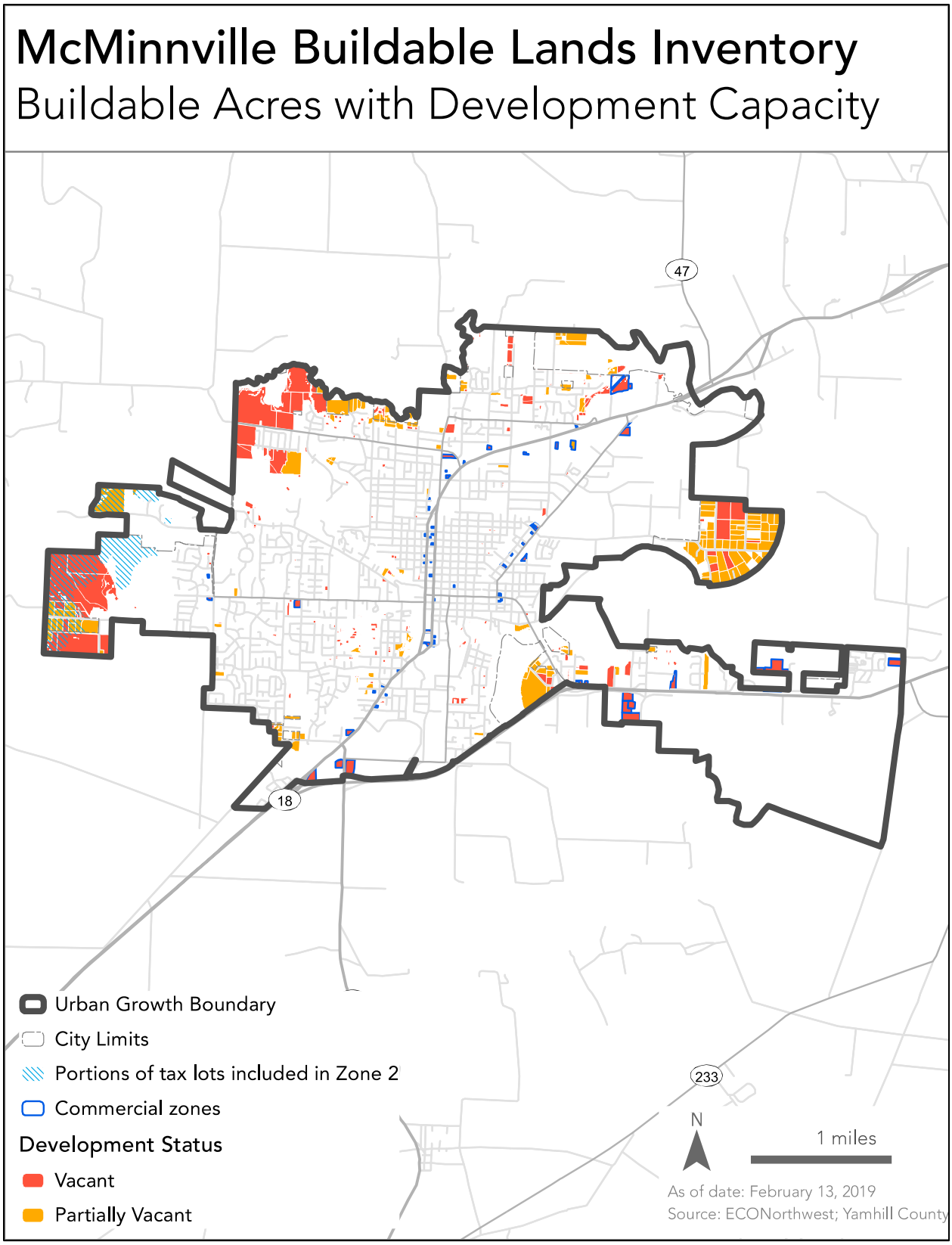


Exhibit 8. Buildable Acres (Unconstrained Portions of Vacant and Partially Vacant Parcels with Development Capacity), McMinnville UGB, 2018



Infill and Redevelopment Potential

ORS 197.296(4) provides that buildable lands must include the vacant and partially vacant lands, as well as lands that may be used for infill and redevelopment. In other words, can lands that are classified as developed (not classified as vacant or partially vacant) accommodate additional development? For example, a lot developed with a single-family home may be able to accommodate an accessory dwelling unit. Infill and redevelopment reduce the amount of new residential development that must be accommodated on vacant and partially vacant land. The standard is outlined in OAR 660-008-0005(7):

> "Redevelopable Land" means land zoned for residential use on which development has already occurred but on which, due to present or expected market forces, there exists the strong likelihood that existing development will be converted to more intensive residential uses during the planning period.

The key phrase here is "there exists the strong likelihood that existing development will be converted to more intensive uses…" The rule provides no guidance on how to operationalize the definition; the remainder of this section describes how it is addressed for this study.

While it is assumed every property classified as vacant or partially vacant that has capacity after deducting constraints will accommodate new development, the calculation is different for infill and redevelopment. The city need only identify the extent of infill and redevelopment likely to occur on lands that are already classified as developed. In other words, while some developed lots may accommodate some additional infill and redevelopment, we do not assume that every property that could experience infill or redevelopment will do so during the 20-year planning period.

The city is not required to create a map or document that identifies specific lots or parcels that may be used for infill or redevelopment like it is for vacant and partially vacant properties classified as buildable lands (ORS 197.296(4)(c)).

The Project Advisory Committee considered options for assumptions about the amount of infill and redevelopment that could reasonably be expected to occur on other residential lands that are already considered to be developed. There was general interest in using safe harbors or safe harbor methods and simplified methods when provided in applicable statutes and administrative rules. This recognizes that the safe harbor protections may not be available to the City for some methods, but that the methods and assumptions are reasonable nonetheless, and are based on analysis that was used to develop those methods and assumptions.

As a reminder, even small parcels with existing development that have been classified as partially vacant are already assumed to have capacity and are not included under the definition of infill.

It is unrealistic to assume that every property classified as developed that could experience even a small amount of infill and/or redevelopment would do so during the planning period. For example, if every single-family dwelling *could* add an accessory dwelling, it would be

unreasonable to assume every property owner *would* add one (e.g., the strong likelihood standard). Therefore, rather than analyze properties to identify which ones would be authorized for infill and redevelopment, the analysis focused on the share of new residential units that reasonably could be expected to be accommodated on lands that are already classified as developed. For redevelopment, an optional check could include evaluation of the extent of larger sites that have capacity to accommodate increased development and have realistic improvement/land value ratios.

Assumed Infill and redevelopment would need to add new units; demolition and replacement of one dwelling with another one would not add new residential units.

OAR 660-038 provides a simplified urban growth boundary method that provides formulas which can be used for certain assumptions related to a UGB expansion, including sections that address residential land needs in OAR 660-038-0030. The simplified method can only be used when planning for a UGB for a shorter time period (14 years) which the City of McMinnville has chosen not to pursue. However, the analysis that went into developing the formulas in the simplified method provide useful guidance.

- OAR 660-038-0030(6) allows a city to account for projected redevelopment expected to occur in residentially zoned areas and for mixed use residential development in commercially zoned areas. For cities with a current UGB population greater than 25,000, the specified range is between 5% and 25%.
  - Five percent of the 4,~~424~~ 657 units projected from 2021-2041 is ~~221~~ 233 units (~~11~~ 12 units/year); 25% is 1,~~106~~ 164 units (~~55~~ 58 units/year). The City of McMinnville has not seen significant redevelopment of existing sites for new housing in the past twenty years.
- OAR 660-038-0030(7) allows a city to account for accessory dwelling units expected to occur. For cities with a current UGB population greater than 25,000, the specified range is between 1% and 3%.
  - One percent of the 4,~~424~~ 657 units projected from 2021-2041 is ~~44~~ 47 units (two~~2.2~~ units/year); 3% is 1~~3403~~ units (~~6.6~~seven units/year). While McMinnville ~~doesn't~~ does not track permits for ADUs differently than for other dwellings, it is estimated that the construction of new ADUs has averaged fewer than 2 per year.
- These two factors account for infill and redevelopment. There are no other provisions in the simplified method addressing infill other than in the later evaluation of land in areas studied for inclusion in the UGB. Taken together, the range for infill and redevelopment is 6% to 28%
- It is reasonable to assume that some parcels classified as developed (less than one-half acre with a residence) will also have some infill capacity through partitioning rather than ADUs, based on zoning and site development configuration. Therefore, we don't ~~differentiation~~ differentiate the type of infill development.

Recommendation on Infill

The Project Advisory Committee recommended assumption for redevelopment was: 8% of new dwelling units during the planning period will be accommodated on lands classified as "developed" through infill and/or redevelopment. Eight percent of the 4,~~424~~ 657 units projected from 2021-20141 is ~~354~~ 373 units (~~18~~ 19 units/year).

Recommendation for Land Needs Before 2021

Since the Planning Period begins in 2021, there is an interim period during which there will be additional population growth, new housing, and consumption of buildable land. The PSU population forecast shows growth of about 1,480 people between 2018 and 2021, which would equate to about 580 households. At historic average density, it is expected this would be approximately ~~119~~ 131 acres of the current buildable land inventory consumed before 2021 (assuming the historic average density of 4.9 dwelling units per gross acre). Since that interim population will have occurred prior to the beginning of the planning period (2021), that population is "existing population" which does not need to be added back into forecast population that starts in the 2021 base year. The redevelopment analysis is presented later in the document.

3. Historical and Recent Development Trends

Analysis of historical development trends in McMinnville provides insight into the functioning of the local housing market. Moreover, it is required by ORS 197.296(5)(a). The mix of housing types and densities, in particular, are key variables in forecasting the capacity of residential land to accommodate new housing and to forecast future land need. The specific steps are described in Task 2 of the DLCD *Planning for Residential Lands Workbook* as:

1. Determine the time period for which the data will be analyzed
2. Identify types of housing to address (all needed housing types)
3. Evaluate permit/subdivision data to calculate the actual mix, average actual gross density, and average actual net density of all housing types

ORS 197.296 requires the analysis of housing mix and density to include the past five years or since the most recent periodic review, whichever time period is greater.[10] The City's last periodic review ended in 1999. As a result, this HNA examines changes in McMinnville's housing market from January 2000 to December 2017 for information about housing mix and density. For other information about McMinnville's housing market, we present information for 2000 through 2017 from the U.S. Census and ACS, as that is the most recently available data. We selected this time period both because it complies with ORS 197.296 and because it provides information about McMinnville's housing market before and after the national housing market bubble's growth, deflation, and the more recent increase in housing costs.

This chapter presents information about residential development by housing type. There are multiple ways that housing types can be grouped. For example, they can be grouped by:

1. Structure type (e.g., single-family detached, single-family attached, multifamily, etc.)
2. Tenure (e.g., distinguishing unit type by owner or renter units)
3. Housing affordability (e.g., subsidized housing or units affordable at given income levels)
4. Some combination of these categories

For the purposes of this study, we grouped housing types based on: (1) whether the structure is stand-alone or attached to another structure; and (2) the number of dwelling units in each structure. The housing types used in this analysis are consistent with needed housing types as defined in ORS 197.303:

[10] Specifically, ORS 197.296(5) (b) states: "A local government shall make the determination described in paragraph (a) of this subsection using a shorter time period than the time period described in paragraph (a) of this subsection if the local government finds that the shorter time period will provide more accurate and reliable data related to housing capacity and need. The shorter time period may not be less than three years."

- **Single-family detached** includes single-family detached units (including multiple single-family detached units on a single parcel), manufactured homes on lots and in mobile home parks, and accessory dwelling units.
- **Single-family attached** is all structures with a common wall where each dwelling unit occupies a separate lot, such as row houses or townhouses.
- **Multifamily** is all attached structures (e.g., duplexes, tri-plexes, quad-plexes, and structures with five or more units) other than single-family detached units, manufactured units, or single-family attached units.

In McMinnville, government assisted housing (ORS 197.303(b)) and housing for farmworkers (ORS 197.303(e)) can be any of the housing types listed above. ORS 197.312 specifies that a city or county may not, by charter, prohibit government-assisted housing or impose additional approval standards on government-assisted housing that are not applied to similar but unassisted housing. It also contains provisions providing for equal zoning treatment of housing for a farmworker and the farmworker's immediate family.

Data Used in this Analysis

Throughout this report, we use data from multiple sources, choosing data from well-recognized and reliable data sources. State statutes do not provide direction about which data sources to use. This report uses the best available sources for housing, population, and household data which comes from two primary Census sources:

- The **Decennial Census**, which is completed every ten years and is a survey of all households in the U.S. The Decennial Census is considered the best available data for information such as demographics (e.g., number of people, age distribution, or ethnic or racial composition), household characteristics (e.g., household size and composition), and housing occupancy characteristics. As of the 2010 Decennial Census, it does not collect more detailed household information, such as income, housing costs, housing characteristics, and other important household information. Decennial Census data is available for 2000 and 2010.
- The **American Community Survey (ACS)**, which is completed every year and is a sample of households in the U.S. From 2012 through 2016 and 2013 through 2017, the ACS sampled an average of 3.5 million households per year, or about 2.6% and 2.9% of the households in the nation. The ACS collects detailed information about households including demographics (e.g., number of people, age distribution, ethnic or racial composition, country of origin, language spoken at home, and educational attainment), household characteristics (e.g., household size and composition), housing characteristics (e.g., type of housing unit, year unit built, or number of bedrooms), housing costs (e.g., rent, mortgage, utility, and insurance), housing value, income, and other characteristics.

This report uses data from the 2012-2016 and 2013-2017 ACS for McMinnville.[11] In general, we use data from 2012-2016 unless the data informs a housing forecast assumption, in which case we use data from 2013-2017. This chapter, and the following chapters of this report, also use data from the 2000 and 2010 Decennial Census. If, for example, the report presents a finding that addresses a period from **2000** to "the **2013-2017** period," then the report is describing a trend taking place from **2000** to **2017** (a 17-year analysis period).

It is worth commenting on the methods used for the American Community Survey.[12] The American Community Survey (ACS) is a national survey that uses continuous measurement methods. It uses a sample of about 3.5 million households to produce annually updated estimates for the same small areas (census tracts and block groups) formerly surveyed via the decennial census long-form sample. It is also important to keep in mind that all ACS data are estimates that are subject to sample variability. This variability is referred to as "sampling error" and is expressed as a band or "margin of error" (MOE) around the estimate.

This report uses Census and ACS data because, despite the inherent methodological limits, they represent the most thorough and accurate data available to assess housing needs. We consider these limitations in making interpretations of the data and have strived not to draw conclusions beyond the quality of the data.

Trends in Housing Mix

This section provides an overview of changes in the mix of housing types comparing McMinnville to Yamhill County and Oregon. We compare McMinnville to these larger regions to understand how McMinnville fits into the regional housing market. These trends demonstrate the types of housing developed in McMinnville historically.

This section shows the following trends in housing mix in McMinnville:

- **McMinnville's housing stock is majority single-family detached housing units.** According to 2013-2017 ACS data, 68% of McMinnville's housing stock was single-family detached, 23% was multifamily, and 9% was single-family attached (e.g., townhouses).

  Based on ACS data, McMinnville has a proportionally smaller share of single-family housing compared to Yamhill County (79%) and the state (72%). This is typical as urban areas (i.e. McMinnville) will often have a larger share of multifamily housing than more rural areas of the same jurisdiction (i.e. Yamhill County).

[11] ACS data is presented in five-year ranges because "they represent the characteristics of the population and housing over a specific data collection period." https://www.census.gov/content/dam/Census/programs-surveys/acs/about/ACS_Information_Guide.pdf

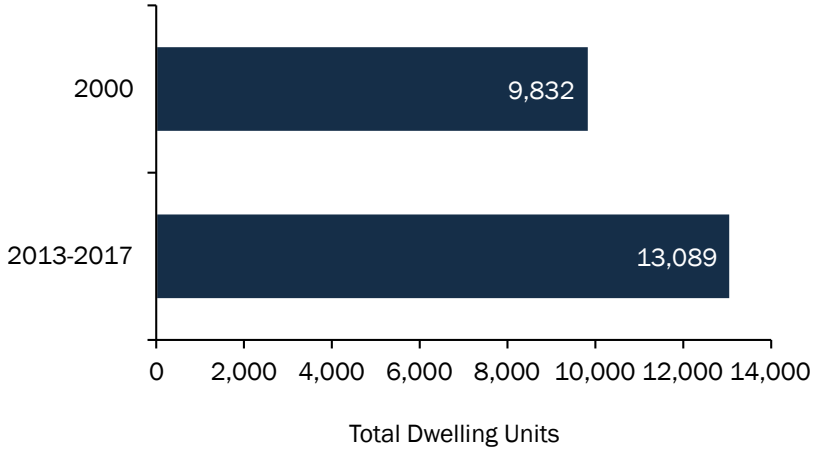
[12] A thorough description of the ACS can be found in the Census Bureau's publication "What Local Governments Need to Know." https://www.census.gov/library/publications/2009/acs/state-and-local.html

- **McMinnville's housing mix is not unlike most comparison cities.** Single-family detached housing is the dominant housing type in McMinnville and other comparison cities (Albany, Ashland, Grants Pass, Hood River, Newberg, Redmond, and Sherwood). McMinnville does, however, have a slightly higher share of single-family attached housing than many of these communities, (particularly Albany, Grants Pass, Hood River, and Redmond). McMinnville has a larger share of manufactured housing (about 12%, classified as single-family detached), compared to other comparison cities.
- **McMinnville's total housing stock grew by about 33% between 2000 and the 2013-2017 period.** McMinnville added 3,257 new dwelling units during this 17-year period.
- **According to McMinnville's permit database, single-family detached housing accounted for the majority of new housing growth between 2000 and 2017.** Sixty-two percent of new housing permitted between 2000 and 2017 was single-family detached housing.

Housing Mix

The total number of dwelling units in McMinnville increased by 3,257 units from 2000 to 2017 (33% change).

Exhibit 9. Total Dwelling Units, McMinnville, 2000 and 2013-2017
Source: Census Bureau, 2000 Decennial Census, SF3 Table and 2013-2017 ACS Table B25024.

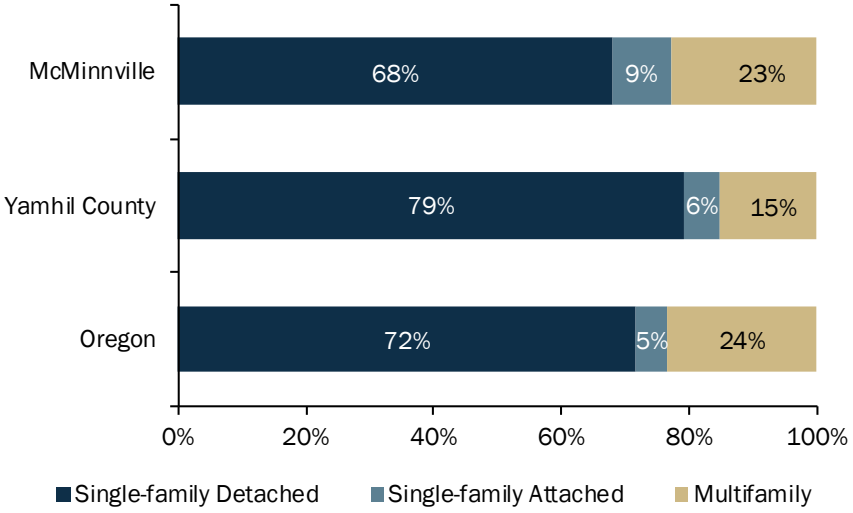


About two-thirds of McMinnville's total housing stock is single-family detached.

Typical of urban areas, McMinnville has a larger share of multifamily housing than Yamhill County, which is comprised of both urban (including McMinnville) and rural areas.

Exhibit 10. Housing Mix, 2013-2017

Source: Census Bureau, 2013-2017 ACS Table B25024.

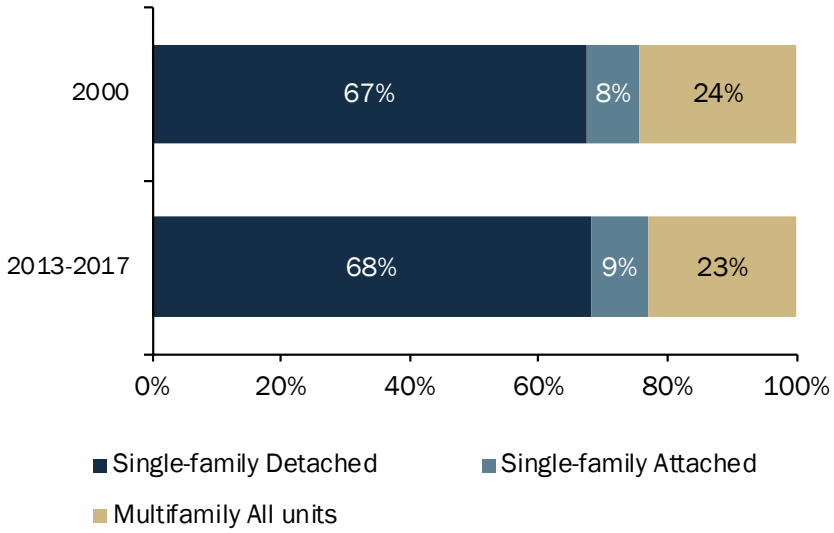


The mix of housing in McMinnville stayed relatively static from 2000 to 2017.

McMinnville had 13,089 dwelling units in 2017. About 8,902 were single-family detached, 1,180 were single-family attached, and 3,007 were multifamily.

Exhibit 11. Change in Housing Mix, McMinnville, 2000 and 2013-2017

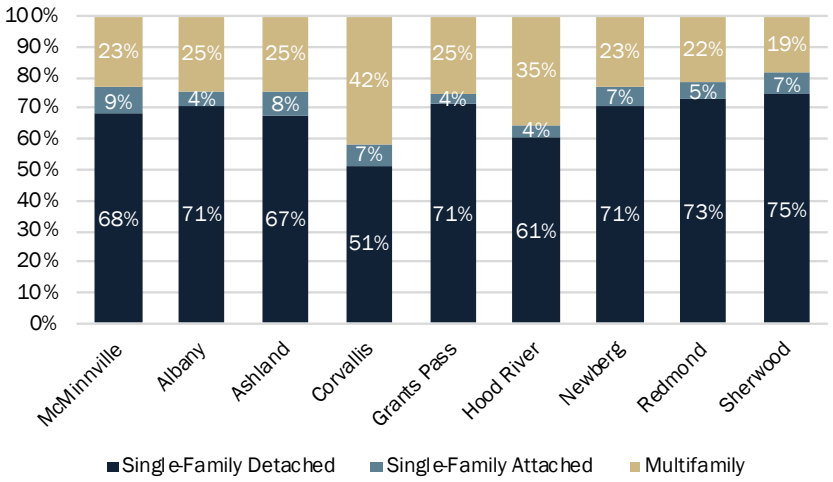
Source: U.S. Census Bureau, 2000 Decennial Census, SF3 Table H030, and 2013-2017 ACS Table B25024.



McMinnville has a larger share of single-family attached housing than other comparison cities.

Exhibit 12. Housing Mix, McMinnville and Comparison Cities, 2013-2017

Source: U.S. Census Bureau, 2013-2017 ACS, Table B25024. Note: Comparison cities selected by the City of McMinnville.

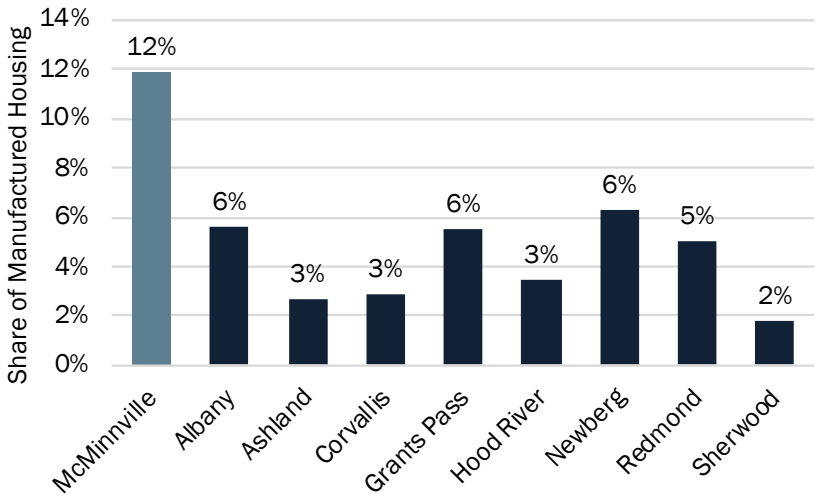


About 12% of McMinnville's housing stock is manufactured housing.

McMinnville has a larger share of manufactured housing stock than all other comparisons cities.

Exhibit 13. Manufactured Housing, Share of Total Housing Stock, McMinnville and Comparison Cities, 2013-2017

Source: U.S. Census Bureau, 2013-2017 ACS, Table B25024. Note: Manufactured housing is a form of single-family detached housing.



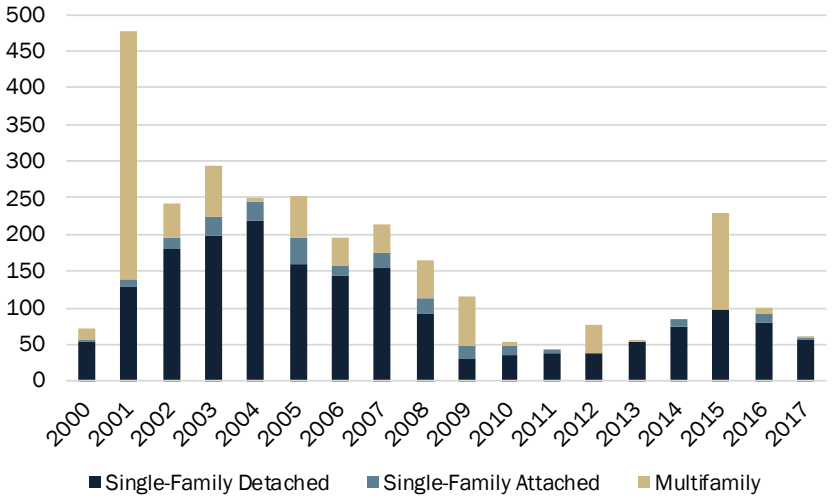
Building Permits

Over the 2000 to 2017 period, McMinnville issued permits for 3,038 dwelling units, with an average of 179 permits issued annually.

Since 2000, McMinnville issued 69% of permits for single family dwelling units (62% single-family detached and 8% single-family attached). McMinnville issued 31% of permits for multi-family dwelling units.

Exhibit 14. Building Permits Issued for New Residential Construction by Type of Unit, McMinnville, 2000 through 2017

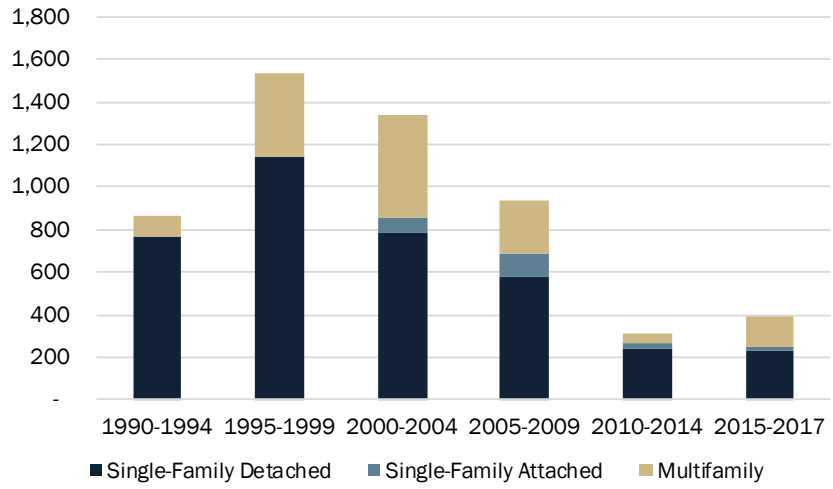
Source: City of McMinnville. Note: This chart shows a ~200 unit discrepency from ACS data presented in Exhibit 9. That said, there is a margin of error associated with ACS data.



McMinnville permitted substantially fewer units in the current decade (2010-17) than previous decades.

Exhibit 15. Share of Building Permits Issued for New Residential Construction by Type of Unit, McMinnville, 1990-1994, 1995-1999, 2000-2004, 2005-2009, 2010-2014, and 2015-2017

Source: City of McMinnville. Note: DU is dwelling unit.



Housing Density

Housing density is the density of housing by structure type, expressed in dwelling units per net or gross acre.[13] The U.S. Census does not track residential development density thus this study analyzes housing density based on McMinnville's permit database for development between 2000 and July 2018.

Through analysis of McMinnville's building permit data, between 2000 and July of 2018, 3,038 new dwelling units were developed in McMinnville. Of the 3,038 new units:

- **1,877** units were single-family detached (62%),
- **228** units were single-family attached (8%), and
- **993** units were multifamily (31%).

Exhibit 16 shows average net residential development by structure type for the historical analysis period (2000 to July of 2018). In this time, housing in McMinnville developed at an average density of 6.6 dwelling units per net acre. Single-family detached housing developed at an average of 4.8 units per net acre. Single-family attached housing developed at an average of 12.3 units per net acre. Multifamily housing developed at an average of 18.2 units per net acre (of which duplexes developed at an average of 7.0 units per net acre and all other multifamily units developed at 19.7 units per net acre).

Exhibit 16. Net Density by Unit Type and Zone, McMinnville, 2000 through July 2018
Source: City of McMinnville Building Permit Database.

Plan Designation and Zone	Single-Family Detached			Single-Family Attached			Multi-Family			TOTAL		
	Units	Acres	Net Density	Units	Acres	Net Density	Units	Acres	Net Density	Units	Acres	Net Density
Commercial Sub-Total	-	-	-	-	-	-	309	9.9	31.2	309	9.9	31.2
C-3	-	-	-	-	-	-	309	9.9	31.2	309	9.9	31.2
Residential Sub-Total	1,877	393.8	4.8	228	18.5	12.3	624	41.3	16.5	2,729	453.5	6.0
O-R	-	-	-	-	-	-	57	7.5	7.6	57	7.5	7.6
R-1	393	98.9	4.0	27	2.9	9.5	2	0.2	-	422	102.0	4.1
R-2	880	184.8	4.8	102	8.3	12.3	213	14.5	18.6	1,195	207.6	5.8
R-3	100	17.0	5.9	44	4.2	10.6	6	0.9	-	150	22.0	6.8
R-4	504	93.1	5.4	55	3.1	17.6	346	18.2	19.1	905	114.4	7.9
Total	**1,877**	**393.8**	**4.8**	**228**	**18.5**	**12.3**	**933**	**51.2**	**18.2**	**3,038**	**463.4**	**6.6**

[13] OAR 660-024-0010(6) uses the following definition of net buildable acre. "Net Buildable Acre" consists of 43,560 square feet of residentially designated buildable land after excluding future rights-of-way for streets and roads. While the administrative rule does not include a definition of a gross buildable acre, using the definition above, a gross buildable acre will include areas used for rights-of-way for streets and roads. Areas used for rights-of-way are considered unbuildable.

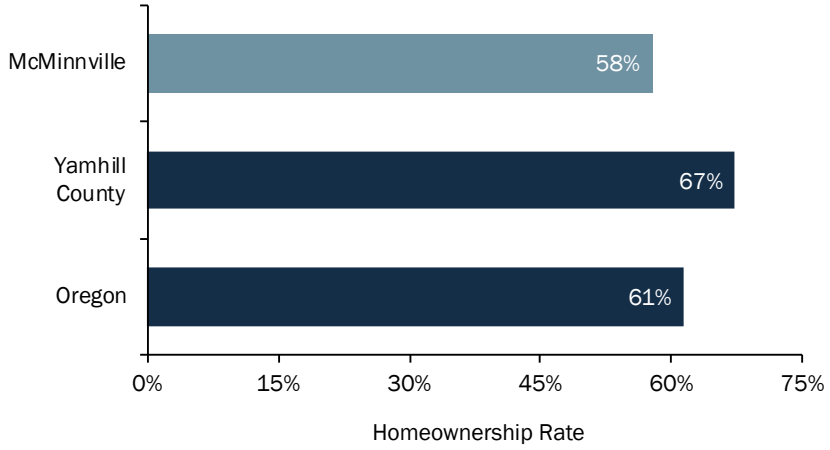
Trends in Tenure

Housing tenure describes whether a dwelling is owner- or renter-occupied. The data shows:

- **About 58% of McMinnville's households owned their own home in 2012-2016.** In comparison, 67% of Yamhill County households and 61% of Oregon households are homeowners.
- **Homeownership in McMinnville stayed relatively stable between 2000 and 2012-2016.** In 2000, 60% of McMinnville households were homeowners. In 2010 and 2012-2016, 58% of households were homeowners.
- **Nearly all McMinnville homeowners (95%) live in single-family detached housing, while many renters (58%) live in multifamily housing.** (2012-16 ACS data)

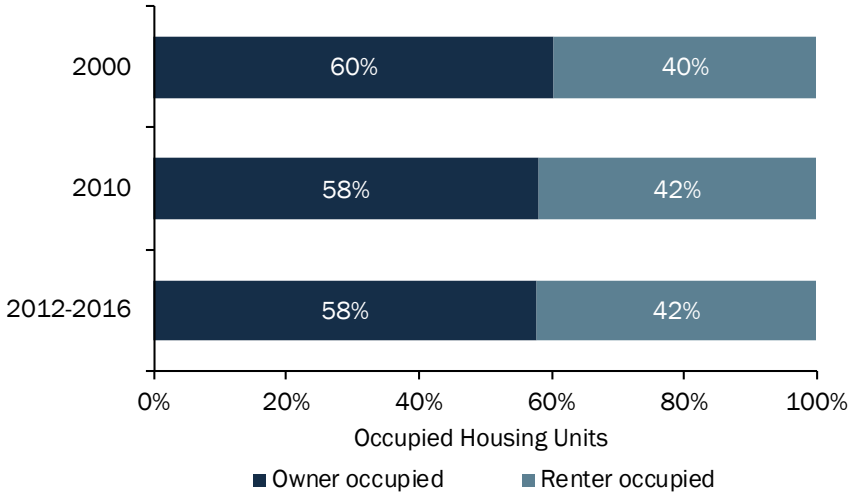
McMinnville's homeownership rate is lower than that of the county and state.

Exhibit 17. Homeownership for Occupied Units, McMinnville, Yamhill County, and Oregon 2012-2016
Source: Census Bureau, 2012-2016 ACS Table B24003.



McMinnville's homeownership rate has remained steady since 2000 at about 60%.

Exhibit 18. Tenure, Occupied Units, McMinnville 2012-2016
Source: Census Bureau, 2000 Decennial Census SF1 Table H004, 2010 Decennial Census SF1 Table H4, 2012-16 ACS Table B24003.

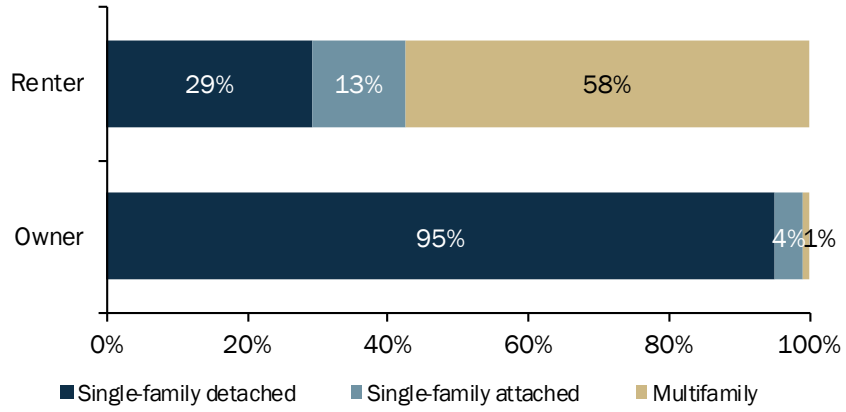


Nearly all homeowners and about a third of all renters live in single-family detached housing.

Fifty-eight percent of McMinnville's households that rent live in multifamily housing.

Exhibit 19. Housing Units by Type and Tenure, McMinnville, 2012-2016

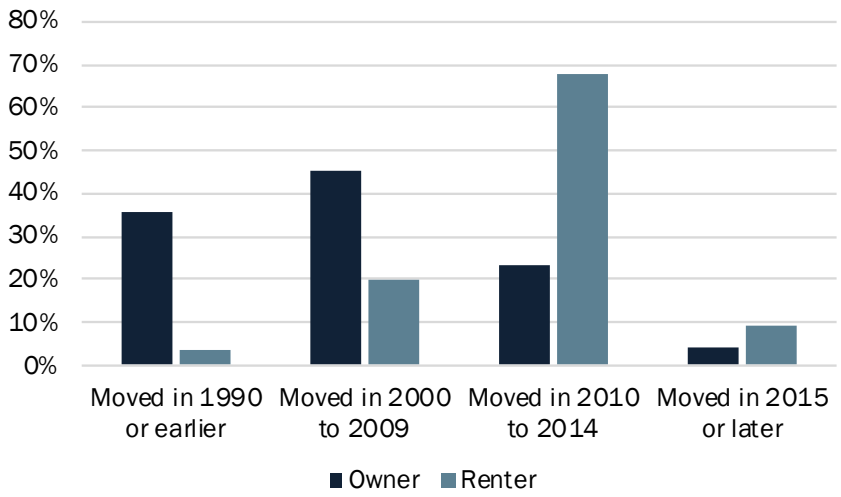
Source: Census Bureau, 2012-2016 ACS Table B25032.



Twenty-eight percent of homeowners moved in 2010 or after – compared to 77% of renters that moved in 2010 or after.

Exhibit 20. Tenure by Year Householder Moved, McMinnville, 2012-2016

Source: Census Bureau, 2012-2016 ACS Table B25026.



Vacancy Rates

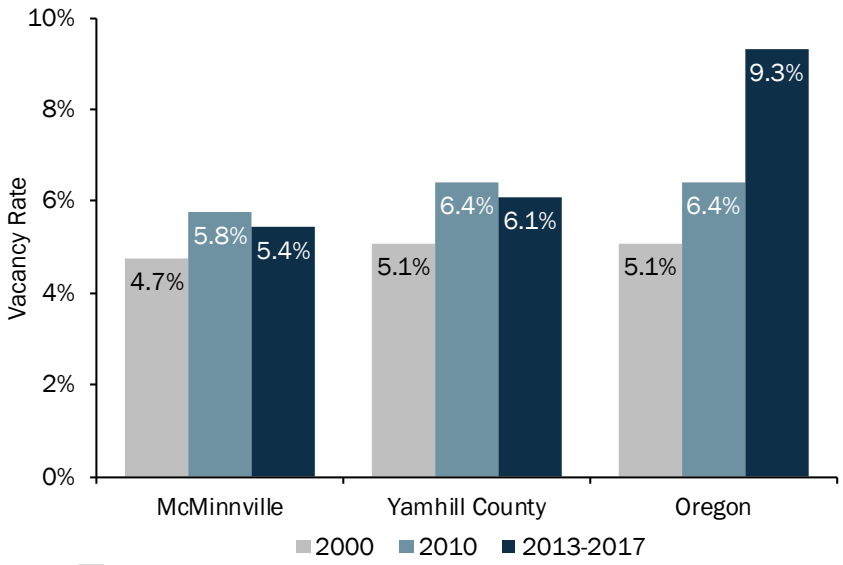
Housing vacancy is a measure of housing that is available to prospective renters and buyers. It is also a measure of unutilized housing stock. The Census defines vacancy as: "Unoccupied housing units are considered vacant. Vacancy status is determined by the terms under which the unit may be occupied, e.g., for rent, for sale, or for seasonal use only." The 2010 Census identified vacancy through an enumeration, separate from (but related to) the survey of households. The Census determines vacancy status and other characteristics of vacant units by enumerators obtaining information from property owners and managers, neighbors, rental agents, and others.

The vacancy rate in McMinnville was 5.4% in 2013-2017, up from 4.7% in 2000.

As of 2017, McMinnville's vacancy rate was below that of Yamhill County (6.1%) and Oregon (9.3%).

Exhibit 21. Percent of Housing Units that are Vacant, McMinnville, Yamhill County, and Oregon, 2000, 2010, 2013-2017

Source: Census Bureau, 2000 Decennial Census SF1 Table QT-H1, 2010 Decennial Census SF1 Table QT-H1, 2013-2017 ACS Table B25002.



Short-Term Rentals and Seasonal Housing

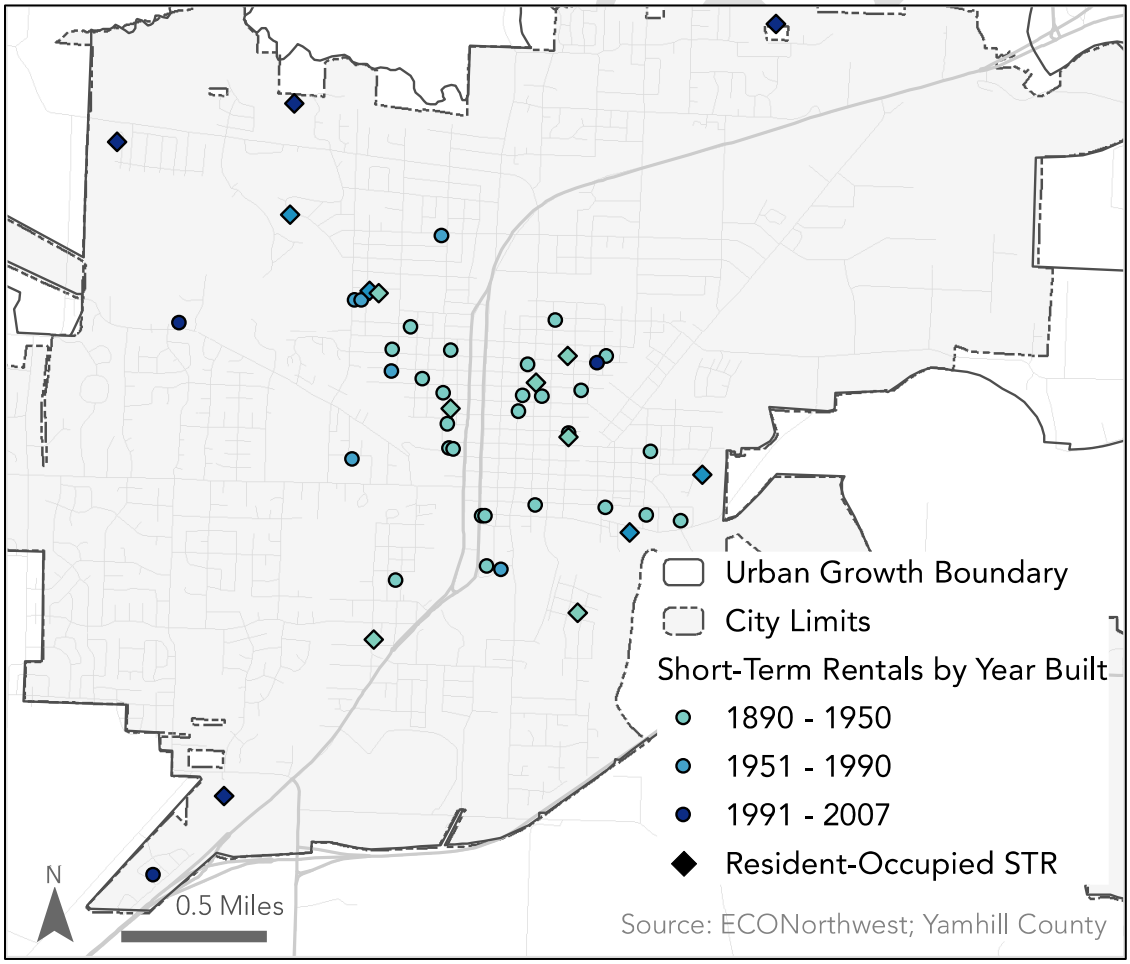
McMinnville defines a short-term rental as "the use of an entire dwelling unit by any person or group of persons entitled to occupy for rent for a period of no more than 30 (thirty) consecutive days. Short term rentals include vacation home rentals approved under the regulations in effect through May 10, 2018. (Ord. 5047 §2, 2018).

McMinnville defines a resident occupied short-term rental as "The use of no more than two guest sleeping rooms by any person or group of persons entitled to occupy for rent for a period of no more than 30 (thirty) consecutive days. The dwelling unit is occupied by a full-time resident at the time that the guest sleeping rooms within the dwelling unit are available for overnight rental. Resident occupied short term rentals include bed and breakfast establishments approved under the regulations in effect through May 10, 2018. (Ord. 5047 §2, 2018).

McMinnville has about 53 short-term rentals, of which 15 rentals are occupied by a resident. Of these rentals, 60% are located in units built in 1950 or earlier, 19% in units built between 1951 and 1990, 13% in units built in 1991 or later, and 8% are unknown.

Exhibit 22. Short-Term Rentals, McMinnville, 2018 Point-in-Time

Source: City of McMinnville short-term rental database. Note: short-term rentals include resident occupied short-term rentals and non-resident occupied short term rentals.

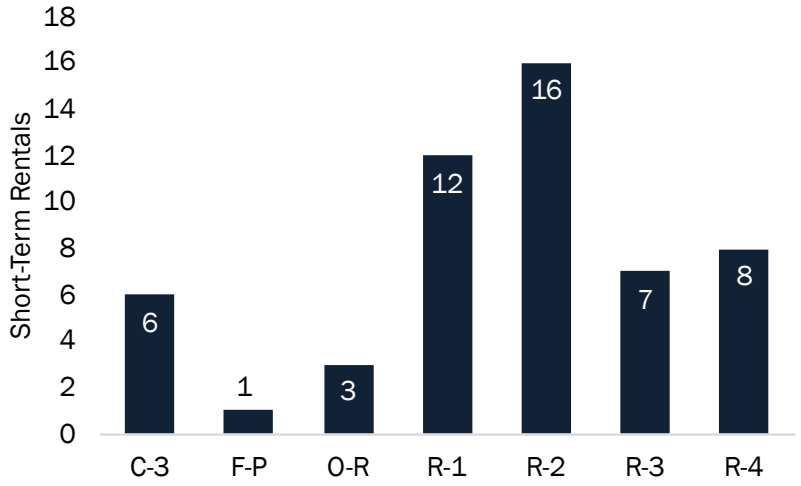


About 87% of McMinnville's short-term rentals are located in a residential zone (O-R, R-1, R-2, R-3, and R-4).

Another 11% of short-term rentals are located in a commercial zone (C-3) and the remaining 2% of short-term rentals are located in a flood plain (F-P).

Exhibit 23. Short-Term Rental by Zone Classification, McMinnville, 2018 Point in Time

Source: City of McMinnville short-term rental database. Note: short-term rentals include resident occupied short-term rentals and non-resident occupied short term rentals.



McMinnville has more seasonal housing units than it did in 2000.

However, a smaller share of McMinnville's vacant units is for seasonal, recreational, or occasional use (9% in 2000, 7% in 2010, and 5% in 2016).

Exhibit 24. Vacancy of Seasonal, Recreational, or Occasional Use Housing, McMinnville, 2000 to 2012-2016

Source: Census Bureau, 2000 Decennial Census SF1 Table H005, 2010 Decennial Census SF1 Table H5, 2012-16 ACS Table B25004. Note: This data is not directly associated with the City of McMinnville's short-term rental data.

23 Units	52 Units	74 units	222%
2000	2010	2012-2016	Change from 2000 to 2016

Government-assisted Housing Projects

Governmental agencies and nonprofit organizations offer a range of housing assistance to low- and moderate-income households in renting or purchasing a home. There are 16 government-assisted housing developments in McMinnville:

McMinnville has a total of 16 government-assisted housing developments, totaling 558 units.

Exhibit 25. Inventory of Government-assisted Housing Projects, McMinnville, 2018

Source: Oregon Department of Housing and Community Services, Affordable Housing Inventory, 2018. Note: The Project Advisory Committee vetted OHCS's inventory and modified the listings to accurately reflect government-assisted housing in McMinnville.

Development Name	Total Units	Population Served
Bridges	6	Low-income residents
Fresa Park B	6	Agricultural workers
Hendricks Place	8	Persons with disabilities
Heritage Place	60	Seniors
Homeport	12	Persons with Disabilities
Jandina Park	36	Family
Orchards Plaza	60	(5) Family and (55) Seniors
Redwood Commons	64	Family
Sunflower Park	33	(27) Family (6) Transitional
Sunnyside Apts	15	Special Needs
Tice Park	88	Family
Villa Del Sol	24	(12) Family and (12) Agricultural workers
Villa West	48	Family
Village Quarter	50	Family
Willamette Place I	24	Seniors or Disabled of Any Age
Willamette Place II	24	Seniors or Disabled of Any Age
Total	558	

In addition, the Housing Authority of Yamhill County (HAYC) administers 1,423 Housing Choice Vouchers (county-wide). A small share of these Vouchers serves specific populations, such as (1) homeless veterans and their families with VASH vouchers and (2) non-elderly persons with disabilities with Mainstream Vouchers. Due to the shortage of affordable rental housing in Yamhill County, HAYC has a 58% utilization rate for persons issued vouchers (as of December 2018).[14]

[14] When households qualify to receive a Housing Choice Voucher, they must first find housing that meets their income and housing cost requirements. Many households in McMinnville are unable to find rental housing that meets those requirements and must forego their Housing Choice Voucher, despite being eligible. Forty-two percent of Housing Choice Vouchers are currently unused for this reason.

Manufactured Homes

Cities are required to plan for manufactured homes—both on individual lots and in parks (ORS 197.475-492). Manufactured homes typically provide a source of affordable housing in cities. They provide a form of homeownership and rental units that can be made available to households making less than the median income in cities.

Generally, manufactured homes in parks are owned by the occupants who pay rent for the space on which the unit is located. Living in a manufactured housing park is desirable to some because it can provide a sense of security (with on-site manager), community, and amenities (such as laundry and recreation facilities). Monthly housing costs are typically lower for a homeowner in a manufactured home park for several reasons. For instance, manufactured homes have lower base prices, as they cost less to produce. Due to the durability of a manufactured home, the value of a manufactured home generally does not appreciate in the way a conventional home would. Manufactured homeowners in parks are also subject to the mercy of the property owner in terms of rent rates and increases. It is generally not within the means of a manufactured homeowner to relocate to another manufactured home to escape rent increases.

ORS 197.480(4) requires cities to inventory the mobile home or manufactured dwelling parks sited in areas planned and zoned or generally used for commercial, industrial or high-density residential development. Exhibit 26 presents the Oregon Department of Housing and Community Services (OHCS) inventory of mobile and manufactured home parks within McMinnville as of 2018.

McMinnville has 12 manufactured home parks within the UGB with a total of 1,014 spaces.

Exhibit 26. Inventory of Mobile/Manufactured Home Parks, McMinnville UGB, 2018

Source: Oregon Manufactured Dwelling Park Directory (tabular) and Interactive Map and Statewide Park Directory. Note1: The tabular directory only identified four parks (Flamingo Mobile Homes, Squires Estates, Squires Mobile West Estates, and Walnut City Lodges). Note2: This inventory excludes "mobile home subdivisions" where all lots are occupied by manufactured homes, but each manufactured home is on a separate lot.

Name	Location	Type	Total Spaces	Vacant Spaces	Zone or Plan Designation
Flamingo Mobile Home Park	1338 E Quincy	55+	24	0	R-4
Squires Estates	1557 N Pacific Hwy	Family	103	0	R-3
Squires Mobile West Estates	1011 N 9th St	Family	102	2	R-3
Walnut City Lodges	745 SW Baker St	Family	32	2	O-R
Kathleen Manor Manufactured Home Community	1200 Hill Rd	Family	224	n/a	R-3
Heidi Manor Manufactured Home Community	1145 SW Cypress St	Family	116	n/a	R-3
Southwest Terrace LLC	1501 SW Baker St	55+	76	n/a	C-3
Victor Manor/Horizon Homeowners Cooperative	900 SE Booth Bend Rd	Family	32	n/a	C-3
McMinnville Manor	1602 NE Riverside Dr	55+	95	n/a	R-4
Riverside Mobile Terrace	2170 NE Riverside Dr	Family	82	n/a	R-4
Evergreen Mobile Home Park	2400 SE Stratus Ave	Family	20	n/a	R-4
Olde Stone Village	4155 NE Three Mile Ln	Family	108	n/a	R-4
Total			**1,014**	**4**	

4. Demographic and Other Factors Affecting Residential Development in McMinnville

Demographic trends are important for a thorough understanding of the dynamics of the McMinnville housing market and projecting McMinnville's future housing needs. McMinnville exists in a regional economy; trends in the region impact the local housing market. This chapter documents demographic, socioeconomic, and other trends relevant to McMinnville at the national, state, and regional levels.

Demographic trends provide a context for growth in a region; factors such as age, income, migration, and other trends show how communities have grown and how they will shape future growth. To provide context, we compare McMinnville to Yamhill County and, where appropriate, to nearby cities with comparable populations and community attributes (Monmouth, Independence, Dallas, and Newberg). Characteristics such as age and ethnicity are indicators of how population has grown in the past and provide insight into factors that may affect future growth.

A recommended approach to conducting a housing needs analysis is described in *Planning for Residential Growth: A Workbook for Oregon's Urban Areas*, the Department of Land Conservation and Development's guidebook on local housing needs studies. As described in the workbook, the specific steps in the housing needs analysis are:

1. Project the number of new housing units needed in the next 20 years.
2. Identify relevant national, state, and local demographic and economic trends and factors that may affect the 20-year projection of structure type mix.
3. Describe the demographic characteristics of the population and, if possible, the housing trends that relate to demand for different types of housing.
4. Determine the types of housing that are likely to be affordable to the projected households based on household income.
5. Determine the needed housing mix and density ranges for each plan designation and the average needed net density for all structure types.
6. Estimate the number of additional needed units by structure type.

This chapter presents data to address steps 2, 3, and 4. Chapter 5 presents data to address steps 1, 5, and 6.

Demographic and Socioeconomic Factors Affecting Housing Choice[15]

Analysts typically describe housing demand as the *preferences* for different types of housing (i.e., single-family detached, single family attached, or multifamily), and *the ability to pay* for that housing (the ability to exercise those preferences in a housing market by purchasing or renting housing; in other words, income or wealth).

Many demographic and socioeconomic variables affect housing choice. However, the literature about housing markets finds that age of the householder, size of the household, and income are most strongly correlated with housing choice.

- **Age of householder** is the age of the person identified (in the Census) as the head of household. Households make different housing choices at different stages of life. This chapter discusses generational trends, such as housing preferences of seniors (particularly Baby Boomers or people born from about 1946 to 1964), and Millennials, people born from about 1980 to 2000.
- **Size of household** is the number of people living in the household. Younger and older people are more likely to live in single-person households. People in their middle years are more likely to live in multiple person households (often with children).
- **Income** is household income. Research suggests that income is the most important determinant of housing choice. Income is strongly related to the type of housing a household chooses (e.g., single-family detached, duplex, or a building with more than five units) and to household tenure (e.g., rent or own).

This chapter focuses on these key demographic factors, presenting data that suggests how changes to these factors may affect housing need in McMinnville over the next 20 years.

[15] The research in this chapter is based on numerous articles and sources of information about housing, including:

D. Myers and S. Ryu, *Aging Baby Boomers and the Generational Housing Bubble*, Journal of the American Planning Association, Winter 2008.

Davis, Hibbits, & Midghal Research, "Metro Residential Preference Survey," May 2014.

L. Lachman and D. Brett, *Generation Y: America's New Housing Wave,* Urban Land Institute, 2010.

George Galster. People Versus Place, People and Place, or More? New Directions for Housing Policy, Housing Policy Debate, 2017.

Herbert, Christopher and Hrabchak Molinsky. "Meeting the Housing Needs of an Aging Population," 2015.

J. McIlwain, *Housing in America: The New Decade,* Urban Land Institute, 2010.

Schuetz, Jenny. Who is the new face of American homeownership? Brookings, 2017.

The American Planning Association, "Investing in Place; Two generations' view on the future of communities," 2014.

Transportation for America, "Access to Public Transportation a Top Criterion for Millennials When Deciding Where to Live, New Survey Shows," 2014.

National Trends[16]

This brief summary on national housing trends builds on previous work by ECONorthwest, Urban Land Institute (ULI) reports, and conclusions from *The State of the Nation's Housing, 2018* report from the Joint Center for Housing Studies of Harvard University. The Harvard report summarizes the national housing outlook as follows:

> "By many metrics, the housing market is on sound footing. With the economy near full employment, household incomes are increasing and boosting housing demand. On the supply side, a decade of historically low single-family construction has left room for expansion of this important sector of the economy. Although multifamily construction appears to be slowing, vacancy rates are still low enough to support additional rentals. In fact, to the extent that growth in supply outpaces demand, a slowdown in rent growth should help to ease affordability concerns."

However, challenges to a strong domestic housing market remain. High mortgage rates make housing unaffordable for many Americans, especially younger Americans. In addition to rising housing costs, wages have also failed to keep pace, worsening affordability pressures. Single-family and multifamily housing supplies remain tight, which compound affordability issues. *The State of the Nation's Housing* report emphasizes the importance of government assistance and intervention to keep housing affordable moving forward. Several challenges and trends shaping the national housing market are summarized below:

- **Moderate new construction and tight housing supply, particularly for affordable housing.** New construction experienced its eighth year of gains in 2017 with 1.2 million units added to the national stock. Estimates for multifamily starts range between 350,000 to 400,000 (2017). The supply of for-sale homes in 2017 averaged 3.9 months, below what is considered balanced (six months) and lower cost homes are considered especially scarce. The State of the Nation's Housing report cites lack of skilled labor, higher building costs, scarce developable land, and the cost of local zoning and regulation as impediments to new construction.
- **Demand shift from renting to owning.** After years of decline, the national homeownership rate increased from a 50-year low of 62.9% in the second quarter of 2016 to 63.7% in the second quarter of 2017. Trends suggest homeownership among householders aged 65 and older have remained strong and homeownership rates among young adults have begun stabilizing after years of decline.
- **Housing affordability.** In 2016, almost one-third of American households spent more than 30% of their income on housing. This figure is down from the prior year, bolstered by a considerable drop in the owner share of cost-burdened households. Low-income households face an especially dire hurdle to afford housing. As resources become increasingly competitive, and with such a large share of households exceeding the

[16] These trends are based on information from: (1) The Joint Center for Housing Studies of Harvard University's publication "The State of the Nation's Housing 2018," (2) Urban Land Institute, "2018 Emerging Trends in Real Estate," and (3) the U.S. Census.

traditional standards for affordability, policymakers are focusing efforts on the severely cost-burdened. Among those earning less than $15,000, more than 70% of households paid more than half of their income on housing.

- **Long-term growth and housing demand.** The Joint Center for Housing Studies forecasts that nationally, demand for new homes could total as many as 12 million units between 2017 and 2027. Much of the demand will come from Baby Boomers, Millennials,[17] and immigrants. The Urban Land Institute cites the trouble of overbuilding in the luxury sector while demand is in mid-priced single-family houses affordable to a larger buyer pool.
- **Growth in rehabilitation market.**[18] Aging housing stock and poor housing conditions are growing concerns for jurisdictions across the United States. With almost 80% of the nation's housing stock at least 20 years old (40% at least 50 years old), Americans are spending in excess of $400 billion per year on residential renovations and repairs. As housing rehabilitation becomes the go to solution to address housing conditions, the home remodeling market has grown more than 50% since the recession ended – generating 2.2% of national economic activity (in 2017).

  Despite trends suggesting growth in the rehabilitation market, rising construction costs and complex regulatory requirements pose barriers to rehabilitation. Lower-income households or households on fixed-incomes may defer maintenance for years due to limited financial means, escalating rehabilitation costs. At a certain point, the cost of improvements may outweigh the value of the structure, which may necessitate new responses such as demolition or redevelopment.
- **Changes in housing preference.** Housing preference will be affected by changes in demographics; most notably, the aging of the Baby Boomers, housing demand from Millennials, and growth of immigrants.
  - *Baby Boomers.* The housing market will be affected by continued aging of the Baby Boomers, the oldest of whom were in their seventies in 2018 and the youngest of whom were in their fifties in 2018. Baby Boomers' housing choices will affect housing preference and homeownership. Addressing housing needs for those moving through their 60s, 70s, and 80s (and beyond) will require a range of housing opportunities. For example, "the 82-to-86-year-old cohort dominates the assisted living and more intensive care sector" while new or near-retirees may prefer aging in place or active, age-targeted communities.[19] Characteristics like

[17] According to the Pew Research Center, Millennials were born between the years of 1981 to 1996 (inclusive). Read more about generations and their definitions here: http://www.pewresearch.org/fact-tank/2018/03/01/defining-generations-where-millennials-end-and-post-millennials-begin/.

To generalize, and because there is no official generation of millennial, we define this cohort as individuals born between 1980 and 2000.

[18] These findings are copied from: Joint Center for Housing Studies. (2019). Improving America's Housing, Harvard University. https://www.jchs.harvard.edu/sites/default/files/Harvard_JCHS_Improving_Americas_Housing_2019.pdf

[19] Urban Land Institute (2018). Emerging Trends in Real Estate, United States and Canada.

immigration and ethnicity play a role too as "older Asians and Hispanics are more likely than whites or blacks to live in multigenerational households."[20] Senior households earning different incomes may make distinctive housing choices. For instance, low income seniors may not have the financial resources to live out their years in a nursing home and may instead choose to downsize to smaller, more affordable units. Seniors living in close proximity to relatives may also choose to live in multigenerational households.

- Research shows that "older people in western countries prefer to live in their own familiar environment as long as possible," but aging in place does not only mean growing old in their own homes.[21] A broader definition exists which explains that aging in place also means "remaining in the current community and living in the residence of one's choice."[22] Therefore, some Boomers are likely to stay in their home as long as they are able, and some will prefer to move into other housing, such as multifamily housing or age-restricted housing developments, before they move into to a dependent living facility or into a familial home. Moreover, "the aging of the U.S. population, [including] the continued growth in the percentage of single-person households, and the demand for a wider range of housing choices in communities across the country is fueling interest in new forms of residential development, including tiny houses."[23]
- *Millennials.* Over the last several decades, young adults increasingly lived in multi-generational housing – and increasingly more so than older demographics.[24] Despite this trend, as Millennials age over the next 20 years, they will be forming households and families. In 2018, the oldest Millennials were in their late-30s and the youngest were in their late-teens. By 2040, Millennials will be between 40 and 60 years old.

  At the beginning of the 2007-2009 recession Millennials only started forming their own households. Today, Millennials are driving much of the growth in new households, albeit at slower rates than previous generations. From 2012 to 2017, millennials formed an average of 2.1 million net new households each year. Twenty-six percent of Millennials aged 25 to 34 lived with their parents (or other relatives) in 2017.

  Millennials' average wealth may remain far below Boomers and Gen Xers and student loan debt will continue to hinder consumer behavior and affect retirement savings. As of 2015, Millennials comprised 28% of active home buyers, while Gen

[20] Herbert, Christopher and Hrabchak Molinsky (2015). Meeting the Housing Needs of an Aging Population. https://shelterforce.org/2015/05/30/meeting_the_housing_needs_of_an_aging_population/

[21] Vanleerberghe, Patricia, et al. (2017). The quality of life of older people aging in place: a literature review.

[22] Ibid.

[23] American Planning Association. Making Space for Tiny Houses, Quick Notes.

[24] According to the Pew Research Center, in 1980, just 11% of adults aged 25 to 34 lived in a multi-generational family household and by 2008, 20% did (82% change). Comparatively, 17% of adults aged 65 and older lived in a multi-generational family household in 1980, and by 2008, 20% did (18% change).

Xers comprised 32% and Boomers 31%.[25] That said, "over the next 15 years, nearly $24 trillion will be transferred in bequests," presenting new opportunities for Millennials (as well as Gen Xers).

- *Immigrants.* Research on foreign-born populations find that immigrants, more than native-born populations, prefer to live in multi-generational housing. Still, immigration and increased homeownership among minorities could also play a key role in accelerating household growth over the next 10 years. Current Population Survey estimates indicate that the number of foreign-born households rose by nearly 400,000 annually between 2001 and 2007, and they accounted for nearly 30% of overall household growth. Beginning in 2008, the influx of immigrants was staunched by the effects of the Great Recession. After a period of decline, however, the foreign born are again contributing to household growth. The Census Bureau's estimates of net immigration in 2017–2018 indicate that 1.2 million immigrants moved to the U.S. from abroad, down from 1.3 million immigrants in 2016-2017 but higher than the average annual pace of 850,000 during the period of 2009–2011. However, if recent Federal policies about immigration are successful, growth in undocumented and documented immigration could slow and slow household growth in the coming years.
- *Diversity.* The growing diversity of American households will have a large impact on domestic housing markets. Over the coming decade, minorities will make up a larger share of young households and constitute an important source of demand for both rental housing and small homes. The growing gap in homeownership rates between whites and blacks, as well as the larger share of minority households that are cost burdened warrants consideration. Since 1994, the difference in homeownership rates between whites and blacks rose by 1.9 percentage points to 29.2% in 2017. Alternatively, the gap between white and Hispanic homeownership rates, and white and Asian homeownership rates, both decreased during this period but remained sizable at 26.1 and 16.5 percentage points, respectively. Although homeownership rates are increasing for some minorities, large shares of minority households are more likely to live in high-cost metro areas. This, combined with lower incomes than white households, leads to higher rates of cost burden for minorities—47% for blacks, 44% for Hispanics, 37% for Asians/others, and 28% for whites in 2015.

- Changes in housing characteristics. The U.S. Census Bureau's Characteristics of New Housing Report (2017) presents data that show trends in the characteristics of new housing for the nation, state, and local areas. Several long-term trends in the characteristics of housing are evident from the New Housing Report:[26]

[25] Srinivas, Val and Goradia, Urval (2015). The future of wealth in the United States, Deloitte Insights. https://www2.deloitte.com/insights/us/en/industry/investment-management/us-generational-wealth-trends.html

[26] U.S. Census Bureau, Highlights of Annual 2017 Characteristics of New Housing. Retrieved from: https://www.census.gov/construction/chars/highlights.html.

- *Larger single-family units on smaller lots*. Between 1999 and 2017, the median size of new single-family dwellings increased by 20% nationally, from 2,028 sq. ft. to 2,426 sq. ft., and 20% in the western region from 2,001 sq. ft. in 1999 to 2,398 sq. ft in 2017. Moreover, nationally the percentage of new units smaller than 1,400 sq. ft. decreased by more than half, from 15% in 1999 to 6% in 2017. The percentage of units greater than 3,000 sq. ft. increased from 17% in 1999 to 25% of new one-family homes completed in 2017. In addition to larger homes, a trend towards smaller lot sizes is seen nationally. Between 2009 and 2017, the percentage of lots less than 7,000 sq. ft. increased from 25% to 31% of lots.
- *Larger multifamily units*. Between 1999 and 2017, the median size of new multiple family dwelling units increased by 5.3% nationally and 2.4% in the Western region. Nationally, the percentage of new multifamily units with more than 1,200 sq. ft. increased from 28% in 1999 to 33% in 2017 and increased from 25% to 28% in the Western region.
- *Household amenities*. Across the U.S. and since 2013, an increasing number of new units had air-conditioning (fluctuating year by year at over 90% for both new single-family and multi-family units). In 2000, 93% of new single-family houses had two or more bathrooms, compared to 97% in 2017. In that same time but for multifamily units, the share of units with two or more bathrooms decreased from 55% of new multifamily units to 45%. As of 2017, 65% of new single-family houses in the U.S. had one or more garage (from 69% in 2000).
- *Shared amenities*. Housing with shared amenities are growing in popularity as it may improve space efficiencies and reduce per unit costs / maintenance costs. Single-Room Occupancies (SROs)[27], Cottage Clusters, co-housing developments, and multifamily products are common housing types that take advantage of this trend. Shared amenities may take many forms and include shared: bathrooms; kitchens and other home appliances (e.g. laundry facilities, outdoor grills); security systems; outdoor areas (e.g. green space, pathways, gardens, rooftop lounges); fitness rooms, swimming pools, and tennis courts; and free parking.[28]

State Trends

Oregon's 2016-2020 Consolidated Plan includes a detailed housing needs analysis as well as strategies for addressing housing needs statewide. The plan concludes that "a growing gap between the number of Oregonians who need affordable housing and the availability of affordable homes has given rise to destabilizing rent increases, an alarming number of evictions

[27] Single-room occupancies are residential properties with multiple single room dwelling units occupied by a single individual. From: U.S. Department of Housing and Urban Development. (2001). *Understanding SRO*. https://www.hudexchange.info/resources/documents/Understanding-SRO.pdf

[28] Urbsworks. (n.d.). Housing Choices Guide Book: A Visual Guide to Compact Housing Types in Northwest Oregon. https://www.oregon.gov/lcd/Publications/Housing-Choices-Booklet_DIGITAL.pdf

Saiz, Albert and Salazar, Arianna. (n.d.). Real Trends: The Future of Real Estate in the United States. Center for Real Estate, Urban Economics Lab.

of low- and fixed- income people, increasing homelessness, and serious housing instability throughout Oregon."

It identified the following issues that describe housing need statewide:[29]

- For housing to be considered affordable, a household should pay up to one-third of their income toward rent, leaving money left over for food, utilities, transportation, medicine, and other basic necessities. Today, half of Oregon renter households pay more than one-third of their income toward rent, and one-third pay more than half of their income toward rent.
- More school children are experiencing housing instability and homelessness. The rate of K-12 homeless children increased by 12% from the 2013-2014 school year to the 2014–2015 school year.
- Oregon has 28,500 rental units that are affordable and available to renters with extremely low incomes. There are about 131,000 households that need those apartments, leaving a gap of 102,500 units.
- Housing instability is fueled by an unsteady, low-opportunity employment market. Over 400,000 Oregonians are employed in low-wage work. Low-wage work is a growing share of Oregon's economy. When wages are set far below the cost needed to raise a family, the demand for public services grows to record heights.
- Women are more likely than men to end up in low-wage jobs. Low wages, irregular hours, and part-time work compound issues.
- People of color historically constitute a disproportionate share of the low-wage work force. About 45% of Latinos, and 50% of African Americans, are employed in low-wage industries.
- The majority of low-wage workers are adults over the age of 20, many of whom have earned a college degree, or some level of higher education.
- In 2019, minimum wage in Oregon[30] was $11.25, $12,50 in the Portland Metro, and $11.00 for non-urban counties.

The *2018 Statewide Housing Plan* describes the Oregon Housing and Community Services' (OHCS) goals and implementation strategies for achieving the goals.[31] It includes relevant data

[29] These conclusions are copied directly from the report: Oregon's 2016-2020 Consolidated Plan http://www.oregon.gov/ohcs/docs/Consolidated-Plan/2016-2020-Consolidated-Plan-Amendment.pdf.

[30] The 2016 Oregon Legislature, Senate Bill 1532, established a series of annual minimum wage rate increases beginning July 1, 2016 through July 1, 2022. https://www.oregon.gov/boli/whd/omw/pages/minimum-wage-rate-summary.aspx

[31] Priorities and factoids are copied directly from the report: Oregon Housing and Community Services (November 2018). Breaking New Ground, Oregon's Statewide Housing Plan, Draft. https://www.oregon.gov/ohcs/DO/shp/OregonStatewideHousingPlan-PublicReviewDraft-Web.pdf

to help illustrate the rationale for each priority. Oregon's *2018 Statewide Housing Plan* identified six housing priorities to address in communities across the State over 2019 to 2023.

- **Equity and Racial Justice.** *Advance equity and racial justice by identifying and addressing institutional and systemic barriers that have created and perpetuated patterns of disparity in housing and economic prosperity.*
  - Summary of the issue: In Oregon, 26% of people of color live below the poverty line in Oregon, compared to 15% of the White population.
  - 2019-2023 Goal: Communities of color will experience increased access to OHCS resources and achieve greater parity in housing stability, self-sufficiency and homeownership. OHCS will collaborate with its partners and stakeholders to create a shared understanding of racial equity and overcome systemic injustices faced by communities of color in housing discrimination, access to housing and economic prosperity.
- **Homelessness.** *Build a coordinated and concerted statewide effort to prevent and end homelessness, with a focus on ending unsheltered homelessness of Oregon's children and veterans.*
  - Summary of the issue: According to the Point-in-Time count, approximately 14,000 Oregonians experienced homelessness in 2017, an increase of nearly 6% since 2015. Oregon's unsheltered population increased faster than the sheltered population, and the state's rate of unsheltered homelessness is the third highest in the nation at 57%. The state's rate of unsheltered homelessness among people in families with children is the second highest in the nation at 52%.
  - 2019-2023 Goal: OHCS will drive toward impactful homelessness interventions by increasing the percentage of people who are able to retain permanent housing for at least six months after receiving homeless services to at least 85 percent. OHCS will also collaborate with partners to end veterans' homelessness in Oregon and build a system in which every child has a safe and stable place to call home.
- **Permanent Supportive Housing.** *Invest in permanent supportive housing, a proven strategy to reduce chronic homelessness and reduce barriers to housing stability.*
  - Summary of the issue: Oregon needs about 12,388 units of permanent supportive housing to serve individuals and families with a range of needs and challenges.
  - 2019-2023 Goal: OHCS will increase our commitment to permanent supportive housing by funding the creation of 1,000 or more additional permanent supportive housing units to improve the future long-term housing stability for vulnerable Oregonians.
- **Affordable Rental Housing.** *Work to close the affordable rental housing gap and reduce housing cost burden for low-income Oregonians.*

- Summary of the issue: Statewide, over 85,000 new units are needed to house those households earning below 30% of Median Family Income (MFI) in units affordable to them. The gap is even larger when accounting for the more than 16,000 units affordable at 30% of MFI, which are occupied by households at other income levels.
- 2019-2023 Goal: OHCS will triple the existing pipeline of affordable rental housing — up to 25,000 homes in the development pipeline by 2023. Residents of affordable rental housing funded by OHCS will have reduced cost burden and more opportunities for prosperity and self-sufficiency.

- **Homeownership.** *Provide more low- and moderate-income Oregonians with the tools to successfully achieve and maintain homeownership, particularly in communities of color.*
  - Summary of the issue: In Oregon, homeownership rates for all categories of people of color are lower than for white Oregonians. For White non-Hispanic Oregonians, the home ownership rate is 63%. For Hispanic and non-White Oregonians, it is 42%. For many, homeownership rates have fallen between 2005 and 2016.
  - 2019-2023 Goal: OHCS will assist at least 6,500 households in becoming successful homeowners through mortgage lending products while sustaining efforts to help existing homeowners retain their homes. OHCS will increase the number of homebuyers of color in our homeownership programs by 50% as part of a concerted effort to bridge the homeownership gap for communities of color while building pathways to prosperity.
- **Rural Communities.** *Change the way OHCS does business in small towns and rural communities to be responsive to the unique housing and service needs and unlock the opportunities for housing development.*
  - Summary of the issue: While housing costs may be lower in rural areas, incomes are lower as well: median family income is $42,750 for rural counties versus $54,420 for urban counties. Additionally, the median home values in rural Oregon are 30% higher than in the rural United States and median rents are 16% higher.
  - 2019-2023 Goal: OHCS will collaborate with small towns and rural communities to increase the supply of affordable and market-rate housing. As a result of tailored services, partnerships among housing and service providers, private industry and local governments will flourish, leading to improved capacity, leveraging of resources and a doubling of the housing development pipeline.

Regional and Local Demographic Trends that may affect housing need in McMinnville

Demographic trends that might affect the key assumptions used in the baseline analysis of housing need are: (1) the aging population, (2) changes in household size and composition, and (3) increases in diversity.

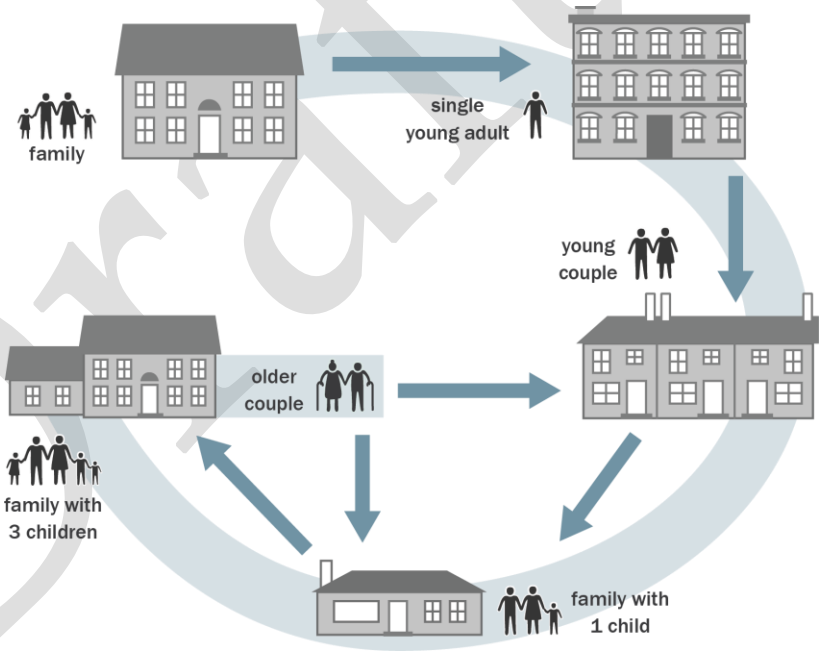
An individual's housing needs change throughout their life, with changes in income, family composition, and age. The types of housing needed by a 20-year-old college student differ from the needs of a 40-year-old parent with children, or an 80-year-old single adult. As McMinnville's population ages, different types of housing will be needed to accommodate older residents. The housing characteristics by age data below reveal this cycle in action in McMinnville.

Housing needs and preferences change in predictable ways over time, with changes in marital status and size of family.

Families of different sizes need different types of housing.

Exhibit 27. Effect of demographic changes on housing need

Source: ECONorthwest, adapted from Clark, William A.V. and Frans M. Dieleman. 1996. *Households and Housing*. New Brunswick, NJ: Center for Urban Policy Research.



Growing Population

McMinnville's population grew by 88% between 1990 and 2017, adding 15,771 new residents. Over this period, McMinnville's population grew at an average annual growth rate of 2.4%. McMinnville's population growth will drive future demand for housing over the planning period.

Exhibit 28. Population, McMinnville, 1990 - 2017

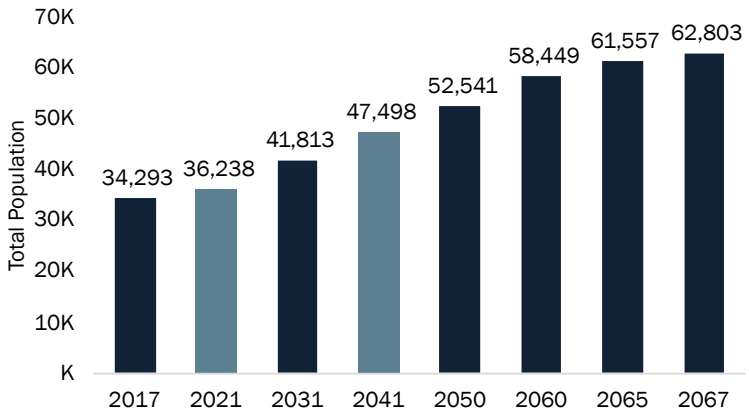
Source: U.S. Decennial Census 1990, 2000, and 2010. Portland State University Population Research Center, 2017 Estimate.

					Change 1990 to 2017		
	1990	2000	2010	2017	Number	Percent	AAGR
U.S.	248,709,873	281,421,906	308,745,538	325,719,178	77,009,305	31%	1.0%
Oregon	2,842,321	3,421,399	3,831,074	4,141,100	1,298,779	46%	1.4%
Yamhill County	65,551	84,992	99,193	106,300	40,749	62%	1.8%
McMinnville	17,894	26,499	32,187	33,665	15,771	88%	2.4%

By 2067, McMinnville's population, within its UGB, is expected to exceed 60,000 people.

Exhibit 29. Population Forecast, McMinnville UGB, 2017 through 2067

Source: Population Research Center, Portland State University, June 30, 2017.



McMinnville's population within its UGB is expected to grow by around 31% (11,260 people) over the 20-year analysis period (2021 to 2041).

Exhibit 30. McMinnville's 5-, 10-, 20-, and 46- year Population Forecast, McMinnville UGB, 2021, 2026, 2031, and 2067

Source: Population Research Center, Portland State University, June 30, 2017.

36,238	38,985	41,813	47,498	62,803
2021	2026 (5-year)	2031 (10-year)	2041 (20-year)	2067 (46-year)

A majority of new population growth in Yamhill County and Oregon is because of in-migration.

Exhibit 31. Migrant Share of New Population, Yamhill County and Oregon, 2000 - 2016

Source: Population Research Center, Portland State University.

Yamhill County	19,998 New Population	13,477 New Migrant Population	67% Migrant Share of Growth
Oregon	654,951 New Population	420,150 New Migrant Population	64% Migrant Share of Growth

Aging Population

This section describes two key characteristics of McMinnville's population (seniors and young adults, including millennials), with implications for future housing demand in McMinnville:

- **Seniors.** McMinnville and Yamhill County populations are progressively getting older. As McMinnville's elderly population grows, it will increase demand for housing that is suitable for elderly residents. By 2040, residents aged 60 years and older will account for 28% of McMinnville's population, compared to 20% in 2010.

  The impact of growth in seniors in McMinnville will depend, in part, on whether older people already living in McMinnville continue to live in their current residence as they age. National surveys show that most households prefer to age in place by continuing to live in their current home and community as long as possible.[32]

  Growth in the number of seniors will result in demand for housing types specific to seniors, such as small and easy-to-maintain dwellings, assisted living facilities, or age-restricted developments. Senior households will make a variety of housing choices, including: remaining in their homes as long as they are able, downsizing to smaller single-family homes (detached and attached) or multifamily units, or moving into group housing (such as assisted living facilities or nursing homes), as their health declines. The challenges aging seniors face in continuing to live in their community include changes in healthcare needs, loss of mobility, the difficulty of home maintenance, financial concerns, and increases in property taxes.[33]

- **McMinnville has a larger proportion of younger people than the county and state.** About 30% of McMinnville's population is under 20 years old, compared to 28% of Yamhill County's population and 25% of the state's population. The forecast for population growth in McMinnville shows the number of people under 20 years will increase but the share of younger people will decline marginally from 29% of the population in 2017 to 27% of the population by 2040.

  Linfield College offers a partial explanation for McMinnville's age structure. Data provided by the College indicated that Linfield had 2,588 students enrolled as of May 2018.[34] Approximately 1,240 students (48% of the 2,588 students) were at the McMinnville campus as of February 2019.[35] The 1,240 students is approximately 4% of the city's population, about 13% of the city's population under age 20, and about 23% of the city's population between the age of 15 and 24 (2016). Linfield students are counted in PSU's population forecast. Linfield requires students to live in campus housing for their first two years.

[32] A survey conducted by the AARP indicates that 90% of people 50 years and older want to stay in their current home and community as they age. See http://www.aarp.org/research.

[33] "Aging in Place: A toolkit for Local Governments" by M. Scott Ball.

[34] https://www.linfield.edu/about/facts-and-figures.html

[35] https://www.opb.org/news/article/linfield-college-tenured-faculty-cut/

People currently aged 18 to 38[36] are referred to as the Millennial generation and account for the largest share of population in Oregon.[37] By 2041, Millennials will be about 41 to 61 years of age. The forecast for Yamhill County shows growth in the number of Millennials from about 27,500 people in 2021 to 35,000 people in 2041 (about 28% change). The share of Millennials from 2021 to 2041 is forecast to remain the same (at about 25% of Yamhill County's total population).

McMinnville's ability to retain people in this age group will depend, in part, on whether the city has opportunities for housing that both appeals to and are affordable to Millennials. In the near-term, Millennials may increase demand for rental units. The long-term housing preference of Millennials is uncertain. Research suggests that Millennials' housing preferences may be similar to the Baby Boomers, with a preference for smaller, less costly units. Recent surveys about housing preference suggest that Millennials want affordable single-family homes in areas that offer transportation alternatives to cars, such as suburbs or small cities with walkable neighborhoods.[38]

A recent survey of people living in the Portland region shows that Millennials prefer single-family detached housing. The survey finds that housing price is the most important factor in choosing housing for younger residents.[39] The survey results suggest Millennials are more likely than other groups to prefer housing in an urban neighborhood or town center. While this survey is for the Portland region, it shows similar results as national surveys and studies about housing preference for Millennials.

Growth in Millennials in McMinnville will increase demand for affordable single-family detached housing (including cottages) in the long-term and affordable townhouses and multifamily housing in the near-term. The preference for millennials to locate in urban neighborhoods or town centers may also increase demand for townhomes and multifamily housing types. Growth in this population will result in increased demand for both ownership and rental opportunities, with an emphasis on housing that is comparatively affordable.

[36] No formal agreement on when the Millennial generation starts or ends exists. For this report, we define the Millennial generation as individuals born in 1980 through 2000.

[37] Pew Research Center. (March 2018). "Defining generations: Where Millennials end and post-Millennials begin" by Michael Dimock. Retrieved from: http://www.pewresearch.org/fact-tank/2018/03/01/defining-generations-where-millennials-end-and-post-millennials-begin/.

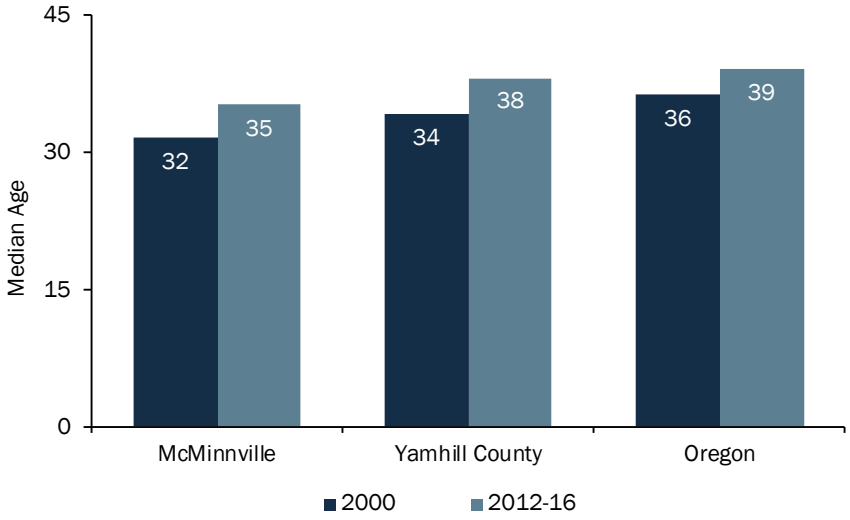
[38] The American Planning Association, "Investing in Place; Two generations' view on the future of communities." 2014.
"Access to Public Transportation a Top Criterion for Millennials When Deciding Where to Live, New Survey Shows," Transportation for America.
"Survey Says: Home Trends and Buyer Preferences," National Association of Home Builders International Builders

[39] Davis, Hibbits, & Midghal Research, "Metro Residential Preference Survey," May 2014.

From 2000 to 2012-2016, McMinnville's median age increased from 31.5 to 35.2 years. Larger regions experienced similar trends.

Exhibit 32. Median Age, Years, McMinnville, Yamhill County, and Oregon, 2000 to 2012-2016

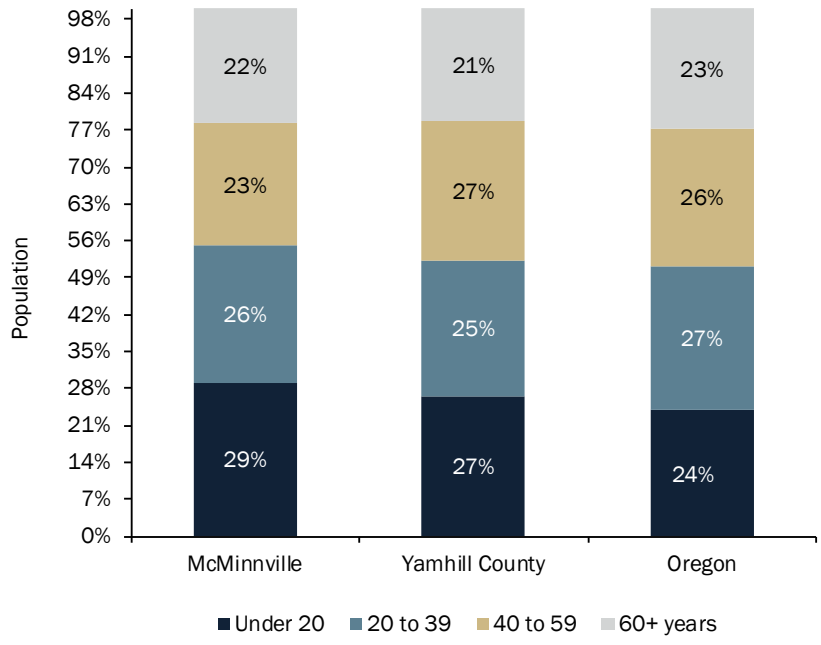
Source: U.S. Census Bureau, 2000 Decennial Census Table B01002, 2012-2016 ACS, Table B01002.



Similar to Yamhill County and Oregon, McMinnville's population distribution was relatively proportional by age. McMinnville had a slightly larger cohort under the age of 20.

Exhibit 33. Population Distribution by Age, McMinnville, Yamhill County, and Oregon, 2012-2016

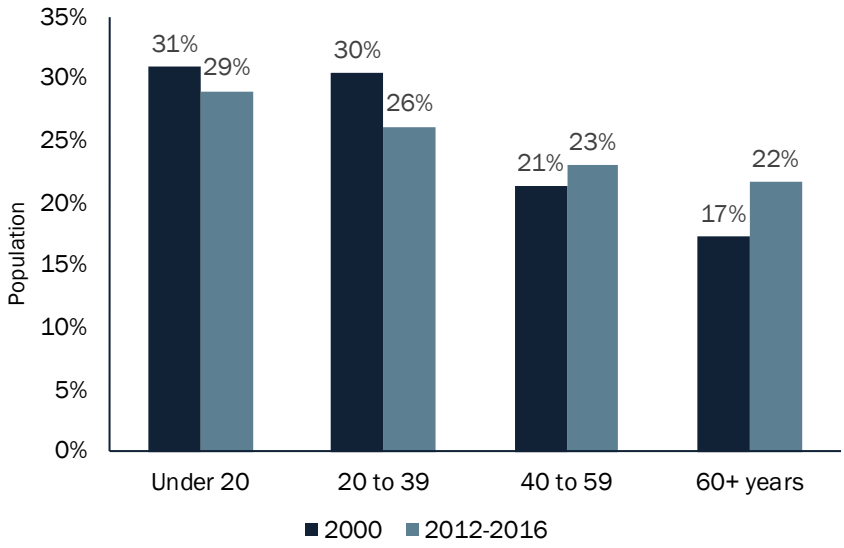
Source: U.S. Census Bureau, 2012-2016, ACS, Table B01001.



Between 2000 and 2012-2016, McMinnville's population distribution shifted toward older age cohorts.

Exhibit 34. Population Distribution by Age, McMinnville, 2000 to 2012-2016

Source: U.S. Census Bureau, 2000 Decennial Census Table P012, 2012-2016 ACS, Table B01001.



The share of Yamhill County's population aged 60 years and older is forecast to grow the fastest (56% from 2017 to 2040).

Exhibit 35. Forecast Growth Rate by Age Group, Yamhill County, 2017 to 2040

Source: Portland State University, Population Research Center, Yamhill County Forecast, June 30, 2017.

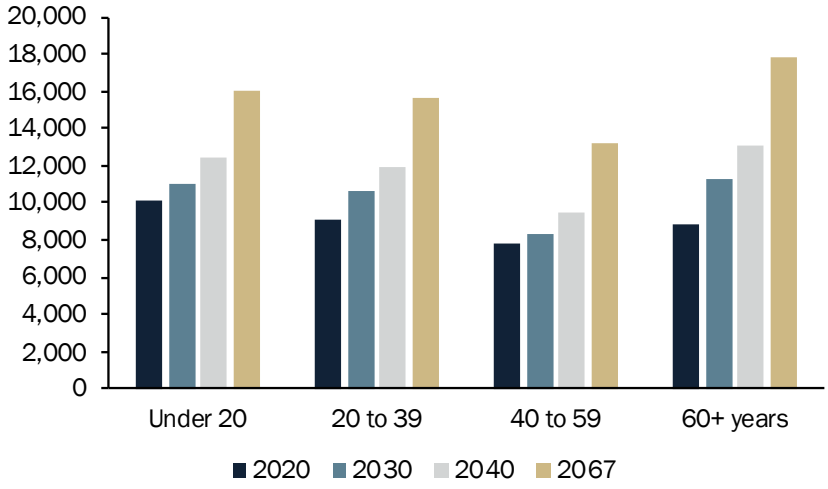
19%	22%	28%	56%
Under 20	20-39 Years	40-59 Years	60+ Years
+5,478 People	+6,246 People	+8,123 People	+15,912 People

All age groups in McMinnville will add population between 2020 and 2040. McMinnville's senior population will grow the most – 48% between 2020 and 2040.

In same time period (2020 to 2040), the population less than 20 years old, 20 to 39 years old, and 40 to 59 years old will grow, but at a slower rate (24%, 32%, and 22%).

Exhibit 36. Population Projection by Age Group, McMinnville, 2020, 2030, 2040, and 2067

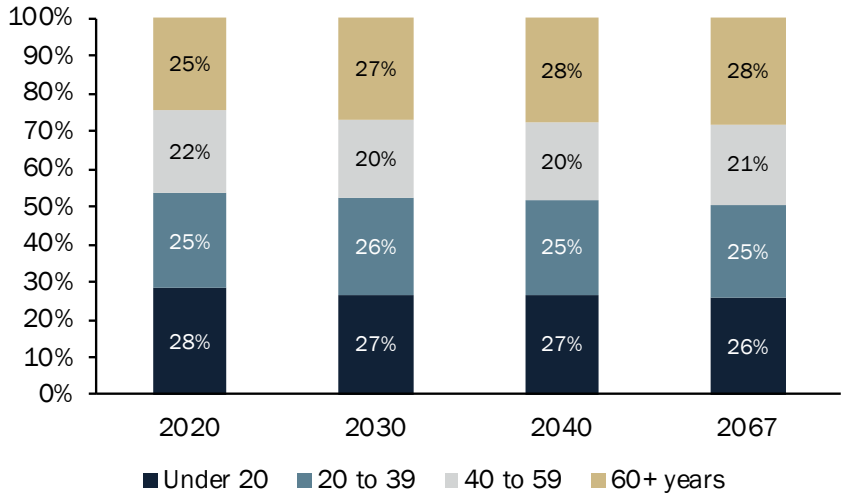
Source: Portland State University, Population Research Center. Note: This exhibit presents trend data from the PSU forecast. It is not forecast data for McMinnville's 2021-2041 planning period. It provides relevant data closely associated to the 2021-2041 planning period.



By 2040, the share of McMinnville's senior population (aged 60+) will grow while the share of the population under 20 years of age and between 40 and 59 years of age will decline.

Exhibit 37. Population Projection Distributed by Age Group, McMinnville, 2020, 2030, 2040, and 2067

Source: Portland State University, Population Research Center.



Increased Diversity

McMinnville is becoming more ethnically diverse. The Hispanic and Latino population grew from 15% of McMinnville's population in 2000 to 22% of the population in the 2012-2016 period, adding more than 3,426 new Hispanic and Latino residents. Much of this diversity is due to immigration: 14% of McMinnville's population is foreign born and, of that 14%, 78% have immigrated from Mexico.

The U.S. Census Bureau forecasts that at the national level, the Hispanic and Latino population will continue growing faster than most other non-Hispanic population between 2021 and 2041. The Census forecasts that the Hispanic population will increase 93% from 2016 to 2060 and the foreign-born Hispanic population will increase by about 40% in that same time.[40] According to the *State of Hispanic Homeownership* report from the National Association of Hispanic Real Estate Professionals[41], Hispanics accounted for 28.6% of the nation's household formation in 2017. Household formations, for Hispanic homeowners specifically, accounted for 15% of the nation's net homeownership growth. The rate of homeownership for Hispanics increased from 45.4% in 2014[42] to 46.2% in 2017. The only demographic that increased their rate of homeownership from 2016 to 2017 was Hispanics.

The *State of Hispanic Homeownership* report also cites the lack of affordable housing products as a substantial barrier to homeownership. The report finds that Hispanic households are more likely than non-Hispanic households to be nuclear households, comprised of married couples with children, and multiple-generation households in the same home, such as parents and adult children living together.

The population of McMinnville are now, and have historically been, more ethnically diverse than Yamhill County and Oregon. Continued growth in the Hispanic and Latino population will affect McMinnville's housing needs in a variety of ways.[43] Growth in first- and, to a lesser extent, second- and third-generation Hispanic and Latino immigrants will increase demand for larger dwelling units to accommodate the larger average household sizes for these households. Foreign-born households, including Hispanic and Latino immigrants, are more likely to live in multi-generational households, requiring more bedrooms / space. As Hispanic and Latino households integrate over generations, household size typically decreases, and their housing needs become similar to housing needs for all households.

Growth in Hispanic and Latino households will result in increased demand for housing of all types, both for ownership and rentals, with an emphasis on housing that is comparatively affordable and can accommodate multiple generations and larger household sizes.

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[40] U.S. Census Bureau, *Demographic Turning Points for the United States: Population Projections for 2020 to 2060,* pg. 7.

[41] National Association of Hispanic Real Estate Professionals. (2017). *2017 State of Hispanic Homeownership Report*.

[42] Ibid.

[43]Pew Research Center. *Second-Generation Americans: A Portrait of the Adult Children of Immigrants*, February 7, 2012. National Association of Hispanic Real Estate Professionals. (2017). *2017 State of Hispanic Homeownership Report*.

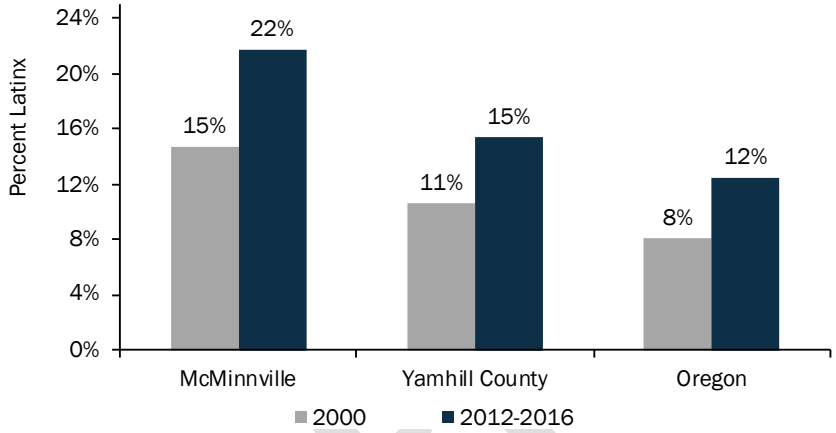
McMinnville is and has historically been more diverse than Yamhill County and Oregon.

The share of McMinnville's population that identify as Latinx increased by 7% from 2000 to 2012-2016.

In this same time, the share of Yamhill County and Oregon's Latinx population increased by 4%.

Exhibit 38. Latinx Population as a Percent of the Total Population, McMinnville, Yamhill County, and Oregon, 2000 to 2012-2016

Source: U.S. Census Bureau, 2000 Decennial Census Table P008, 2012-2016 ACS Table B03002.



McMinnville and Yamhill County are less racially diverse than the state. McMinnville's racial composition is similar to that of Yamhill County.

Only about 10% of McMinnville's population is non-white, compared to 15% in Oregon.

Exhibit 39. Race as a Percent of the Total Population, McMinnville and comparison regions, 2012-2016

Source: U.S. Census Bureau, 2012-2016 ACS Table B03002.

McMinnville	**89%** White	**1%** Black / African Am.	**2%** Asian	**8%** Other races
Yamhill Co.	**89%** White	**1%** Black / African Am.	**1%** Asian	**9%** Other races
Oregon	**85%** White	**2%** Black / African Am.	**4%** Asian	**9%** Other races

Fourteen percent of McMinnville's population is foreign-born. Of the foreign-born population, most are from Latin America (82%), Mexico specifically (78%).

Exhibit 40. Distribution of Foreign-Born Population, McMinnville, 2012-2016

Source: U.S. Census Bureau, 2012-2016 ACS Table B05006.

82% 3,708 Persons Latin America	**11%** 495 Persons Asia	**7%** 315 Persons Europe	**0%** 15 Persons Oceania	**0%** 10 Persons Africa

About 40% of students in the McMinnville School District identify as Latino or another ethnicity.

Exhibit 41. Ethnicity of School Aged Children, McMinnville School District, 2017-2018

Source: McMinnville School District. Note: percentages do not sum to 100% due to rounding.

61% White	**35%** Latino	**5%** Another Ethnicity

Household Size and Composition

McMinnville's household size and composition show that households in McMinnville are somewhat different than averages across the state. McMinnville had 12,376 households according to 2013-2017 ACS data. McMinnville's and Yamhill County's households are larger and possess fewer nonfamily households.

McMinnville's average household size is slightly smaller than Yamhill County's but comparable to the State's.

Exhibit 42. Average Household Size, McMinnville, Yamhill County, and Oregon, 2013-2017

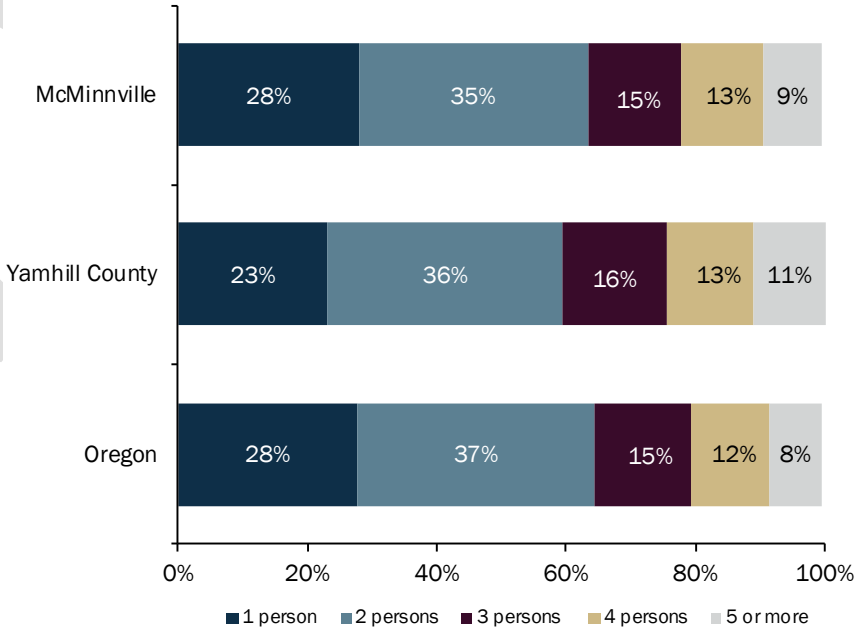
Source: U.S. Census Bureau, 2013-2017 ACS Table B25010. U.S. Census Bureau, 2010 Decennial Census, Table H12H, H12.

(2013-2017) Total Occupied Housing Units	2.55 Persons McMinnville	2.70 Persons Yamhill County	2.50 Persons Oregon
(2010) Total Occupied Housing Units	2.61 Persons McMinnville	2.70 Persons Yamhill County	2.47 Persons Oregon
(2010) Occupied Housing Units with Latino/Hispanic Householder	4.11 Persons McMinnville	4.08 Persons Yamhill County	3.68 Persons Oregon

About 60% of households in McMinnville, Yamhill County, and the state are composed of one and two people.

Exhibit 43. Household Size, McMinnville, Yamhill County, and Oregon, 2013-2017

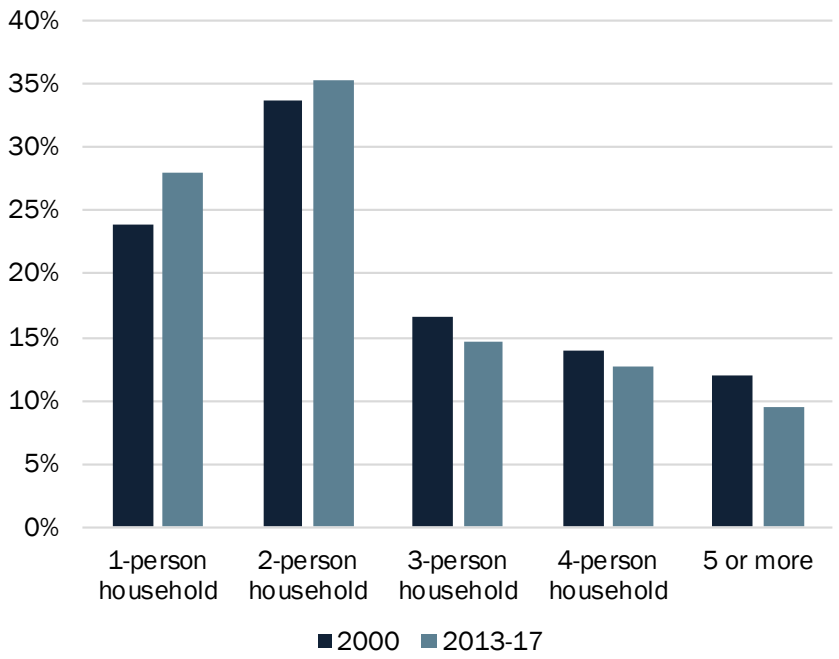
Source: U.S. Census Bureau, 2013-2017 ACS, Table B25009



McMinnville's household size composition stayed relatively constant from 2000 to 2013-2017.

The majority of McMinnville households are composed of one and two people.

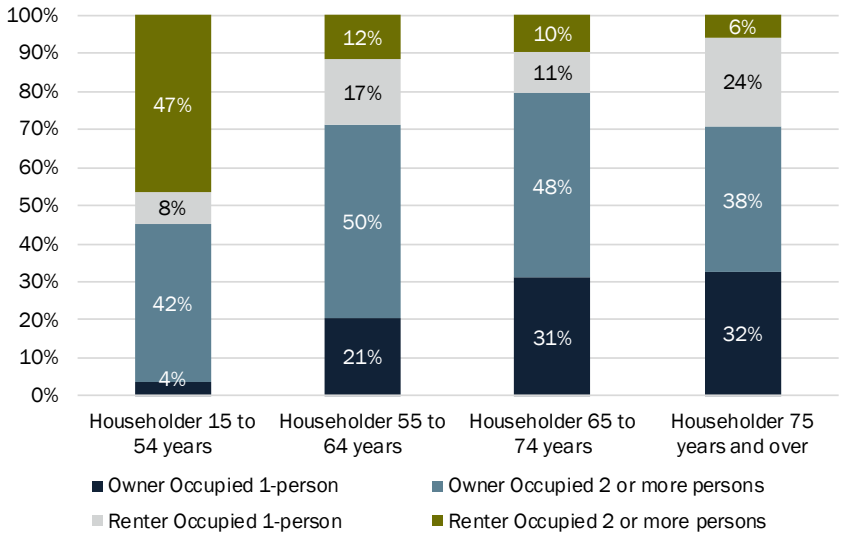
Exhibit 44. Household Size, McMinnville, 2000 to 2013-17
Source: U.S. Census Bureau, 2013-2017 ACS, Table B25009.



Homeownership rates peak between 65 and 74 years of age—nearly 80% of households in this age group owned their home.

Comparatively, 45% of householders aged 15 to 54 reside in owner-occupied housing, most of which (42%) live in a household with two or more people.

Exhibit 45. Tenure by Household Size by Age of Householder, McMinnville, 2013-2017
Source: U.S. Census Bureau, 2013-2017 ACS, Table B25116.

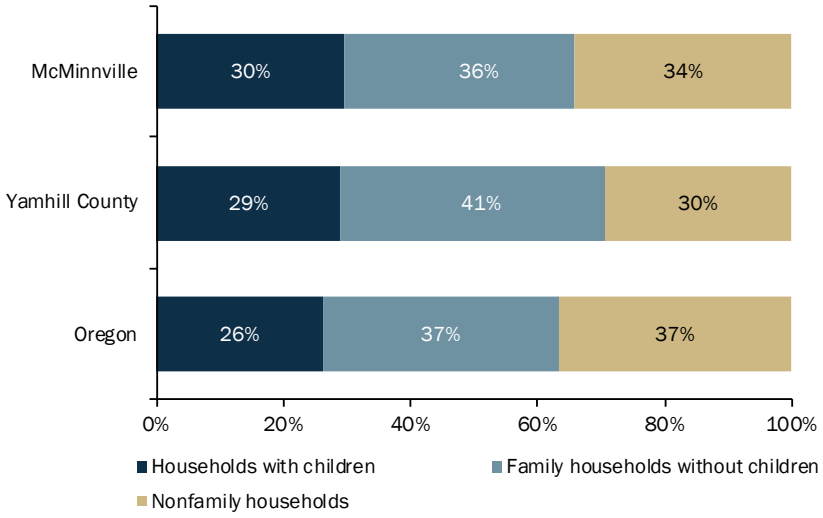


McMinnville and the county have a smaller share of nonfamily households than the state.

In McMinnville, 34% of households are nonfamily, compared to 30% of Yamhill County households and 37% of Oregon households.

Exhibit 46. Household Composition, McMinnville, 2013-2017

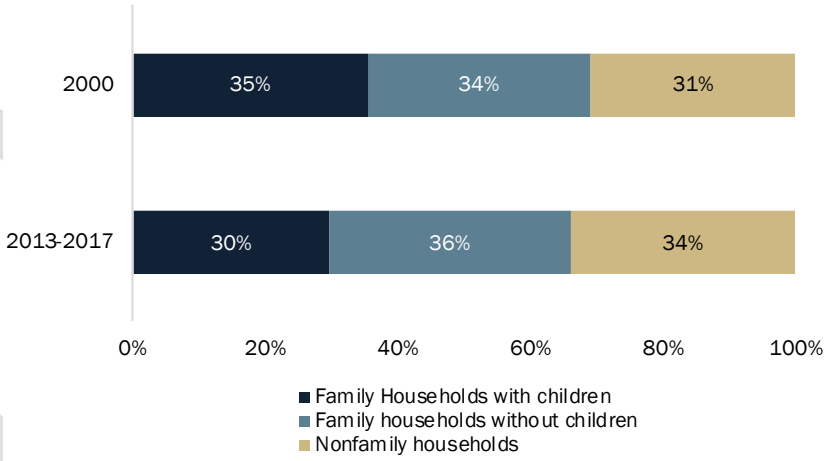
Source: U.S. Census Bureau, 2013-2017 ACS, Table DP02.



The share of family households without children increased in McMinnville from 2000 to 2017.

Exhibit 47. Household Composition, McMinnville, 2000 to 2013-2017

Source: U.S. Census Bureau, 2000 Decennial Census and 2013-2017 ACS, Table DP02.

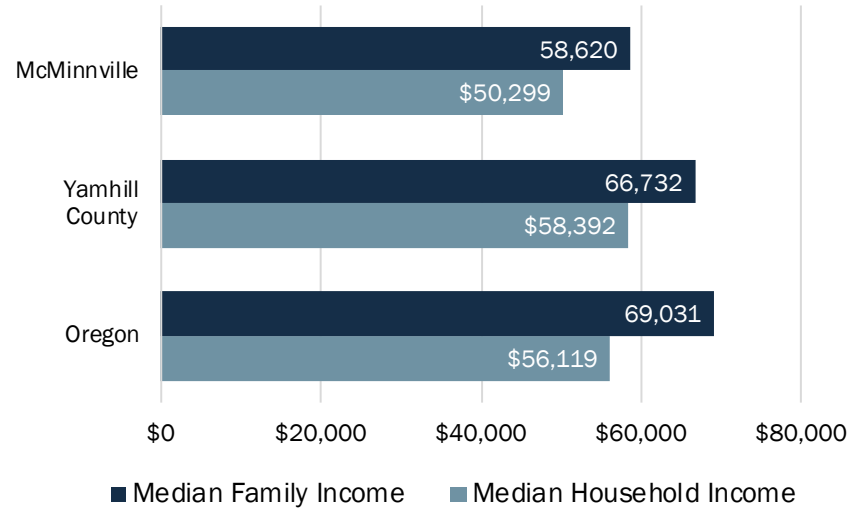


Income of McMinnville Residents

Income is one of the key determinants in housing choice and households' ability to afford housing. Incomes for people living in McMinnville are lower than that of Yamhill County and Oregon.

In the 2013-2017 period, McMinnville's median household income and median family income was below that of comparison regions.

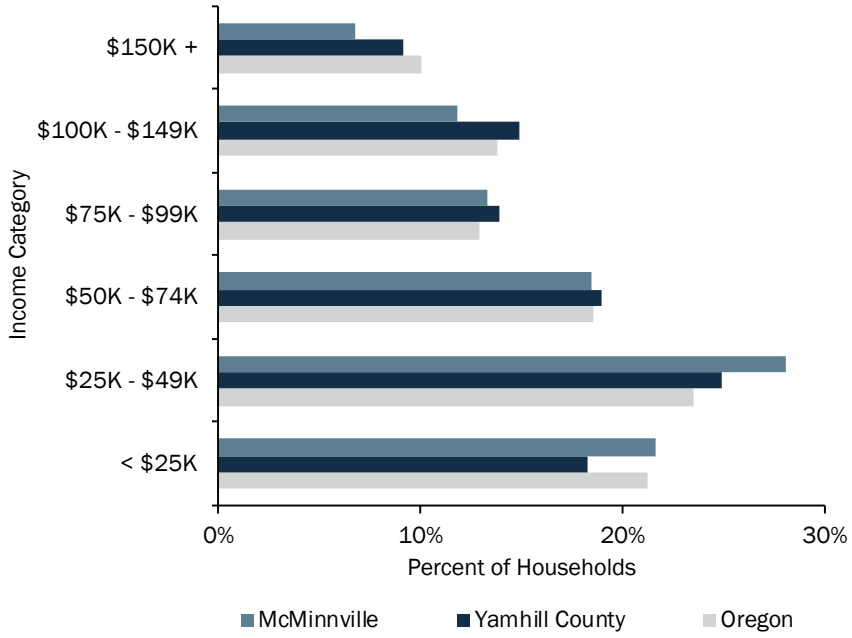
Exhibit 48. Median Household Income and Median Family Income, McMinnville, Yamhill County, and Oregon, 2013-2017
Source: U.S. Census Bureau, 2013-2017 ACS Table B25119 and B19113.



Fifty percent of McMinnville households make $50,000 or less per year.

In comparison, 43% of Yamhill County and 45% of the state make $50,000 or less per year.

Exhibit 49. Household Income, McMinnville, Yamhill County, and Oregon, 2013-2017
Source: U.S. Census Bureau, 2013-2017 ACS, Table B19001.

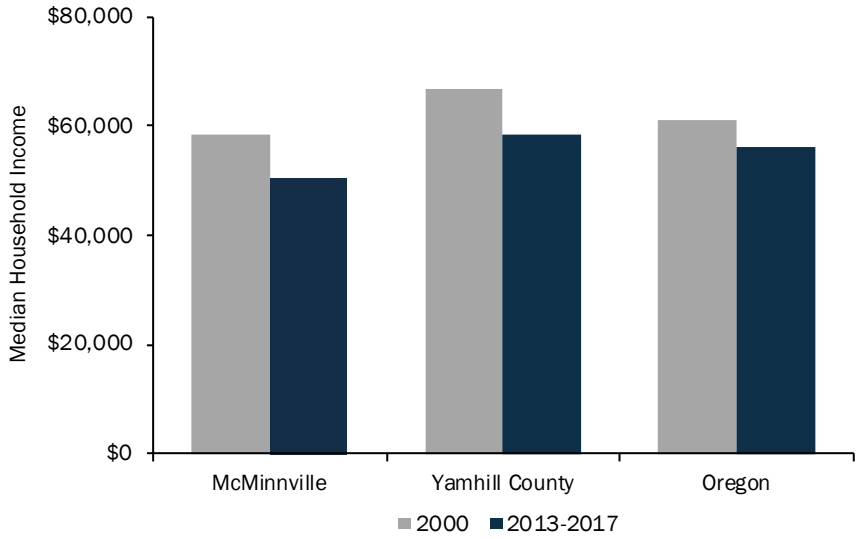


After adjusting for inflation, McMinnville's median household income decreased by 14% from 2000 to 2013-2017, from $58,356 to $50,299 per year.

Yamhill County and Oregon also experienced real decreases in median housing income after adjusting for inflation.

Exhibit 50. Median Household Income (2017 Inflation-adjusted), McMinnville, Yamhill County, Oregon, 2000 and 2013-2017

Source: U.S. Census Bureau, 2000 Decennial Census, Table HCT012, 2013-2017 ACS Table B25119.



Homelessness

The number of homeless persons in Yamhill County increased by over 300 people (30%), from 2015 to 2017.

For Yamhill County, the point in time homeless estimate was 1,066 persons in 2017 and 1,386 persons in 2018.

Exhibit 51. Point in Time Homeless Counts, Sheltered vs. Unsheltered, Yamhill County, 2017 and 2018

Source: Yamhill Community Action Partnership. Note: Point-in-time homeless count took place on January 31, 2018 and January 25, 2017.

2017	21% Percent Sheltered	25% Percent Unsheltered	54% Precariously Housed (e.g. couch surfing)	1,066 Total Homeless (PIT)
2018	17% Percent Sheltered	30% Percent Unsheltered	53% Precariously Housed (e.g. couch surfing)	1,386 Total Homeless (PIT)

In the 2016-2017 school year, 525 students experienced homelessness.

Exhibit 52. Students Experiencing Homelessness, Yamhill County and Oregon, 2016-2017 School Year

Source: Oregon Department of Housing and Community Services.

Yamhill County	3% Percent of Homeless Students	525 Total Homeless Students	16,791 Total Students
Oregon	4% Percent of Homeless Students	25,088 Total Homeless Students	578,947 Total Students

Commuting Trends

McMinnville is part of the complex, interconnected economy of Yamhill County which is considered part of the Portland Metropolitan region by the U.S. Census Bureau. Of the more than 14,600 people who work in McMinnville, about 62% of workers commute into McMinnville from other areas, (most notably Portland, Salem, and Newberg).

About 9,038 people commute into McMinnville for work and 8,657 people commute out of McMinnville for work.

Exhibit 53. Commuting Flows, McMinnville 2015
Source: U.S. Census Bureau, Census On the Map.

Nearly 40% of people who live in McMinnville also work in McMinnville.

Exhibit 54. Places Where McMinnville Residents were Employed, 2015
Source: U.S. Census Bureau, Census On the Map.

39%	6%	6%	4%	3%
McMinnville	Portland	Salem	Newberg	Hillsboro

More than 60% of McMinnville workers live somewhere else and commute into the city.

Exhibit 55. Places Where Workers who are Employed in McMinnville Live, 2015
Source: U.S. Census Bureau, Census On the Map.

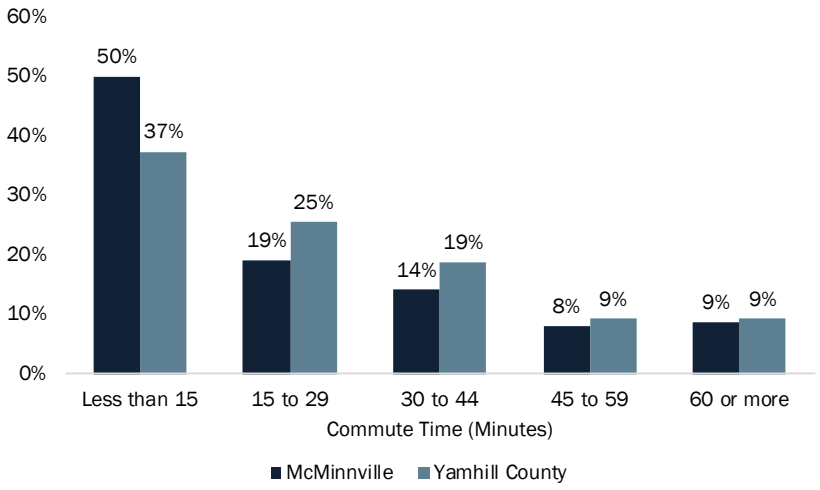
38%	4%	3%	3%	2%
McMinnville	Salem	Portland	Newberg	Sheridan

Half of McMinnville residents had a commute time of less than 15 minutes compared to the 37% of Yamhill residents.

Just under 70% of McMinnville residents have a commute time of less than 30 minutes.

Exhibit 56. Commute Time by Place of Residence, McMinnville and Yamhill County, 2012-2016

Source: U.S. Census Bureau, 2012-2016 ACS Table B08303.



Regional and Local Trends Affecting Affordability in McMinnville

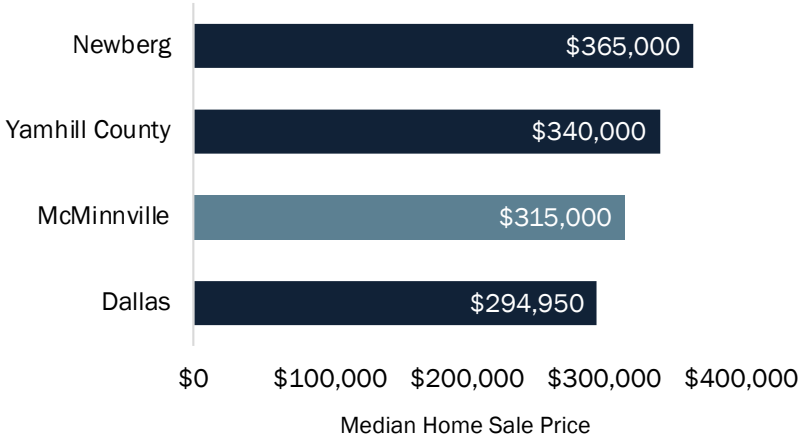
This section describes changes in sales prices, rents, and housing affordability in McMinnville, Yamhill County, and comparison cities. The section uses 2012-2016 ACS data as findings are not safe harbor assumptions (which require use of data from the most recent census: 2013-2017).

Changes in Housing Costs

With a median sales price of $315,000 in February 2019, McMinnville's housing sales prices are slightly lower than that of Yamhill County. McMinnville housing prices are increasing, and they have outpaced growth in median household incomes.

McMinnville's median home sale price was lower than the County's median home sale price in February 2019 (by $25,000).

Exhibit 57. Median Sales Price, McMinnville and Comparison Geographies, February 2019
Source: Redfin.

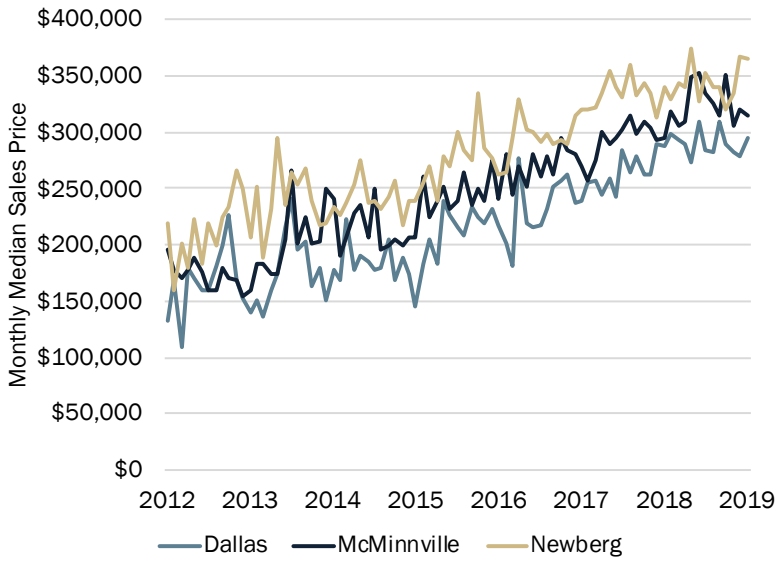


Between February of 2012 and February of 2019, median home sales prices in McMinnville rose steadily, increasing from $196,400 to $350,000.

In this same time, McMinnville's median home sale price increased by 78%. In comparison, Dallas' median home sale price increased by 108% and Newberg's by 70%.

Exhibit 58. Monthly median Sales Price, McMinnville and Comparison Geographies, February 2012 through February 2019

Source: Redfin Median Sales Data 2018.

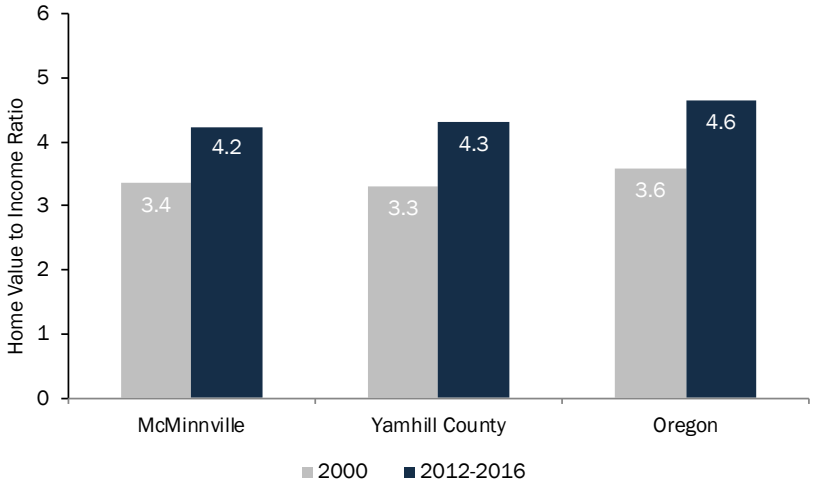


Since 2000, housing costs in McMinnville, like comparison regions, have increased faster than incomes.

The median value of a house in McMinnville was 3.4 times the median household income in 2000, and 4.2 times median household income in 2012-2016.

Exhibit 59. Ratio of Median Housing Value to Median Household Income, McMinnville, Yamhill County, and Oregon, 2000 to 2012-2016[44]

Source: U.S. Census Bureau, 2000 Decennial Census, Tables HCT012 and H085, and 2012-2016 ACS, Tables B19013 and B25077.



[44] This ratio compares the median value of housing in McMinnville and other places to the median household income. Inflation-adjusted median owner values in McMinnville increased from $187,469 in 2000 to $200,800 in 2012-2016. Over the same period, median income decreased from $55,930 to $47,460.

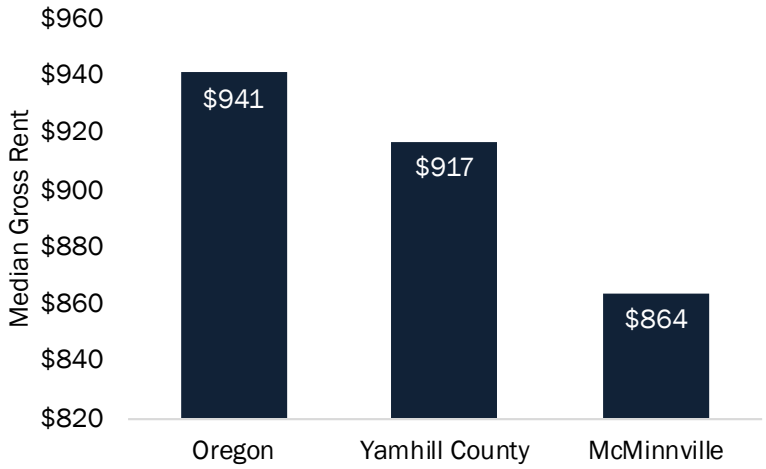
Changes in Rental Costs

Rent costs in McMinnville are lower than in Yamhill County and Oregon as a whole. The following charts show gross rent (which includes the cost of rent plus utilities) for McMinnville in comparison to the county and state. The section uses 2012-2016 ACS data as findings are not safe harbor assumptions (which require use of data from the most recent census: 2013-2017).

The median gross rent in McMinnville is $864, which is $53 lower than Yamhill's median and $77 lower than Oregon's median.

Exhibit 60. Median Gross Rent in McMinnville, Yamhill County, and Oregon, 2012-2016

Source: U.S. Census Bureau, 2012-2016 ACS Table B25064.

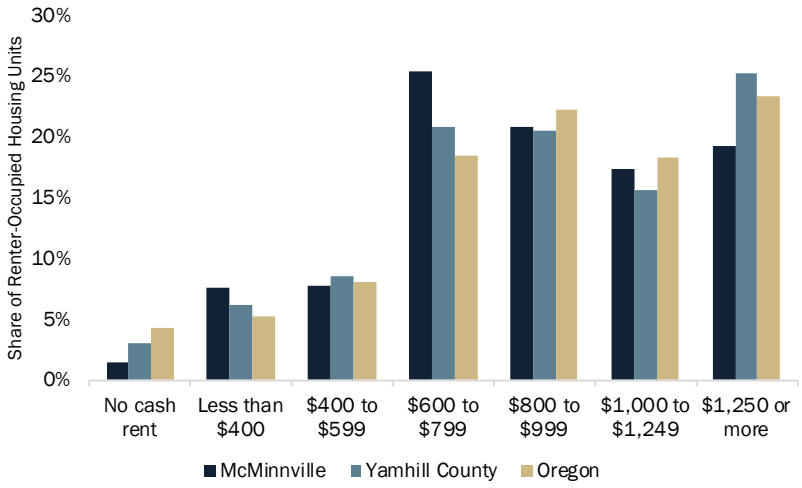


About 62% of renters in McMinnville pay less than $1,000 per month.

About 19% of McMinnville's renters pay $1,250 or more in gross rent per month, a smaller share than Yamhill County (25%) and Oregon (23%).

Exhibit 61. Gross Rent in McMinnville, Yamhill County, and Oregon, 2012-2016

Source: U.S. Census Bureau, 2012-2016 ACS Table B25063.



Housing Affordability

A typical standard used to determine housing affordability is that a household should pay no more than 30% of household income for housing, including payments and interest or rent, utilities, and insurance. HUD guidelines indicate that households paying more than 30% of their income on housing experience "cost burden," and households paying more than 50% of their income on housing experience "severe cost burden." Using cost burden as an indicator is one method of determining how well a city is meeting the Goal 10 requirement to provide housing that is affordable to all households in a community.

About 36% of McMinnville's households are cost burdened. Renters experience much higher rates of cost burden than homeowners: 52% of renter households in McMinnville are cost burdened, compared with 25% of homeowners. Overall, McMinnville has a similar share of cost-burdened households as Yamhill County and the state overall. McMinnville also has a smaller share of cost-burdened households (total) and cost-burdened renter households than other cities in close proximity (Newberg, Independence, and Monmouth).

For example, about 23% of McMinnville households have incomes of less than $25,000 per year, which is about 50% of McMinnville's Median Household Income. Based on HUD's 30% cost burdened threshold, these households can afford monthly housing costs of less than $629 per month. Most, but not all, of these households are cost burdened. For instance, as Exhibit 66 illustrates, 86% of households earning less than $20,000 per year are cost burdened while only 20% of households earning between $50,000 and $75,000 are cost burdened.

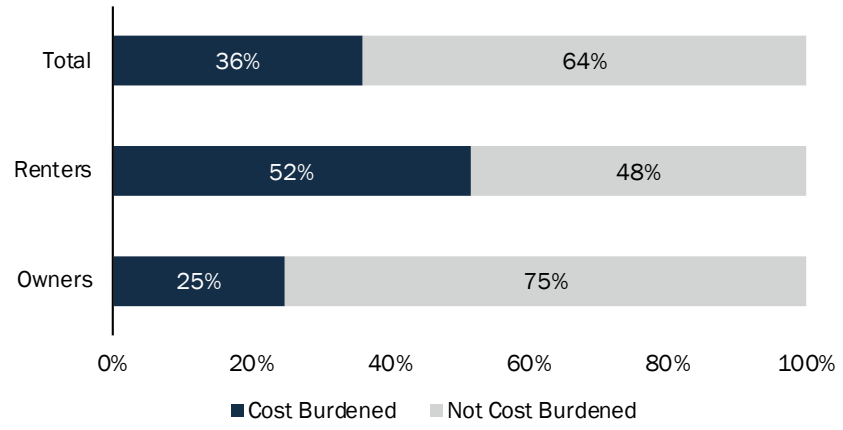
The section uses 2012-2016 ACS data as findings are not safe harbor assumptions (which require use of data from the most recent census: 2013-2017).

Renters are much more likely to be cost burdened than homeowners.

Cost burden rates are higher among renters in McMinnville than among homeowners. In 2016, about 52% of renters were cost burdened, compared to 25% of homeowners.

Exhibit 62. Housing Cost Burden by Tenure, McMinnville, 2012-2016

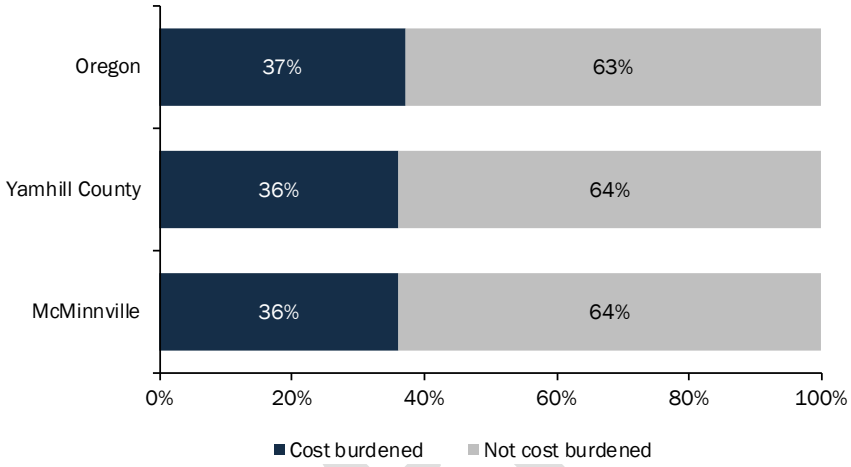
Source: U.S. Census Bureau, 2012-2016 ACS Tables B25091 and B25070.



The share of McMinnville households that are cost burdened is similar to the share of cost burdened households in the county and State.

Exhibit 63. Housing Cost Burden, McMinnville and Comparison Regions, 2012-2016

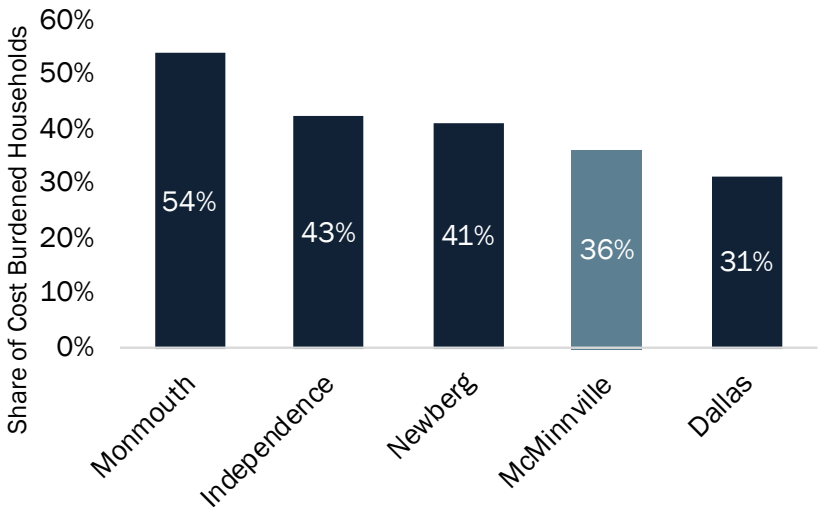
Source: U.S. Census Bureau, 2012-2016 ACS Tables B25091 and B25070.



Other communities in the region have a larger share of cost-burdened households than McMinnville does.

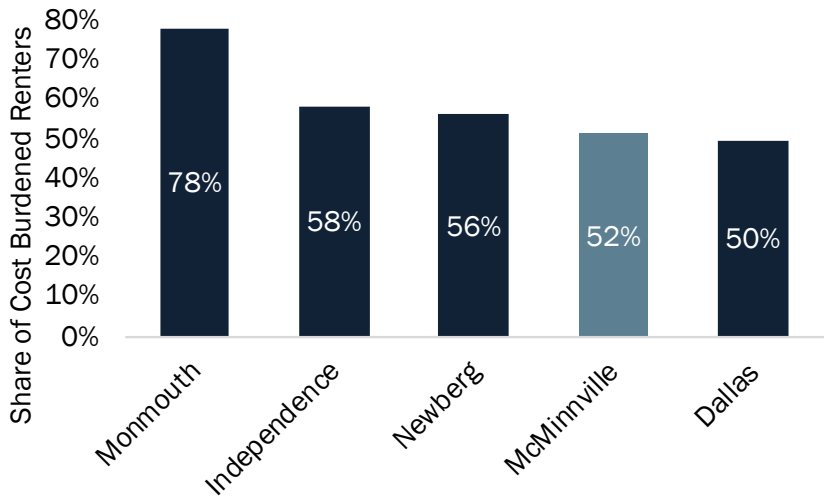
Exhibit 64. Cost Burden Households, McMinnville and Comparison Cities, 2012-2016

Source: U.S. Census Bureau, 2012-2016 ACS Tables B25091 and B25070.



Similar to other comparison cities in the region, over half of renter households in McMinnville are cost burdened.

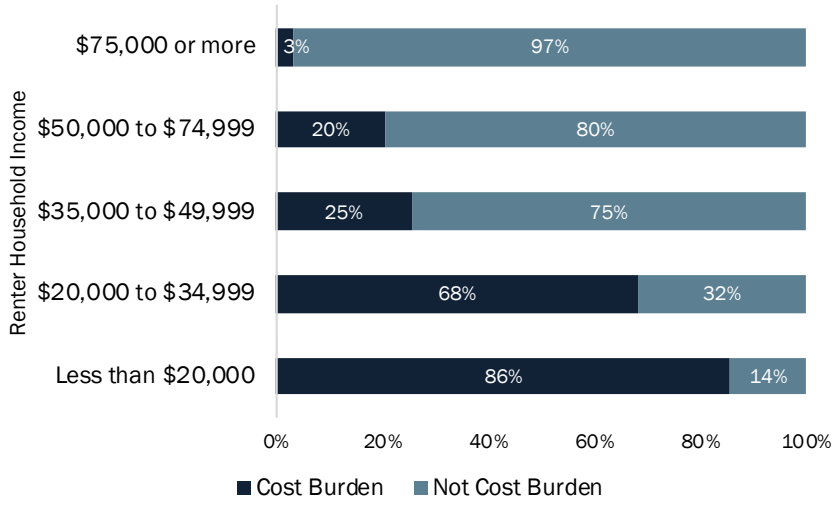
Exhibit 65. Cost Burden Renter Households, McMinnville and Comparison Cities, 2012-2016
Source: U.S. Census Bureau, 2012-2016 ACS Table B25070.



Households with incomes less than $35,000 experience much higher rates of cost burden than higher income households.

Eighty-six percent of households, making less than $20,000 per year were cost burdened and 68% of households making between $20,000 and $35,000 were cost burdened.

Exhibit 66. Cost Burden Households by Household Income, McMinnville, 2013-2017
Source: U.S. Census Bureau, 2013-2017 ACS Table B25074.



While cost burden is a common measure of housing affordability, it does have some limitations. Two important limitations are:

- A household is defined as cost burdened if the housing costs exceed 30% of their income, regardless of actual income. The remaining 70% of income is expected to be spent on non-discretionary expenses, such as food or medical care, and on discretionary expenses. Households with higher incomes may be able to pay more than 30% of their income on housing without impacting the household's ability to pay for necessary non-discretionary expenses. Thus, some households with higher incomes may choose housing that technically results in cost burden, even if other housing options are available that would not result in cost burden.
- Cost burden compares income to housing costs and does not account for accumulated wealth. As a result, the estimate of how much a household can afford to pay for housing does not include the impact of a household's accumulated wealth. For example, a household with retired people may have relatively low income but may have accumulated assets (such as profits from selling another house) that allow them to purchase a house that would be considered unaffordable to them based on their household income.

Another way of exploring the issue of financial need is to review housing affordability at varying levels of household income.

Fair Market Rent for a 2-bedroom apartment in Yamhill County is $1,330

Exhibit 67. HUD Fair Market Rent (FMR) by Unit Type, Yamhill County, 2018
Source: U.S. Department of Housing and Urban Development.

$1,026	$1,132	$1,330	$1,935	$2,343
Studio	1-Bedroom	2-Bedroom	3-Bedroom	4-Bedroom

A household must earn at least $25.58 per hour to afford a two-bedroom unit in Yamhill County.

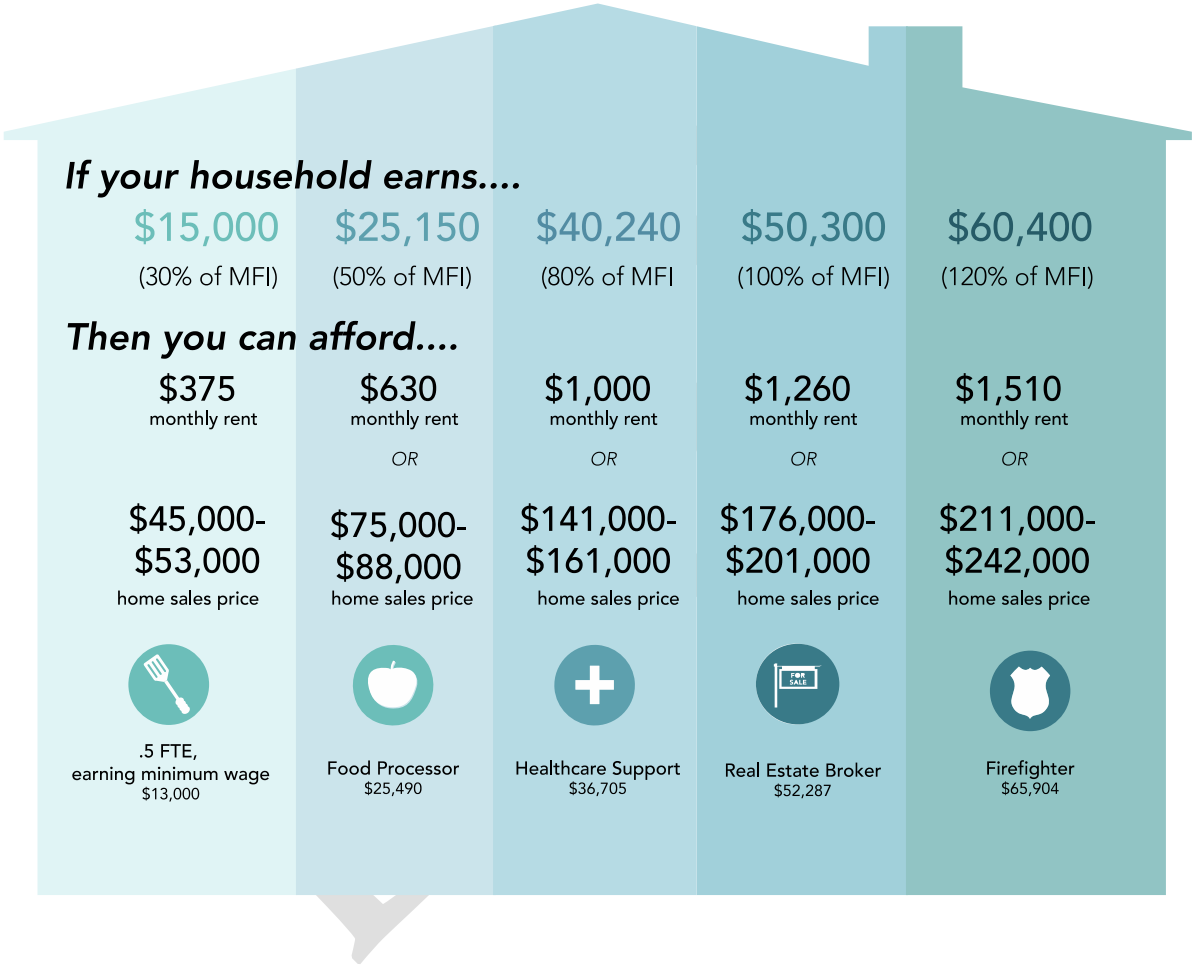
Exhibit 68. Affordable Housing Wage, Yamhill County, 2018
Source: U.S. Department of Housing and Urban Development; Oregon Bureau of Labor and Industries.

$25.58/hour
Affordable Housing Wage for two-bedroom Unit in Yamhill County

A household earning median household income ($50,300) can afford a monthly rent of about $1,260 or a home roughly valued between $176,000 and $201,000, as illustrated in Exhibit 69. A family earning median family income ($58,620) can afford a monthly rent of about $1,470 or a home roughly valued between $205,000 and $234,000.

Exhibit 69. Financially Attainable Housing, by Median Household Income (MHI) McMinnville ($50,300), McMinnville, 2017

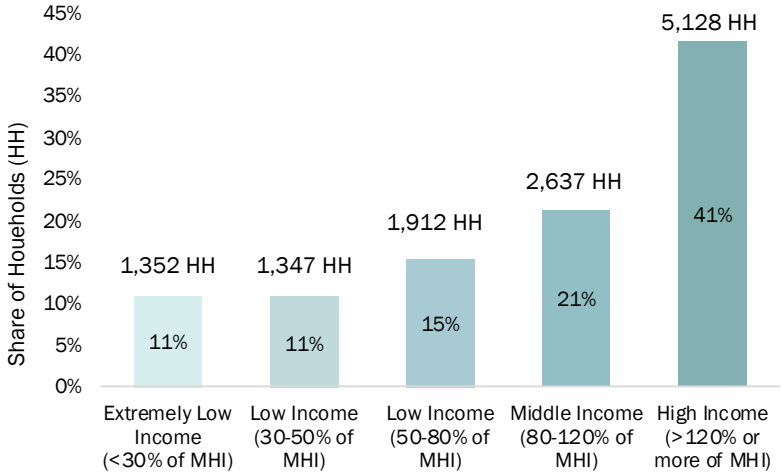
Source: U.S. Census Bureau, 2013-2017 ACS Table B25119.



About 52% of McMinnville's households have incomes less than $53,200 and cannot afford a two-bedroom apartment at Yamhill County's Fair Market Rent (FMR) of $1,330.

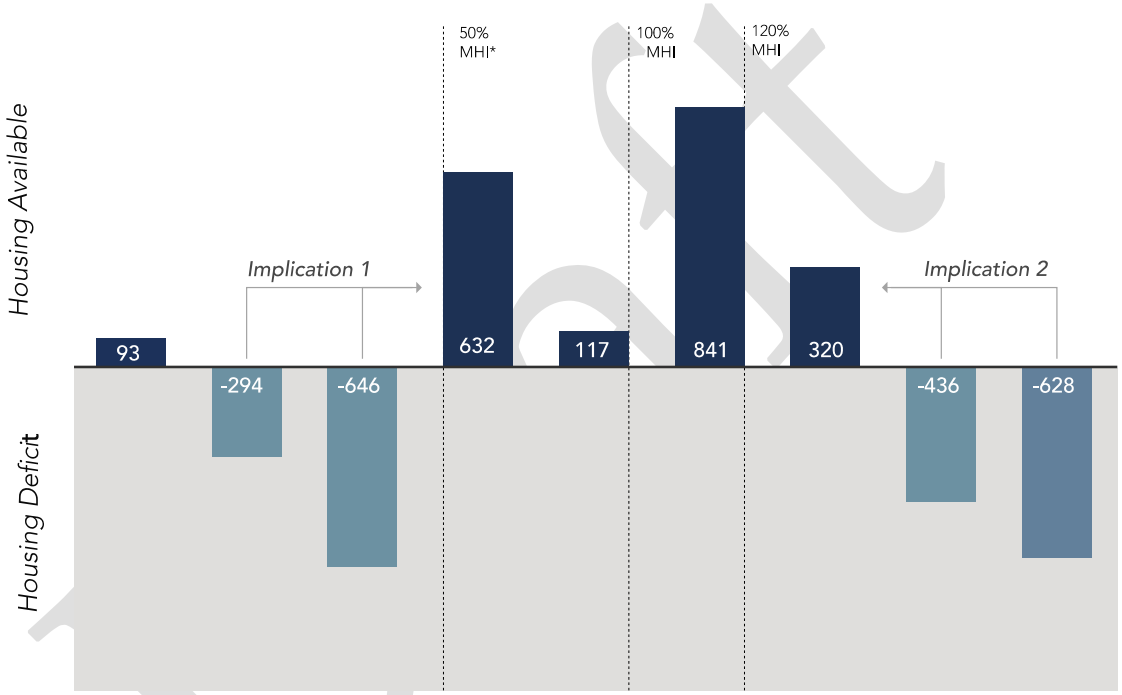
Exhibit 70. Share of Households, by Median Household Income (MHI) for McMinnville ($50,300), McMinnville, 2017

Source: U.S. Census Bureau, 2013-2017 ACS Table 19001 and B25119.



Comparing the number of households by income with the number of units affordable to those households in McMinnville reflects a current deficit of housing affordable to households earning between $10,000 and $25,000 annually and households earning $100,000 annually or more. The housing types that McMinnville has a deficit of are government-assisted housing (of all types); more affordable housing types (such as manufactured housing in parks and lots, small-homes, duplexes, tri- and quad-plexes, small-lot, and apartments); and housing types of higher values (such as high-amenity or executive housing).

Exhibit 71. Affordable Housing Costs and Units by Income Level, McMinnville, 2017
Source: U.S. Census Bureau, 2012-2016, ACS Table B19001, B25075, and B25063



Household income	Less than $10,000	$10,000–$14,999	$15,000–$24,999	$25,000–$34,999	$35,000–$49,999	$50,000–$74,999	$75,000–$99,999	$100,000–$149,999	$150,000 or more
# Households	709	630	1,339	1,233	2,243	2,281	1,646	1,460	835
# Surplus / Deficit Units	93	-294	-646	632	117	841	320	-436	-628
% Surplus / Deficit Units	13%	-47%	-48%	51%	5%	37%	19%	-30%	-75%

*ACS 2013-2017 five-year estimates, table S1903.

Implication 1
Some lower-incomer households live in housing that is more expensive than they can afford because affordable housing is not available. These households are cost-burdened.

Implication 2
Some higher-income households choose housing that costs less than they can afford. This may be the result of the household's preference or it may be the result of lack of higher-cost and higher-amenity housing that would better suit their preferences.

Summary of the Factors Affecting McMinnville's Housing Needs

The purpose of the analysis thus far has been to provide background on the kinds of factors that influence housing choice, and in doing so, to convey why the number and interrelationships among those factors ensure that generalizations about housing choice are difficult to make and prone to inaccuracies.

There is no question that age affects housing type and tenure. Mobility is substantially higher for people aged 20 to 34. People in that age group will also have, on average, less income than people who are older. These factors mean that younger households are much more likely to be renters, and renters are more likely to be in multifamily housing (58% in McMinnville).

The data conveys what more detailed research has shown and what most people understand intuitively: life cycle and housing choice interact in ways that are predictable in the aggregate; age of the household head is correlated with household size and income; household size and age of household head affect housing preferences; income affects the ability of a household to afford a preferred housing type. The connection between socioeconomic and demographic factors and housing choice is often described informally by giving names to households with certain combinations of characteristics: the "traditional family," the "never-marrieds," the "dinks" (dual-income, no kids), the "empty-nesters."[45] Simply looking at the long wave of demographic trends can provide good information for estimating future housing demand.

Thus, one is ultimately left with the need to make a qualitative assessment of the future housing market. The following is a discussion of how demographic and housing trends are likely to affect housing in McMinnville over the next 20 years:

- **Growth in housing will be driven by growth in population.** Between 1990 and 2017 McMinnville's population grew by 15,771 people or 88%. The population in McMinnville's UGB is forecast to grow from 36,238 (in 2021) to 47,498 (in 2041), an increase of 11,260 people (31%).[46]
- **Housing affordability will be a growing challenge in McMinnville.** Housing affordability is a challenge in Oregon in general, and McMinnville is affected by this statewide trend. Housing prices are increasing faster than incomes in McMinnville and Yamhill County, consistent with state and national challenges. While 23% of McMinnville housing is multifamily housing, the county has a relatively small supply of multi-family housing (15%) which constrains the supply of affordable housing for the region – affecting the city.[47] For instance, over half of renters in McMinnville are cost

[45] See *Planning for Residential Growth: A Workbook for Oregon's Urban Areas* (June 1997).

[46] This forecast is based on McMinnville's official forecast from the Oregon Population Forecast Program for the 2021 to 2041 period.

[47] The share of multifamily housing stock is driven by demographics and market factors. Often, as the population within cities increases, the share of single-family detached housing decreases.

burdened indicative of a lack of affordable rental units, such as multifamily and other housing types, such as single-family detached and single-family attached dwelling units. McMinnville's key challenge over the next 20 years is providing opportunities for development of housing of all types and across the affordability spectrum, but particularly for more affordable housing types, of which developers may be less incentivized to develop.

- **Without substantial changes in housing policy (at all levels of government), on average, future housing will look a lot like past housing.** That is the assumption that underlies any trend forecast, and one that allows some quantification of the composition of demand for new housing.

  The City's residential policies can impact the amount of change in McMinnville's housing market, to some degree. If the City adopts policies to increase opportunities to build housing types which are affordable to low- and moderate-income households, a larger percentage of new housing developed over the next 20 years in McMinnville may be relatively affordable, compared to the past.

  Examples of policies that the City could adopt to achieve this outcome include: allowing a wider range of housing types (e.g., duplex, tri-plexes, townhouses, cottage clusters, or single-lot small-home subdivisions) in single-family zones to promote inclusivity and equity, ensuring that there is sufficient land zoned to allow single-family attached and multifamily housing and other innovative affordable housing development, supporting development of government-subsidized affordable housing, and encouraging multifamily residential development in downtown. Ultimately, the degree of change in McMinnville's housing market, however, will depend on market demand for these types of housing in McMinnville, Yamhill County, and the greater region.

- **If the future differs from the past, and policy changes are prescribed, the future of housing in McMinnville is likely to move in the direction (on average) of smaller units and more diverse housing types.** Most, but not all, of the demographic evidence suggests that the bulk of the change should be in the direction of smaller average house and lot sizes for single-family housing. This includes providing opportunities for development of smaller single-family detached homes, townhomes, and multifamily housing.

  Key demographic and economic trends that will affect McMinnville's future housing needs are: (1) the aging of the Baby Boomers, (2) aging of the Millennials, and (3) continued growth in Hispanic and Latino population.

  - *The Baby Boomer's population is continuing to age.* By 2041, people 60 years and older will account for about 28% of the population in McMinnville (up from 23% in 2017). The changes that affect McMinnville's housing demand as the population ages are that household sizes and homeownership rates decrease. The majority of Baby Boomers are expected to remain in their homes as long as possible, downsizing or moving when illness or other issues cause them to move. With Boomer debt "reaching $5.3 trillion by 2030… many retirees may [also] downsize their homes to pay off debt and boost retirement savings," which will

open up housing opportunities for Gen X and Millennials.[48] Demand for specialized senior housing may grow in McMinnville, such as housing that is visitable, age-restricted housing, and housing in a continuum of care (from independent living to nursing home care).

- *Millennials will continue to age.* By 2041, Millennials will be roughly between about 41 years old to 61 years old. As they age, generally speaking, their household sizes will increase, and homeownership rates will peak by about age 55. Between 2021 and 2041, Millennials will be a key driver in demand for housing for families with children. The ability to retain Millennials will depend on availability of affordable renter and ownership housing. The decline in homeownership among the Millennial generation has more to do with financial barriers rather than the preference to rent.[49]

- *Hispanic and Latino population will continue to grow.* The U.S. Census projects that by about 2041, Hispanic and Latino population will account for about one-quarter of the nation's population. The share of Hispanic and Latino population in the western U.S. is likely to be higher. Hispanic and Latino population currently accounts for about 22% of McMinnville's population. In addition, the Hispanic and Latino population is generally younger than the U.S. average, with many Hispanic and Latino people belonging to the Millennial generation.

  Hispanic and Latino population growth will be an important driver in growth of housing demand, both for owner- and renter-occupied housing. Growth in Hispanic and Latino population will drive demand for larger housing for families with children. Given the lower income for Hispanic and Latino households, especially first-generation immigrants, growth in this group will also drive demand for affordable housing, both for ownership and renting. [50]

In summary, an aging population, increasing housing costs (although lower than the Region), housing affordability concerns for Millennials and the Hispanic and Latino populations, and other variables are factors that support the conclusion of need for a broader array of housing choices than are available today. Growth of seniors will drive

[48] Srinivas, Val and Goradia, Urval (2015). The future of wealth in the United States, Deloitte Insights. https://www2.deloitte.com/insights/us/en/industry/investment-management/us-generational-wealth-trends.html

[49] Ibid.

[50] The following articles describe housing preferences and household income trends for Hispanic and Latino families, including differences in income levels for first, second, and third generation households. In short, Hispanic and Latino households have lower median income than the national averages. First and second generation Hispanic and Latino households have median incomes below the average for all Hispanic and Latino households. Hispanic and Latino households have a strong preference for homeownership, but availability of mortgages and availability of affordable housing are key barriers to homeownership for this group.

Pew Research Center. *Second-Generation Americans: A Portrait of the Adult Children of Immigrants*, February 7, 2012.

National Association of Hispanic Real Estate Professionals. *2014 State of Hispanic Homeownership Report*, 2014.

demand for smaller single-family detached housing and townhomes as well as multifamily rentals, age-restricted housing, and assisted-living facilities. Growth in Millennials and Hispanic and Latino populations will drive demand for smaller and larger affordable housing types, including demand for single-family units (many of which may be ownership units) and for multifamily units (many of which may be rental units). Growth in Hispanic and Latino populations and the aging of the Baby Boomer generation will increase demand for multigenerational housing. McMinnville's share of households (41%) earning more than 120% of Median Household Income will increase demand for high-amenity housing or all types.

- **No amount of analysis is likely to make the distant future completely certain: the purpose of the housing forecasting in this study is to get an approximate idea about the future so policy choices can be made today.** Economic forecasters regard any economic forecast more than three (or at most five) years out as highly speculative. At one year, one is protected from being disastrously wrong by the sheer inertia of the economic machine. But a variety of factors or events could cause growth forecasts to be substantially different.

5. Housing Need in McMinnville

This chapter analyzes housing needs in McMinnville for the next 5, 10, 20, and 46 years. Much of the emphasis is on the 20-year forecast as it is required by Goal 10. The analysis also provides projections of housing by type and density (as indicated by zoning district). Depending on development configurations and character ~~a~~ of McMinnville's neighborhoods, different areas of the city may have distinct or dissimilar housing types and densities. The aggregate total density is used in this analysis, as well as densities that correspond to current zoning classifications.

Project New Housing Units Needed in the Next 5, 10, 20, and 46 Years

The results of the housing needs analysis are based on: (1) the official population forecast for growth in McMinnville over the 5-, 10-, 20- and 46-year planning periods, (2) information about McMinnville's housing market relative to Yamhill County and nearby and comparison cities, and (3) the demographic composition of McMinnville's existing population and expected long-term changes in the demographics of Yamhill County.

Projection for Housing Growth

This section describes the key assumptions and presents an estimate of new housing units needed in McMinnville between 2021 and 2041, shown in Exhibit 72. The key assumptions are based on the best available data and may rely on safe harbor provisions (or safe harbor methodologies), when available.[51]

- **Population.** A 20-year population forecast (in this instance, 2021 to 2041) is the foundation for estimating needed new dwelling units. McMinnville's urban area will grow from 36,238 persons in 2021 to 47,498 persons in 2041, an increase of 11,260 people.[52]
- **Persons in Group Quarters.** Typically, p~~P~~ersons in group quarters do not consume standard housing units: thus, any forecast of new people in group quarters is typically derived from the population forecast for the purpose of estimating housing demand. Group quarters can have a big influence on housing in cities with colleges (dorms), prisons, or a large elderly population (nursing homes). In general, any new requirements for these housing types will be met by institutions (colleges,

[51] A safe harbor is an assumption that a city can use in a housing needs analysis that the State has said will satisfy the requirements of Goal 14. OAR 660-024 defines a safe harbor as "… an optional course of action that a local government may use to satisfy a requirement of Goal 14. Use of a safe harbor prescribed in this division will satisfy the requirement for which it is prescribed. A safe harbor is not the only way, or necessarily the preferred way, to comply with a requirement and it is not intended to interpret the requirement for any purpose other than applying a safe harbor within this division."

[52] This forecast is based on McMinnville's official forecast from the Oregon Population Forecast Program for the 2021 to 2041 period.

government agencies, health-care corporations) operating outside what is typically defined as the housing market. Nonetheless, group quarters require residential land. They are typically built at densities that are comparable to that of multiple-family dwellings.

The 2013-2017 American Community Survey shows that 5% of McMinnville's population was in group quarters. However, the population in group quarters, in total number, has declined over the last decade. City of McMinnville staff and the Project Advisory Committee considered three options[53] to address the population in group quarters. Staff recommended, and the majority of the Project Advisory Committee agreed, that for the purpose of this analysis, **we assume that group quarters will be met through the same land needs as the net new population without allocating housing to group quarters separately (option 3).** This assumption does not mean that we are assuming zero group quarters for the planning periods. ~~**For the 2021 to 2041 period, we assume that 5% of new population, 564 people, will be in group quarters.**~~

~~A final note on persons in group quarters: persons in group quarters require land. While the DLCD Workbook backs this component of the population out of total population that needs housing, it does not otherwise make accommodations for land demand for new group quarters.~~

~~For the purpose of this analysis, **we assume that persons in group quarters require land at approximately the same density as multifamily housing.**~~

- **Household Size.** OAR 660-024 established a safe harbor assumption for average household size—which is the figure from the most-recent decennial Census at the time of the analysis. According to the 2013-2017 American Community Survey, the average household size in McMinnville was 2.55 people. **Thus, for the 2021 to 2041 period, we assume an average household size of 2.55 persons.**
- **Vacancy Rate.** The Census defines vacancy as: "Unoccupied housing units are considered vacant. Vacancy status is determined by the terms under which the unit may be occupied, e.g., for rent, for sale, or for seasonal use only." The Census

[53] **Option 1:** Use the "Share Method," then assign one person per group quarter, and assign group quarters to land need at the same density as multi-family development.

Option 2a: Use the "Share Method," then assign an analogous "household size", and then apply that to population to calculate land needs. Two Project Advisory Committee members requested this method instead of Option 1.

Option 2b: Use the "Share Method," then assign a direct group quarters population per acre estimate. This method directly assigns population density for group quarters rather than rely on use of an interim assignment step analogous to "household size."

Option 3: Do not use the "Share Method." Instead, use assumptions and methods, based on McMinnville-specific group quarters data and PSU's official population forecast for McMinnville. Ultimately, this option assigns all new net population growth to housing units. This method assumes population in group quarters at Linfield and the jail will remain relatively constant. Population in other group quarters represents less than 1% of current population. Group quarters has also remained relatively constant and has not experienced a consistent growth trend in recent years. The group quarters population segment represents a declining share of overall population. Housing for this population is assumed to be met through the same land needs as the total net, new population.

determines vacancy status and other characteristics of vacant units by enumerators obtaining information from property owners and managers, neighbors, rental agents, and others.

Vacancy rates are cyclical and represent the lag between demand and the market's response to demand for additional dwelling units. Vacancy rates for rental and multifamily units are typically higher than those for owner-occupied and single-family dwelling units.

OAR 660-024 established a safe harbor assumption for vacancy rate—which is the figure from the most-recent Census. According to the 2013-2017 American Community Survey, McMinnville's vacancy rate was 5.4%. **For the 2021 to 2041 period, we assume a vacancy rate of 5.4%.**

McMinnville will need 4,~~424~~ 657 new dwelling units over the 20-year period from 2021 to 2041, or an average of ~~211~~ 233 dwelling units annually.

Exhibit 72. Forecast of demand for new dwelling units, McMinnville UGB, 2021 to 2041
Source: Calculations by ECONorthwest

Variable	New Dwelling Units (2021-2041)
Change in persons	11,260
minus Change in persons in group quarters	564
equals Persons in households	10,696
Average household size	2.55
New occupied DU	4,195
times Aggregate vacancy rate	5.4%
equals Vacant dwelling units	229
Total new dwelling units (2021-2041)	**4,424**
Annual average of new dwelling units	**221**

Variable	New Dwelling Units (2021-2041)
Change in persons	11,260
Average household size	2.55
New occupied DU	4,416
times Aggregate vacancy rate	5.4%
equals Vacant dwelling units	241
Total new dwelling units (2021-2041)	**4,657**
Annual average of new dwelling units	**233**

Exhibit 73 presents McMinnville's forecast of demand for new dwelling units over McMinnville's other various planning horizons. It shows that McMinnville will have demand for about 1,~~079~~ 136 new dwelling units for the 5-year between 2021 and 2026, and another 1,~~111~~ 169 new dwelling between 2026 and 2031 (totaling 2,305 for the 10-year period). McMinnville will have demand for approximately 10,~~435~~ 986 new dwelling units for the 46-year between 2021 and 2067.

Exhibit 73. Forecast of demand for new dwelling units in 5, 10, 20, and 46 years, McMinnville UGB, 2021-2026, 2021-2031, 2021-2041, and 2021-2067

Source: Calculations by ECONorthwest

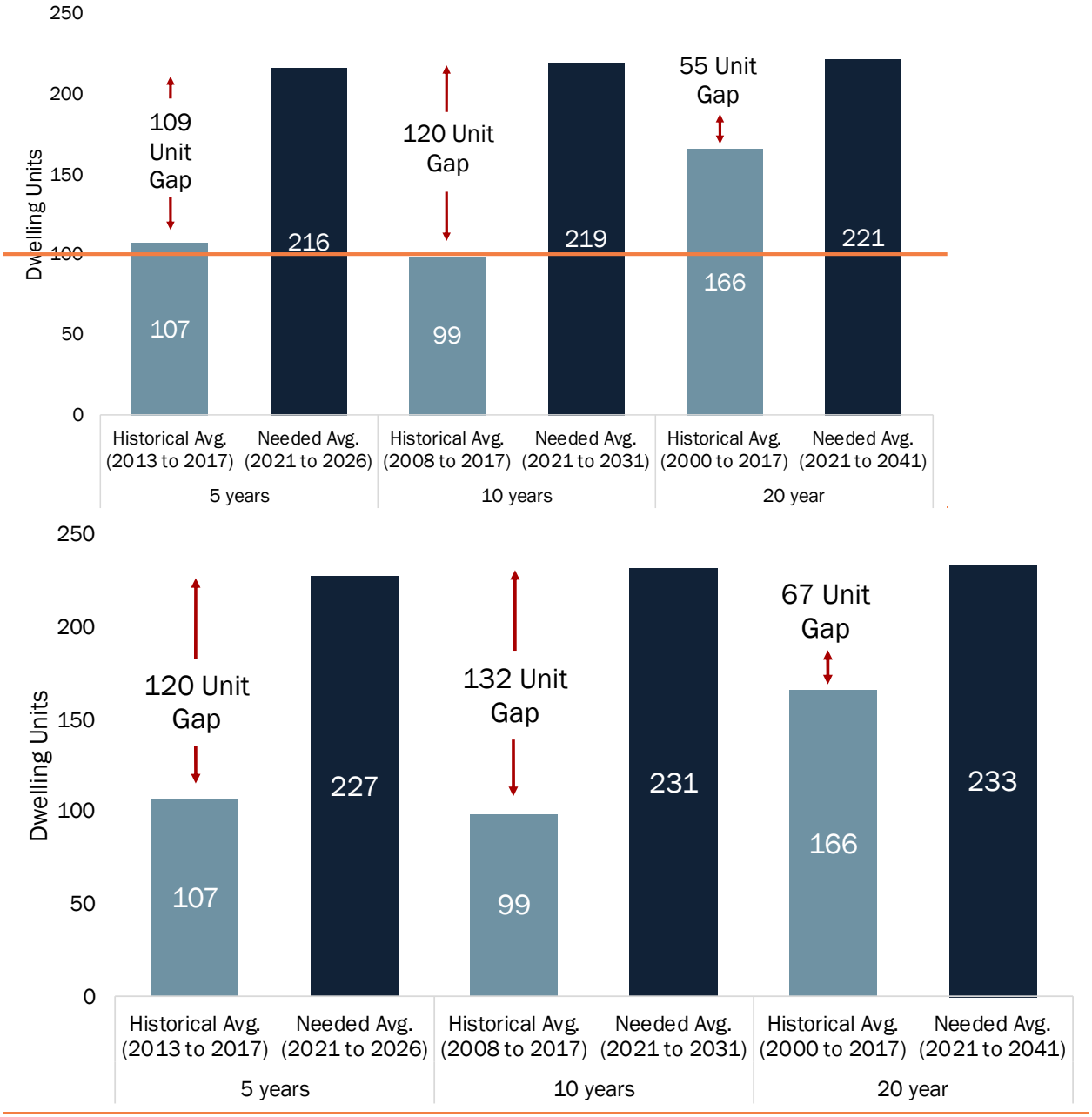
Variable	New Dwelling Units			
	5-Year (2021 to 2026)	10-Year (2021 to 2031)	20-Year (2021 to 2041)	46-Year (2021 to 2067)
Change in persons	2,746	5,575	11,260	26,565
Average household size	2.55	2.55	2.55	2.55
New occupied DU	1,077	2,186	4,416	10,418
times Aggregate vacancy rate	5.4%	5.4%	5.4%	5.4%
equals Vacant dwelling units	59	119	241	568
Total new dwelling units	**1,136**	**2,305**	**4,657**	**10,986**
Annual average of new dwelling units	**227**	**231**	**233**	**234**

Variable	New Dwelling Units			
	5-Year (2021 to 2026)	10-Year (2021 to 2031)	20-Year (2021 to 2041)	46-Year (2021 to 2067)
Change in persons	2,746	5,575	11,260	26,565
minus Change in persons in group quarters	138	279	564	1,330
equals Persons in households	2,608	5,296	10,696	25,235
Average household size	2.55	2.55	2.55	2.55
New occupied DU	1,023	2,077	4,195	9,896
times Aggregate vacancy rate	5.4%	5.4%	5.4%	5.4%
equals Vacant dwelling units	56	113	229	539
Total new dwelling units (2021-2041)	**1,079**	**2,190**	**4,424**	**10,435**
Annual average of new dwelling units	**216**	**219**	**221**	**222**

As illustrated in Exhibit 74, if production of housing in McMinnville follows historic trends, the market will not produce enough housing to meet all of McMinnville's projected housing needs.

Exhibit 74. Comparison of Historical Production and Future Demand for Housing, McMinnville, 2000-2017 and 2021-2041

Source: City of McMinnville permit database. Calculations by ECONorthwest.



Projection for Housing Growth Before 2021

McMinnville's 20-year planning horizon begins in 2021, resulting in an interim period during which time McMinnville will have additional population growth, new residential development, and consumption of buildable land. McMinnville's housing strategy will address these shorter-term needs and the land sufficiency analysis will reflect the additional land consumed between 2018 and 2021.

The Portland State University population forecast shows growth of about 1,480 people between 2018 and 2021, resulting in a need for ~~581~~ 612 new dwelling units.[54] The population locating in McMinnville between 2018 and 2021 are considered part of the "existing population~~,~~" for the 2021 to 2041 20-year planning period, which does not need to be added into the population forecast for 2021 to 2041. Buildable land required to accommodate these units is deducted from the BLI and presented in Chapter 6.

McMinnville will have demand for ~~581~~ 612 new dwelling units between 2018 and 2021.

Exhibit 75. Forecast of demand for new dwelling units, McMinnville UGB, 2018 to 2021
Source. Calculations by ECONorthwest.

Variable	New Dwelling Units (2018-2021)
Change in persons	1,480
minus Change in persons in group quarters	74
~~*equals* Persons in households~~	~~1,406~~
Average household size	2.55
New occupied DU	551
times Aggregate vacancy rate	5.4%
equals Vacant dwelling units	30
Total new dwelling units (2018-2021)	**581**

Variable	New Dwelling Units (2018-2021)
Change in persons	1,480
Average household size	2.55
New occupied DU	580
times Aggregate vacancy rate	5.4%
equals Vacant dwelling units	32
Total new dwelling units (2018-2021)	**612**

Projection for Housing Growth by Housing Type

This section describes the factors that influenced the assumptions for the housing forecast. It also presents the housing forecast by housing type. Appendix B outlines the scenario models, presented to the Project Advisory Committee, which informed the committee's recommendation for housing mix (a core assumption for the housing forecast).

[54] According to the Portland State University's Population Research Center, McMinnville UGB had 34,293 people in 2017. ECONorthwest extrapolated the population in 2017 to 34,758 persons in 2018. McMinnville UGB forecasted population in 2021 is 36,238 people (Exhibit 29), resulting in 1,480 new persons between 2018 and 2021. Using the assumptions presented in Exhibit 75, McMinnville will have demand for approximately ~~581~~ 612 new dwelling units between 2018 and 2021.

Factors Influencing the Needed Mix and Density Determination

With a population over 25,000, McMinnville is subject to the provisions of ORS 197.296(1)-(9). Goal 10 requires cities to make a "housing need projection." OAR 660-008(4) provides the specific guidance:

> (4) "Housing Needs Projection" refers to a local determination, justified in the plan, of the mix of housing types, amounts and densities that will be:
>
> (a) Commensurate with the financial capabilities of present and future area residents of all income levels during the planning period;
> (b) Consistent with any adopted regional housing standards, state statutes and Land Conservation and Development Commission administrative rules; and
> (c) Consistent with Goal 14 requirements.

To make the housing need determination, we use the information presented in the Housing Need Analysis. We use the following definitions to distinguish between housing need and housing market demand, which we believe to be consistent with definitions in state policy:

- *Housing need* can be defined broadly or narrowly. The broad definition is based on the mandate of Goal 10 that requires communities to plan for housing that meets the needs of households at all income levels. Goal 10, though it addresses housing, emphasizes the impacts on the households that need that housing. Since everyone needs shelter, Goal 10 requires that a jurisdiction address, at some level, how every household (and group quarters population) will be affected by the housing market over a 20-year period. In short, housing need is addressed through the local Housing Needs Projection.
- *Housing market demand* is what households demonstrate they are willing and/or able to purchase (own or rent) in the market place. Growth in population means growth in the number of households and implies an increase in demand for housing units. That demand is met primarily by the construction of new housing units by the private sector based on its judgments about the types of housing that will be absorbed by the market. ORS 197.296 includes a market supply component, called a buildable land needs analysis[55], which must consider the density and mix of housing developed over the previous five years or since their most recent periodic review, whichever is greater. In concept, what got built in that five-year period, or longer, was the *effective demand for new housing of those who can afford to purchase housing in the market*: it is the local equilibrium of demand factors, supply factors, and price.

Cities are required to determine the average density and mix of *needed* housing over the next 20-years (ORS 197.296(7)). McMinnville is using a 2021 to 2041 analysis period. The determination

[55] ORS 197.296 (E) The number, density and average mix of housing types that have occurred on the buildable lands described in subsection (4)(a) of this section.

of needed density and mix over the 2021 to 2041 period must consider the five factors listed in ORS 197.296(5) that may affect future housing need:

> (a) Except as provided in paragraphs (b) and (c) of this subsection, the determination of housing capacity and need pursuant to subsection (3) of this section must be based on data relating to land within the urban growth boundary that has been collected since the last periodic review or five years, whichever is greater. The data shall include:
>
> (A) The number, density and average mix of housing types of urban residential development that have actually occurred;
>
> (B) Trends in density and average mix of housing types of urban residential development;
>
> (C) Demographic and population trends;
>
> (D) Economic trends and cycles; and
>
> (E) The number, density and average mix of housing types that have occurred on the buildable lands described in subsection (4)(a) of this section.

(5)(A)(A) AND (E) AVERAGE DENSITY AND MIX

Subsections (A) and (E) require similar data. Subsection (A) The number, density and average mix of housing types of urban residential development that have actually occurred; while (E) requires the same data but for housing types that have occurred on the buildable lands. The density and mix analysis presented in Chapter 3 of this report is intended to comply with these two requirements. Exhibit 76 shows the average housing mix of units by type for each zone and net density by type for each zone, and overall by zone and type.

Exhibit 76. Historical Average Density and Mix, McMinnville, 2000 through July 2018
Source. City of McMinnville Permit Database.

Plan Designation and Zone	Single-Family Detached		Single-Family Attached		Multifamily		TOTAL	
	Mix of Units	Net Density	Mix of Units	Net Density	Mix of Units	Net Density	Mix of Units	Net Density
Commercial	0%	-	0%	-	33%	31.2	10%	31.2
C-3	0%	-	0%	-	33%	31.2	10%	31.2
Residential	100%	4.8	100%	12.3	67%	16.5	90%	6.0
O-R	0%	-	0%	-	6%	7.6	2%	7.6
R-1	21%	4.0	12%	9.5	0%	-	14%	4.1
R-2	47%	4.8	45%	12.3	23%	18.6	39%	5.8
R-3	5%	5.9	19%	10.6	1%	-	5%	6.8
R-4	27%	5.4	24%	17.6	37%	19.1	30%	7.9
Total	**62%**	**4.8**	**8%**	**12.3**	**31%**	**18.2**	**100%**	**6.6**

(5)(A)(B) TRENDS IN DENSITY AND AVERAGE MIX OF HOUSING TYPES OF URBAN RESIDENTIAL DEVELOPMENT

Housing mix is the mixture of housing (structure) types (e.g., single-family detached, single-family attached, or multifamily) within a city. State law requires a determination of the future housing mix in the community and allows that determination to be based on different periods: (1) the mix of housing built in the past five years or since the most recent periodic review,

whichever time period is greater, (2) a shorter time period if the data will provide more accurate and reliable information, or (3) a longer time period if the data will provide more accurate and reliable information (ORS 197.296).

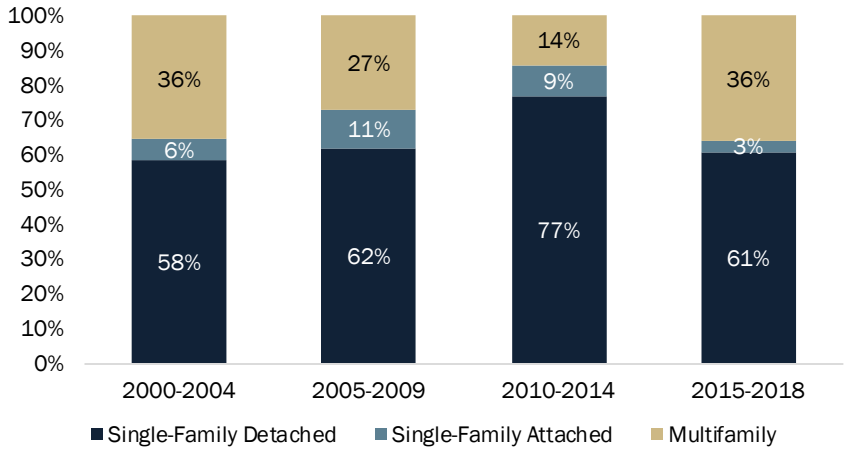
A majority share of new housing built in McMinnville, since 2000, has been single-family detached housing. Since 2015, about 36% of new housing built was multifamily, consistent with trends in the early 2000s. Single-family attached housing has consistently made up a smaller share of new housing built.

Since 2000, single-family detached housing predominated McMinnville's housing market.

Single-family attached housing consistently makes up a smaller share of the housing stock built since 2000.

Exhibit 77. Trends in Housing Mix of New Units, McMinnville, 2000 to July 2018

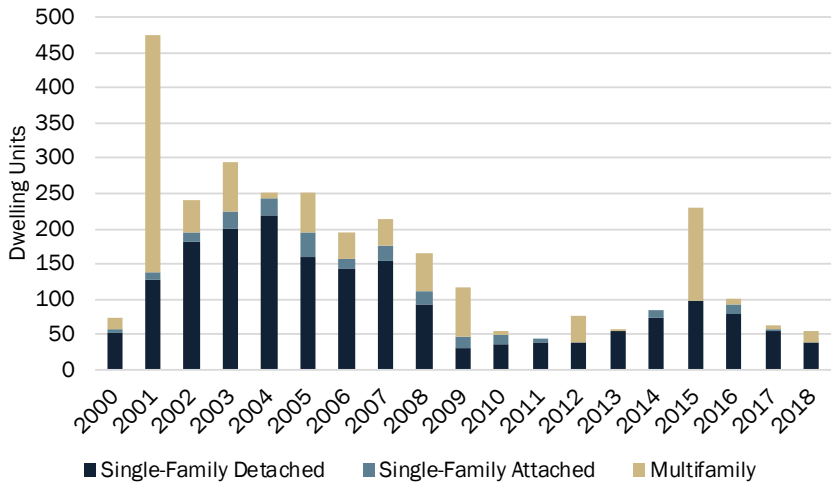
Source: McMinnville Building Permit Database.



Since 2000, 62% of housing permitted in McMinnville was single-family detached, 8% was single-family attached, and 31% was multifamily.

Exhibit 78. Trends in Housing Mix of New Units, McMinnville, 2000 to July 2018

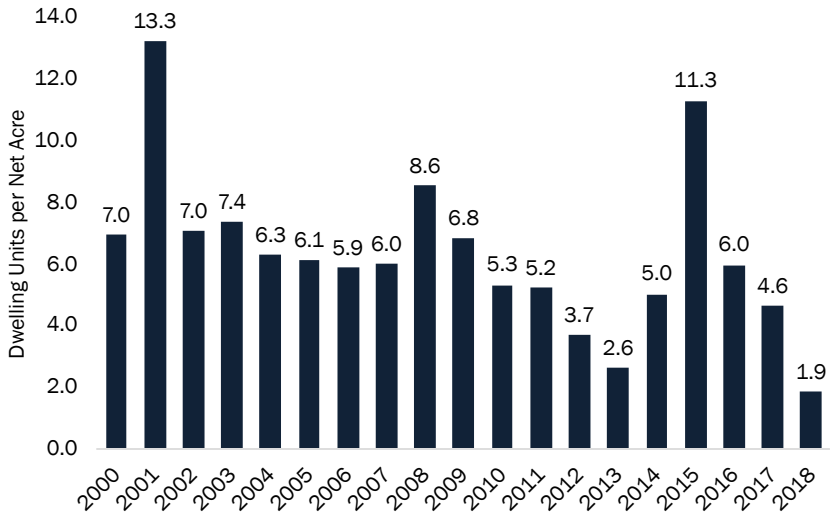
Source: McMinnville Building Permit Database.



Since 2000, McMinnville's average net density was 6.6 dwelling units per net acre.

Exhibit 79. Trends in Net Density of New Units, McMinnville, 2000 to July 2018

Source: McMinnville Building Permit Database. Note: Net density is dwelling units per net acre.



Housing density is the density of residential units by structure type, expressed in dwelling units per net or gross acre. The U.S. Census does not track residential development density, so this study analyzes housing density based on new development between 2000 and July 2018. Consistent with trends observed in other cities, considerable variation exists in residential density from year-to-year. While housing density averaged around 6.6 dwelling units per net acre since 2000, some years show a spike in density of over 10 dwelling units per net acre. In other years, density dipped below five dwelling units per net acre. Density is affected by many factors – housing type, housing mix, lot configurations, etc. With limited annual permitting, one large multifamily project can considerably change annual density findings (such as in 2001 and 2015).

(5)(A)(C) DEMOGRAPHIC AND POPULATION TRENDS

To understand what will influence McMinnville's housing market, it is important to consider demographic and population trends. The following factors will influence needed mix and density in McMinnville's future:

- Population in McMinnville is growing faster than the state and national average since 1990
- Population in McMinnville is aging, and the cohort aged 60+ in Yamhill County will increase by about 56% by 2041
- The share of the population that is Hispanic and Latino is growing faster than county and state averages since 2000. Per the most recent Decennial Census, Latino and Hispanic households were on average 1.5 persons larger
- Overall, average household size is shrinking and the share of 1-person households in McMinnville has increased since 2000

- Median household income and median family income is below county and state median incomes
- While 41% of McMinnville households earn more than 120% of McMinnville's median household income, about 50% of McMinnville households earn less than $50,000 per year, compared to 43% of Yamhill County households
- From 2017 to 2018, point-in-time homelessness increased by 30%
- In the 2016-2017 school year, 3% of students experienced homelessness in Yamhill County
- Approximately 13,500 people work in McMinnville, but 60% of those workers commute into McMinnville from other areas

These trends, coupled with the forecast of new housing in McMinnville's UGB for the 2021 to 2041 period (Exhibit 72), suggests that in the future, the need for new housing developed in McMinnville will include housing that is generally more affordable, with some housing located in walkable areas with access to services. Findings additionally suggest that in the future, McMinnville will need high-amenity housing types for the large share of households earning over 120% of McMinnville's median family income. This assumption is additionally based on the following findings in the previous chapters:

- Demographic changes suggest moderate increases in demand for small-lot, small-home detached single-family housing, attached single-family housing, and multifamily housing. The key demographic trends that will affect McMinnville's future housing needs are: (1) the aging of the Baby Boomers, (2) aging of the Millennials, and (3) continued growth in Hispanic and Latino populations. Growth of these groups has the following implications for housing need in McMinnville:
  - *Baby Boomers.* Growth in the number of seniors will have the biggest impacts on demand for new housing through demand for housing types specific to seniors, such as assisted living facilities or age-restricted developments. These households will make a variety of housing choices, including: remaining in their homes as long as they are able, downsizing to smaller single-family homes (detached and attached) or multifamily units, moving into age-restricted manufactured home parks (if space is available), or moving into group housing (such as assisted living facilities or nursing homes), as their health declines. Minor increases in the share of Baby Boomers who downsize to smaller housing will result in increased demand for smaller detached single-family detached, single-family attached, multifamily housing, and multi-generational housing types like accessory dwelling units. Some Baby Boomers may prefer housing in walkable neighborhoods, with access to services.
  - *Millennials.* Over the next 20-years, Millennial households will continue to grow but their share of the population will stay stable at about 25% of the population. The aging of Millennials will still result in increased demand for both ownership and rental opportunities, with an emphasis on housing that is comparatively

affordable. Some Millennials may prefer to locate in traditional single-family detached housing, others in townhouses or multifamily housing.

- *Hispanic and Latino populations.* Growth in the number of Hispanic and Latino households will result in increased demand for housing of all types, both for ownership and rentals, with an emphasis on housing that is comparatively affordable. Hispanic and Latino households, particularly those that are foreign-born (11% of McMinnville's population as of 2016) are more likely to be larger than average, with more children, and living in multi-generational households. The housing types that are most likely to be affordable to the majority of Hispanic and Latino households are existing lower-cost single-family housing, single-family housing with an accessory dwelling unit, and multifamily housing.

- About 36% of McMinnville's households are cost burdened. Fifty-two percent of McMinnville's renters are cost burdened, compared to 25% of homeowners. These factors indicate that McMinnville needs more affordable housing types, especially for renters. A household earning median household income (about $50,300) could afford a home roughly valued between $176,000 to $201,000, which is below the current 2018 median sales price for single-family housing of about $349,000 in McMinnville.

  McMinnville's share of multifamily housing accounts for about 23% of the city's housing stock. The majority of McMinnville's multifamily buildings are five or more units (73%), indicating few "missing middle" multifamily housing types.

These findings suggest that McMinnville's needed housing mix is for a broader range of housing types than are currently available in McMinnville's housing stock, for both ownership and rent, and across the affordability spectrum. The types of housing that McMinnville will need to provide opportunity for development of over the next 20-years are described above: "traditional" single-family detached housing, smaller single-family detached housing (e.g., cottages or small-lot single-family detached units), manufactured housing, accessory dwelling units, townhouses, duplexes, tri- and quad-plexes, and apartment buildings. McMinnville needs housing across the affordability spectrum from affordable housing (including government-assisted housing) to high-amenity housing.

(5)(A)(D) ECONOMIC TRENDS AND CYCLES

Population growth in Oregon tends to follow economic cycles. Historically, Oregon's economy is more cyclical than the nation's, growing faster than the national economy during expansions, and contracting more rapidly than the nation during recessions. Oregon grew more rapidly than the U.S. in the 1990s (which was generally an expansionary period) but lagged behind the U.S. in the 1980s. Oregon's slow growth in the 1980s was primarily due to the nationwide recession early in the decade. As the nation's economic growth slowed during 2007, Oregon's population growth began to slow.

Despite this, since 1990, McMinnville has grown at an average annual growth rate of 2.4%, faster than the nation, state, and county (1.0%, 1.4%, 1.8%). Migration is the largest component of population growth in McMinnville. From 2000 to 2016, 67% of Yamhill County's new

population (13,477 people) was a result of migration. According to the Joint Center for Housing Studies, immigration, unless affected by macro-politics, will continue to play a role in accelerating growth in the coming years.

Building activity has not picked up since the recession until the past three to five years. McMinnville is experiencing pent up demand for housing, and competition has grown. As a result of increased housing costs and competition, McMinnville is experiencing a decrease in first-time homebuyers due to limited options and competition from wealthier households.

Housing instability is increasing in McMinnville, fueled by an unsteady, low-opportunity employment market. Minimum wage in Oregon, as of 2019, was $11.25 (an annual salary of $23,400 or about 47% of Median Family Income in McMinnville). A household must earn at least $25.58 per hour to afford a two-bedroom unit in Yamhill County at fair market rent. Wages in Oregon remain below the national average, but they are at its highest point relative to the early 1980s. The Office of Economic Analysis reports that new Oregon Employment Department research "shows that median hourly wage increase for Oregon workers since 2014 has been 3.1 percent annually for the past three years."[56] These wage increases are "substantially stronger for the Oregonians who have been continually employed over the last three years."[57]

By the end of 2018, the OEA forecasts 41,700 jobs will be added to Oregon's economy. This is an approximate 2.2% annual growth in total nonfarm employment relative to 2017 levels.[58] The leisure and hospitality, construction, professional and business services, and health services industries are forecasted to account for well over half of the total job growth in Oregon for 2018. Oregon continues to have an advantage in job growth compared to other states, due to its industrial sector and in-migration flow of young workers in search of jobs. This information explains that, as the housing market continues to recover, and as Oregon's economy improves, Oregon will likely see an increase in household formation rates. Yamhill County and McMinnville will be affected by these state trends which will result in continued demand for new houses.

[56] Office of Economic Analysis. Oregon Economic and Revenue Forecast, September 2018. Vol. XXXVIII. Retrieved from: https://www.oregon.gov/das/OEA/Documents/forecast0918.pdf.

[57] *Ibid*.

[58] *Ibid*.

Housing Forecast by Housing Type

The Project Advisory Committee recommended the **Scenario 2** needed housing mix assumption to inform the housing forecast by housing type (see Appendix B for a description of each scenario). The recommendation is presented below. The basis for the determination of needed housing mix in McMinnville is the demographic trends suggesting continued demand for a wider variety of housing types and the following assumptions:

- McMinnville's official forecast for population growth shows that the City will add 11,260 people over the 20-year period. This new population will result in need for 4,~~424~~ 657 new dwelling units over the 20-year period.
- The recommended mix assumption for McMinnville's needed housing mix was **Scenario 2**:
  - **55%** of new housing will be single-family detached, a category which includes manufactured housing, accessory dwelling units, and cottage clusters. In the 2013-2017 period, 68% of McMinnville's total existing housing stock was single-family detached.
  - **12%** of new housing will be single-family attached. In the 2013-2017 period, 9% of McMinnville's total existing housing stock was single-family attached.
  - **33%** of new housing will be multifamily, a category which includes redevelopment. In the 2013-2017 period, 23% of McMinnville's total existing housing stock was multi-family.

McMinnville will have demand for 4,~~424~~ 657 new dwelling units over the 20-year period, 55% of which will be single-family detached housing.

Exhibit 80. Forecast of demand for new dwelling units by type, McMinnville UGB, 2021 to 2041
Source: Calculations by ECONorthwest. Note: DU is dwelling unit.

Variable	Needed Mix
Needed new dwelling units (2021-2041)	4,424
Dwelling units by structure type	
Single-family detached	
Percent single-family detached DU	**55%**
equals Total new single-family detached DU	2,433
Single-family attached	
Percent single-family attached DU	**12%**
equals Total new single-family attached DU	531
Multifamily	
Percent multifamily	**33%**
equals total new multifamily	1,460
Total new dwelling units (2021-2041)	**4,424**

Variable	Needed Mix
Needed new dwelling units (2021-2041)	4,657
Dwelling units by structure type	
Single-family detached	
Percent single-family detached DU	**55%**
equals Total new single-family detached DU	2,561
Single-family attached	
Percent single-family attached DU	**12%**
equals Total new single-family attached DU	559
Multifamily	
Percent multifamily	**33%**
equals total new multifamily	1,537
Total new dwelling units (2021-2041)	**4,657**

This analysis accounts for units accommodated through infill and redevelopment of land classified as "developed." Assumptions are documented below in Exhibit 81, Exhibit 85, and Exhibit 88. Results are presented in Exhibit 82, Exhibit 83, Exhibit 86, and Exhibit 89.

- **Infill and Redevelopment.** Infill (which includes accessory dwelling units) and redevelopment is development that occurs on fully developed lots; the property owner may add additional units to the property or demolish the dwelling unit(s) that are already in place to build one or more units on the property. The McMinnville Project Advisory Committee recommended assumption for infill and redevelopment is 8%~~, which results in 354 new units~~. **For the 2021 to 2041 period, we assume 8% of new housing will be ~~from~~ accommodated through infill and**

redevelopment., This results in 354 373 units that will be accommodated through infill and redevelopment.

Over the 20-year period, McMinnville will accommodate 354 373 needed units through infill and redevelopment (approximately 18 19 units per year).

Exhibit 81. Forecast of demand for ~~accessory dwelling units~~ infill and redevelopment, McMinnville UGB, 2021 to 2041
Source: Calculations by ECONorthwest.

Variable	New Dwelling Units ~~(2021-2041)~~
New units accomodated through infill and redevelopment	354
Subset of total new dwelling units (2021-2041)	**354**

Variable	New Dwelling Units (2021-2041)
New units accomodated through infill and redevelopment	373
Subset of total new dwelling units (2021-2041)	**373**

Over the 20-year period, McMinnville will accommodate 354 373 needed new units through infill (including accessory dwelling units) and redevelopment.

This results in McMinnville having demand for 4,070 284 new dwellings units on *vacant or partially vacant land.*

Exhibit 82. Forecast of demand for new dwelling units on vacant and partially vacant lands, McMinnville UGB, 2021 to 2041
Source: Calculations by ECONorthwest. Note: DU is dwelling unit.

Variable	Needed Mix
DUs Accomodated by Infill or Redevelopment	
Single-family detached	37
Single-family attached	
Multifamily	335
Total Units in Infill or Redevelopment	**373**
DUs Requiring Vacant / Partially Vacant Unconstrained Land	
Single-family detached	2,524
Single-family attached	559
Multifamily	1,202
Total DUs Requiring Vacant or Partially Vacant Land	**4,284**

Variable	Needed Mix
DUs Accomodated by Infill or Redevelopment	
Single-family detached	35
Single-family attached	
Multifamily	319
Total Units in Infill or Redevelopment	**354**
DUs Requiring Vacant / Partially Vacant Unconstrained Land	
Single-family detached	2,398
Single-family attached	531
Multifamily	1,141
Total DUs Requiring Vacant or Partially Vacant Land	**4,070**

To summarize Exhibit 80, Exhibit 81 and Exhibit 82, McMinnville will have demand for 4,424 657 new dwelling units over the 20-year period. Of these 4,424 657 dwelling units, 2,433 561

dwelling units are forecast to be single-family detached housing and 1,~~460~~ 537 are forecast to be multifamily housing (see Exhibit 80). After accounting for the ~~354~~ 373 forecasted units accommodated by infill and redevelopment (Exhibit 81), McMinnville will have demand for 2,~~398~~ 524 single-family detached units on *vacant or partially vacant land* and 1,~~141~~ 202 multifamily units on *vacant or partially vacant land* (Exhibit 82). Exhibit 83 presents a summary.

Exhibit 83. Summary of resulting mix of units on vacant and partially vacant land, McMinnville UGB, 2021 to 2041

Source: Calculations by ECONorthwest.

Housing Type	Total Needed Dwelling Units		Dwelling Units Accomodated by			Dwelling Units Requiring Vacant /		
	#	%	#	% of Total Needed Units	% of Infill / Redeveloped Units	#	% of Total Needed Units	% of Units of V / PV Land
Single-Family Detached	2,561	55%	37	1%	10%	2,524	54%	59%
Single-Family Attached	559	12%	-	0%	0%	559	12%	13%
Multifamily	1,537	33%	335	7%	90%	1,202	26%	28%
Total	**4,657**	**100%**	**373**	**8%**	**100%**	**4,284**	**92%**	**100%**

Redevelopment typically involves replacement of one or more units with a larger number of units. Multifamily is a reasonable assumption for redevelopment as it matches historical redevelopment trends in McMinnville. Redevelopment has historically not occurred as single-family attached housing in McMinnville. Infill, which includes accessory dwelling units (ADUs), may be attached or detached, but they have characteristics of multi-family housing. ADUs do not have separate fee simple ownership – ownership is not separate from the primary dwelling unit – similar to a duplex or other multi-family housing product. Single-family detached infill is likely to entail small partitions of small lots classified as developed with limited remaining capacity based on zoning.

Subsequent exhibits of the report (the allocation models in Exhibit 93 through Exhibit 96) reflect the summary adjustments illustrated in Exhibit 83. Accordingly, the needed mix for new dwelling units is 55% single-family detached housing, 12% single-family attached housing, and 33% multifamily housing. However, once dwelling units accommodated by infill / redevelopment are removed, the adjusted housing mix for housing requiring vacant / partially vacant land is 59% single-family detached housing, 13% single-family attached housing, and 28% multifamily housing.

Exhibit 87 though Exhibit 89 replicates the forecast of demand for new dwelling units (including infill/redevelopment) for housing demand in the 5, 10, 20, and 46-year planning horizons.

Exhibit 90 through Exhibit 92 replicates the forecast for demand for new dwelling units (including infill/redevelopment) for housing growth between 2018 and 2021.

Exhibit 84. Forecast of demand for new dwelling units by type in 5, 10, 20, and 46 years, McMinnville UGB, 2021-2026, 2021-2031, 2021-2041, and 2021-2067

Source: Calculations by ECONorthwest

Variable	New Dwelling Units by Type			
	5-Year (2021 to 2026)	10-Year (2021 to 2031)	20-Year (2021 to 2041)	46-Year (2021 to 2067)
Needed new dwelling units	1,079	2,190	4,424	10,435
Dwelling units by structure type				
Single-family detached				
Percent single-family detached DU	55%	55%	55%	55%
equals Total new single-family detached DU	593	1,205	2,433	5,739
Single-family attached				
Percent single-family attached DU	12%	12%	12%	12%
equals Total new single-family attached DU	129	263	531	1,252
Multifamily				
Percent multifamily	33%	33%	33%	33%
Total new multifamily	356	723	1,460	3,444
equals Total new dwelling units	**1,078**	**2,191**	**4,424**	**10,435**

Variable	New Dwelling Units by Type			
	5-Year (2021 to 2026)	10-Year (2021 to 2031)	20-Year (2021 to 2041)	46-Year (2021 to 2067)
Needed new dwelling units	1,136	2,305	4,657	10,986
Dwelling units by structure type				
Single-family detached				
Percent single-family detached DU	55%	55%	55%	55%
equals Total new single-family detached DU	626	1,268	2,561	6,042
Single-family attached				
Percent single-family attached DU	12%	12%	12%	12%
equals Total new single-family attached DU	136	277	559	1,318
Multifamily				
Percent multifamily	33%	33%	33%	33%
Total new multifamily	375	761	1,537	3,625
equals Total new dwelling units	**1,137**	**2,306**	**4,657**	**10,985**

Exhibit 85. Forecast of demand for ~~accessory dwelling units~~infill and redevelopment, in 5, 10, 20, and 46 years, McMinnville UGB, 2021-2026, 2021-2031, 2021-2041, and 2021-2067

Source: Calculations by ECONorthwest

Variable	New Dwelling Units			
	5-Year (2021 to 2026)	10-Year (2021 to 2031)	20-Year (2021 to 2041)	46-Year (2021 to 2067)
New units accomodated through infill and redevelopme	86	175	354	835
Subset of total new dwelling units (2021-2041)	**993**	**2,015**	**4,070**	**9,600**

Variable	New Dwelling Units			
	5-Year (2021 to 2026)	10-Year (2021 to 2031)	20-Year (2021 to 2041)	46-Year (2021 to 2067)
New units accomodated through infill and redevelopment	91	184	373	879
Subset of total new dwelling units	**91**	**184**	**373**	**879**

Exhibit 86. Forecast of demand for new dwelling units by type through infill and redevelopment and on vacant and partially vacant lands, in 5, 10, 20, and 46 years, McMinnville UGB, 2021-2026, 2021-2031, 2021-2041, and 2021-2067

Source: Calculations by ECONorthwest.

Variable	5-Year (2021 to 2026)	10-Year (2021 to 2031)	20-Year (2021 to 2041)	46-Year (2021 to 2067)
DUs Accomodated by Infill or Redevelopment				
Single-family detached	9	18	35	83
Single-family attached				
Multifamily	78	158	319	751
~~Total Units in Infill or Redevelopment~~	~~86~~	~~175~~	~~354~~	~~835~~
DUs Requiring Vacant / Partially Vacant				
Single-family detached	584	1,187	2,398	5,656
Single-family attached	129	263	531	1,252
Multifamily	278	565	1,141	2,693
Total DUs Requiring Vacant or Partially Vacant Land	**992**	**2,016**	**4,070**	**9,600**

Variable	5-Year (2021 to 2026)	10-Year (2021 to 2031)	20-Year (2021 to 2041)	46-Year (2021 to 2067)
DUs Accomodated by Infill or Redevelopment				
Single-family detached	9	18	37	88
Single-family attached				
Multifamily	82	166	335	791
Total Units in Infill or Redevelopment	**91**	**184**	**373**	**879**
DUs Requiring Vacant / Partially Vacant Unconstrained				
Single-family detached	617	1,250	2,524	5,954
Single-family attached	136	277	559	1,318
Multifamily	293	595	1,202	2,834
Total DUs Requiring Vacant or Partially Vacant Land	**1,046**	**2,122**	**4,284**	**10,106**

McMinnville will have demand for 612 new dwelling units between 2018 and 2021, 55% of which will be single-family detached housing.

Exhibit 87. Forecast of demand for new dwelling units by type, McMinnville UGB, 2018-2021
Source: Calculations by ECONorthwest

Variable	Needed Mix
Needed new dwelling units (2018-2021)	612
Dwelling units by structure type	
Single-family detached	
Percent single-family detached DU	**55%**
equals Total new single-family detached DU	337
Single-family attached	
Percent single-family attached DU	**12%**
equals Total new single-family attached DU	73
Multifamily	
Percent multifamily	**33%**
equals total new multifamily	202
Total new dwelling units (2018-2021)	**612**

Between 2018 and 2021, McMinnville will accommodate 49 needed units through infill and redevelopment.

Exhibit 88. Forecast of demand for ~~accessory dwelling units~~infill and redevelopment, McMinnville UGB, 2018-2021
Source: Calculations by ECONorthwest

Variable	New Dwelling Units (2018-2021)
New units accomodated through infill and redevelopment	49
Subset of total new dwelling units (2018-2021)	**49**

Between 2018 and 2021, McMinnville will accommodate 49 needed new units through infill and redevelopment.

This results in McMinnville having demand for 563 new dwellings units on *vacant or partially vacant land before 2021.*

Exhibit 89. Forecast of demand for new dwelling units by type through infill and redevelopment and on vacant and partially vacant lands, McMinnville UGB, 2018-2021
Source: Calculations by ECONorthwest

Variable	Needed Mix
DUs Accomodated by Infill or Redevelopment	
Single-family detached	5
Single-family attached	
Multifamily	44
Total Units in Infill or Redevelopment	**49**
DUs Requiring Vacant / Partially Vacant Unconstrained Land	
Single-family detached	332
Single-family attached	73
Multifamily	158
Total DUs Requiring Vacant or Partially Vacant Land	**563**

Allocation of Needed Housing

The next exhibits allocate needed housing to zoning designations in McMinnville. The allocation is based, in part, on the types of housing allowed in each zone. The exhibit shows:

- **R-1 Single-Family Residential** will primarily accommodate new single-family detached housing, with some opportunities for single-family attached housing and duplexes on corner lots.
- **R-2 Single-Family Residential** will accommodate a mixture of new single-family detached housing, single-family attached, and duplexes on corner lots.
- **R-3 Two-Family Residential** will accommodate a mixture of new single-family detached housing, single-family attached, and duplexes.
- **R-4 Multiple-Family Residential** will accommodate single-family detached and attached housing as well as duplexes and multifamily housing.
- **O-R Office/Residential** will accommodate single-family detached and attached housing as well as duplexes and multifamily housing.
- **Residential Plan Designations with County Zoning**[59] will accommodate single-family detached and single-family attached units, duplexes, and multifamily units.
- **C-3 General Commercial** will accommodate multifamily housing.

Exhibit 90 through Exhibit 93 present the allocation of needed housing by zoning district, using the recommended housing mix assumption, for McMinnville's 5-year, 10-year, 20-year, and 46-year planning horizon. These models are a result of a two-step process to allocate housing demand to McMinnville's existing zones. The first step in the process is presented in Appendix B (Exhibit 122, Exhibit 123, Exhibit 124, and Exhibit 125) which bases demand on McMinnville's historic share of housing developed in each zone between 2000 and 2018. For example, between 2000 and 2018, 16% of McMinnville's housing development occurred in R-1, 44% occurred in R-2, 6% in R-3, and 34% in R-4. The refined models, presented below, aim to balance future housing demand among zones rather than allocate demand based on McMinnville's limited / constrained supply of vacant and partially vacant lands within existing zones.

Note: The City of McMinnville will be implementing Great Neighborhood Principles, which may affect the location and distribution of the dwelling units. Current zoning practices separate dwelling units by type by zoning district. If the Great Neighborhood Principles are implemented, the same average mix and average density could be achieved, but in a different configuration (consistent with the Great Neighborhood Principles).

[59] "Residential Plan Designations with County Zoning" are lands with the City's residential plan designation and county rural zoning that will need to be rezoned to urban zones prior to development.

Exhibit 90. Allocation of needed housing requiring vacant or partially vacant land,[60] by housing type and zoning districts, McMinnville UGB, 2021 to 2026 (5-year)

Source: Calculations by ECONorthwest.

Housing Type	Residential Plan Designations					County Zoning	C-3	Total
	R-1	R-2	R-3	R-4	O-R			
Dwelling Units								
Single-family detached	199	189	99	99	-	-	-	586
Single-family attached	10	49	20	50	-	-	-	129
Multifamily	50	50	79	99	-	-	-	278
Total	259	288	198	248	-	-	-	993
Percent of Units								
Single-family detached	20%	19%	10%	10%	0%	0%	0%	59%
Single-family attached	1%	5%	2%	5%	0%	0%	0%	13%
Multifamily	5%	5%	8%	10%	0%	0%	0%	28%
Total	26%	29%	20%	25%	0%	0%	0%	100%

Housing Type	Residential Plan Designations					County Zoning	C-3	Total
	R-1	R-2	R-3	R-4	O-R			
Dwelling Units								
Single-family detached	208	199	105	105	-	-	-	617
Single-family attached	10	53	21	52	-	-	-	136
Multifamily	52	52	84	105	-	-	-	293
Total	270	304	210	262	-	-	-	1,046
Percent of Units								
Single-family detached	20%	19%	10%	10%	0%	0%	0%	59%
Single-family attached	1%	5%	2%	5%	0%	0%	0%	13%
Multifamily	5%	5%	8%	10%	0%	0%	0%	28%
Total	26%	29%	20%	25%	0%	0%	0%	100%

[60] The percent of units displayed in Exhibit 90~~Exhibit 90~~ do not match the needed mix of new housing displayed in Exhibit 84, because the allocation analysis deducts new units accommodated by redevelopment and infill development on lands classified as "developed."~~.~~

Exhibit 91. Allocation of needed housing requiring vacant or partially vacant land,[61] by housing type and zoning districts, McMinnville UGB, 2021 to 2031 (10-year)

Source: Calculations by ECONorthwest.

Housing Type	Residential Plan Designations					County Zoning	C-3	Total
	R-1	R-2	R-3	R-4	O-R			
Dwelling Units								
Single-family detached	403	380	202	202	-	-	-	1,187
Single-family attached	20	101	41	101	-	-	-	263
~~Multifamily~~	~~101~~	~~102~~	~~161~~	~~202~~	~~-~~	~~-~~	~~-~~	~~566~~
Total	524	583	404	505	-	-	-	2,016
Percent of Units								
Single-family detached	20%	19%	10%	10%	0%	0%	0%	59%
Single-family attached	1%	5%	2%	5%	0%	0%	0%	13%
Multifamily	5%	5%	8%	10%	0%	0%	0%	28%
Total	26%	29%	20%	25%	0%	0%	0%	100%

Housing Type	Residential Plan Designations					County Zoning	C-3	Total
	R-1	R-2	R-3	R-4	O-R			
Dwelling Units								
Single-family detached	424	402	212	212	-	-	-	1,250
Single-family attached	22	106	43	106	-	-	-	277
Multifamily	106	107	170	212	-	-	-	595
Total	552	615	425	530	-	-	-	2,122
Percent of Units								
Single-family detached	20%	19%	10%	10%	0%	0%	0%	59%
Single-family attached	1%	5%	2%	5%	0%	0%	0%	13%
Multifamily	5%	5%	8%	10%	0%	0%	0%	28%
Total	26%	29%	20%	25%	0%	0%	0%	100%

[61] The percent of units displayed in Exhibit 91 Exhibit 91 do not match the needed mix of new housing displayed in **Error! Reference source not found.**, because the allocation analysis deducts new units accommodated by redevelopment and infill development on lands classified as "developed."

Exhibit 92. Allocation of needed housing requiring vacant or partially vacant land,[62] by housing type and zoning district, McMinnville UGB, 2021 to 2041 (20-year)

Source: Calculations by ECONorthwest.

Housing Type	Residential Plan Designations					County Zoning	C-3	Total
	R-1	R-2	R-3	R-4	O-R			
Dwelling Units								
Single-family detached	811	773	407	407	-	-	-	2,398
Single-family attached	47	197	83	204	-	-	-	531
~~Multifamily~~	~~204~~	~~204~~	~~326~~	~~407~~	~~-~~	~~-~~	~~-~~	~~1,141~~
Total	1,062	1,174	816	1,018	-	-	-	4,070
Percent of Units								
Single-family detached	20%	19%	10%	10%	0%	0%	0%	59%
Single-family attached	1%	5%	2%	5%	0%	0%	0%	13%
Multifamily	5%	5%	8%	10%	0%	0%	0%	28%
Total	26%	29%	20%	25%	0%	0%	0%	100%

Housing Type	Residential Plan Designations					County Zoning	C-3	Total
	R-1	R-2	R-3	R-4	O-R			
Dwelling Units								
Single-family detached	857	814	428	425	-	-	-	2,524
Single-family attached	49	209	87	214	-	-	-	559
Multifamily	214	214	346	428	-	-	-	1,202
Total	1,120	1,237	861	1,067	-	-	-	4,285
Percent of Units								
Single-family detached	20%	19%	10%	10%	0%	0%	0%	59%
Single-family attached	1%	5%	2%	5%	0%	0%	0%	13%
Multifamily	5%	5%	8%	10%	0%	0%	0%	28%
Total	26%	29%	20%	25%	0%	0%	0%	100%

[62] The percent of units displayed in Exhibit 92~~Exhibit 92~~ do not match the needed mix of new housing displayed in Exhibit 80 or Exhibit 84, because the allocation analysis deducts new units accommodated by redevelopment and infill development on lands classified as "developed."~~.~~

Exhibit 93. Allocation of needed housing requiring vacant or partially vacant land,[63] by housing type and zoning district, McMinnville UGB, 2021 to 2067 (46-year)

Source: Calculations by ECONorthwest.

Housing Type	Residential Plan Designations					County Zoning	C-3	Total
	R-1	R-2	R-3	R-4	O-R			
Dwelling Units								
Single-family detached	1,920	1,816	960	960	-	-	-	5,656
Single-family attached	96	479	196	481	-	-	-	1,252
~~Multifamily~~	~~480~~	~~484~~	~~768~~	~~960~~	-	-	-	~~2,692~~
Total	2,496	2,779	1,924	2,401	-	-	-	9,600
Percent of Units								
Single-family detached	20%	19%	10%	10%	0%	0%	0%	59%
Single-family attached	1%	5%	2%	5%	0%	0%	0%	13%
Multifamily	5%	5%	8%	10%	0%	0%	0%	28%
Total	26%	29%	20%	25%	0%	0%	0%	100%

Housing Type	Residential Plan Designations					County Zoning	C-3	Total
	R-1	R-2	R-3	R-4	O-R			
Dwelling Units								
Single-family detached	2,021	1,911	1,011	1,011	-	-	-	5,954
Single-family attached	102	504	206	506	-	-	-	1,318
Multifamily	505	509	809	1,011	-	-	-	2,834
Total	2,628	2,924	2,026	2,528	-	-	-	10,106
Percent of Units								
Single-family detached	20%	19%	10%	10%	0%	0%	0%	59%
Single-family attached	1%	5%	2%	5%	0%	0%	0%	13%
Multifamily	5%	5%	8%	10%	0%	0%	0%	28%
Total	26%	29%	20%	25%	0%	0%	0%	100%

Needed Density

ORS 197.296(7) requires cities to "determine the overall average density and overall mix of housing types at which residential development of needed housing types must occur in order to meet housing needs over the next 20 years." This section describes historic residential densities and needed residential densities for McMinnville's planning period. Appendix B presents the scenario model, presented to the Project Advisory Committee, which informed their recommendation for needed residential densities.

Densities in this section are presented in net acres and converted to gross acres[64] to account for land needed for rights-of-way. Rights-of-way conversion factors are based on empirical analysis of existing rights-of-way, by zone, in McMinnville. For example, when developing a new area

[63] The percent of units displayed in Exhibit 93~~Exhibit 93~~ do not match the needed mix of new housing displayed in **Error! Reference source not found.**, because the allocation analysis deducts new units accommodated by redevelopment and infill development on lands classified as "developed.".

[64] OAR 660-024-0010(6) uses the following definition of net buildable acre. "Net Buildable Acre" "…consists of 43,560 square feet of residentially designated buildable land after excluding future rights-of-way for streets and roads." While the administrative rule does not include a definition of a gross buildable acre, using the definition above, a gross buildable acre will include areas used for rights-of-way for streets and roads. Areas used for rights-of-way are considered unbuildable.

such as a subdivision, it is necessary to account for land needed for roads, sidewalks, on-street parking, etc., which requires a gross density estimate. The conversion from net acres to gross acres in this analysis is based on the average amount of land in rights-of-way throughout the McMinnville UGB by zone.[65]

Analysis of Historic Densities

ECONorthwest analyzed building permit data to determine historic densities. Exhibit 94 presents the assessment of historic densities for housing built in McMinnville over the 2000 to July 2018 period.

- **R-1 Single-Family Residential:** 4.1 dwelling units per net acre, with 24% of land used for rights-of-way, results in a gross density of 3.1 dwelling units per gross acre.
- **R-2 Single-Family Residential:** 5.8 dwelling units per net acre, with 26% of land used for rights-of-way, results in a gross density of 4.3 dwelling units per gross acre.
- **R-3 Two-Family Residential:** 6.8 dwelling units per net acre, with 29% of land used for rights-of-way, results in a gross density of 4.8 dwelling units per gross acre.
- **R-4 Multiple-Family Residential:** 7.9 dwelling units per net acre, with 23% of land used for rights-of-way, results in a gross density of 6.1 dwelling units per gross acre.
- **O-R Office/Residential:** 7.6 dwelling units per net acre, with 17% of land used for rights-of-way, results in a gross density of 6.3 dwelling units per gross acre.
- **Residential Plan Designations with County Zoning:** an assumed 6.6 dwelling units per net acre (of which the basis is the overall average density achieved in 2000-2018), with 25% of land used for rights-of-way, results in a gross density of 4.3 dwelling units per gross acre. The 25% factor is an average of all other right-of-way conversion factors from each zone.
- **C-3 General Commercial:** 31.2 dwelling units per net acre, with 30% of land used for rights-of-way, results in a gross density of 21.8 dwelling units per gross acre.

[65] The assumptions about land needed for rights-of-way is based on the historical percentages of land needed for rights-of-way, from empirical analysis of the 2021 McMinnville Buildable Lands Inventory.

Exhibit 94. Historical densities and land for rights-of-way by zone for housing built in the McMinnville UGB, 2000 through July 2018
Source: Calculations by ECONorthwest. Note: DU is dwelling unit.

Zoning Districts	Average Net Density (DU/Net Acre)	Percentage for Rights-of-Way	Average Gross Density (DU/Gross Acre)
R-1 Single Family Residential	4.1	24%	3.1
R-2 Single Family Residential	5.8	26%	4.3
R-3 Two Family Residential	6.8	29%	4.8
R-4 Multiple-Family Residential	7.9	23%	6.1
O-R Office/Residential	7.6	17%	6.3
C-3 General Commercial	31.2	30%	21.9
County Zoning	6.6	25%	4.9
Average	**6.6**	**25%**	**4.9**

Exhibit 95. Historical densities and land for rights-of-way by housing type for housing built in the McMinnville UGB, 2000 through July 2018
Source: Calculations by ECONorthwest. Note: DU is dwelling unit.

Housing Type	Average Net Density (DU/Net Acre)	Percentage for Rights-of-Way	Average Gross Density (DU/Gross Acre)
Single-Family Detached	4.8	25%	3.6
Single-Family Attached	12.3	25%	9.3
Multifamily	18.2	25%	13.7
Total	**6.6**	**25%**	4.9

The average density observed in the 2002 McMinnville Housing Needs Analysis was 5.9 dwelling units per net acre. The density analysis in the 2002 HNA was based on permit data between 1988 and 2000. The net density observed for the 2000 through 2018 period was 6.6 dwelling units per net acre – a 12% increase in actual density. This increase in land use efficiency saved 55 net acres during the 2000-2018 period.

Final Results: Needed Density

The assessment of needed densities was based on the five factors stated in ORS 197.296(5), discussed in greater detail in the previous subsection as well as McMinnville's historical residential densities (2000 to July 2018).

Needed densities over the planning period will be driven by the recommended housing mix assumption. The PAC recommended a housing mix that increased the share of multifamily housing and single-family attached housing and decreased the share of single-family detached housing compared to the mix of new development that occurred between 2000 and 2018. If single-family detached, single-family attached, and multifamily housing develops at densities consistent with historic average densities (4.9 dwelling units per gross acre), McMinnville's overall residential density will increase to 5.3 dwelling units per gross, over the 20-year planning period—an 8% increase in gross residential density.

This document is a "baseline" analysis. The density results are based on McMinnville's current zoning and land use regulations. Efficiency measures enacted as part of the housing strategy could affect final density.

Needed Housing by Income Level

The next step in the housing needs analysis is to develop an estimate of need for housing by income and housing type. This requires an estimate of the income distribution of current and future households in the community. These estimates presented in this section are based on (1) secondary data from the Census, and (2) analysis by ECONorthwest.

This analysis is based on American Community Survey data about income levels of existing households in McMinnville. Income is categorized into market segments, using McMinnville's Median Household Income (MHI) of $50,300. The analysis uses current household income distribution, assuming that approximately the same percentage of households will be in each market segment in the future.

Twenty-two percent of McMinnville's future households will have incomes at or below 50% of McMinnville's median household income (MHI).

Thirty-six percent will have incomes between 50% and 120% of McMinnville's MHI.

Forty-one percent will have incomes greater than 120% of McMinnville's MHI.

Exhibit 96. Future (New) Households, by Median Household Income (MHI) for McMinnville ($50,300), McMinnville UGB, 2021 to 2041

Source: U.S. Department of Housing and Urban Development and U.S. Census Bureau, 2012-2016 ACS Table 19001 and B25119.

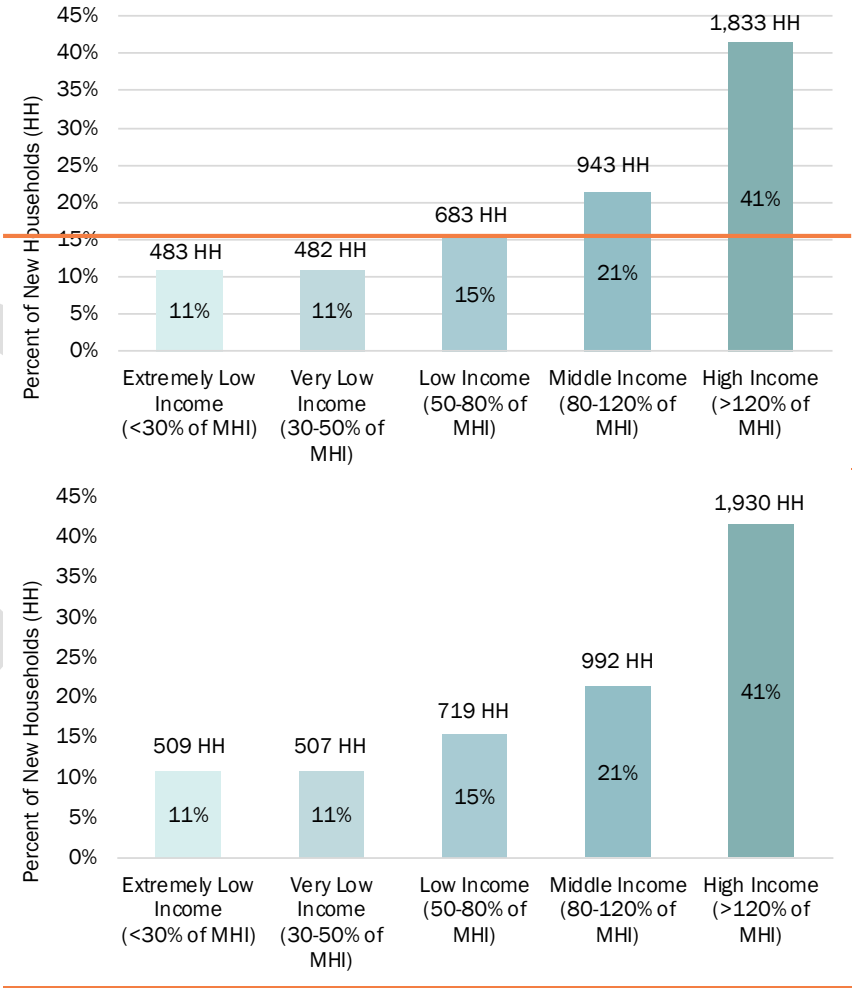


Exhibit 97. Future (New) Households in 5-, 10-, 20-, and 46-years, by Median Household Income (MHI) for McMinnville ($50,300), McMinnville UGB, 2021-2026, 2021-2031, 2021-2041, and 2021-2067

Source: U.S. Department of Housing and Urban Development and U.S. Census Bureau, 2012-2016 ACS Table 19001 and B25119.

Market Segment by Income	New Households				% of Households
	5-Year (2021 to 2026)	10-Year (2021 to 2031)	20-Year (2021 to 2041)	46-Year (2021 to 2067)	
High Income (>120% of MFI)	447	907	1,833	4,324	41%
Middle Income (80-120% of MFI)	230	467	943	2,223	21%
Low Income (50-80% of MFI)	167	338	683	1,612	15%
Very Low Income (30-50% of MFI)	117	238	482	1,136	11%
Extremely Low Income (<30% of MFI)	118	240	483	1,140	11%
Total New Households	1,079	2,190	4,424	10,435	100%

Market Segment by Income	New Households				% of Households
	5-Year (2021 to 2026)	10-Year (2021 to 2031)	20-Year (2021 to 2041)	46-Year (2021 to 2067)	
High Income (>120% of MFI)	471	955	1,930	4,552	41%
Middle Income (80-120% of MFI)	242	491	992	2,340	21%
Low Income (50-80% of MFI)	176	356	719	1,697	15%
Very Low Income (30-50% of MFI)	124	251	507	1,196	11%
Extremely Low Income (<30% of MFI)	124	253	509	1,200	11%
Total New Households	1,137	2,306	4,657	10,985	100%

Need for Government-Subsidized, Farmworker, and Manufactured Housing

ORS 197.303, 197.307, 197.312, and 197.314 requires cities to plan for government-subsidized housing, manufactured housing on lots, and manufactured housing in parks.

- **Government-subsidized housing.** Government-subsidies can apply to all housing types (e.g., single family detached, single-family attached, and multifamily). McMinnville allows development of government-assisted housing in all residential zones, with the same development standards for market-rate housing. This analysis assumes that McMinnville will continue to allow government housing in all of its residential zones. Because government assisted housing is similar in character to other housing (with the exception being the subsidies), it is not necessary to develop separate forecasts for government-subsidized housing.
    - Homelessness is a growing concern in McMinnville and Yamhill County. Between 2017 and 2018, homelessness grew by about 30% in Yamhill County. To alleviate this issue, government subsidized housing, including shelters, is needed for individuals and households earning 0% to 30% of McMinnville's Median Household Income (less than $15,000 per year). While a separate forecast for

government-subsidized housing is not needed, the City may need to exert specialized effort in planning for shelters and other housing types that will meet the needs of those at risk of homelessness or who are experiencing homelessness.

- **Farmworker housing.** Farmworker housing can also apply to all housing types and the City allows development of farmworker housing in all residential zones, with the same development standards as market-rate housing. This analysis assumes that McMinnville will continue to allow farmworker housing in all of its residential zones. Because it is similar in character to other housing (with the possible exception of government subsidies, if population restricted), it is not necessary to develop separate forecasts for farmworker housing.
- **Manufactured housing on lots.** McMinnville allows manufactured homes on lots in the R-1 and R-2 zones, which are the zones where single-family detached housing is allowed. McMinnville also allows single-family detached housing in R-3, R-4, and O-R zones, but manufactured housing on lots are not permitted in those zones. McMinnville does not have special siting standards for manufactured homes on lots, so it is not necessary to develop separate forecasts for manufactured housing on lots.
- **Manufactured housing in parks.** OAR 197.480(4) requires cities to inventory the mobile home or manufactured dwelling parks sited in areas planned and zoned or generally used for commercial, industrial, or high-density residential development. According to the Oregon Housing and Community Services' Manufactured Dwelling Park Directory,[66] McMinnville has 12 manufactured home parks within the UGB, with 1,014 spaces. One manufactured park (separate from manufactured housing subdivision) is within the O-R zone, two are within the C-3 zone, four are within the R-3 zone, and five are within the R-4 zone.

  ORS 197.480(2) requires McMinnville to project need for mobile home or manufactured dwelling parks based on: (1) population projections, (2) household income levels, (3) housing market trends, and (4) an inventory of manufactured dwelling parks sited in areas planned and zoned or generally used for commercial, industrial, or high density residential.

  - The housing forecast showed that McMinnville will need 4,~~424~~ 657 dwelling units over the 2021 to 2041 period.
  - Analysis of housing affordability shows that about 22% of McMinnville's new households will be Extremely Low Income or Very Low Income, earning 50% or less of McMinnville's median family income. One type of housing affordable to these households is manufactured housing.
  - Manufactured housing in parks accounts for about 8% (about 1,014 dwelling units) of McMinnville's current housing stock.

[66] Oregon Housing and Community Services, Oregon Manufactured Dwelling Park Directory, http://o.hcs.state.or.us/MDPCRParks/ParkDirQuery.jsp

- National, state, and regional trends since 2000 showed that manufactured housing parks were closing, rather than being created. For example, between 2000 and 2015, Oregon had 68 manufactured parks close, with more than 2,700 spaces. Discussions with several stakeholders familiar with manufactured home park trends suggest that over the same period, few to no new manufactured home parks have opened in Oregon.
- Households most likely to live in manufactured homes in parks are those with incomes between about $15,000 and $25,150 (30% to 50% of McMinnville's median household income), which include 11% of McMinnville's households. However, households in other income categories may also live in manufactured homes in parks.

  Manufactured home park development is an allowed use in the R-3 and R-4 zone. The national and state trends of closure of manufactured home parks and the fact that no new manufactured home parks have opened in Oregon in over the last 15 years demonstrate that development of new manufactured home parks in McMinnville is unlikely.

  Our conclusion from this analysis is that development of new manufactured home parks in McMinnville over the planning period is unlikely over the 2021 to 2041 period. It is, however, likely that manufactured homes will continue to locate on individual lots in McMinnville. The forecast of housing assumes that no new manufactured home parks will be opened in McMinnville over the 2021 to 2041 period. The forecast includes new manufactured homes on lots in the category of single-family detached housing.
- Over the next 20 years (or longer) one or more manufactured home parks may close in McMinnville, as a result of manufactured home park landowners selling or redeveloping their land for uses with higher rates of return, rather than lack of demand for spaces in manufactured home parks. Manufactured home parks contribute to the supply of low-cost affordable housing options, especially for affordable homeownership.

  While there is statewide regulation of the closure of manufactured home parks designed to lessen the financial difficulties of this closure for park residents,[67] the City has a role to play in ensuring that there are opportunities for housing for the displaced residents. The City's primary role is to ensure that there is sufficient land zoned for new multifamily housing or other housing meeting the same need, and to reduce barriers to residential development to allow for development

[67] ORS 90.645 regulates rules about closure of manufactured dwelling parks. It requires that the landlord must do the following for manufactured dwelling park tenants before closure of the park: give at least one year's notice of park closure, pay the tenant between $5,000 to $9,000 for each manufactured dwelling park space, and cannot charge tenants for demolition costs of abandoned manufactured homes.

of new, relatively affordable housing. The City may use a range of policies to encourage development of relatively affordable housing, such as allowing a wider range of moderate density housing (e.g., cottages or missing middle housing types) in the R-1 and R-2 zones, designating more land for multifamily housing, removing barriers to multifamily housing development, using tax credits to support affordable housing production, developing an inclusionary zoning policy, or partnering with a developer of government-subsidized affordable housing.

Other Needs

This section includes needs for: special housing, land ~~for group quarters~~to accommodate households before 2021, and other uses on residential land.

Need for Special Housing

Need for special housing, such as transitional housing to provide services in conjunction with housing, is accounted for in total numbers; however, the housing strategy can discuss opportunities to ensure codes are responsive to planning that should address opportunities for providers of transitional housing and services within the broader planning context.

~~Need for Population in Group Quarters~~

~~To determine housing needs, the population forecasted to live in group quarters was deducted from the population assigned to new households (which determine needed dwelling units). An increase of the population living in group quarters may require additional land for new group quarters. Assumptions about land needed for new group quarters was incorporated into the "demand" side of the supply and demand equation. Land for group quarters was assumed to occur at densities comparable to multifamily development. For the 2021 to 2041 planning period, 564 additional people are forecast to live in group quarters (see Exhibit 72). At an average density of about 13.7 dwelling units per gross acre,[68] group quarters will need approximately 41 gross acres of land. New group quarters are assumed to occur on (R-4) Multiple Family Residential Land.~~

Need for Households Locating in McMinnville before 2021

The Portland State University population forecast shows growth of about 1,480 people between 2018 and 2021, resulting in a need for ~~581~~ 612 new dwelling units.[69] After deducting dwelling units accommodated by infill and redevelopment (8% or 49 units), McMinnville needs to

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~~[68] Basis for density assumption is the historical net density for multifamily housing in McMinnville historically (2000 through July 2018).~~

[69] According to the Portland State University's Population Research Center, McMinnville UGB had 34,293 people in 2017. ECONorthwest extrapolated the population in 2017 to 34,758 people in 2018. McMinnville UGB forecasted population in 2021 is 36,238 people (Exhibit 29), resulting in 1,480 new people between 2018 and 2021. Using the assumptions presented in Exhibit 75, McMinnville will have demand for approximately ~~580~~ 612 new dwelling units between 2018 and 2021.

accommodate 563 new dwelling units on vacant or partially vacant lands before 2021. To accommodate the ~~581~~ 563 dwelling units, at historic densities,[70] it is expected that the market would consume about 131~~19~~ gross acres of existing buildable land before 2021. This will create an increased land deficit and additional need for residential land before calculating needs starting in 2021. In 2021, the City of McMinnville may update the buildable lands inventory to deduct the actual amount of land consumed prior to 2021 from the inventory.

Need for Other Uses on Residential Land

The residential land needs analysis and capacity analysis accounts for land that will be needed for new streets within residential areas by applying a net to gross buildable acreage factor and density factor.

However, the housing needs analysis and residential land needs analysis doesn't account for other uses that will occur on lands planned and zoned for residential use. The City has initiated an urbanization study with a broader scope that will evaluate the capacity of the UGB to meet needs for all uses during the planning period. That analysis will identify forecast demand for other uses expected to occur on residential land. These can include uses such as schools, parks, public facilities, etc. Some of these have critical locational siting requirements in proximity to population or as part of a system of public facilities.

Once this portion of the urbanization study has been completed, the additional demand for residential land will be factored into the sufficiency determination to calculate the extent of deficit.

Because the need for other uses on residential land has not yet been determined, ~~the analysis of residential land sufficiency presented in~~ Chapter 6 ~~addresses~~ addressed only ~~only~~ the residential land~~s~~ need~~ed~~ for ~~housing and group quarters~~housing before 2021.

[70] McMinnville's average overall residential density, between 2000 and July 2018, was 6.6 dwelling units per net acre and 4.9 dwelling units per gross acre.

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 10[71] and ORS 197.296[72] 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 Projection[73] 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 660-008[74], and ORS 197.296, and (4) consistent with Goal 14[75] 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)[76]

[71] Goal 10: Housing, https://www.oregon.gov/lcd/OP/Documents/goal10.pdf

[72] ORS 197.296, https://www.oregonlegislature.gov/bills_laws/ors/ors197.html

[73] OAR 660-008-0005(4)

[74] OAR 660-008, https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=3058

[75] Goal 14: Urbanization, https://www.oregon.gov/lcd/OP/Pages/Goal-14.aspx

[76] This document is a "baseline" analysis. The density results are based on McMinnville's current zoning and land use regulations. Efficiency measures enacted as part of the housing strategy could affect final density. Baseline "needed housing density" is calculated using the assumption that housing types (single-family detached, single-family attached, and multifamily) will develop at densities similar to historic housing densities by type. However, capacity results are calculated using average, historical density by zone (which is consistent with McMinnville's current zoning and land use system).

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,"[77] 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.

This document is a "baseline" analysis. The capacity results are based on the current zoning and land use regulations. Efficiency measures enacted as part of the housing strategy could affect final capacity.

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 98 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,

[77] 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.

land in Water Zone 2 will likely not be serviced with water for approximately 10 years.

- **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.**[78] 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.

[78] This document is a "baseline" analysis. The density results are based on McMinnville's current zoning and land use regulations. Efficiency measures enacted as part of the housing strategy could affect final density.

Exhibit 98. 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**	**4.1**	**2,921**

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 98 shows that McMinnville has 721 acres of unconstrained buildable lands, (660 acres in residential zones assigned residential capacity) 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 99 shows that McMinnville has 588 acres of unconstrained buildable lands in Zone 1,[79] 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).

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

Exhibit 99. 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**	**4.0**	**2,360**

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 also for the 5-, 10-, and 46-year planning periods. ~~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 population and housing before 2021.

- Results reflect demand for new dwelling units which require *vacant and partially vacant lands*.[80]

This document is a "baseline" analysis. Land sufficiency results may change based on implementation of actions in the housing strategy, including implementation of McMinnville's Great Neighborhood Principles."

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

Exhibit 100 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~~through 2041 ~~planning period~~ are summarized here:

- McMinnville's deficit of R-1 capacity (~~613~~ 806 dwelling units) means that the City has an approximate deficit of ~~227~~ 260 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~~ 822 dwelling units) means the City has an approximate deficit of ~~172~~ 191 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~~ 974 dwelling units) means the City has an approximate deficit of ~~194~~ 203 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~~ 1,081 dwelling units) means the City has an approximate deficit of ~~217~~ 177 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.

[80] Forecasted demand for infill and redevelopment will not require vacant or partially vacant lands.

Exhibit 100. 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)

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	1,114	(665)	(215)
R-2 Single Family Residential	561	1,242	(681)	(158)
R-3 Two Family Residential	28	861	(833)	(174)
R-4 Multiple-Family Residential	127	1,067	(940)	(154)
O-R Office/Residential	3	-	3	0
C-3 General Commercial	0	-	0	0
Subtotal (City Limits)	1,168	4,284	(3,116)	(700)
County Zoning	1,753	-	1,753	358
Total	**2,921**	**4,284**	(1,363)	(342)

~~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,[81] 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.~~

~~[81] Basis for density assumption is the historical net density for multifamily housing in McMinnville historically (2000 through July 2018).~~

~~Exhibit 97. 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 101 ~~Exhibit 101Exhibit 5~~ shows, McMinnville will have demand for ~~581~~ 563 new dwelling units (on vacant/partially vacant lands) before 2021. At average gross densities ~~(4.9 dwelling units per gross acre~~by zone~~)~~, McMinnville will need ~~119~~ 131 gross acres of land. We applied demand for dwelling units ~~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 101. Land needed through 2041

Source: Calculations by ECONorthwest. ~~Note1: revised land sufficiency in R-4 also reflects land needed for group quarters.~~ Note~~2~~: The 1~~1~~319 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 DUs Requiring Vacant / Partially Vacant Lands (2018-2021)	563
Needed Gross Acres (2018-2021)	**(131)**
R-1 Single Family Residential (at 3.1 units/gross acre)	(45)
R-2 Single Family Residential (at 4.3 units/gross acre)	(33)
R-3 Two Family Residential (at 4.8 units/gross acre)	(29)
R-4 Multiple-Family Residential (at 6.1 units/gross acre	(23)
Existing Land Deficit, gross acres (2021-2041)	**(701)**
R-1 Single Family Residential	(215)
R-2 Single Family Residential	(158)
R-3 Two Family Residential	(174)
R-4 Multiple-Family Residential	(154)
Revised Land Sufficiency, gross acres (2018-2041)	**(831)**
R-1 Single Family Residential	(260)
R-2 Single Family Residential	(191)
R-3 Two Family Residential	(203)
R-4 Multiple-Family Residential	(177)

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 *(includes land need for group quarters)*	(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 102 presents the final land sufficiency results, for the period through 2041 planning period, to account for land needed to accommodate new housing before 2021.

Exhibit 102. 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)

Zoning Districts	2018 Capacity (Dwelling Units)	Demand 2018-2041		Capacity in 2041		
		2018-2021 Demand (Dwelling Units)	2021-2041 Demand (Dwelling Units)	2018 Capacity minus 2018-2041 Demand (Dwelling Units)	Approx. Land Surplus or (Deficit) in 2041 *Gross Acres*	Average Density of Land Surplus or (Deficit)
R-1 Single Family Residential	449	141	1,114	(806)	(260)	3.1
R-2 Single Family Residential	561	141	1,242	(822)	(191)	4.3
R-3 Two Family Residential	28	141	861	(974)	(203)	4.8
R-4 Multiple-Family Residential	127	141	1,067	(1,081)	(177)	6.1
O-R Office/Residential	3	-	-	3	0	6.3
C-3 General Commercial	-	-	-	0	0	-
Subtotal (City Limits)	1,168	563	4,284	(3,679)	(831)	4.4
County Zoning	1,753	-	-	1,753	358	4.9
Total	**2,921**	**563**	**4,284**	(1,926)	(473)	**4.1**

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

Exhibit 105 shows that for ~~the 2021 to~~the period through 2026 ~~planning period~~, McMinnville has a deficit of land in the R-1 through ~~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 103. 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**

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	270	68	22
R-2 Single Family Residential	368	304	64	15
R-3 Two Family Residential	28	210	(182)	(38)
R-4 Multiple-Family Residential	127	262	(135)	(22)
O-R Office/Residential	3	-	3	0
C-3 General Commercial	0	-	0	0
Subtotal (City Limits)	864	1,046	(182)	(23)
County Zoning	1,496	-	1,496	305
Total	**2,360**	**1,046**	**1,314**	**283**

~~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,[82] 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.~~

~~[82] Basis for density assumption is the historical net density for multifamily housing in McMinnville historically (2000 through July 2018).~~

~~Exhibit 101. 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)~~by zone, McMinnville will need ~~119~~ 131 gross acres of land through 2021. We applied demand for dwelling units~~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 104. Land needed through 2026

Source: Calculations by ECONorthwest. ~~Note1: revised land sufficiency in R-4 also reflects land needed for group quarters.~~ Note~~2~~: The ~~119~~ 131 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 *(includes land need for group quarters)*	(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)

Variable	Assumption
New Population (2018-2021)	1,480
Needed Dwelling Units (2018-2021)	563
Needed Gross Acres (2018-2021)	**(131)**
R-1 Single Family Residential (at 3.1 units/gross acre)	(45)
R-2 Single Family Residential (at 4.3 units/gross acre)	(33)
R-3 Two Family Residential (at 4.8 units/gross acre)	(29)
R-4 Multiple-Family Residential (at 6.1 units/gross acre	(23)
Existing Land Deficit, gross acres (2021-2026)	**(23)**
R-1 Single Family Residential	22
R-2 Single Family Residential	15
R-3 Two Family Residential	(38)
R-4 Multiple-Family Residential	(22)
Revised Land Sufficiency, gross acres (2018-2026)	**(154)**
R-1 Single Family Residential	(23)
R-2 Single Family Residential	(18)
R-3 Two Family Residential	(67)
R-4 Multiple-Family Residential	(45)

Exhibit 105 presents the final land sufficiency results, for the period through the 2026 planning period, to account for land needed to accommodate new housing before 2021.

Exhibit 105. FINAL 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 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**

Zoning Districts	2018 Capacity (Dwelling Units)	Demand 2018-2026		Capacity in 2026		
		2018-2021 Demand (Dwelling Units)	2021-2026 Demand (Dwelling Units)	2018 Capacity minus 2018-2026 Demand (Dwelling Units)	Approx. Land Surplus or (Deficit) *Gross Acres*	Average Density of Land Surplus or (Deficit)
R-1 Single Family Residential	338	141	270	(73)	(23)	3.1
R-2 Single Family Residential	368	141	304	(77)	(18)	4.3
R-3 Two Family Residential	28	141	210	(323)	(67)	4.8
R-4 Multiple-Family Residential	127	141	262	(276)	(45)	6.1
O-R Office/Residential	3	-	-	3	0	6.3
C-3 General Commercial	-	-	-	-	0	-
Subtotal (City Limits)	864	563	1,046	(745)	(153)	4.9
County Zoning	1,496	-	-	1,496	305	4.9
Total	**2,360**	**563**	**1,046**	**751**	**152**	**4.9**

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

Exhibit 108 shows that, ~~for the 2021 to~~for the period through 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 106. 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**

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	552	(214)	(69)
R-2 Single Family Residential	368	615	(247)	(57)
R-3 Two Family Residential	28	425	(397)	(83)
R-4 Multiple-Family Residential	127	530	(403)	(66)
O-R Office/Residential	3	-	3	0
C-3 General Commercial	0	-	0	0
Subtotal (City Limits)	864	2,122	(1,258)	(275)
County Zoning	1,496	-	1,496	305
Total	**2,360**	**2,122**	**238**	**31**

~~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,[83] 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.~~

~~[83] Basis for density assumption is the historical net density for multifamily housing in McMinnville historically (2000 through July 2018).~~

~~Exhibit 105. 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)~~by zone, McMinnville will need ~~119~~ 131 gross acres of land through 2021. We applied ~~this land need~~the demand for dwelling units proportionally across McMinnville's R-1, R-2, R-3, and R-4 zoned lands and then calculated revised land sufficiency results.

Exhibit 107. Land needed through 2031

Source: Calculations by ECONorthwest. ~~Note1: revised land sufficiency in R-4 also reflects land needed for group quarters.~~ Note:2: The ~~119~~ 131 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 *(includes land need for group quarters)*	(82)
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)

Variable	Assumption
New Population (2018-2021)	1,480
Needed Dwelling Units (2018-2021)	563
Needed Gross Acres (2018-2021)	**(131)**
R-1 Single Family Residential (at 3.1 units/gross acre)	(45)
R-2 Single Family Residential (at 4.3 units/gross acre)	(33)
R-3 Two Family Residential (at 4.8 units/gross acre)	(29)
R-4 Multiple-Family Residential (at 6.1 units/gross acre	(23)
Existing Land Deficit, gross acres (2021-2031)	**(275)**
R-1 Single Family Residential	(69)
R-2 Single Family Residential	(57)
R-3 Two Family Residential	(83)
R-4 Multiple-Family Residential	(66)
Revised Land Sufficiency, gross acres (2018-2031)	**(406)**
R-1 Single Family Residential	(114)
R-2 Single Family Residential	(90)
R-3 Two Family Residential	(112)
R-4 Multiple-Family Residential	(89)

Exhibit 108 presents the final land sufficiency results, for the period through 2031, to account for land needed to accommodate new housing before 2021.

Exhibit 108. FINAL comparison of capacity of existing residential land with need for new dwelling units, requiring vacant and partially vacant lands (Excluding Zone 2), and land surplus or deficit, McMinnville UGB, through 2031

Source: Calculations by ECONorthwest. Note1:: 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~~. Note2: Average overall density (3.3 dwelling units per acre) is, in appearance, low due to supply limitations (exclusion of Water Zone 2 acreage) and a larger deficit of capacity in R-1 and R-2 lands compared to the planning period through 2026.

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)**

		Demand 2018-2031		Capacity in 2031		
Zoning Districts	2018 Capacity (Dwelling Units)	2018-2021 Demand (Dwelling Units)	2021-2031 Demand (Dwelling Units)	2018 Capacity minus 2018-2031 Demand (Dwelling Units)	Approx. Land Surplus or (Deficit) *Gross Acres*	Average Density of Land Surplus or (Deficit)
R-1 Single Family Residential	338	141	552	(355)	(114)	3.1
R-2 Single Family Residential	368	141	615	(388)	(90)	4.3
R-3 Two Family Residential	28	141	425	(538)	(112)	4.8
R-4 Multiple-Family Residential	127	141	530	(544)	(89)	6.1
O-R Office/Residential	3	-	-	3	0	6.3
C-3 General Commercial	-	-	-	0	0	-
Subtotal (City Limits)	864	563	2,122	(1,821)	(405)	4.5
County Zoning	1,496	-	-	1,496	305	4.9
Total	**2,360**	**563**	**2,122**	**(325)**	**(100)**	**3.3**

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

Exhibit 111 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 109. 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)

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	2,628	(2,179)	(703)
R-2 Single Family Residential	561	2,924	(2,363)	(550)
R-3 Two Family Residential	28	2,026	(1,998)	(416)
R-4 Multiple-Family Residential	127	2,528	(2,401)	(394)
O-R Office/Residential	3	-	3	0
C-3 General Commercial	0	-	0	0
Subtotal (City Limits)	1,168	10,106	(8,938)	(2,062)
County Zoning	1,753	-	1,753	358
Total	**2,921**	**10,106**	(7,185)	(1,704)

~~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,[84] 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 109. 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 by zone(4.9 dwelling units per gross acre), McMinnville will need 119 131 gross acres of land through 2021. We applied this land need demand for dwelling units proportionally across McMinnville's R-1, R-2, R-3, and R-4 zoned lands and then calculated revised land sufficiency results.

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

Exhibit 110. Land needed through 2067

Source: Calculations by ECONorthwest. ~~Note1: revised land sufficiency in R-4 also reflects land needed for group quarters.~~ Note~~2~~: The ~~119~~ 131 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 *(includes land need for group quarters)*	(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)

Variable	Assumption
New Population (2018-2021)	1,480
Needed Dwelling Units (2018-2021)	563
Needed Gross Acres (2018-2021)	**(131)**
R-1 Single Family Residential (at 3.1 units/gross acre)	(45)
R-2 Single Family Residential (at 4.3 units/gross acre)	(33)
R-3 Two Family Residential (at 4.8 units/gross acre)	(29)
R-4 Multiple-Family Residential (at 6.1 units/gross acre	(23)
Existing Land Deficit, gross acres (2021-2067)	**(2,062)**
R-1 Single Family Residential	(703)
R-2 Single Family Residential	(550)
R-3 Two Family Residential	(416)
R-4 Multiple-Family Residential	(394)
Revised Land Sufficiency, gross acres (2018-2067)	**(2,193)**
R-1 Single Family Residential	(748)
R-2 Single Family Residential	(582)
R-3 Two Family Residential	(446)
R-4 Multiple-Family Residential	(417)

Exhibit 111 presents the final land sufficiency results, for the period through 2067, to account for land needed to accommodate new housing before 2021.

Exhibit 111. FINAL 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 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)

		Demand 2018-2067		Capacity in 2067		
Zoning Districts	2018 Capacity (Dwelling Units)	2018-2021 Demand (Dwelling Units)	2021-2067 Demand (Dwelling Units)	2018 Capacity minus 2018-2067 Demand (Dwelling Units)	Approx. Land Surplus or (Deficit) *Gross Acres*	Average Density of Land Surplus or (Deficit)
R-1 Single Family Residential	449	141	2,628	(2,320)	(748)	3.1
R-2 Single Family Residential	561	141	2,924	(2,504)	(582)	4.3
R-3 Two Family Residential	28	141	2,026	(2,139)	(446)	4.8
R-4 Multiple-Family Residential	127	141	2,528	(2,542)	(417)	6.1
O-R Office/Residential	3	-	-	3	0	6.3
C-3 General Commercial	-	-	-	0	0	
Subtotal (City Limits)	1,168	563	10,106	(9,501)	(2,192)	4.3
County Zoning	1,753	-	-	1,753	358	4.9
Total	**2,921**	**563**	**10,106**	**(7,748)**	**(1,835)**	**4.2**

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~~ 657 new dwelling units over the 20-year planning period (2021 to 2041). McMinnville will have demand for about 1,~~079~~ 136 new dwelling units ~~and~~ for the 5-year period between 2026 and 2031, about 2,~~190~~ 305 new dwelling units for the 10-year period between 2021 and 2031, and about 10,~~435~~ 986 new dwelling units for the 46-year period between 2021 and 2067.

McMinnville will need to accommodate an average development trajectory of ~~221~~ 233 *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~~ 373 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~~ 284 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.[85]

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:

[85] This calculation is based on average, historical density by housing type. The existing analysis presented in Chapter 6 is calculated using average, historical density by zone.

- ~~965~~ 1,016 **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~~ 711 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~~ 930 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 through 2041, McMinnville has a deficit of capacity for ~~1,149~~1,926 dwelling units which means the City has an approximate deficit of about ~~452~~ 473 gross acres, after deducting land needed ~~for group quarters and~~ to accommodate housing development ~~between 2021 and~~ through 2021. Housing demand ~~Residential capacity (in acres) for the 5 , 10 , 20 , and 46 year periods~~and capacity (in acres) for the 5-, 10-, 20-, and 46-year periods is summarized in Exhibit 112 and Exhibit 113.

Exhibit 112~~115~~. 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

	New Dwelling Units			
	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:	1,136	2,305	4,657	10,986
Less Infill/Redev (8%)	(91)	(184)	(373)	(879)
Equals **D.U.s requiring Vacant/Partially Vacant Land**	**1,045**	**2,121**	**4,284**	**10,107**

Exhibit 113~~113~~113. 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)

	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)	(131)	(131)	(131)	(131)	(131)	(131)
Surplus/Deficit	396	530	396	530	530	530
Supply (2021)	396	530	396	530	530	530
Demand (Post 2021)	(244)	(244)	(497)	(497)	(1,002)	(2,364)
Surplus/Deficit	152	286	(100)	34	(472)	(1,834)

Appendix A. Residential Buildable Lands Inventory Methods

The general structure of the residential buildable land (supply) inventory is generally based on the DLCD HB 2709 workbook "*Planning for Residential Growth – A Workbook for Oregon's Urban Areas*," which specifically addresses residential lands. The buildable lands inventory uses methods and definitions that are consistent with Goal 10/OAR 660-008.

ECONorthwest used 2018 and 2017 (assessor tax year) data for this report. The following provides an overview of the buildable land inventory methodology.

Overview of the Methodology

The McMinnville BLI includes all residential land designated in zones or plan designations within the McMinnville UGB. From a practical perspective, this means that all lands within tax lots identified by the Yamhill County Assessment and Taxation Department that fall within the UGB were inventoried. ECO used the most recent tax lot shapefile (that was available at the time of the analysis) and assessor's roll data from Yamhill County for the analysis. The inventory then builds from the tax lot-level database to estimates of buildable land by zone.

The buildable lands analysis was completed through several sequential steps.

Step 1: Generate "land base." Per Goal 10 this involves selecting all of the tax lots in the McMinnville UGB with residential zones and "lands that may be used for a mix of residential and employment uses under the existing planning or zoning."

ECONorthwest included the following zones in the residential inventory, based on statutory requirements in ORS 197.296(4)(a):

- R-1 Single-Family Residential
- R-2 Single-Family Residential
- R-3 Two-Family Residential
- R-4 Multiple-Family Residential
- O-R Office/Residential
- C-3 General Commercial

Since McMinnville has a single residential plan designation, the land base includes these zones as well as any additional tax lots within the residential plan designation. For lands in the UGB that have the Residential plan designation but still retain county zoning, properties within the Residential plan designation were included in the BLI.

Step 2: Classify lands by development status. Next, the analysis classified each parcel into one of the following categories based on development status.

- Developed land
- Vacant land
- Partially vacant land
- Public or Exempt land

Step 3: Identify constraints. Consistent with the Division 8 rule, this includes floodways, floodplains (including lands in McMinnville's floodplain zone), regulated wetlands, lands with slopes of 25% or greater, landslide hazards (including the DOGAMI SLIDO database as well as lands with "high" or "very high" susceptibility to landslides), and service constrained lands. All constraints were merged into a single constraint file, which was used to identify the area of each tax lot that is constrained. These areas were deducted from lands that were identified as vacant or partially vacant.

Step 4: Verification. ECONorthwest used a multi-step verification process to ensure the accuracy of the BLI. The first verification step included a "rapid visual assessment" of land classifications using GIS and recent aerial photos to verify uses on the ground. The second round of verification involved City staff verifying the rapid visual assessment output. ECONorthwest amended the BLI based on City staff review and a discussion of the City's comments.

The inventory was completed primarily using Geographic Information Systems (GIS) mapping technology. The output of this analysis is a database of land inventory information, which is summarized in both tabular and map format in Chapter 2. Although data for the inventory was gathered and evaluated at the parcel level, the inventory does not present a parcel-level analysis of lot availability and suitability. The results of the inventory have been aggregated by zone (city limits) and plan designation (outside city limits and in UGB), consistent with state planning requirements.

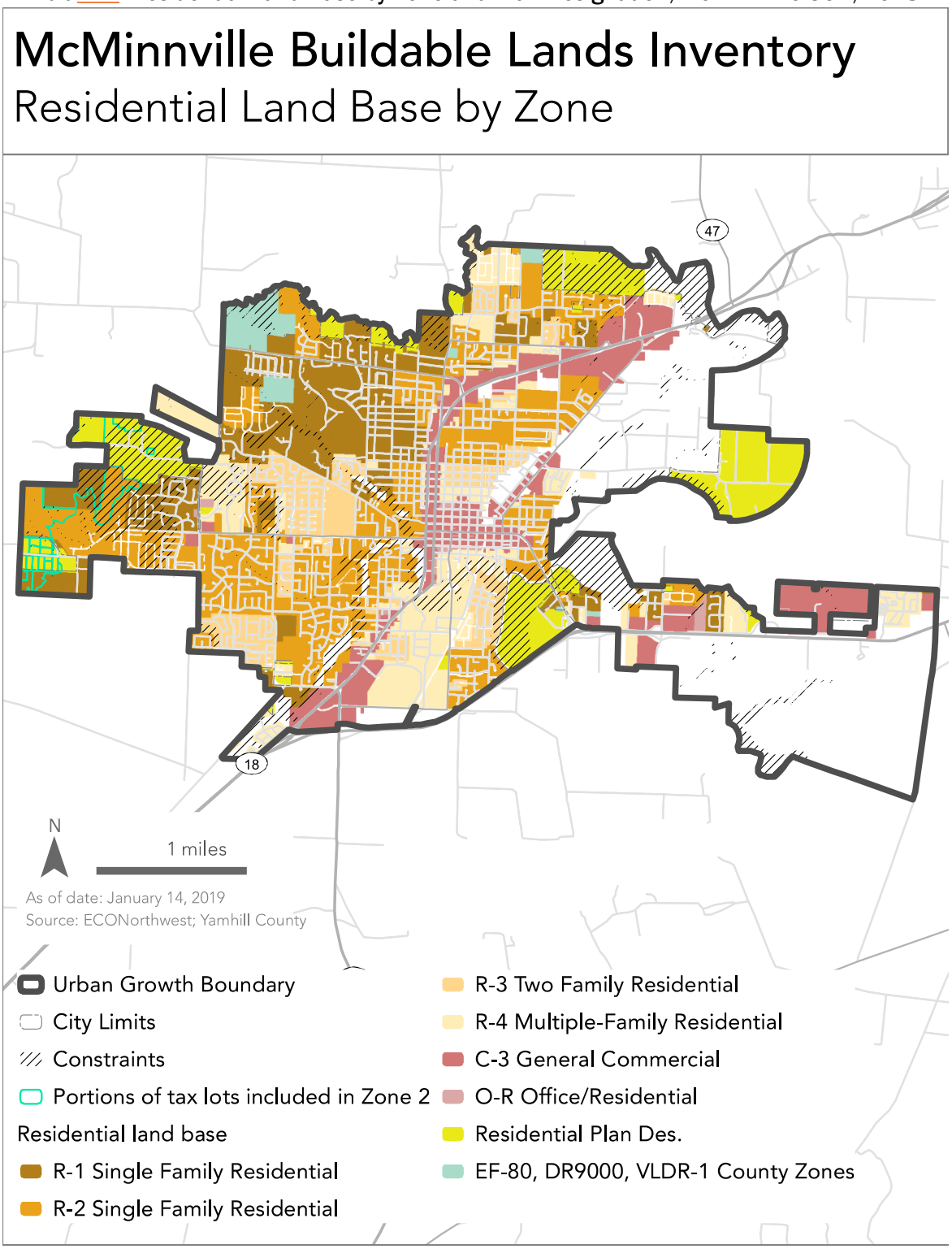
Data used for the analysis was provided by the City of McMinnville and the Yamhill County Assessor and Taxation Department, as well as statewide and national datasets. Specific data used included city/urban growth boundaries, tax lots, zoning, National Wetlands Inventory, DOGAMI landslide hazards and susceptibility, floodway and floodplains, conservation easements, and slopes. The tax lot data was current as of August 2018.

Residential Land Base

Exhibit 114 (on the following page) shows the zones and plan designations included in the residential land base. This BLI includes lands in the R-1, R-2, R-3, R-4, O-R, and C-3 zones, as well as other land in the Residential plan designation. Tax lots with a residential use in the F-P zone or FP plan designation were also included on a case-by-case basis, based on proximity to other residential land or using property class data to determine if the tax lot has a residential use. Land in zones that do not allow residential use were not included. These tax lots were assigned a residential zone or plan designation based on proximity to other residential zones, since the floodplain zone was included as a constraint.

Land in the Zone 2 contour was also identified due to additional considerations for capacity. Using the Intersect tool in GIS, land in tax lots either completely within or partially within the Zone 2 were calculated separately from land in those tax lots in Zone 1.

Exhibit 114. Residential Land Base by Zone and Plan Designation, McMinnville UGB, 2018



Appendix B. Scenario Modeling

ECONorthwest developed scenario models to inform Project Advisory Committee discussions about needed housing mix and density. This appendix presents the models, for reference.

Housing Forecast by Housing Type

This section documents the process in determining needed housing mix and density assumptions. To inform the Project Advisory Committee's recommendation for the housing mix assumption, ECONorthwest modeled four housing mix scenarios. ECONorthwest used the scenarios to illustrate how housing mix impacts capacity and land sufficiency. The four scenarios were:

- **Existing Mix (ACS 2013-2017):** 68% single-family detached, 9% single-family attached, and 23% multifamily
- **Historical Mix (Housing Permitted 2000 to 2018):** 62% single-family detached, 8% single-family attached, and 31% multifamily
- **Scenario 1 (Preliminary Needed Mix):** 60% single-family detached, 10% single-family attached, and 30% multifamily
- **Scenario 2 (Preliminary Needed Mix):** 55% single-family detached, 12% single-family attached, and 33% multifamily

Using the four scenarios, ECONorthwest forecasted needed housing in McMinnville by housing type. Exhibit 115 presents a 20-year forecast (using the four scenarios), and Exhibit 116 presents the 5-, 10-, 20-, and 46-year forecasts (using the historic mix scenario).

Exhibit 115. Scenario Model: Forecast of demand for new dwelling units, McMinnville UGB, 2021 to 2041

Source: Calculations by ECONorthwest. Note: Baseline housing mix is McMinnville's existing housing mix per U.S. Census, 2013-2017 ACS, Table B25024.

Variable	Existing Mix (ACS 2013-2017)	Historic Mix (2000 to 2018)	Scenario 1	Scenario 2
Needed new dwelling units (2021-2041)	4,424	4,424	4,424	4,424
Dwelling units by structure type				
Single-family detached				
Percent single-family detached DU	**68%**	**62%**	**60%**	**55%**
equals total new single-family detached DU	3,009	2,733	2,654	2,433
Single-family attached				
Percent single-family attached DU	**9%**	**8%**	**10%**	**12%**
equals total new single-family attached DU	399	332	442	531
Multifamily				
Percent multifamily	**23%**	**31%**	**30%**	**33%**
equals total new multifamily	1,016	1,359	1,328	1,460
equals Total new dwelling units (2021-2041)	**4,424**	**4,424**	**4,424**	**4,424**

Exhibit 116. Scenario Model: 5, 10, and 46-year forecast of demand for new dwelling units, McMinnville UGB, 2021 to 2067

Source: Calculations by ECONorthwest. Note: this exhibit uses the historic mix scenario.

Variable	Baseline Forecast			
	2021 to 2026 (5-Year)	2021 to 2031 (10-Year)	2021 to 2041 (20-Year)	2021 to 2067 (46-year)
Needed new dwelling units	1,079	2,190	4,424	10,435
Dwelling units by structure type				
Single-family detached				
Percent single-family detached DU	62%	62%	62%	62%
equals Total new single-family detached DU	667	1,353	2,733	6,447
Single-family attached				
Percent single-family attached DU	8%	8%	8%	8%
equals Total new single-family attached DU	81	164	332	783
Multifamily				
Percent multifamily	31%	31%	31%	31%
Total new multifamily	331	673	1,359	3,205
equals Total new dwelling units	**1,079**	**2,190**	**4,424**	**10,435**

The housing mix determination over the 2021 to 2041 period will impact McMinnville's overall housing mix in 2041. Exhibit 117 displays what McMinnville's overall housing mix would be in 2041, based on each of the four scenarios. Exhibit 118 displays what McMinnville's overall housing mix would be at year end of each of McMinnville's various planning horizons (2026, 2031, 2041, and 2067)

Exhibit 117. Scenario Model: Estimated aggregate future housing mix, McMinnville UGB, 2041

Source: Calculations by ECONorthwest. Note: According to the U.S. Census, McMinnville had 8,902 single-family detached units, 1,180 single-family attached units, and 3,007 multifamily units (totaling 13,089 dwelling units) in the 2013-2017 period. The 17,513 (total) is the 13,089 units, plus the 4,424 needed new units.

	Existing Mix (ACS 2013-2017)	Historic Mix (2000 to 2018)	Scenario 1	Scenario 2
Single-Family Detached				
Number	11,911	11,635	11,556	11,335
Percent	68%	66%	66%	65%
Single-Family Attached				
Number	1,579	1,512	1,622	1,711
Percent	9%	9%	9%	10%
Multifamily Units				
Number	4,023	4,366	4,335	4,467
Percent	23%	25%	25%	26%
Total	**17,513**	**17,513**	**17,513**	**17,513**

Exhibit 118. Scenario Model: Estimated aggregate future housing mix, McMinnville UGB, 2026, 2031, 2041, and 2067

Source: Calculations by ECONorthwest. Note: According to the U.S. Census, McMinnville had 8,902 single-family detached units, 1,180 single-family attached units, and 3,007 multifamily units (totaling 13,089 dwelling units) in the 2013-2017 period. The totals are 13,089 units, plus the number of units needed in 5, 10, 20, and 46-years.

	Single-Family Detached		Single-Family Attached		Multifamily Units		
	Number	Percent	Number	Percent	Number	Percent	Total
2026 (5-year)							
Existing Mix	9,636	68%	1,277	9%	3,255	23%	14,168
Baseline Historic Mix	9,570	68%	1,261	9%	3,338	24%	14,169
Scenario 1	9,549	67%	1,288	9%	3,331	24%	14,168
Scenario 2	9,495	67%	1,309	9%	3,363	24%	14,168
2031 (10-year)							-
Existing Mix	10,391	68%	1,377	9%	3,510	23%	15,279
Baseline Historic Mix	10,255	67%	1,344	9%	3,680	24%	15,279
Scenario 1	10,216	67%	1,399	9%	3,664	24%	15,279
Scenario 2	10,107	66%	1,443	9%	3,730	24%	15,279
2041 (20-year)							-
Existing Mix	11,911	68%	1,579	9%	4,023	23%	17,513
Baseline Historic Mix	11,635	66%	1,512	9%	4,366	25%	17,513
Scenario 1	11,556	66%	1,622	9%	4,335	25%	17,513
Scenario 2	11,335	65%	1,711	10%	4,467	26%	17,513
2067 (46-year)							-
Existing Mix	15,999	68%	2,121	9%	5,404	23%	23,524
Baseline Historic Mix	15,349	65%	1,963	8%	6,212	26%	23,524
Scenario 1	15,163	64%	2,224	9%	6,138	26%	23,524
Scenario 2	14,641	62%	2,432	10%	6,451	27%	23,524

Allocation of Needed Housing

ECONorthwest modeled allocation analyses for each of the four housing mix scenarios. The scenario models, for the 20-year planning period, are presented in Exhibit 119 through Exhibit 122 and do not reflect updated group quarters assumptions or account for units accommodated by ~~redevelopment or by accessory dwelling units.~~ infill or redevelopment.

These models illustrate the first step in a two-step process to develop the refined allocation models in Chapter 5 (Exhibit 90, Exhibit 91, Exhibit 92, and Exhibit 93). The first step in the allocation analysis (presented here) is based on McMinnville's historic share of housing developed in each of McMinnville's existing zones between 2000 and 2018. For example, between 2000 and 2018, 16% of McMinnville's housing development occurred in R-1, 44% occurred in R-2, 6% in R-3, and 34% in R-4.

The refined allocation models presented in Chapter 5 aim to balance future housing demand among zones rather than allocate demand based on McMinnville's limited / constrained supply of vacant and partially vacant lands within existing zones.

Exhibit 119. Scenario Model: Allocation of needed housing by housing type and zone designation, existing mix scenario, McMinnville UGB, 2021 to 2041

Source: Calculations by ECONorthwest.

Zoning Designations	Residential Plan Designation					County Zoning	C-3	Total
	R-1	R-2	R-3	R-4	O-R			
Dwelling Units								
Single-family detached	575	1,504	88	842	-	-	-	3,009
Single-family attached	44	89	44	222	-	-	-	399
Multifamily	68	391	115	442	-	-	-	1,016
Total	687	1,984	247	1,506	-	-	-	4,424
Percent of Units								
Single-family detached	13%	34%	2%	19%	0%	0%	0%	68%
Single-family attached	1%	2%	1%	5%	0%	0%	0%	9%
Multifamily	2%	9%	3%	10%	0%	0%	0%	23%
Total	16%	45%	6%	34%	0%	0%	0%	100%

Exhibit 120. Scenario Model: Allocation of needed housing by housing type and zone designation, historic mix scenario, McMinnville UGB, 2021 to 2041

Source: Calculations by ECONorthwest.

Housing Type	Residential Plan Designation					County Zoning	C-3	Total
	R-1	R-2	R-3	R-4	O-R			
Dwelling Units								
Single-family detached	575	1,406	88	664	-	-	-	2,733
Single-family attached	44	89	44	155	-	-	-	332
Multifamily	68	473	115	703	-	-	-	1,359
Total	687	1,968	247	1,522	-	-	-	4,424
Percent of Units								
Single-family detached	13%	32%	2%	15%	0%	0%	0%	62%
Single-family attached	1%	2%	1%	4%	0%	0%	0%	8%
Multifamily	2%	11%	3%	16%	0%	0%	0%	31%
Total	16%	44%	6%	34%	0%	0%	0%	100%

Exhibit 121. Scenario Model: Allocation of needed housing by housing type and zone designation, scenario 1, McMinnville UGB, 2021 to 2041

Source: Calculations by ECONorthwest.

Housing Type	Residential Plan Designations					County Zoning	C-3	Total
	R-1	R-2	R-3	R-4	O-R			
Dwelling Units								
Single-family detached	575	1,416	88	575	-	-	-	2,654
Single-family attached	44	110	66	222	-	-	-	442
Multifamily	88	442	133	665	-	-	-	1,328
Total	707	1,968	287	1,462	-	-	-	4,424
Percent of Units								
Single-family detached	13%	32%	2%	13%	0%	0%	0%	60%
Single-family attached	1%	2%	1%	5%	0%	0%	0%	10%
Multifamily	2%	10%	3%	15%	0%	0%	0%	30%
Total	16%	44%	6%	33%	0%	0%	0%	100%

Exhibit 122. Scenario Model: Allocation of needed housing by housing type and zone designation, scenario 2, McMinnville UGB, 2021 to 2041

Source: Calculations by ECONorthwest.

Housing Type	Residential Plan Designations					County Zoning	C-3	Total
	R-1	R-2	R-3	R-4	O-R			
Dwelling Units								
Single-family detached	531	1,283	88	531	-	-	-	2,433
Single-family attached	44	221	44	222	-	-	-	531
Multifamily	133	442	133	752	-	-	-	1,460
Total	708	1,946	265	1,505	-	-	-	4,424
Percent of Units								
Single-family detached	12%	29%	2%	12%	0%	0%	0%	55%
Single-family attached	1%	5%	1%	5%	0%	0%	0%	12%
Multifamily	3%	10%	3%	17%	0%	0%	0%	33%
Total	16%	44%	6%	34%	0%	0%	0%	100%

Needed Densities

A city's average residential density is influenced by the city's housing mix. Using the four housing mix scenarios and McMinnville's historic densities (Exhibit 95), ECONorthwest illustrated how average gross densities *increase* as the share of single-family detached housing *decreases*.

Exhibit 123. Scenario Model: Estimated aggregate residential densities, McMinnville UGB, 2021 to 2041
Source: Calculations by ECONorthwest.

Variable	Existing Mix (ACS 2013-2017)	Historic Mix (2000 to 2018)	Scenario 1	Scenario 2
Dwelling units by structure type				
Single-family detached	3,009	2,733	2,654	2,433
Average gross density SFD	3.6	3.6	3.6	3.6
equals gross acres needed for SFD	**836**	**759**	**737**	**676**
Single-family attached	399	332	442	531
Average gross density SFA	9.3	9.3	9.3	9.3
equals gross acres needed for SFA	**43**	**36**	**48**	**57**
Multifamily	1,016	1,359	1,328	1,460
Average gross density MF	13.7	13.7	13.7	13.7
equals gross acres needed for MF	**74**	**99**	**97**	**107**
Total				
Housing Units	4,424	4,424	4,424	4,424
Average Gross Density	4.6	4.9	5.0	5.3
Gross Acres	**953**	**894**	**882**	**839**

Land Sufficiency Approximations for the 2021 to 2041 planning period

Exhibit 124, Exhibit 125, Exhibit 126, and Exhibit 127 show the residential land sufficiency results, modeled using each of the four housing mix scenarios. Notes about the models:

- Modeled results in this appendix do not reflect land needed ~~for group quarters or land needed~~to accommodate housing development before 2021, which is addressed in the main report.
- Modeled results in this appendix used a different methodology for group quarters, resulting in a different estimate for housing demand.
- Modeled results do not reflect assumptions for dwelling units accommodated through ~~redevelopment or by accessory dwelling units~~infill or redevelopment.

The scenario models show that McMinnville's 721 buildable acres (660 in residential zones), available for residential development, has capacity for 2,921 dwelling units. Over the 2021 to 2041 planning period McMinnville will have demand for 4,424 dwelling units. At densities observed between 2000 and 2018, this translates into a land deficit of (1) 321 gross acres in the

existing mix scenario, (2) 320 gross acres in the historical mix scenario, (3) 325 gross acres in scenario 1, and (4) 323 gross acres in scenario 2. Each scenario showed that McMinnville does not have sufficient capacity to accommodate needed new housing in R-1, R-2, R-3, and R-4 zoned areas.

Note: due to the way demand was allocated to zones in the allocation scenario models (see Exhibit 119, Exhibit 120, Exhibit 121, and Exhibit 122 as well as corresponding basis), the approximate land surplus / deficit are relatively similar across models. Accordingly, the models allocate housing demand to zones comparably across models and at an average density applied on total units per zone.

Exhibit 124. Scenario Model: Comparison of capacity of existing residential land with need for new dwelling units and land surplus or deficit, existing mix, McMinnville UGB, 2021 to 2041
Source: Buildable Lands Inventory; Calculations by ECONorthwest. Note: DU is dwelling unit.

Zoning Districts	Capacity (Dwelling Units)	Demand (Dwelling Units)	Capacity minus Demand (Dwelling Units)	Approx. Land Surplus or (Deficit) -Gross Acres-
R-1 Single Family Residential	449	687	(238)	(77)
R-2 Single Family Residential	561	1984	(1,423)	(331)
R-3 Two Family Residential	28	247	(219)	(46)
R-4 Multiple-Family Residential	127	1506	(1,379)	(226)
O-R Office/Residential	3	0	3	0
C-3 General Commercial	-	0	0	0
County Zoning	1,753	0	1,753	358
Total	**2,921**	**4,424**	**(1,503)**	**(321)**

Exhibit 125. Scenario Model, Comparison of capacity of existing residential land with need for new dwelling units and land surplus or deficit, historical mix, McMinnville UGB, 2021 to 2041
Source: Buildable Lands Inventory; Calculations by ECONorthwest. Note: DU is dwelling unit.

Zoning Districts	Capacity (Dwelling Units)	Demand (Dwelling Units)	Capacity minus Demand (Dwelling Units)	Approx. Land Surplus or (Deficit) -Gross Acres-
R-1 Single Family Residential	449	687	(238)	(77)
R-2 Single Family Residential	561	1968	(1,407)	(327)
R-3 Two Family Residential	28	247	(219)	(46)
R-4 Multiple-Family Residential	127	1522	(1,395)	(229)
O-R Office/Residential	3	0	3	0
C-3 General Commercial	-	0	0	0
County Zoning	1,753	0	1,753	358
Total	**2,921**	**4,424**	**(1,503)**	**(320)**

Exhibit 126. Scenario Model: Comparison of capacity of existing residential land with need for new dwelling units and land surplus or deficit, scenario 1, McMinnville UGB, 2021 to 2041

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

Zoning Districts	Capacity (Dwelling Units)	Demand (Dwelling Units)	Capacity minus Demand (Dwelling Units)	Approx. Land Surplus or (Deficit) -Gross Acres-
R-1 Single Family Residential	449	707	(258)	(83)
R-2 Single Family Residential	561	1,968	(1,407)	(327)
R-3 Two Family Residential	28	287	(259)	(54)
R-4 Multiple-Family Residential	127	1,462	(1,335)	(219)
O-R Office/Residential	3	-	3	0
C-3 General Commercial	-	-	0	0
County Zoning	1,753	-	1,753	358
Total	**2,921**	**4,424**	**(1,503)**	**(325)**

Exhibit 127. Scenario Model: Comparison of capacity of existing residential land with need for new dwelling units and land surplus or deficit, scenario 2, McMinnville UGB, 2021 to 2041

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

Zoning Districts	Capacity (Dwelling Units)	Demand (Dwelling Units)	Capacity minus Demand (Dwelling Units)	Approx. Land Surplus or (Deficit) -Gross Acres-
R-1 Single Family Residential	449	708	(259)	(84)
R-2 Single Family Residential	561	1,946	(1,385)	(322)
R-3 Two Family Residential	28	265	(237)	(49)
R-4 Multiple-Family Residential	127	1,505	(1,378)	(226)
O-R Office/Residential	3	-	3	0
C-3 General Commercial	-	-	0	0
County Zoning	1,753	-	1,753	358
Total	**2,921**	**4,424**	**(1,503)**	**(323)**