CLARK COUNTY BUILDABLE LANDS REPORT

DEPARTMENT OF COMMUNITY PLANNING

September 30, 2021

ACKNOWLEDGEMENTS

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[1] Resigned from committee in December 2020

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Executive Summary

Background

In 2017, the Washington Legislature passed E2SSB 5254 which amended the Buildable Lands statute (RCW 36.70A.215). The Department of Commerce prepared an updated guidebook (Buildable Lands Program Guidelines) in 2018. The guidebook describes best practices and methodologies related to preparing buildable land reports, including an emphasis on "showing your work," or using assumptions that are evidence-based.

In October 2019, Clark County contracted with ECONorthwest and AHBL to assist in these updates to the methodology and Vacant Buildable Lands Model (VBLM). In addition, Council appointed the Buildable Lands Project Advisory Committee (BLPAC) to provide a recommendation on potential refinements to the Buildable Lands program. The BLPAC met eight times between December 2019 and January 2021 in open, public meetings, reviewing data analysis, findings, and preliminary recommendations. The BLPAC considered options and provided recommendations to the County Council for updates to the VBLM assumptions. A summary of these recommendations was provided in the BLPAC Report, found in Appendix A.

Through 2021, the Clark County Buildable Lands Team engaged the County Council and regional stakeholders in consideration of the BLPAC recommendations. From this dialogue, an additional version of VBLM assumptions was produced, known as the Building Industry Coalition Version 5 model version. This version was informed by supplementary inputs from the Building Industry Association of Clark County (BIA). On June 29, 2021, County Council adopted an amended version of the Building Industry Coalition Version 5 model version for use in VBLM analyses for this report (Resolution 2021-06-20, Appendix B).

The Washington Legislature through the Department of Commerce has prioritized Housing Availability and Affordability. Commerce established a new affordable housing reasonable measure. However, there are no existing affordable housing standards established, this will be a part of the 2025 Comprehensive Plan update and will require collaboration with the jurisdictions to amend the countywide planning policies to establish measurable affordability targets and or policies. These affordability measures will be included in subsequent Buildable Lands reports.

Are We Achieving Our Goals?

What is the actual density and type of housing that has been constructed in urban growth areas (UGAs) since the last comprehensive plan was adopted or the last seven-year evaluation completed? From 2016 to 2020, 21,121 housing units were developed in urbanized Clark County[3] (Figure 8). Vancouver and the Vancouver unincorporated urban area ((U)) comprise 71% (14,982 housing units) of this development. The cities of Ridgefield and Camas represent the next largest shares of urban residential development with 2,378 (11%) and 1,927 (9%) housing units, respectively.

This development covered 2,353 acres of urbanized residential land (Figure 8). The Vancouver (U) represented 1,023 acres of this developed land, the largest share (43%) of urbanized communities. While new housing units in the City of Vancouver and the Vancouver (U) were similar – 7,449 units in the city and 7,533 in the UGA – the UGA development covered two and a half times the amount of land area.

Overall, 60% of urban Clark County residential development from 2016 to 2020 was single-family housing units (Figure 8). Camas and Washougal maintain a residential development split with no more than 75% of new housing

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[3] Urbanized Clark County refers to incorporated cities and towns, and the Vancouver unincorporated urban area (U), the only (U) with urbanized public utilities, provided by Clark Regional Wastewater District and Clark Public Utilities.

stock being of a single product type. In Vancouver, 76% of residential development was multi-family housing. In all other cities, towns, and the Vancouver (U), single-family housing was the majority housing product developed, and it represented more than 75% of residential development.

All cities and the Vancouver (U) met their residential density targets (Figure 9). At 18.3 housing units per acre, residential development was densest in Vancouver. Ridgefield and the Vancouver (U) follow, averaging 7.7 and 7.4 housing units per acre, respectively.

Clark County added 20,100 jobs through 2019 (Figure 5). Employment growth exceeded the jobs to household ratio of 1:1 until the pandemic struck, which resulted in significant job losses in 2020. The Construction, Mining and Logging sector led the County in employment growth in both percentage terms (43%) and nominal growth (4,600). The Leisure and Hospitality Sector lost 3,500 jobs in 2020 that wiped out all of the gains from the previous four years.

Based on the estimated VBLM capacity of 71,157 (Figure 15), redevelopment and employment growth on publicly owned land there is sufficient capacity to accommodate the remaining 80,100 jobs planned through 2035.

Where We Go From Here

Based on the 2021 VBLM (Resolution 2021-06-2020), there are 4,476 net buildable acres in Clark County urbanized areas that can accommodate the remaining population through the 2035 planning horizon (Figure 10 and Figure 11). With the assumption of 2.66 people per household (Resolution 2016-03-01), and the observed density of 9 housing units per acre overall (Figure 10).

There are four jurisdictions Battle Ground, La Center, Ridgefield and Woodland that show a deficit in acres needed to accommodate the 2035 population. Except for Battle Ground, the deficits are less than 100 acres. Although Battle Ground has a deficit of 165 acres the City of Battle Ground recently completed a Housing Action Plan which includes a housing needs assessment. The City of Battle Ground is engaged in a Land Use Master Plan process in anticipation of the upcoming Comprehensive Plan update process in 2025 to address their future housing capacity.

Part 1: Introduction

This analysis, called the Buildable Lands Report, is Clark County's evaluation of the adequacy of the remaining suitable residential, commercial, and industrial land supply within urban growth areas (UGAs) to accommodate projected growth at observed development densities. It is the fourth such report since 2002, produced in compliance with RCW.70A.215.

The State of Washington enacted the Growth Management Act (GMA) in 1990, establishing the State's framework for local community planning. The GMA requires counties, cities, and towns to articulate plans for accommodating future growth in a periodically updated Comprehensive Plan. These Comprehensive Plans must be consistent with the State's GMA Goals (RCW 36.70A.020), as well as their county's adopted Countywide Planning Policies. In 1997, the State's Review and Evaluation Program, commonly known as the "Buildable Lands Program", was added to the GMA (RCW 36.70A.215). It requires seven counties and the cities and towns within them to establish their own buildable lands programs, issuing a report every eight years.[4]

In 2017, the Washington Legislature passed E2SSB 5254 which amended the Buildable Lands statute (RCW 36.70A.215). The Department of Commerce prepared an updated guidebook (Buildable Lands Program Guidelines) in 2018. The guidebook describes best practices and methodologies related to preparing buildable land reports, including an emphasis on "showing your work," or using assumptions that are evidence-based.

Each county's buildable lands program consists of five components:

- **Implementation Framework.** Clark County's Community Framework Plan establishes a long-term vision for the growth of Clark County consistent with the GMA and articulates the Countywide Planning Policies to implement that overall vision.
- **Comprehensive Plans and Development Regulations.** Clark County's Comprehensive Plan defines the County's Buildable Lands Program, and guides growth and development through planned land uses and densities over a 20-year planning period, to be consistent with the Countywide Planning Policies. In turn, cities and towns within the county articulate their own comprehensive plans and development regulations to be consistent with those at the county level.
- **Data Collection.** Clark County coordinates with its cities to collect development data documenting each jurisdiction's progress toward its growth management goals.
- **Data Evaluation.** Clark County evaluates land supply and achieved densities to determine whether there is enough land within urban growth areas to accommodate forecasted growth for the remainder of the 20-year planning period, and that adopted density targets are being achieved.
- **Reasonable Measures.** If the evaluation identifies inconsistencies between achieved densities, density targets, and forecasted growth, the County and jurisdictions within shall implement reasonable measures to reduce these differences.

Implementation Framework

The Buildable Lands Program seeks to fulfill the following GMA Goals within Clark County (RCW 36.70A.020):

1. **Urban growth.** Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner.
2. **Reduce sprawl.** Reduce the inappropriate conversion of undeveloped land into sprawling, low-density development.

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[4] The counties required to participate in the Buildable Lands Program are: Clark, King, Kitsap, Pierce, Snohomish, Thurston and (as of 2017) Whatcom.

Clark County's Countywide Planning Policies articulate the following land use policies, related to the Buildable Lands Program:

1.1 Framework Plan Policies

1.1.0 Establish a hierarchy of urban growth areas activity centers and rural centers. Hierarchy of urban areas and Rural Centers: All planning should be in the form of complete and integrated communities containing housing, shops, work places, schools, parks and civic facilities essential to the daily life of the residents. Community size should be designed so that housing, jobs, daily needs and other activities are within easy walking distance of each other.

1.1.1 Urban Growth Area Centers (UGA) have a full range of urban level-of-services and can be divided into three main categories in the following density tiers:

- Vancouver Urban Growth Area is now or will be a major urban area activity centers with a full range of residential, commercial and industrial uses, high-capacity transit (HCT) corridors, schools, major cultural and public facilities. Major urban areas centers, have or will have, urban densities of development of at least 8 units per net residential acre (6 gross units per acre) as an overall average. Areas along high capacity transit corridors and priority public transit corridors may have higher than average densities while other areas would have lower densities (e.g. established neighborhoods and neighborhoods on the fringes of the urban area). Regional institutions and services (government, museums, etc.) should be located in the urban core.
- Urban Growth Areas of Battle Ground, Camas, Ridgefield and Washougal will have a full range of residential, commercial and industrial uses, schools, neighborhood, community and regional parks, within walking distance to HCT corridors or public transit. These areas will have employment opportunities and lower densities than a major urban area centers, averaging at least 6 units per net residential acre. (4.5 gross units per acre). Higher densities occur along transit corridors and in the community center, with lower densities in established neighborhoods and on the outskirts of the community. These urban growth areas centers should have a center focus that combines commercial, civic, cultural and recreational uses.
- La Center Urban Growth Area is located in a growing area with at least 4 housing units per net residential acre (3 gross units per acre) and includes pedestrian-oriented commercial uses, schools and small parks.
- There are no standards for the Yacolt urban growth area due to lack of public sewer. A mix of residential uses and densities are or will be permitted. Neighborhoods are to have a focus around parks, schools, or common areas.

1.1.2 Rural Centers are outside of urban growth area centers and urban reserve areas and provide public facilities (e.g., fire stations, post offices, schools) and commercial facilities to support rural lifestyles. Rural centers have residential densities consistent with the surrounding rural minimum lot sizes and do not have a full range of urban levels-of-services.

Comprehensive Plan

Clark County's 2015-2035 Comprehensive Plan indicates that the Buildable Lands Program, at a minimum should answer the following questions:

- What is the actual density and type of housing that has been constructed in UGA's since the last comprehensive plan was adopted or the last seven-year evaluation completed? Are urban densities being achieved within UGA's? If not, what measures could be taken, other than adjusting UGA's, to comply with the GMA?
- How much land was actually developed for residential use and at what density since the comprehensive plan was adopted or the last seven-year evaluation completed? Based on this and other relevant information, how much land would be needed for residential development during the remainder of the 20-year comprehensive planning period?
- To what extent have capital facilities, critical areas and rural development affected the supply of land suitable for development over the comprehensive plan's 20-year timeframe?
- Is there enough suitable land in Clark County and each city to accommodate countywide population growth for the 20-year planning period?
- Does the evaluation demonstrate any inconsistencies between the actual level of residential, commercial and industrial development that occurred during the review period compared to the vision contained in Clark County countywide planning policies and comprehensive plans and the goals and requirements of the GMA?
- What measures can be taken that are reasonably likely to increase consistency during the subsequent period, if the comparison above shows inconsistency?

Process

Since 2000, Clark County has been coordinating with its cities to collect development data documenting each jurisdiction's progress toward its growth management goals. The data helps the county and cities fulfill the state requirement (RCW36.70A.215) to determine whether urban growth areas contain enough land to accommodate future residential, commercial, and industrial growth. The data is primarily generated from assessor data on real property in the county.

In 2019, Community Planning received a grant from Washington State Department of Commerce to support updates to the Buildable Lands Program, accounting for the State's 2017 revisions to the Buildable Lands statute via E2SSB 5254. That grant provided a valuable opportunity to identify and address needed updates to the County's Buildable Lands Methodology and Vacant Buildable Lands Model (VBLM), and prepare for this 2021 program report.

In October 2019, Clark County contracted with ECONorthwest and AHBL to assist in these updates to the methodology and VBLM. In addition, Council appointed the Buildable Lands Project Advisory Committee (BLPAC) to provide a recommendation on potential refinements to the Buildable Lands program. The BLPAC met eight times between December 2019 and January 2021 in open, public meetings, reviewing data analysis, findings, and preliminary recommendations. The BLPAC considered options and provided recommendations to the County Council for updates to the VBLM assumptions. A summary of these recommendations was provided in the BLPAC Report, found in Appendix A.

Through 2021, the Clark County Buildable Lands Team engaged the County Council and regional stakeholders in consideration of the BLPAC recommendations. From this dialogue, an additional version of VBLM assumptions was produced, known as the Building Industry Coalition Version 5 model version. This version was informed by supplementary inputs from the Building Industry Association of Clark County (BIA). On June 29, 2021, County Council adopted a combination of BLPAC recommendations and an amended version of the Building Industry Coalition recommendation for use in VBLM analyses. (Resolution 2021-06-20, Appendix B).

Methodology

The Buildable Lands Program compares the growth and development that has occurred in Clark County with growth and development assumptions, and then identifies reasonable measures to reduce differences between targets and assumptions.

Every year, the County uses the Buildable Lands analysis to assess the net supply of buildable lands available within the county, and estimate the capacities those lands have for people, housing units, and jobs. The Buildable Lands analysis represents the supply side of Clark County's land use analyses, under the GMA. The County forecasts future land use demand when it updates the Comprehensive Plan, once every eight years. Three years prior to each Comprehensive Plan update, the County produces a Buildable Lands Report to assess how growth and development has occurred, relative to adopted targets and assumptions, and identify those reasonable measures that can reduce gaps between set targets and what has transpired.

Clark County's Buildable Lands Methodology and VBLM rely on the County Assessor's database and Geographic Information System (GIS) as primary data sources. The VBLM is a GIS based model built on geoprocessing scripts. Figure 1 provides a high-level summary of Clark County's VBLM analysis methodology.

Figure 1 Vacant Buildable Lands Model Methodology
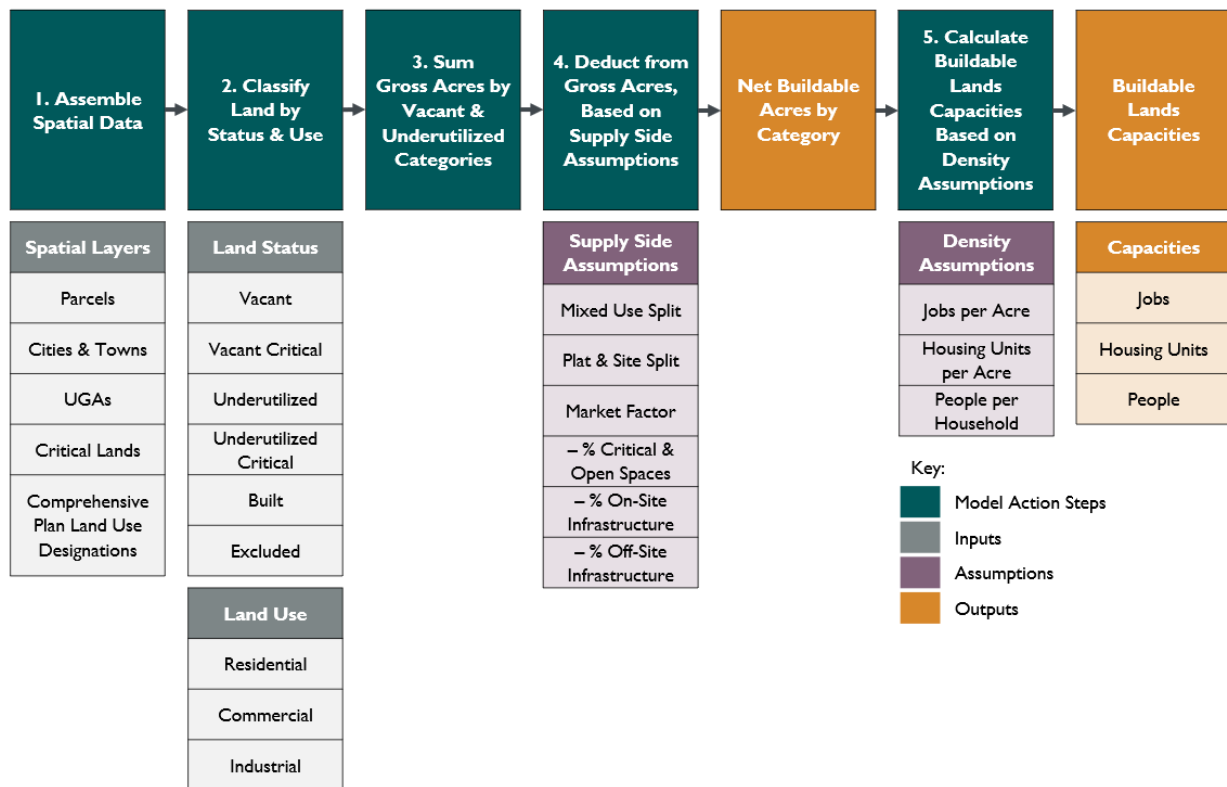
All data modelling relies on a baseline set of assumptions. The following is a summary of the assumptions used in the VBLM, per Council Resolution 2021-06-20 (Appendix B).

- Index building value threshold for vacant land based on trends in property values in the County
- Create new classification for vacant platted lots (part of a plat within last 20 years)
- Index land value and land value per acre based on trends in property values in the County

- Classify undeveloped commercial and industrial properties with active businesses as underutilized rather than vacant
- Retain existing employment density assumptions:
    o Commercial land: 20 jobs per acre
    o Industrial land: 9 jobs per acre
- Create new classification for residential infill/redevelopment (small underutilized residential lots) apply to Urban High and Urban Low
- Exclusions: Do not exclude housing authority and other nonprofit housing ownership; do not exclude port-owned properties in commercial
- Reduce minimum lot size for commercial land from 5,000 to 4,000 square feet
- Assume a 5% residential redevelopment rate on built Vancouver City Center commercial land and a 1% rate on built commercial land in Vancouver outside the City Center
- Use never-to-convert factors for residential: 20% for vacant land, 40% for underutilized
- Percentage of land set aside for
    o Infrastructure: 34%
    o Schools: 7.9%
    o Parks: 12.8%

In addition, the Buildable Lands analysis is informed by the following data sources:

- Population and housing unit estimates (Clark County GIS Department)
- Population estimates, and forecasts (Washington Office of Financial Management)
- Covered employment (Washington Employment Security Department)
- Comprehensive Plan designations (Clark County and municipalities within)
- Jurisdiction and UGA boundaries (Clark County and municipalities within)
- Capital Facilities (Clark County, municipalities within, and the Washington Department of Transportation)
- Critical Area designations from Clark County GIS

Limitations and Monitoring

This report builds on Clark County's buildable lands program dating back to its first in program report in 2002. This report is intended to provide data and analysis for use in regional policy decisions, especially those related to implementation of the GMA; it is not intended to depict market feasibility or to inform private market development decisions.

This report has been developed using available information and methodological assumptions. Report contributors have endeavored to improve the utility and accuracy of this report, through the public efforts of the BLPAC as well as internal quality control and quality assurance processes. However, as with any empirical analysis, ongoing monitoring will be necessary to maintain and improve accuracy in future buildable lands capacity analyses. Uncertainties are inherent to any data modelling endeavor, and the data methods used have limitations. With that, it is not anticipated that these uncertainties would significantly affect the primary conclusions of this report.

Part 2: Growth Targets, Capacity, Development Trends

Countywide Trends

Fundamental measures for assessing the pace of community growth are the numbers of people, jobs, and housing units present over time. This data is the precursor to the Buildable Lands program's base questions as articulated in the County Comprehensive Plan; to assess whether there is enough suitable land to accommodate countywide population growth. Clark County does this with data from the Clark County GIS Department (CCGIS), State Office of Financial Management (OFM), and State Employment Security Department (ESD). The following trends highlight Clark County's observed growth from 2016 to 2020 and forecasted growth through 2035.

Observed Trends (2016-2020)

Population (2016-2020) (Figure 2)	• Clark County population rose 8%, gaining more than 37,000 new residents. • On average, Clark County gained approximately 9,425 new residents annually. • 64% of Clark County population growth occurred in Vancouver and the Vancouver (U). • 77% of Clark County population growth took place within incorporated communities. • The top three fastest growing communities are the Ridgefield (+67%), Camas (+19%), and La Center (+17%) UGAs.[5]
Housing (2016-2020) (Figure 4)	• Clark County gained more than 22,000 new housing units. • On average, Clark County gained approximately 4,510 new housing units annually. • 66% of new housing units are in Vancouver and the Vancouver (U). • 94% of new housing units are in UGAs. • 6% of new housing units are in the rural area.

Employment (2016-2020)
 	
(Figure 5 – Figure 6)
	• Clark County employment rose 9%, gaining more than 12,000 new jobs.
	• On average, Clark County gained approximately 4,280 jobs annually.
	• As of 2020, Clark County's top three employment sectors are:
	   o Trade, Transportation, & Utilities (18%)
	   o Government (16%)
	   o Health Care & Social Assistance (15%)
	• The Construction, Mining, & Logging sector grew the most from 2016 to 2020, adding approximately 4,600 jobs, a 43% increase for the sector.
	• Information is the only sector that declined on average from 2016 to 2020.
	• Leisure and Hospitality was the sector hardest hit by the pandemic with 3,500 jobs lost between 2019 and 2020.
	• Through 2019, Clark County added an average of 5,167 jobs per year compared to 4,319 housing units, achieving a ratio of 1.19. jobs per housing unit

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[5] Pace of growth recorded as change over 2016 population. The combined growth in absolute units from these three UGAs is 43% of the growth in the Vancouver UGA.

Data

The following tables and charts provide a closer look at the CCGIS, OFM, and ESD data supporting the above observations on countywide growth trends. Local data is reported for urban growth areas (UGAs) – combined incorporated city and unincorporated urban areas (U), City/Town proper if there is no appendage or unincorporated urban area (U). The City of Vancouver and Vancouver (U) reported separately, due to the high population each Vancouver community represents on its own, relative to other communities in Clark County.

CCGIS population data is recorded as of December 2020, providing year-end data for each jurisdiction.[6] The ESD collects and analyzes data about Washington's employment conditions, workforce, and economy.

Looking forward, the GMA requires Clark County and its cities to plan for population forecasts over a 20-year horizon, as provided by the OFM. The current Comprehensive Plan's 20-year planning horizon is through 2035. Every five years, the OFM forecasts "a reasonable range of possible population growth" at the county level, providing three scenarios of future population: a middle or most-likely forecast, as well as a low and a high forecast (RCW 43.62.035). With the current Comprehensive Plan, Clark County Council adopted the middle forecast as a target (Resolution 2016-03-01).

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[6] CCGIS annual population estimate data in this report differs from similar population estimates published annually by the OFM, in two key ways: time of year and geography. OFM publishes annual population estimates to provide data for use in state program administration and the allocation of selected state revenues (RCW 43.62.020, RCW 43.62.030). These OFM population estimates are reported as of April 1 of each year, and therefore don't reflect the latter half of population change in each year as estimated in the CCGIS data reported here. In addition, CCGIS population estimates use municipal and UGA geography updated regularly as municipal annexations of UGA land occur.

Figure 2 Clark County Population, Growth 2016-2020

Jurisdiction	2015	2016	2017	2018	2019	2020	Change	% Change	Avg. Annual Change
Battle Ground UGA	21,415	22,595	22,748	23,227	23,754	24,210	2,795	13%	559
Camas UGA	23,738	24,380	24,748	26,109	27,872	28,933	5,196	22%	1,039
La Center UGA	3,265	3,350	3,401	3,457	3,655	3,916	651	20%	130
Ridgefield UGA	7,109	7,941	8,381	9,214	10,977	13,237	6,128	86%	1,226
Vancouver	172,642	174,790	182,406	183,350	186,504	190,859	18,217	11%	3,643
Vancouver (U)	151,598	154,081	152,586	156,225	159,590	162,324	10,727	7%	2,145
Washougal UGA	16,432	16,774	16,671	16,896	17,222	17,311	880	5%	176
Woodland UGA (Part)	90	90	89	88	88	89	(1)	0%	(0)
Yacolt UGA	1,697	1,704	1,702	1,754	1,767	1,759	62	4%	12
Incorporated Clark County	241,738	247,476	256,110	260,081	267,852	276,339	34,601	14%	6,920
Combined UGAs	397,984	405,705	412,733	420,321	431,430	442,639	44,654	11%	8,931
Rural Clark County	66,181	66,207	65,743	66,018	66,560	66,975	794	1%	159
Clark County	464,165	471,912	478,476	486,339	497,990	509,614	45,448	10%	9,090

Source: *Clark County GIS Department, Population Estimates, December 2020*
Notes: A – UGAs include both incorporated cities and towns, and their respective unincorporated urban areas.
B – The City of Vancouver and the Vancouver (U) are reported separately, due to the high population each represents on its own, relative to other communities in Clark County.
C – The Woodland UGA (Part) includes only city and UGA land within Clark County.
D – Combined UGAs includes all cities and towns and all UGAs in Clark County.
E – Rural Clark County includes only unincorporated rural land outside UGAs.

Figure 3 Clark County Population Change, 1995-2020
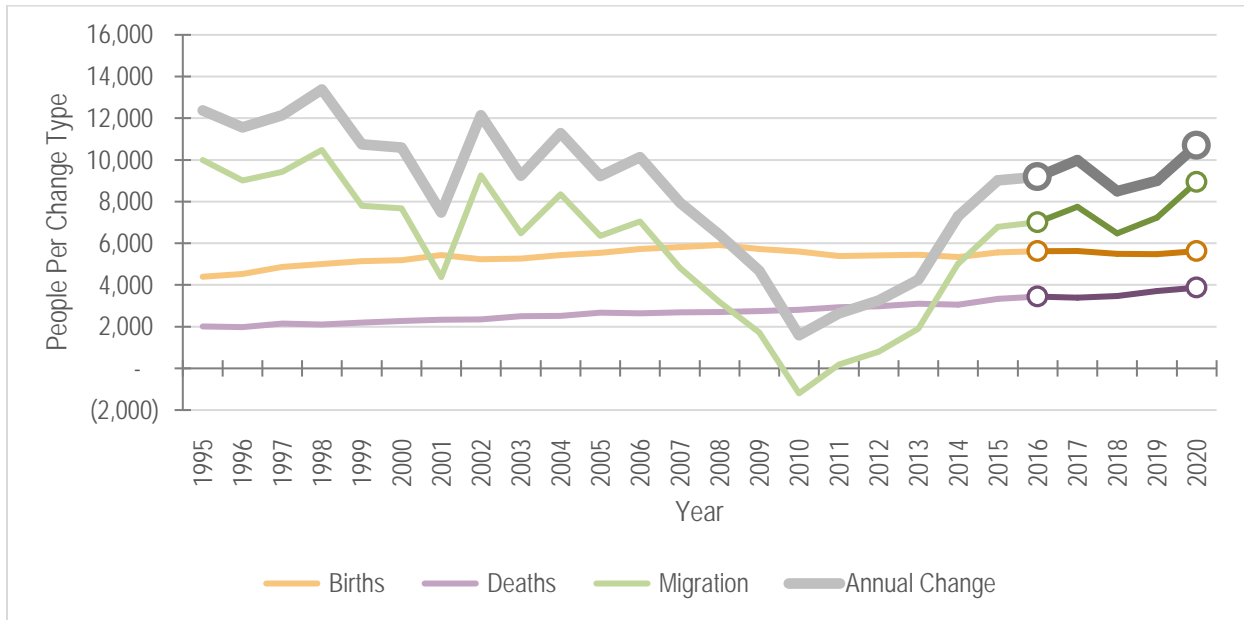
Source: OFM, Population Estimates, April 2020

Notes: A - Migration is a net number of residents moving in and out of the County.

Figure 4 Clark County New Housing Units, 2016-2020

Jurisdiction	2016	2017	2018	2019	2020	Total 2016-2020	Annual Average	% of County Total
Battle Ground UGA	331	176	165	200	175	1,047	209	5%
Camas UGA	265	262	316	718	370	1,931	386	9%
La Center UGA	33	29	29	83	127	301	60	1%
Ridgefield UGA	332	209	347	619	876	2,383	477	11%
Vancouver	1,558	1,938	1,096	1,541	1,316	7,449	1,490	33%
Vancouver (U)	1,020	1,885	2,170	1,211	1,247	7,533	1,507	33%
Washougal UGA	90	201	43	63	55	452	90	2%
Woodland UGA (Part)	0	0	0	0	1	1	0	0%
Yacolt UGA	6	32	1	7	0	46	9	0%
Combined UGAs	3,635	4,732	4,167	4,442	4,167	21,143	4,229	94%
Rural Clark County	228	263	375	301	244	1,411	282	6%
Clark County	3,863	4,995	4,542	4,743	4,411	22,553	4,511	100%

Source: Clark County GIS Department, December 2020
Notes: A – UGAs include both incorporated cities and towns, and their respective unincorporated urban areas.
B – The City of Vancouver and the Vancouver (U) are reported separately, due to the high volume of housing units each represents on its own, relative to other communities in Clark County.
C – The Woodland UGA (Part) includes only city and UGA land within Clark County.
D – Combined UGAs includes all cities and towns and all UGAs in Clark County.
E – Rural Clark County includes only unincorporated rural land outside UGAs.

Figure 5 Clark County Employment, Growth 2016-2020

Employment Sector	2015	2016	2017	2018	2019	2020	Change	% Change	Avg. Annual Change
Total Non-Farm Employment	149,100	154,700	161,100	167,200	170,200	161,800	12,700	9%	4,280
Construction, Mining, & Logging	10,800	11,900	13,200	14,800	15,700	15,400	4,600	43%	980
Manufacturing	13,100	13,600	13,700	14,200	14,200	13,700	600	5%	220
Trade, Transportation, & Utilities	27,600	28,400	29,400	30,100	30,000	28,700	1,100	4%	480
Information	3,100	3,100	3,100	3,000	2,900	3,300	200	6%	(40)
Financial Activities	7,900	8,400	8,700	9,100	9,400	9,000	1,100	14%	300
Professional & Business Services	18,000	19,000	19,700	19,800	20,700	20,300	2,300	13%	540
Education Services	1,800	1,800	2,000	2,100	2,300	2,000	200	11%	100
Health Care & Social Assistance	22,800	23,300	24,200	24,800	25,200	25,000	2,200	10%	480
Leisure & Hospitality	14,200	14,800	15,300	16,100	16,500	13,000	(1,200)	-8%	460
Other Services	5,500	5,700	5,900	6,200	6,300	5,900	400	7%	160
Government	24,300	24,700	26,100	26,900	27,300	25,500	1,200	5%	600

Source: *ESD, Clark County Profile, 11/27/2020; Updated by Scott Bailey to include 2020 preliminary*

Notes: A – Employment sectors are titled and grouped using North American Industry Classification System (NAICS) industry titles.

B – Public sector education employment is included in the Government sector, not the Education Services sector, per NAICS classification.

Figure 6 Clark County Jobs per Housing Unit, 2016-2020

Ratio of Jobs to Housing Units
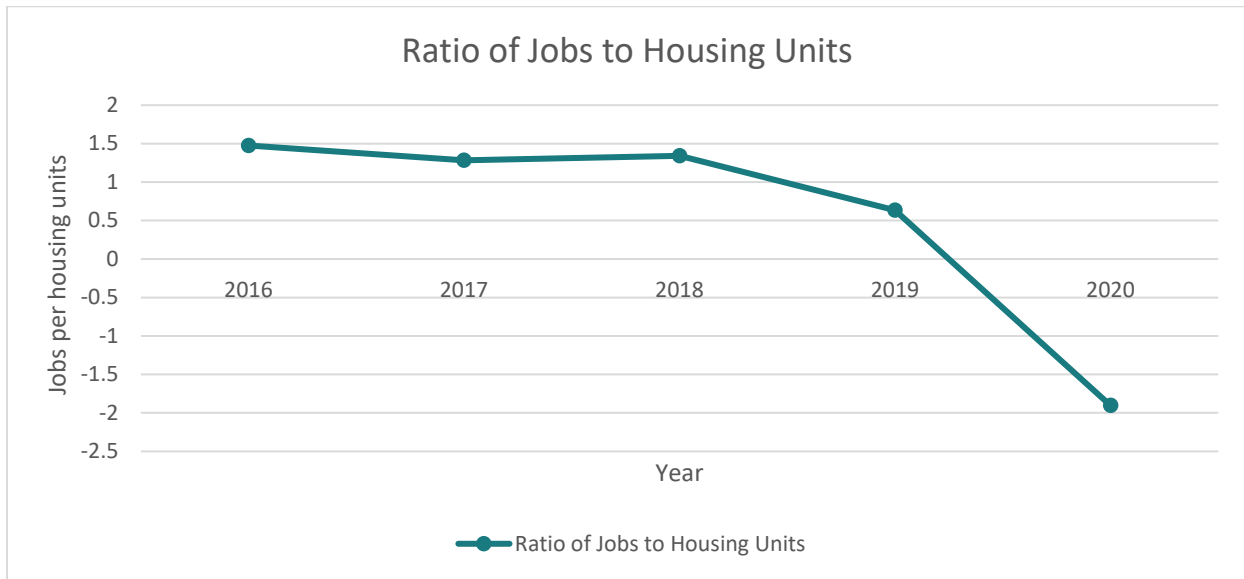
Sources: Clark County GIS Department, Population Estimates, December 2020; ESD, Clark County Profile, November 2020

Figure 7 Clark County Population Forecast, Through 2035
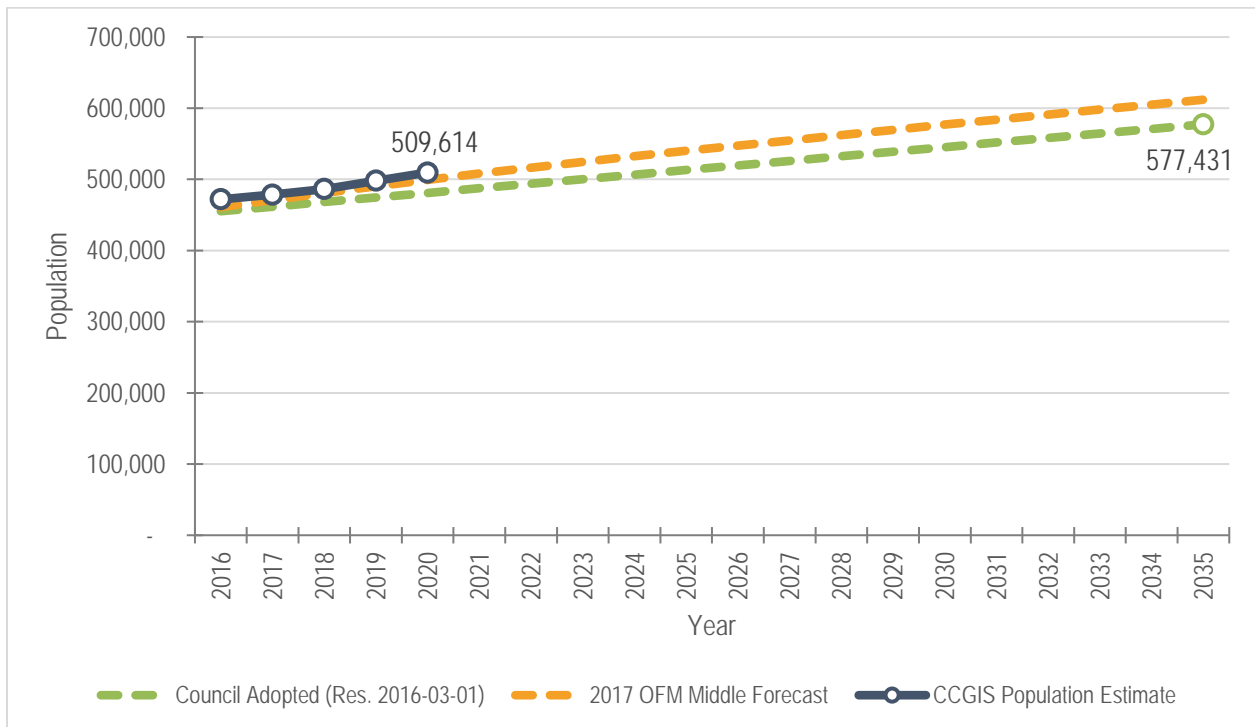
Sources: Clark County Council Resolution 2016-03-01; OFM, GMA County Projections Forecast, February 2018; Clark County GIS Department, Population Estimates, December 2020

Housing

Growth Measures

Monitoring Clark County Assessor data provides several measure of residential development activity. Figure 8 shows how many new single-family and multi-family housing units were developed and the single-family to multi-family split from 2016 to 2020 for cities, towns, and the Vancouver (U). Development data for the Vancouver (U) is shown alongside incorporated cities and towns because it is the only unincorporated urban area with urbanized public utilities, provided by Clark County Regional Wastewater District and Clark Public Utilities. Single family includes single-family residential, accessory dwelling units (ADU), and mobile homes (on individual lots). Multi-family includes multi-family residential, duplexes, and new mobile home parks.

For the residential split, Countywide Planning Policy 1.1.13 in the 2015-2035 Clark County Comprehensive Plan specifies that no more than 75% of new housing stock should be of a single product type (e.g., single-family housing). See Appendix D for an annual breakdown of each jurisdiction's residential development by single- and multi-family housing types.

Figure 9 shows the observed density of housing units per acre developed from 2016 to 2020, relative to adopted density assumptions, based on County Assessor data. Countywide Planning Policies 1.1.14 and 2.71 set density assumptions for Clark County UGAs. Resolution 2021-02-08 added Woodland to the listing of UGA minimum housing density targets. There is no density target for the Yacolt UGA due to lack of public sewer there.

Figure 10 and Figure 11 estimate the supply of land needed to accommodate projected growth through the 2035 planning horizon. Figure 10 shows the supply of land needed based on the observed density of housing units per acre, from 2016 to 2020 developments, and Figure 11 shows the supply needed based on density assumptions set in Countywide Planning Policies. Vacant buildable land areas are calculated per UGA, using the VBLM with Council-adopted assumptions from Resolution 2021-06-20.

Development Trends

From 2016 to 2020, 21,121 housing units were developed in urbanized Clark County[7] (Figure 8). Vancouver and the Vancouver (U) comprise 71% (14,982 housing units) of this development. The cities of Ridgefield and Camas represent the next largest shares of urban residential development with 2,378 (11%) and 1,927 (9%) housing units, respectively.

This development covered 2,353 acres of urbanized residential land (Figure 8). The Vancouver (U) represented 1,023 acres of this developed land, the largest share (43%) of urbanized communities. While new housing units in the City of Vancouver and the Vancouver (U) were similar – 7,449 units in the city and 7,533 in the unincorporated area – the Vancouver (U) development covered two and a half times the amount of land area.

Overall, 60% of urban Clark County residential development from 2016 to 2020 was single-family housing units (Figure 8). Camas and Washougal maintain a residential development split with no more than 75% of new housing stock being of a single product type. In Vancouver, 76% of residential development was multi-family housing. In all other cities, towns, and the Vancouver (U), single-family housing was a majority housing product developed, and it represented more than 75% of residential development.

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[7] Urbanized Clark County refers to incorporated cities and towns, and the Vancouver (U), the only UGA with urbanized public utilities, provided by Clark Regional Wastewater District and Clark Public Utilities.

All cities and the Vancouver (U) met their residential density targets (Figure 9). At 18.3 housing units per acre, residential development was densest in Vancouver. Ridgefield and the Vancouver (U) follow, averaging 7.7 and 7.4 housing units per acre, respectively.

Capacity

Based on the 2021 VBLM (Resolution 2021-06-2020), there are 4,476 net buildable acres in Clark County urbanized areas that can accommodate the remaining population growth through the 2035 planning horizon (Figure 10 and Figure 11), with the assumption of 2.66 people per household (Resolution 2016-03-01), and the observed density of 9 housing units per acre (Figure 10).

When considering observed density and the 2021 VBLM, the Battle Ground, La Center, Ridgefield, and Woodland UGAs show small deficits, ranging from 5 to 164 acres (Figure 10). However, there is a surplus of 1,492 buildable acres across all Clark County UGAs, based on observed densities (Figure 10).

With assumed densities and the 2021 VBLM, the Battle Ground, La Center, Ridgefield, and Woodland UGAs, and the City of Vancouver, show small deficits, ranging from 6 to 212 acres (Figure 11). Again though, a surplus of 615 buildable acres remains across all Clark County UGAs, based on assumed densities (Figure 11).

Findings

The following findings highlight how development performance and modeled capacity relate to adopted residential development targets:

Development	
Development	• Camas and Washougal were the only two cities to maintain a residential development split with no more than 75% of new housing stock being of a single product type (Figure 8).
(Figure 8 - Figure 9)	• Single-family housing comprised more than 75% of housing developed in Battle Ground, La Center, Ridgefield, Vancouver (U), Woodland, and Yacolt (Figure 8).
	• Multi-family housing comprised more than 75% of housing developed in Vancouver (Figure 8).
	• All cities and the Vancouver (U) met their residential density targets (Figure 9).
Capacity	• Based on observed densities, the Battle Ground, La Center, Ridgefield, and Washougal UGAs show small deficits of buildable land, however this represents only 21% of the 1,492-acre surplus across all Clark County UGAs (Figure 10).
(Figure 10)	• With all cities and the Vancouver (U) meeting their adopted residential density targets (Figure 9), and a 1,492-acre surplus across all Clark County UGAs (Figure 10), Clark County concludes that there is adequate buildable land supply to accommodate projected population growth through 2035.

Figure 8 Single- and Multi-Family Housing Units Developed, 2016-2020

City / Town	Single-Family				Multi-Family				Total			
	Units	% SF	Acres	Units /Acre	Units	% MF	Acres	Units /Acre	Units	%	Acres	Units /Acre
Battle Ground	828	80%	147	5.6	209	20%	16	12.8	1,037	100%	164	6.3
Camas	1,379	72%	250	5.5	548	28%	48	11.4	1,927	100%	298	6.5
La Center	284	94%	66	4.3	17	6%	3	5.5	301	100%	69	4.4
Ridgefield	1,870	79%	280	6.7	508	21%	28	18.2	2,378	100%	307	7.7
Vancouver	1,819	24%	213	8.5	5,630	76%	195	28.9	7,449	100%	407	18.3
Vancouver (U)	6,099	81%	948	6.4	1,434	19%	75	19.2	7,533	100%	1,023	7.4
Washougal	313	70%	65	4.8	136	30%	6	23.4	449	100%	71	6.3
Woodland	1	100%	0	4.2	-	-	-	-	1	-	0	4.2
Yacolt	46	100%	14	3.2	-	-	-	-	46	-	14	3.2
Clark County (Urbanized Total)	12,639	60%	1,983	6.4	8,482	40%	370	22.9	21,121	100%	2,353	9.0

Source: *Clark County GIS, Assessor's Data, June 2021*
Note: A – Vancouver (U) is shown alongside incorporated cities/towns because it is the only unincorporated urban area with urbanized public utilities, provided by Clark Regional Wastewater District and Clark Public Utilities.
B – Clark County (Urbanized Total) includes development in incorporated cities/towns and the Vancouver (U).
C – From 2016 to 2020, 22 residential units were developed in unincorporated urban areas, not including the Vancouver (U).

Figure 9 Housing Units per Acre Developed and Density Targets, 2016-2020

City / Town	Housing Developed			Density Target
	Units	Acres	Units / Acre	Units / Acre
Battle Ground	1,037	164	6.3	6
Camas	1,927	298	6.5	6
La Center	301	69	4.4	4
Ridgefield	2,378	307	7.7	6
Vancouver	7,449	407	18.3	8
Vancouver (U)	7,533	1,023	7.4	8
Washougal	449	71	6.3	6
Woodland	1	0	4.2	4
Yacolt	46	14	3.2	na
Clark County (Urbanized Total)	21,121	2,353	9.0	

Source: *Clark County GIS, Assessor's Data, June 2021*
Note: A – Vancouver (U) is shown alongside incorporated cities/towns because it is the only UGA with urbanized public utilities, provided by Clark Regional Wastewater District and Clark Public Utilities.
B – Clark County (Urbanized Total) includes development in incorporated cities/towns and the Vancouver (U).
C – From 2016 to 2020, 22 residential units were developed in unincorporated urban areas, not including the Vancouver (U).

Figure 10 2035 Urban Growth Residential Land Need, Based on Observed Density

Jurisdiction	2035 Population Allocation	2020 Population	Remaining Population for 2035	Residential Units Needed	Observed Units Per Acre	Residential Acres		
						Needed	Deficit/ Surplus	2020 VBLM
Battle Ground UGA	38,443	24,019	14,424	5,422	6.3	855	(164)	692
Camas UGA	34,098	28,402	5,696	2,141	6.5	331	150	481
La Center UGA	7,642	3,787	3,855	1,449	4.4	331	(94)	238
Ridgefield UGA	25,494	12,231	13,263	4,986	7.7	645	(55)	589
Vancouver	199,128	190,257	8,871	3,335	18.3	182	222	404
Vancouver (U)	172,939	161,587	11,352	4,268	7.4	579	1,109	1,688
Washougal UGA	22,347	17,270	5,077	1,909	6.3	301	42	344
Woodland UGA	318	90	228	86	4.2	20	(5)	16
Yacolt UGA	1,964	1,763	201	76	3.2	24	0	24
Clark County (Urbanized Total)	502,373	439,406	62,967	26,773	9.0	2,983	1,492	4,476

Source: *Clark County GIS, Vacant Buildable Lands Model, August 2021; Council Resolution 2021-06-20*
Notes: A – UGAs are the combined area of an incorporated city/town and its unincorporated urban area.
B – Remaining population for 2035 Planning Horizon is the 2035 future forecast population from Clark County Council Resolution 2016-03-01, minus 2020 population (Clark County GIS).
C – Remaining populations for 2035 Planning Horizon for the City of Vancouver and the Vancouver (U) are an estimated split of the 2035 Vancouver UGA forecast from Resolution 2016-03-01. The split is estimated based on the percent of Vancouver area population the two jurisdictions in 2015 and 2020 (OFM), the annual change between 2015 and 2020 (OFM), and extrapolating that split and annual change rate to the 2035 UGA forecast adopted in Resolution 2016-03-01.
D – Clark County (Urbanized Total) data represents land in cities/towns and the Vancouver (U).

Figure 11 2035 Urban Growth Residential Land Need, Based on Target Density

Jurisdiction	2035 Population Allocation	2020 Population	Remaining Population for 2035 Planning Horizon	Residential Units Needed	Assumed Units Per Acre	Residential Acres		
						Needed	Deficit/ Surplus	2020 VBLM
Battle Ground UGA	38,443	24,019	14,424	5,422	6	904	(212)	692
Camas UGA	34,098	28,402	5,696	2,141	6	357	124	481
La Center UGA	7,642	3,787	3,855	1,449	4	362	(125)	238
Ridgefield UGA	25,494	12,231	13,263	4,986	6	831	(242)	589
Vancouver	199,128	190,257	8,871	3,335	8	417	(13)	404
Vancouver (U)	172,939	161,587	11,352	4,268	8	533	1,155	1,688
Washougal UGA	22,347	17,270	5,077	1,909	6	318	26	344
Woodland UGA	318	90	228	86	4	21	(6)	16
Yacolt UGA	1,964	1,763	201	76	4	19	5	24
Clark County (Urbanized Total)	502,373	439,406	62,967	26,773	7	3,860	615	4,476

Source: *Clark County GIS, Vacant Buildable Lands Model, August 2021; Council Resolution 2021-06-20*
Notes: A – UGAs are the combined area of an incorporated city/town and its unincorporated urban area.
B – Remaining population for 2035 Planning Horizon is the 2035 future forecast population from Clark County Council Resolution 2016-03-01, minus 2020 population (Clark County GIS).
C – Remaining populations for 2035 Planning Horizon for the City of Vancouver and the Vancouver (U) are an estimated split of the 2035 Vancouver UGA forecast from Resolution 2016-03-01. The split is estimated based on the percent of Vancouver area population the two jurisdictions in 2015 and 2020 (OFM), the annual change between 2015 and 2020 (OFM), and extrapolating that split and annual change rate to the 2035 UGA forecast adopted in Resolution 2016-03-01.
D – Clark County (Urbanized Total) data represents land in cities/towns and the Vancouver (U).
E – Target densities are set by Countywide Planning Policies.
F – Assumed units per acre for the Yacolt UGA and Countywide are informal assumptions, not adopted targets set in Countywide Planning Policies.

Employment (Commercial and Industrial)

Growth Measures

Under RCW 36.70A.215, Clark County is required to identify the:

- amount of land developed for commercial and industrial uses within the urban growth area since the adoption of a comprehensive plan under this chapter or since the last periodic evaluation
- amount of land needed for commercial, industrial, and housing for the remaining portion of the twenty-year planning period used in the most recently adopted comprehensive plan

However, the State does not mandate a set data source for this evaluation of employment growth and capacity.

Clark County measures commercial and industrial employment in jobs, based on data from the Washington Employment Security Department (ESD). The County measures capacity for employment in buildable acres and jobs using the Vacant Buildable Lands Model, and the adopted employment density assumptions of 20 employees per acre for commercial land and nine employees per acre for industrial land.[8, 9]

For future employment capacity planning through 2035, Clark County has two adopted planning assumptions (Resolution 2016-03-01):

- New Jobs: 100,200
- Jobs to Household Ratio: 1:1

The 2015-2035 plan projected VBLM employment capacity of 75,847 new jobs and an additional 24,175 not captured by the model through redevelopment (16,775 jobs) and public sector jobs (7,400) on land excluded by the model. Clark County added 20,100 jobs through 2019 (Figure 5), of which 3,000 were government jobs.

The remaining 80,000 jobs projected through 2035 can be accommodated through the VBLM employment capacity of 71,157 plus the remaining 4,400 public sector jobs and 27% of the jobs assumed through redevelopment.

Development Trends

From 2016 to 2019, Clark County's jobs to household ratio exceeded the 1:1 target (Figure 6). With 62,967 more residents (23,570 households) expected through 2035 in Clark County's adopted population forecast (Figure 10 and Figure 11), and an employment capacity of 71,157 (Figure 15), the ratio of forecasted employment capacity to households in Clark County UGAs is 3:1.

There were 816 acres of commercial (340) and industrial (476) land developed between 2016 and 2020 (Figure 12).

Land with a Commercial comprehensive plan designation added 3.2 million sq. ft. of floor area on 339.7 acres from 2016-2020. The development types that added the most sq. footage were Retail Store, Mini Storage Warehouse, and Office Bldg. representing 74% of the total. (Figure 13)

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[8] As documented in the Clark County Buildable Lands PAC Report (February 2021): "The densities have been set based on observed development using spatial data on employment from the Washington Employment Security Department (ESD) that allowed matching of specific employers to tax lots. The 2015 Buildable Lands Report (BLR) used employment data from 2014 to estimate employment density. The achieved densities were lower than the 2007 BLR, and the County continued to use the assumptions from the 2007 report. However, ESD no longer provides access to parcel-specific employment data, leaving Clark County (and all the other Buildable Lands Program counties) without a good data source to validate projections or adjust over time."

[9] Employment density assumptions were re-affirmed in Resolution 2021-06-20.

Land with an Industrial comprehensive plan designation added 3.4 million sq. ft. of gross floor area on 476.3 acres from 2016-2020. Distribution Warehouse, Storage Warehouse and Mini Storage Warehouse added the most sq. footage representing 73% of the total. (Figure 14)

Overall,1.5 million sq. ft. of Mini Storage Warehouse was added representing 23% of the total added.

Capacity

There are 5,538 total net buildable acres of employment lands in Clark County UGAs; 35% (1,927 net acres) are commercial land, and 65% (3,631 net acres) are industrial land (Figure 15). The largest share of total net buildable employment land is the 2,184 net acres (39%) of industrial capacity in Vancouver and the Vancouver (U).

Net buildable land in Clark County UGAs have an estimated capacity of 71,157 jobs. Half of this employment capacity is in Vancouver and the Vancouver (U). Other areas of significant employment capacity include Camas (17%), Ridgefield (12%), and Battle Ground (12%).
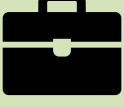
Findings

Development (Figure 6 – Figure 10, Figure 12)	• Clark County's jobs to household ratio exceeded the 1:1 ratio from 2016-2019 (Figure 6). • The ratio of forecasted future residents (Figure 10) to employment capacity (Figure 15) in Clark County UGAs is 3:1. • Land with a Commercial comprehensive plan designation added 3.2 million sq. ft. of floor area on 339.7 acres from 2016-2020. Retail Store, Mini Storage Warehouse, and Office Bldg. respectively, added the most sq. footage representing 74% of the total. (Figure 13) • Land with an Industrial comprehensive plan designation added 3.4 million sq. ft. of gross floor area on 476.3 acres from 2016-2020. In the Industrial area, Distribution Warehouse, Storage Warehouse and Mini Storage Warehouse respectively, added the most sq. footage representing 73% of the total. (Figure 14) • Overall,1.5 million sq. ft. of Mini Storage Warehouse was added representing 23% of the total added. (Figure 13 and Figure 14)
Capacity (Figure 5 – Figure 15)	• Industrial lands –The County's largest (Trade, Transportation, & Utilities) and fastest growing (Construction, Mining, & Logging) employment sectors (Figure 5) • Industrial Lands comprise almost two thirds of employment lands in Clark County UGAs (Figure 15).

Figure 12 Commercial and Industrial Development, 2016-2020

Jurisdiction	Commercial			Industrial		
	Gross Sq. Ft.	Acres	Jobs	Gross Sq. Ft.	Acres	Jobs
Battle Ground	189,219	43.3		220,128	58.4	
Camas	234,530	29.2		148,021	7.8	
La Center	8,840	0.9		-	-	
Ridgefield	92,951	36.0		728,260	82.2	
Vancouver	2,109,788	152.9		1,696,410	212.0	
Vancouver (U)	549,854	63.9		508,252	101.8	
Washougal	45,164	10.6		117,036	14.1	
Woodland	-	-		-	-	
Yacolt	128	2.9		-	-	
Urban Total	3,230,474	339.7		3,418,107	476.3	

Source: Clark County GIS

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Figure 13 Commercial Development by Type, 2016-2020

Development Type	Commercial	
	Gross Sq. Ft.	Acres
Bank	24,900	31.3
Community Shopping Center	3,664	0.7
Convenience Stores	10,810	3.9
Day Care Center	33,615	3.6
Discount Store	25,041	4.7
Fast Food Restaurant	26,641	49.7
Flex Space - (Formerly Loft)	35,028	5.4
Hotel	187,063	8.2
Manufacturing	23,485	10.0
Market (Grocery)	68,052	5.9

Development Type	Commercial	
	Gross Sq. Ft.	Acres
Medical Office Building	126,224	22.7
Mini Storage Warehouse	906,923	42.1
Mini-Lube Garage	6,316	1.9
Motel	44,010	1.3
Neighborhood Shopping Center	38,196	3.1
Office Building	498,034	58.3
Restaurant	97,420	8.9
Retail Store	986,960	59.9
Service Garage	2,442	9.0
Storage Garage	9,127	1.0
Storage Warehouse	56,210	5.2
Veterinary Hospital	20,313	3.0
Total	3,230,474	339.7

Source: Clark County GIS and Assessor's data
Notes: A – Development Types are land use categories used by the Clark County Assessor's Office.

Figure 14 Industrial Development by Type, 2016-2020

Development Type	Industrial	
	Gross Sq. Ft.	Acres
Convenience Stores	5,670	0.5
Distribution Warehouse	1,162,477	95.3
Equipment Shed	3,936	10.0
Fast Food Restaurant	4,493	0.5
Flex Space - (Formerly Loft)	417,777	113.0
Manufacturing	111,926	13.1
Mini Storage Warehouse	602,940	42.1
Office Building	271,882	66.0
Restaurant	12,964	15.0
Service Garage	74,759	5.2
Storage Garage	200	1.2
Storage Warehouse	741,184	111.4
Utilshed - Light Com Building	1,040	2.2
Veterinary Hospital	6,860	0.8
Total	3,418,107	476.3

Source: Clark County GIS, Vacant Buildable Lands Model, August 2021; Council Resolution 2021-06-20
Notes: A – Development Types are land use categories used by the Clark County Assessor's Office.

Figure 15 Commercial and Industrial Capacity, 2020

Jurisdiction	Commercial			Industrial			Total Jobs
	Gross Acres	Net Acres	Jobs	Gross Acres	Net Acres	Jobs	
Battle Ground UGA	644	386	7,714	147	67	606	7,455
Camas UGA	462	302	6,033	1,358	647	5,825	11,509
La Center UGA	112	76	1,525	64	34	308	1,833
Ridgefield UGA	375	252	5,041	794	412	3,710	8,752
Vancouver	476	339	6,776	2,465	1,275	11,409	18,337
Vancouver (U)	644	449	8,977	1,644	909	8,183	17,160
Washougal UGA	173	120	2,400	495	257	2,312	4,712
Woodland UGA	-	-	-	-	-	-	-
Yacolt UGA	6	4	83	10	7	59	142
Urban Total	2,891	1,927	38,549	7,016	3,631	32,608	71,157

Source: *Clark County GIS, Vacant Buildable Lands Model, August 2021; Council Resolution 2021-06-20*
Notes: A – Employment growth target for 2035 set by Clark County Council Resolution 2016-03-01.
          B – Urban Total includes capacity in incorporated cities/towns and their unincorporated urban areas.

          C – Unincorporated urban area is designated with a (U).

Rural, Resource, and Columbia Gorge Lands

In the context of land use planning, "rural Clark County" refers to the unincorporated areas outside of UGAs. The designation and conservation of these areas maintains rural community character as a valued part of Clark County's diversity. It also maintains connectivity with the County's history of small-scale farming and forestry and protects environmental quality and sensitive resources.

The GMA requires that rural development be managed to protect rural character, environmentally sensitive areas, and habitat, and prevent conflicts with natural resource uses such as farming, forestry, and mining.

In addition, approximately 9 square miles in the southeast corner of the county is designated by Congress as part of the Columbia River Gorge National Scenic Area (NSA), which spans three Washington and three Oregon counties along the Gorge. The bi-state Columbia River Gorge Commission manages land use for the non-federal lands in the NSA. Clark County maintains consistency with the Commission's Columbia River Gorge National Scenic Area Management Plan through gorge-specific zoning designations in CCC 40.240. Buildable land capacity in the NSA is denoted in Figure 19 by zones starting with the letter G, as in GR-5 and GR-10.

Growth Measure

An urban/rural population split of 90/10 was used in the 2004 periodic plan update and maintained in the 2016 Comprehensive Plan to account for new population growth (12,896) in the rural area. WAC 365-196-425(3)(b) also suggests tracking of new and approved well permits and septic systems in the rural area.

Development Trends

From 2016 to 2020, 1,411 housing units, approximately 6% of the County total, were added in Rural Clark County (Figure 4). These developments comprised 8,502 acres. Average lot sizes in rural development from 2016 to 2020 have remained consistent at five acres. This development is consistent with Comprehensive Plan and GMA goals of protecting resource lands while allowing for a range of rural housing densities.

Capacity

Rural areas are not expected to accommodate large magnitudes of growth, approximately 10% of growth was assumed in both the 2007 and 2016 Comprehensive Plans, but zoning does allow for low-density residential development and other traditional rural uses. There are approximately 500 square miles of rural lands in Clark County, comprising 76% of the county as a whole. There is a capacity of 12,936 persons (Figure 19) for the remainder of the planning horizon.

Findings

Capacity	• As currently zoned, there is capacity for more than 4,800 new housing units in rural Clark County (Figure 19). This is 57% above the estimated 3,102 units of demand through 2035. • Vacant lands comprise 77% of the capacity for new rural housing units, however more than half of this capacity is on non-conforming parcels (Figure 19). • Parcels zoned R-5 offer capacity for 2,769 units on 14,807 acres, or 57% of rural housing capacity (Figure 19). • AG-20 and R-10 offer 15% and 13% of capacity, respectively (Figure 19). • Parcels of all other rural zones individually make up 4% or less of buildable rural housing capacity (Figure 19).

Columbia Gorge

- Columbia River Gorge NSA lands offer capacity for 42 housing units on 663 acres of buildable land (Figure 19). This comprises less than 1% of buildable rural housing capacity.

Figure 16 Residential Units Developed in Rural Clark County, 2016-2020

Jurisdiction	Residential Development		
	Units	Acres	Units/Acre
Rural Clark County	1,411	8,502	0.2

Source: Clark County GIS, Assessor's Data, June 2021
Note: A – Rural Clark County includes development in unincorporated areas outside of UGAs.

Figure 17 Water Well Permits in Rural Clark County, 2016-2020

Well Permit Description	2016	2017	2018	2019	2020	Total
DW Group A Water System	1					1
DW Group B Water Sys Appl (2-Party Residential)	2	1	7	5	6	21
DW Group B Water System		2				2
DW Individual (General)		1	2		1	4
DW Individual Irrigation Well Appl & Review	1	1	2			4
DW Individual WAVE Application Self Sample	29	43	56	50	32	210
DW Individual Well	3	3	5	3		14
DW NOI New Construction of a Well	12	10	28	24	35	109
DW Unclassified Water System	1	1	1			3
DW Update (Individual, Group A & B)			1			1
DW Wellsite Evaluation		2		2	1	5
No Classification		1	2			3
Total	**46**	**60**	**93**	**79**	**68**	**346**

Source: Clark County Public Health

Figure 18 Septic System Permits in Rural Clark County, 2016-2020

Figure 19 Capacity for Residents and Housing Units in Rural Clark County, 2020

| Rural Zone | Conforming Parcels | | | | Undersized Parcels | | Total | |
| | Vacant | | Underutilized | | Vacant | | | |
	Net Acres	Housing Units	Net Acres	Housing Units	Net Acres	Housing Units	Housing Units	Persons
R-5	6,455	1,187	6,234	702	2,118	880	2,769	7,366
R-10	2,574	235	2,251	125	1,206	285	645	1,716
R-20	314	13	243	6	195	35	54	144
RC-1	77	73	241	142	-	-	215	572
RC-2.5	47	15	214	51	11	7	73	194
AG-20	5,022	221	4,160	135	2,524	392	748	1,990
AG/WL	270	1	-	-	417	14	15	40
FR-40	421	10	156	2	1,333	188	200	532
FR-80	870	10	-	-	1,030	91	101	269
GR 5	10	2	-	-	8	4	6	16
GR 10	-	-	42	2	23	5	7	19
GSW 20	-	-	40	1	12	3	4	11
GSW 40	-	-	-	-	9	1	1	3
GLSA 40	241	6	-	-	74	8	14	37
GLSA 80	-	-	-	-	93	2	2	5
GSAG	66	2	-	-	10	1	3	8
GSFF	-	-	-	-	15	1	1	3
GSSA	-	-	-	-	19	4	4	11
Rural Total	16,368	1,775	13,581	1,166	9,099	1,921	4,862	12,936

Source: Clark County GIS, July 2021

Updates to Guidelines

There were several updates to the Buildable Lands Guidelines that are not reflected in a specific data measurement above but are addressed below. This includes a need to address Infrastructure gaps, housing availability and affordability and elaborate on market supply factor determinants.

Infrastructure Gaps

The new Buildable Lands legislation requires that identification of land suitable for development and redevelopment must take into consideration infrastructure gaps, including but not limited to transportation, water, sewer, and stormwater.

Clark County uses an Urban Holding overlay to protect land until it is ready for development or annexation and can be used for areas where infrastructure is not currently available or adequate. However, the Growth Management Act (GMA) requires that cities plan to provide urban services to land within their UGA within 20 years, including land within the Urban
Holding overlay.

The jurisdictions reported that they had no outstanding infrastructure gaps that would prevent them from accommodating the remaining 2035 population and employment allocations.

Housing Availability and Affordability

The Washington Legislature through the Department of Commerce has prioritized Housing Availability and Affordability. Commerce established a new affordable housing reasonable measure. However, there are no existing affordable housing standards established, this will be a part of the 2025 Comprehensive Plan update to the housing element and will require collaboration with the jurisdictions to amend the countywide planning policies to establish measurable affordability targets and policies. These affordability measures will be included in subsequent Buildable Lands reports.

In 2019, HB 1923 became law and provides grant funding for jurisdictions to adopt code changes, housing action plans, and planned actions to increase urban residential capacity. Although the funding is only available to cities, Clark County has begun the process of identifying housing challenges and opportunities through a Housing Options Study and Action Plan. As part of this project a Housing Inventory and Data Analyses (Appendix C) was created. Although the data that was evaluated was specific to the urban unincorporated portion of the County, the data analyses was anticipated to be used for a countywide analysis that will inform the discussion with the jurisdictions to establish affordability targets and policies through the 2025 comprehensive plan update process. The Cities of Battle Ground, Camas, Ridgefield, and Vancouver have also undertaken similar actions to develop housing action plans, update housing codes or create sub area or Planned Actions. The analyses done by these jurisdictions can also be used to inform the policy discussion.

Finally, the data compiled by the Washington State Center for Real Estate Research would likely be a primary source for housing data as they have been recruited to provide affordability data for each jurisdiction in the state.

Market Factor

The existing methodology includes "never to convert" assumptions that account for the fact that not all developable land will be developed. The methodology applies never-to-convert factors to vacant and underutilized residential land (20% and 40%, respectively). Multiple approaches were reviewed to determine a market factor supply from deriving a non-conversion rate by studying a sub-set of properties that converted (Appendix A) to input from local real estate industry experts. (Appendix B)

Part 3: Reasonable Measures

Clark County has completed its 2021 Buildable Lands review and evaluation, as required under RCW 36.70A.215.

In Clark County's 2015 Buildable Lands Report, several municipal development code updates aimed at increasing local densities to meet targets were documented. As anticipated in that report, this report records all cities and the Vancouver (U) meeting their density targets (Figure 9).

The following table summarizes Clark County's findings, pursuant of RCW 36.70A.215(3).

Figure 20 Summary of Review and Evaluation Findings

Statute	Requirement	Findings
RCW 36.70A.215(3)(d)	Since last comprehensive plan or last periodic review, determine: • actual density of housing that has been constructed • actual amount of land developed for commercial and industrial uses within the urban growth area	• Housing density is documented in Figure 8 and Figure 9. • Commercial and industrial development is documented in Figure 12.
RCW 36.70A.215(3)(e)	Determine the supply of land needed for commercial, industrial, and housing for the remainder of the current 20-year planning period, based on observed densities	• Housing supply needed, based on observed densities is documented in Figure 10. • Commercial and industrial supply needed, based on observed densities is documented in Figure 15.
RCW 36.70A.215(3)(a)	Determine if there is sufficient land capacity to accommodate: • the countywide population projection established for the county. • the population allocations within the county and between the county and its cities, based upon previous achieved densities.	• There is sufficient land capacity to accommodate the adopted 2035 population projection, as shown in Figure 10. • While Figure 10 also shows land capacity deficits for the Battle Ground, La Center, Ridgefield, and Woodland UGAs, Clark County finds that the surplus vacant buildable land at county level outweighs these individual deficits, as the County surplus is more than four times the sum of deficits shown for these four UGAs. All jurisdictions successfully met their density targets.
RCW 36.70A.215(3)(e)	Determine if there is sufficient employment capacity for the remainder of the planning period based upon planned and achieved densities.	• Employment capacity is shown in Figure 15. Based on employment growth through 2019, redevelopment and public sector job assumptions there is sufficient employment capacity for employment growth through 2035.

Appendices

A.	Buildable Lands Project Advisory Committee Report
B.	Council Resolution 2021-06-20
C.	Housing Inventory and Data Analyses
D.	Annual Residential, Commercial and Industrial Development by Jurisdiction
E.	Clark County Urban Growth Area Maps

Appendix A: Buildable Lands Project Advisory Committee Report

Clark County Buildable Lands
PAC Report

February 2021

Prepared for: Clark County

ECONorthwest
ECONOMICS · FINANCE · PLANNING

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Acknowledgements

ECONorthwest prepared this report for Clark County. ECONorthwest and Clark County thank those who helped provide input on the Vacant Buildable Lands Model and the Buildable Lands Update process.

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[1] Resigned from committee in September 2020

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Executive Summary

The Buildable Lands Program (RCW.70A.215) requires local governments to monitor the amount and density of residential, commercial, and industrial development that has occurred since adoption or revision of a jurisdiction's GMA comprehensive plan. This analysis, called the Buildable Lands Report, is an evaluation of the adequacy of the remaining suitable residential, commercial, and industrial land supply within urban growth areas (UGAs) to accommodate projected growth at observed development densities.

In late 2019, Clark County contracted with ECONorthwest and AHBL to assist in identifying and addressing needed updates to the County's Buildable Lands Methodology and Vacant Buildable Lands Model (VBLM), and preparation for a 2021 Buildable Lands Report.[3] The consultant team worked with the Clark County Buildable Lands Team (the Project Team) and a Buildable Lands Project Advisory Committee (BLPAC). The role of the BLPAC was to consider options for updating the methodology and make recommendations to County Council on preferred methods and options based on analysis by the Project Team. This report provides a summary of the meetings of the BLPAC and their recommendations to County Council.

BLPAC Process

The BLPAC met eight times between December 2019 and January 2021 to review analysis, findings, and preliminary recommendations from the Project Team (the consultant team and County staff) for whether and what refinements to the County's buildable lands methodology are needed to address the issue. The BLPAC gave preliminary recommendations on some of the topics during the course of the early meetings, and took final votes on most recommendations at the final meeting, after reviewing results of preliminary runs of the VBLM to understand the impact of the potential changes. The BLPAC worked towards consensus to the greatest degree possible in making their recommendations to the Council.

Recommendations from the PAC

During their final meeting on January 6, 2021, the BLPAC voted on recommendations for refinements to the Buildable Lands methodology and assumptions. The refinements that had sufficient support to become recommendations from the BLPAC are summarized in Exhibit 1.

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[3] In 2017, Washington Legislature passed E2SSB 5254 which amended the Buildable Lands statute (RCW 36.70A.215). The Department of Commerce prepared an updated guidebook (Buildable Lands Program Guidelines) in 2018. The guidebook describes best practices and methodologies related to preparing buildable land reports. Clark County has to complete its Buildable Lands Update and submit to the Department of Commerce by June 30, 2021.

Exhibit 1. Summary of BLPAC Recommendations

Topic	BLPAC Recommendation	Rationale	Impact
Land Classifications: Residential	Index building value threshold used to identify vacant vs. underutilized land based on trends in property values in the County.	Improve categorization of vacant land and account for inflation in future BLRs.	Unable to isolate the impact of this change for residential but does not appear to make a substantial difference.
	Create new classification for small underutilized lots (0.5-1 acre, with no more than one existing housing unit); assume 10% redevelopment in Urban High Density and 5% in Urban Low Density based on past trends.	Account for small lots that do not meet current size threshold to be considered underutilized, but may still accommodate additional housing.	Adds 17 net acres of Urban High and 104 net acres of Urban Low. At achieved densities by VBLM land use[4] this would add capacity for about 550-570 units.[5]
	Create new classification for vacant platted lots (part of a plat approved within last 20 years); assume one unit per lot with no deductions.	Account for lots that are platted and planned for residential use appropriately, including them but not assuming further land division.	Adds capacity for about 3,300 units.
	"Excluded" category: do not exclude Housing Authority and other nonprofit housing ownership.	Account for lots that will develop with residential units but are currently excluded due to tax-exempt ownership status.	No impact on land designated residential.
Land classifications: employment	Index building value and building value per acre thresholds used to identify vacant and underutilized land based on trends in property values in the County.	Improve categorization of vacant and underutilized land and account for inflation in future BLRs.	Adds about 500 gross acres of industrial land and several hundred acres of commercial land.
	Classify undeveloped commercial and industrial properties with active businesses as underutilized rather than vacant.	Improve categorization of land that is currently classified as vacant but has an active business use.	538.3 acres go from vacant to underutilized.

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[4] VBLM land use is an aggregation of comprehensive plan land use designations.

[5] Note that the BLPAC did not reach a two-thirds majority in support of using achieved densities by VBLM land use. If this change is implemented with different density assumptions, the impact will be different.

Topic	BLPAC Recommendation	Rationale	Impact
	Reduce minimum lot size for commercial land from 5,000 to 4,000 square feet in all jurisdictions.	Account for small lots in downtown Vancouver, where 5,000 square foot lots are relatively common and are generally developable.	Adds very few properties, all of which are (by definition) very small. Total impact is roughly 20 acres.
	"Excluded" category: do not exclude Housing Authority and other nonprofit housing ownership; do not exclude Port-owned properties in commercial.	Account for property that is or may be developed but has been excluded due to tax-exempt ownership status (i.e., Waterfront at Parker's Landing at Port of Camas/Washougal and Waterfront in Vancouver).	Adds 36 gross acres of Housing Authority property (28 acres of which are redevelopable, so only a small percentage is added to the net acres) and 83 gross acres of Port property (mostly vacant and underutilized) within commercial and mixed-use designations.
Accounting for Redevelopment	Assume 5% of built Vancouver City Center commercial land and 1% of built commercial land in the City of Vancouver, outside City Center redevelops as residential.[6]	Account for observed residential redevelopment in Vancouver that has not been accounted for in the model to date.	Adds 5 net acres in the City Center and 15 net acres in other commercial zones; at achieved densities by VBLM land use, this would add capacity for just under 1,000 units in total.[5]
Modeling Mixed-Use Areas / Residential in commercial areas	For vacant and underutilized Commercial land in the City of Vancouver, assume some of the land that develops will develop as residential: 15% outside City Center, and 30% inside City Center.[7]	Account for observed residential development in Vancouver commercial zones that is now allowed more freely under zoning but has not been accounted for in the model to date.	Adds 5 net acres in the City Center and 47 net acres in other commercial zones; at achieved densities by VBLM land use, this would add capacity for roughly 1,900 units.[5]
Market Factor	Keep existing never-to-convert factors for residential: 10% for vacant land, 30% for underutilized.	The available data suggests that deductions for market factor are needed, and that the existing ones are appropriate given historical trends.	None

[6] A two-thirds majority of the BLPAC supported this recommendation; however, four of 12 BLPAC members also supported use of higher redevelopment rates, based on projects in the development pipeline.

[7] A two-thirds majority of the BLPAC supported this recommendation; however, four of 12 BLPAC members also supported use of higher percentages of residential development, based on projects in the development pipeline.

Topic	BLPAC Recommendation	Rationale	Impact
Population Capacity	If County Council decides to use achieved density[8] as the basis for residential land capacity,[9] the County should first work with jurisdictions to refine the data to remove outliers and anomalies.	Improve residential density assumptions to better reflect historic development trends by VBLM land use.	Unknown
Employment Density	Retain existing employment density assumptions.	Case study analysis shows that existing assumptions are within typical employment densities. Washington employment data is not available at the local level that would allow for a more detailed analysis of densities.	None
Infrastructure Gaps	Do not exclude any land on the basis of infrastructure gaps; however, continue to apply reduced capacity assumptions for Yacolt due to lack of sewer facilities.	Jurisdictions are required to serve land within the UGA within 20 years. Jurisdictions surveyed did not indicate infrastructure gaps to factor into the model.	None
Rural Land Capacity	Keep existing methodology as described in Attachment B.	Align with Buildable Lands Guidance on collection of data on urban and rural land uses.	None

Additional Potential Refinements

The BLPAC did not reach a two-thirds majority on some of the Project Team's proposed recommendations. This section summarizes each of the potential refinements that received partial BLPAC support, the options that the Project Team presented to the BLPAC, the impacts to the model results, and the range of BLPAC's perspectives related to the recommendation.

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[8] "Achieved density" is defined as the actual density of housing that has been constructed since the last periodic evaluation.

[9] The BLPAC was split on whether to use achieved density in the VBLM; however, the County is required to consider achieved densities, whether they are used in the VBLM or not. This is discussed further below.

Account for Excess and Rearage Acres on Built Land in Employment Land Supply

Project Team Recommendation: Include areas identified as "excess" and "rearage" by the Assessor on commercial and industrial sites classified as built to the model results as net available acres, assuming that 75% of "excess" land will develop, and that 20% of "rearage" land will develop.[10]

Rationale: The County Assessor maintains data related to the assessment of additional available acreage for commercial and industrial uses. This includes acreage on lots that have an existing use, but the site may have available acreage that is not actively in use. As part of their method, the Assessor evaluates both "excess" and "rearage" acreage. Excess is defined as extra acreage that is developable on a parcel, generally with its own street frontage. Rearage is land that is located behind the primary development on the parcel; it generally lacks frontage and/or access. The Assessor estimated that 75% of identified excess land will develop, while only 20% of rearage land will develop.

Impact: This would result in adding about 217 net acres of industrial land and about 38 net acres of commercial land.[11]

BLPAC Perspectives: Seven BLPAC members voted in support of this recommendation; five were opposed. In previous meetings where this topic was discussed, BLPAC members were largely in support of the concept, though several expressed concerns about the accuracy of the employment land supply in the model overall. In general, the model is a long-range planning tool and does not distinguish between land that is "shovel ready" and land lacking infrastructure or environmental mitigation. (Several members raised concerns at various points in the process that the employment land included in the model includes land that is not viable for employment use, but did not identify specific parcels of concern.) In the final meeting, CREDC representative Jennifer Baker requested that this item be voted on separately from other refinements that were part of a "consent agenda" of items that the BLPAC had generally supported in prior meetings. BLPAC members who voted against this recommendation in the final meeting did not state specific reasons, as time for discussion was limited.

Population Capacity

Project Team Recommendation: Use achieved density by VBLM land use (Urban Residential High vs. Urban Residential Low) in the residential model. (The model currently uses policy target densities for each UGA.)

Rationale: The County is required to determine land needs based on the actual density of development (RCW 36.70A.215(3)(e)). Currently, the County complies with this by calculating achieved density by UGA overall and considering this in determining land needs, in addition to

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[10] Based on communication with Clark County Assessor's Office in April 2020.

[11] Note that the impact estimates were revised since the information provided to the BLPAC to correctly reflect the 75% and 20% of acreage to be included.

the policy target densities for each UGA. One approach suggested in the Department of Commerce Guidelines is to use achieved density by zoning or comprehensive plan designation. This is a more refined and accurate basis for achieved density, because it takes into account the zoned / planned density of the remaining vacant land. The Project Team evaluated both achieved density by zone and VBLM land use and concluded that VBLM land use would be more efficient to integrate in the model.

Impact: The average density achieved in Vancouver UGA overall was 10.4 dwelling units per acre—30 percent higher than the policy target density (8 dwelling units per acre). The overall impact on housing capacity was moderate in aggregate, but more pronounced in Vancouver.[12]

BLPAC Perspectives: Five BLPAC members voted in support of this recommendation; six were opposed. Several of those who supported the change indicated they felt that using observations and "ground truthing" was an important part of updates, and that the evidence in the record supports this refinement. One of the members who opposed the change expressed concern that assuming higher densities would then require development to continue at higher densities because less land would be available. In a prior meeting and discussion on this subject during the sixth meeting (before estimates of the impact and preliminary estimates of the actual achieved densities were available), all of the BLPAC members indicated they had no objection to the Project Team's recommendation.

Should the Council elect to move forward with this refinement, as noted in Exhibit 1, the BLPAC voted in support (11 of 12) of the County working with jurisdictions to refine the density assumptions. Several members expressed concern with the details of the achieved density data and assumptions, including the impact of outliers on average densities. One suggested using medians rather than averages; others supported more general discussions with local staff to refine the data prior to establishing the assumption.

Infrastructure Set-Asides and Critical Lands

Project Team Recommendations:

- **Infrastructure Deduction:**
  - Reconcile methodology differences with calculations used by the development industry by estimating infrastructure as percentage of buildable land.
  - Data supports infrastructure percentage deduction of 31.5% of <u>developable</u> acres.
  - Monitor how changes to regulations related to co-location of stormwater and wetland on a tract affect this percentage.
- **Critical Lands Deduction**:

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[12] Meeting materials for BLPAC 8 provide more detail on achieved density impacts.

- Clarify that the critical land deduction reflects a percent of mapped critical land in a plat that is required to be protected and is ultimately not developable.[13] This is separate from the 10% and 30% market factors applied to vacant and underutilized residential land.

- Data supports a critical land deduction of 40% of mapped critical lands.

- Set all plat deductions for Urban Residential High in Vancouver at half the rate for Urban Residential Low to account for the fact that multifamily development (which represents roughly half of development in the Urban Residential High designation) generally does not set aside infrastructure in separate tracts.

Rationale: Multiple BLPAC members expressed concerns early in the process that the infrastructure deduction was too low and failed to account for recent changes to stormwater regulations. In addition, there was confusion regarding the critical lands deductions and their relationship to the infrastructure deduction. The goal of this update was to provide an independent review of the infrastructure calculations to verify the deductions and clarify the relationship to critical lands.

The Project Team did extensive analysis of data related to observed infrastructure needs as well as analysis of development and preservation of critical lands, with engineering firm AHBL providing analysis and guidance, particularly on issues related to stormwater regulations. The analysis showed the following reasons to update the infrastructure and critical lands deductions:

1. New stormwater regulations have increased the stormwater component of infrastructure set-asides. While these regulations do not apply to all jurisdictions yet, the Project Team anticipates that they will within the planning horizon.

2. Upcoming updates to the County's Critical Areas Ordinance (CAO) to address co-location of stormwater management within wetlands will further increase stormwater set-asides in the future.

3. The County's methodology for calculating infrastructure percentages in the past differed from that recommended by the development industry—the percentages proposed by the development industry were based on a percentage of developable acres (after excluding critical lands) rather than a percentage of gross (total) acres in the plat. Calculating the set-asides as a percent of developable acres, which is an appropriate approach, increases the set-aside percentage, even without accounting for other differences.

4. The critical lands deduction is more appropriately described as a deduction based on the share of mapped critical lands that are preserved when a property is platted rather than

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[13] Mapped critical lands may be developable for several reasons, including: mapping errors, allowed uses within buffer areas, areas like critical aquifer recharge areas that can generally be developed, and other options to develop on critical lands through a discretionary process with adequate technical documentation.

an additional market factor. Based on an analysis of recent plats, roughly 40% of critical lands is ultimately not developed when the parent parcel is platted.

The third and fourth items above were discovered later in the process of working with the BLPAC; most of the early refinements from AHBL focused on previous regulation changes and upcoming regulation changes.

Impact: The Project Team tested several prior iterations of potential refinements; none made a substantial difference to the overall capacity and total deductions. While the specific refinements proposed above were not tested in the preliminary VBLM runs, the Project Team believes the changes will be largely off-setting in their overall impact, but will improve the model's accuracy in areas with critical lands.

BLPAC Perspectives: The BLPAC did not take a final vote on this topic. There were a wide range of opinions about the options under consideration by the BLPAC.

- Four members expressed support for increasing the infrastructure deduction from 27.7% (in the current model) to 31.5% of developable acres (within the range identified in the Project Team's final memo to the BLPAC on this subject).

- Two members supported using the percentages previously estimated by AHBL (as a percentage of total acres), and specifically supported using reduced deductions in the Urban Residential High designation in Vancouver.

- Several members expressed concern about double-counting deductions for critical lands by including both a market factor and a plat deduction.

- Several members simply indicated a desire for data-driven assumptions on this subject.

Next Steps for Council

Council Time meeting will be scheduled for Council to provide direction to staff on moving forward to a hearing to adopt modifications to the Vacant Buildable Lands model and rural capacity estimates methodology.

Council hearing to adopt a resolution of amendments to the VBLM and rural capacity estimates.

Staff will run the model to estimate whether sufficient capacity exists to accommodate the 2015 - 2035 population projections to include in the Buildable Lands Report.

Public hearing will be held with both the Planning Commission and Council on the Buildable Lands report prior to submittal to Department of Commerce on June 30, 2021.

1. Introduction

The Buildable Lands Program (RCW.70A.215) requires local governments to monitor the amount and density of residential, commercial and industrial development that has occurred since adoption or revision of a jurisdiction's GMA comprehensive plan. This analysis, called the Buildable Lands Report is an evaluation of the adequacy of the remaining suitable residential, commercial, and industrial land supply within urban growth areas (UGAs) to accommodate projected growth at observed development densities.

In 2017, Washington Legislature passed E2SSB 5254 which amended the Buildable Lands statute (RCW 36.70A.215). The Department of Commerce prepared an updated guidebook (Buildable Lands Program Guidelines) in 2018. The guidebook describes best practices and methodologies related to preparing buildable land reports, including an emphasis on "showing your work," or using assumptions that are evidence-based. Clark County has to complete its Buildable Lands Update and submit to the Department of Commerce by June 30, 2021.

Clark County contracted with ECONorthwest and AHBL to assist in identifying and addressing needed updates to the County's Buildable Lands Methodology and prepare the 2021 Buildable Lands Report in collaboration with the Clark County Buildable Lands Team (the Project Team) and a Buildable Lands Project Advisory Committee (BLPAC). The role of the BLPAC was to consider options for updating the methodology and make recommendations to County Council on preferred methods and options based on analysis by the Project Team. This report provides a summary of the meetings of the BLPAC, their recommendations to County Council, and topics with partial BLPAC support for additional refinement and discussion.

BLPAC Process

The BLPAC met eight times between December 2019 and January 2021. Meetings #3 through #8 were held virtually due to the Covid-19 pandemic. Each meeting included time for public comment, and the County also accepted written public testimony. All meeting materials and public testimony are posted on the County's project webpage.[14]

The purpose of the BLPAC was to review research and analysis provided by the consultant team and County staff ("the Project Team") related to each of the identified issues and make recommendations for whether and what refinements to the County's VBLM methodology are needed to address the issue. The BLPAC worked towards consensus to the greatest degree possible in making their recommendations to the Council. The BLPAC's meeting and decision protocols are included in Attachment A. The list of topics identified for consideration by the BLPAC is provided below. The VBLM methodology from 2015 is included for reference in Attachment C.

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[14] https://clark.wa.gov/community-planning/buildable-lands-project-advisory-committee

At each meeting, the Project Team brought analysis and findings, along with preliminary recommendations on topics for the BLPAC to consider and discuss. The BLPAC discussed each topic and asked for follow up analysis where necessary. The Project Team sought preliminary recommendations from the BLPAC on some of the topics discussed during some of the first seven meetings but did not seek final votes on recommendations until the final meeting.

Prior to the final meeting, the Project Team completed preliminary runs of the VBLM for the BLPAC to review. The runs included a baseline model that used the existing assumptions, as well as three options that used variations of the recommended updates to assumptions. The details of each option are provided in the BLPAC Meeting 8 memorandum. The Project Team prepared a "Story Map" that illustrated the results of the potential model refinements, and highlighted particular changes that make the greatest impact on the estimated capacity.

Topics Reviewed by the BLPAC

In brief, the topics identified for discussion with the BLPAC and potential refinements identified at the beginning of the project include:

1. **Land Classifications:** The way land is classified as vacant, underutilized, built, etc. determines whether it is assumed to have potential for development in the buildable lands model.

2. **Accounting for Redevelopment:** The County's model does not include an assumption for redevelopment on land classified as built; however, redevelopment is occurring in some urban areas (e.g., Vancouver City Center).

3. **Modeling Mixed-Use Areas:** The County's methodology classifies lands into residential, commercial, and industrial based on comprehensive plan designations. Vacant and underutilized land in mixed use areas is assumed to generate a mix of residential and commercial capacity. Some commercial zones allow residential development (e.g., Vancouver City Center) but are not identified as mixed use.

4. **Infrastructure Gaps**: The new Buildable Lands legislation requires that counties must consider infrastructure gaps—including transportation, water, sewer, and stormwater—in identifying land suitable for development and reaching target densities on those lands.

5. **Market Factor**: The new legislation requires counties to analyze, justify, and apply an appropriate market supply factor when identifying land suitable for development.

6. **Capacity on Rural Lands:** Consider clarifications or refinements, if needed, to the approach to estimating capacity on land outside Urban Growth Areas.

7. **Infrastructure Set-Asides:** Consider whether refinements are needed to the County's current assumptions for the amount of land that will be dedicated to streets, stormwater facilities, etc. to better align with observed development and/or changing regulations.

8. **Population Capacity:** Consider whether refinements are needed to the County's current assumptions for residential density to better align with observed development and/or changing regulations.

9. **Employment Density:** The current methodology uses densities based on observed development using data from the Washington Employment Security Department (ESD); however, ESD no longer provides access to this data, making it difficult to validate projections or adjust over time.

Report Overview

This document is organized into two sections:

- **BLPAC Recommendations.** This section summarizes the BLPAC's recommended updates to the VBLM and the supporting analysis for each final recommendation.

- **Additional Potential Refinements.** This section summarizes additional topics that the BLPAC reviewed and discussed but did not vote to support as a recommendation. These topics with partial BLPAC support are presented as options for Council to consider, along with summaries of the BLPAC discussion.

2. BLPAC Recommendations

The BLPAC supported for recommendations related to residential and employment land classifications, redevelopment, mixed use areas, market factor, population capacity, and employment density.[15] This section provides each recommendation that the BLPAC supported, along with a summary of the evidence that supports this recommendation.

Residential Land Classification: Index Building Value Threshold

Land with more than $13,000 in building value is excluded from the vacant land category, and is either captured as underutilized or built. The value threshold does not update automatically over time. Because the improvement value threshold has not been updated since 2007 and does not automatically adjust with inflation, over time, it may have become a less accurate predictor of whether land is developed or vacant. The Project Team analyzed vacant and underutilized parcels from the 2007 VBLM to see how building value, building value per acre, and other factors are associated with a likelihood of development.

Recommendation

The BLPAC voted in support (11 of 12 members) of the following recommendation:

Index building value threshold used to identify vacant vs. underutilized land based on trends in property values in the County.

Supporting Analysis

The PAC initially discussed this topic at the February 21, 2020 meeting (Meeting #2) and discussed additional Project Team analysis at the March 20, 2020 meeting (Meeting #3). The basis for the recommendation is summarized below.

- The improvement value threshold has not been updated since 2007.

- According to the County Assessor, building value is a reliable field with an annual update cycle in which values are reviewed for accuracy every year by the State and property owner.

- While there are property type codes indicating current land use (including vacant), the County Assessor indicated these codes do not have an annual review cycle. They do not drive value, so they are not reviewed as rigorously and are assigned somewhat

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[15] BLPAC support for a recommendation means that at least two-thirds of the members present at the time of the vote supported the recommendation. None of the recommendations were unanimous. The number of members voting in favor is noted for each recommendation.

differently by individual appraisers. The County Assessor did not recommend using property type codes to classify land in the VBLM.

- While building value is not a perfect indicator of what land is vacant, the vast majority of vacant and underutilized land that is developing has a building value of zero.

- When residential lands are valued based on a having a higher and better use than the current development, they can have a building value of zero, even though they have a housing unit; the house is declared "economically obsolescent." Vacant and underutilized land with a unit on the property valued at or near $0 had a higher chance of converting.

- There was little property with building values between $0 and $13,000 as of 2007.

Residential Land Classification: Vacant Platted Lots

Lots under 5,000 square feet are currently classified as "built" in the model (meaning they generate no capacity); however, several jurisdictions allow single family development on lots under 5,000 square feet, and this has become increasingly common. In addition, platted lots over 5,000 square feet are grouped with other vacant land that has yet to be platted.

Recommendation

The BLPAC voted in support (11 of 12 members) of the following recommendation:

Create new classification for vacant platted lots (part of a plat approved within last 20 years); assume one unit per lot with no deductions.

The Project Team presented options for lot size thresholds for this new classification. In the initial VBLM runs presented at BLPAC Meeting #8, the results showed a minimal difference in the number of acres added to the model. The BLPAC supported the concept, and would accept either of the acreage thresholds presented. The Project Team recommends using a minimum lot size of 1,000 square feet (to capture all legal lots, even in zones that allow very small lots) and a maximum of 1 acre (to keep the break between vacant platted and other vacant land that may be further divided clear).

Supporting Analysis

The PAC initially discussed this topic at Meeting #2, and reviewed additional Project Team analysis at Meeting #3. The basis for the recommendation is summarized below.

- Nearly 2,000 units were built on lots under 5,000 square feet that otherwise would have been identified as vacant (in other words, they met all the criteria except for the minimum lot size) from 2007 to 2019.

- Cities of Vancouver, Battle Ground, Camas, Washougal, Ridgefield, La Center and the unincorporated Vancouver UGA now allow single family detached housing on lots under 5,000 square feet.

- These parcels need a separate category so that the same assumptions that are applied to larger vacant land (e.g., deductions for roads and infrastructure, environmental constraints, and market factor) are not applied to vacant platted lots.

- The risk that vacant platted lots will have been developed before the comprehensive plan is updated is minimal because the VBLM is run at the beginning of each year. When updating the comprehensive plan, an end of year forecast is done by the County demographer, so that the VBLM and baseline population are as close to being in sync as possible. This baseline population is subtracted from the Office of Financial Management (OFM) projected population, as selected by Council, to determine the amount of growth that needs to be accommodated over the planning horizon. This means a minimal lag in the data. The platted lots account for much of the near-term capacity for housing, but the alignment in timing means that if the unit is not yet complete the population of that unit remains part of the population forecast.

- Continuing to exclude lots under 1,000 square feet will exclude most remnant parcels that are not buildable. (The data shows that these generally did not develop.)

- Limiting this classification to lots platted within the last 20 years will isolate lots platted under GMA rules. Older platted lots are more likely to have zoning that does not match the zoning when they were platted, making them more likely to be re-platted and possibly divided prior to development.

Residential Land Classification: Small Underutilized Lots

Lots under one acre with improvement values that exceed the threshold for vacant are considered built under the current methodology. Some of these may have further development potential, and the Project Team developed a recommendation for capturing the capacity on these lots in the model update.

Recommendation

The BLPAC voted in support (11 of 12 members) of the following recommendation:

Create new classification for small underutilized lots in Urban High Density (0.5-1ac, no more than one housing unit, assuming 10% redevelopment).

Additionally, the BLPAC voted in support (10 of 12 members) of the following recommendation:

Apply the new classification for small underutilized lots to Urban Low Density Residential as well, assuming 5% redevelopment.

Supporting Analysis

The PAC initially discussed this topic at Meeting #2, and discussed additional Project Team analysis at Meeting #3. The basis for the recommendation is summarized below.

- The majority (over 70%) of the residential land identified as built that converted with additional units between 2007 and 2019[16] was in lots over 20,000 square feet (roughly a half-acre).

- In the Vancouver UGA, a higher percentage of land within the Urban High Density VBLM land use category converted than within the Urban Low Density land use category. The ability to create additional units on the property can also increase the likelihood of redevelopment or infill.

- There was general support on the BLPAC for the concept of creating a new classification for lots between a half-acre and one acre with capacity for additional residential development, and the BLPAC agreed with the need to focus on lots with more capacity.

- BLPAC members suggested that this approach apply to all UGAs, not just the Vancouver UGA. The Project Team reviewed the number of acres in the 2019 VBLM that would be included in this new classification in all Clark County UGAs. Exhibit 2 shows the number of acres that would be included in this classification for the 2019 residential VBLM. While this analysis shows that most of the acres are in Vancouver (186 acres), there are other UGAs with acres on lots that fit these criteria, including Battle Ground (30 acres) and Camas (16). While applying a redevelopment rate of 5-10% of these acres does not result in a large number of acres included in the capacity for residential land, it may help to improve the accuracy of the VBLM overall.

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[16] This analysis excludes land that was classified as built in the 2007 VBLM but has been identified for this analysis as a vacant platted lot.

Exhibit 2. Additional Acres of Underutilized Residential Land (Lot Size Threshold), 2019 VBLM by UGA
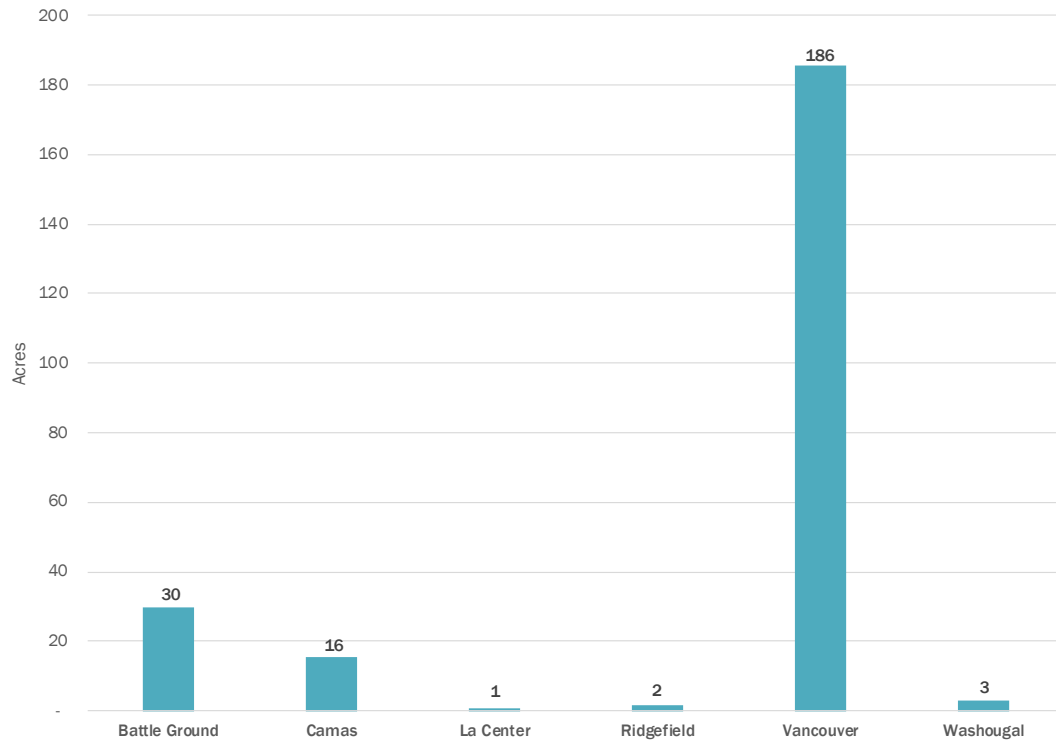
Source: ECONorthwest analysis using data provided by Clark County

Residential and Employment Land Classifications: Tax-Exempt Properties

Sites owned by tax-exempt organizations, such as the Vancouver Housing Authority, are currently "excluded" in the model and not assigned any capacity. However, land owned by housing authorities and other nonprofit housing developers is typically developed with housing, and land developed by the Port typically provides jobs. Therefore, these types of land ownerships should be considered in capacity calculations.

Recommendation

The BLPAC voted in support (10 of 12 members) of the following recommendation:

Do not exclude Housing Authority and other nonprofit housing ownership land from the residential land supply, and do not exclude Port-owned properties from the commercial land supply.

Supporting Analysis

The Project Team proposes to remove certain types of tax-exempt organizations (using the Owner ID or owner name) from the "excluded" category and assign a built or vacant classification as follows:

- Sites with no existing housing units would be classified as vacant and 100% of acres would be allocated to residential.

- If the site has units, it would be considered built. The redevelopment rates and commercial/residential split (15/85) would apply based on the criteria defined in those sections of this memorandum. (This would also apply to sites with these owner IDs in the residential model.)

Employment Land Classification: Index Building Value

The existing methodology for employment land (i.e., commercial and industrial land) defines vacant land as parcels greater than 5,000 square feet and a building value less than $67,500. Underutilized land is defined as parcels greater than 5,000 square feet with a building value greater than $67,500 and a building value per acre less than $50,000. Parcels that are assessed with another parcel (indicating they are part of a larger site, such as a parking lot for a shopping center) are treated as built.

Recommendation

The BLPAC voted in support (11 of 12 members) of the following recommendation:

Index building value and building value per acre thresholds used to identify vacant and underutilized land based on trends in property values in the County.

Supporting Analysis

At Meeting #2, the Project Team presented preliminary information related to commercial and industrial land that showed a noticeable amount of development on land classified as "built", but the historical comparison of commercial and industrial model results were inconclusive. The Project Team observed challenges in analyzing data at the parcel level, as commercial development typically happens at a site level, composed of multiple parcels with multiple buildings or other active uses (e.g., parking lots). PAC members expressed concerns about the validity of building value as an indicator of whether a parcel is vacant or underutilized.

Employment Land Classification: Account for Active Business Use

In the current methodology, industrial sites with no structures or very low-value structures are included in the vacant category.

Recommendation

The BLPAC voted in support (11 of 12 members) of the following recommendation:

Classify undeveloped commercial and industrial properties with active businesses as underutilized rather than vacant.

Supporting Analysis

In an observation of the 2020 VBLM results, about 196 acres classified as vacant industrial land had associated business personal property accounts. Upon review of these parcels, about 7 acres were vacant, and the remaining land was classified as critical or had an active use. These remaining areas are better classified as underutilized.

The Project Team recommended that in cases where these sites have a business operation, consideration of personal business property information[17] would exclude these sites from being identified as vacant. They would be identified as "underutilized" based on having a low building value per acre.

Employment Land Classification: Employment Density

Once the vacant buildable commercial and industrial lands have been identified, Clark County applies employment density assumptions (expressed as employees per acre or EPA) to the net developable acres to predict how much future employment that land can accommodate. The most recent methodology has one density assumption for commercial land (20 employees per acre) and another one for industrial land (9 employees per acre). The assumptions are the same for all UGAs. The densities have been set based on observed development using spatial data on employment from the Washington Employment Security Department (ESD) that allowed matching of specific employers to tax lots. The 2015 Buildable Lands Report (BLR) used employment data from 2014 to estimate employment density. The achieved densities were lower than the 2007 BLR, and the County continued to use the assumptions from the 2007 report. However, ESD no longer provides access to parcel-specific employment data, leaving Clark County (and all the other Buildable Lands Program counties) without a good data source to validate projections or adjust over time.

Recommendation

The BLPAC voted in support (11 of 12 members) of the following recommendation:

Retain existing employment density assumptions.

Supporting Analysis

Employment density of new development is also reported in the BLR. The most recent analysis uses data from 2006-2014 and relies on data from ESD as well as building permit data to

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[17] Businesses are required to pay property taxes on "personal property" (i.e., property that is "able to be moved from one location to another and typically includes most machinery, equipment, furniture and fixtures associated with commercial, industrial, or agricultural enterprises"). https://www.clark.wa.gov/assessor/business-personal-property-faq#:~:text=If%20you%20own%20any%20business,real%20and%2For%20personal%20property.

calculate the employment density of new commercial and industrial development for each UGA.

The employment density survey provides data that support assumptions used to determine land needed for employment uses. The statutory guidance from the program is codified in RCW 36.70A.215. Specifically, the following two subsections address density of employment:

> *Based on the actual density of development, review commercial, industrial, and housing needs by type and density range to determine the amount of land needed for these uses for the remaining portion of the current 20-year planning period (RCW 36.70A.215(3)(e));*

> *Determine if there is sufficient employment capacity for the remainder of the planning period based upon planned and achieved densities (RCW 36.70A.215(3)(e));*

Section 3 provides further guidance on how the data are used:

> a. *Determine whether there is sufficient suitable land to accommodate the countywide population projection established for the county pursuant to RCW 43.62.035 and the subsequent population allocations within the county and between the county and its cities and the requirements of RCW 36.70A.110;*

> b. *Determine the actual density of housing that has been constructed and the actual amount of land developed for commercial and industrial uses within the urban growth area since the adoption of a comprehensive plan under this chapter or since the last periodic evaluation as required by subsection (1) of this section; and*

> c. *Based on the actual density of development as determined under (b) of this subsection, review commercial, industrial, and housing needs by type and density range to determine the amount of land needed for commercial, industrial, and housing for the remaining portion of the twenty-year planning period used in the most recently adopted comprehensive plan.*

The employment density survey provides data that support assumptions used to determine land needed for employment uses. Statutory guidance requires that the county determine land need and employment capacity based on the actual/achieved density of development and the actual amount of land developed for commercial and industrial uses within the UGA since the last periodic evaluation or last update of a comprehensive plan.[18]

The 2018 *Buildable Lands Guidelines* provide concise direction on the process and distill the requirements into two questions:

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[18] RCW 3670A.215(3)

- How much land was actually developed for commercial and industrial uses within the UGA since the last comprehensive plan was adopted or the last evaluation completed?

- Based on this and other relevant information, how much land would be needed for commercial and industrial development during the remainder of the 20-year comprehensive planning period?

Thus, while the guidelines provide direction on how to address commercial and industrial development, they are not proscriptive and provide considerable local discretion with respect to methods and assumptions. Because the focus of this research is on employment density, we do not address other aspects of the methods related to commercial and industrial land other than to remark that the methods used by Clark County in the 2015 BLR are common in these types of studies.

Clark County currently uses an employees per acre (EPA) approach to employment density. As previously stated, the State no longer provides access to the detailed employment data previously used to calculate employment densities.

Results

While the Employment Security Department no longer releases the detailed employment data to the County, the Project Team contacted the ESD to summarize employment for built land in the commercial and industrial VBLM models and by UGA. The purpose of this analysis was to provide a trend of employment densities at generalized geographies in the County, and help check against previous assumptions used in the 2015 BLR methodology. ESD was not able to provide this analysis within the time period of the BLPAC process.

ECONorthwest has worked with many jurisdictions in Oregon on employment density analyses, as the detailed employment data is available at the local level. Recent analyses in these jurisdictions have shown employment densities are consistent with Oregon's *Industrial and Other Employment Lands Analysis* guidebook. We used Quarterly Census of Employment and Wages data provided by the Oregon Employment Department to calculate the employment densities for commercial and industrial land use types in Tualatin, McMinnville, and Redmond (OR). The results of these analyses, as well as EOA assumptions used in Washington Counties are shown in Exhibit 3.

Exhibit 3. Summary of employees per acre assumptions in Washington and Oregon

Jurisdiction	Commercial EPA	Industrial EPA
Clark Co., WA (2015)	20	9
Island Co., WA (2016)	17	8
Thurston Co., WA (2014)	3.3	1.5
Tualatin, OR (2017)	27	15
McMinnville, OR (2017)	23	10
Redmond, OR (2018)	11-18	8

Source: ECONorthwest

Employment Land Classifications: Commercial Minimum Lot Size

The existing methodology uses a minimum lot size for vacant employment land of 5,000 square feet.

Recommendation

The BLPAC voted in support (10 of 12 members) of the following recommendation:

Reduce minimum lot size for commercial land from 5,000 to 4,000 square feet in all jurisdictions.

Supporting Analysis

There are many existing lots designated for commercial use, particularly in Vancouver, that are very close to 5,000 square feet; development has occurred on a number of those lots. The Project Team proposed to reduce the minimum lot size to 4,000 square feet for vacant commercial land in Vancouver in order to account for those properties (other criteria for vacant land would still apply).

Accounting For Redevelopment

The existing methodology includes a demand-side assumption that 5% of population and employment will be accommodated through redevelopment that is not captured in the VBLM.

Recommendation

The BLPAC voted in support (11 of 12 members) of the following recommendation:

Assume 5% of built Vancouver City Center commercial land and 1% of built commercial land in Vancouver outside City Center redevelops as residential.

(Note: Four of 12 BLPAC members also supported use of higher percentages of residential development, based on projects in the development pipeline, but this modification to the recommendation did not receive support from two-thirds of the BLPAC members.)

Supporting Analysis

Redevelopment in the Vancouver City Center

The Project Team reviewed development in the Vancouver City Center between 2007 and 2019, including residential development that occurred. Land in this area is included in the commercial VBLM, and about 190 acres were classified as built in the 2007 VBLM. Of these, about 9 acres redeveloped with residential uses by 2020, as shown in Exhibit 4. This results in a

redevelopment rate over the 12-year period[19] of 4.7%; if extended over 20 years, this would translate to a redevelopment rate of 7.9%. Considering that the 2007-2019 time frame included a strong multifamily development market in Vancouver, and the Waterfront development was a large component of the redevelopment during this period, a rate closer to 5% looking ahead over a 20-year planning period is reasonable.

Exhibit 4. Redevelopment in Vancouver City Center, 2007-2019
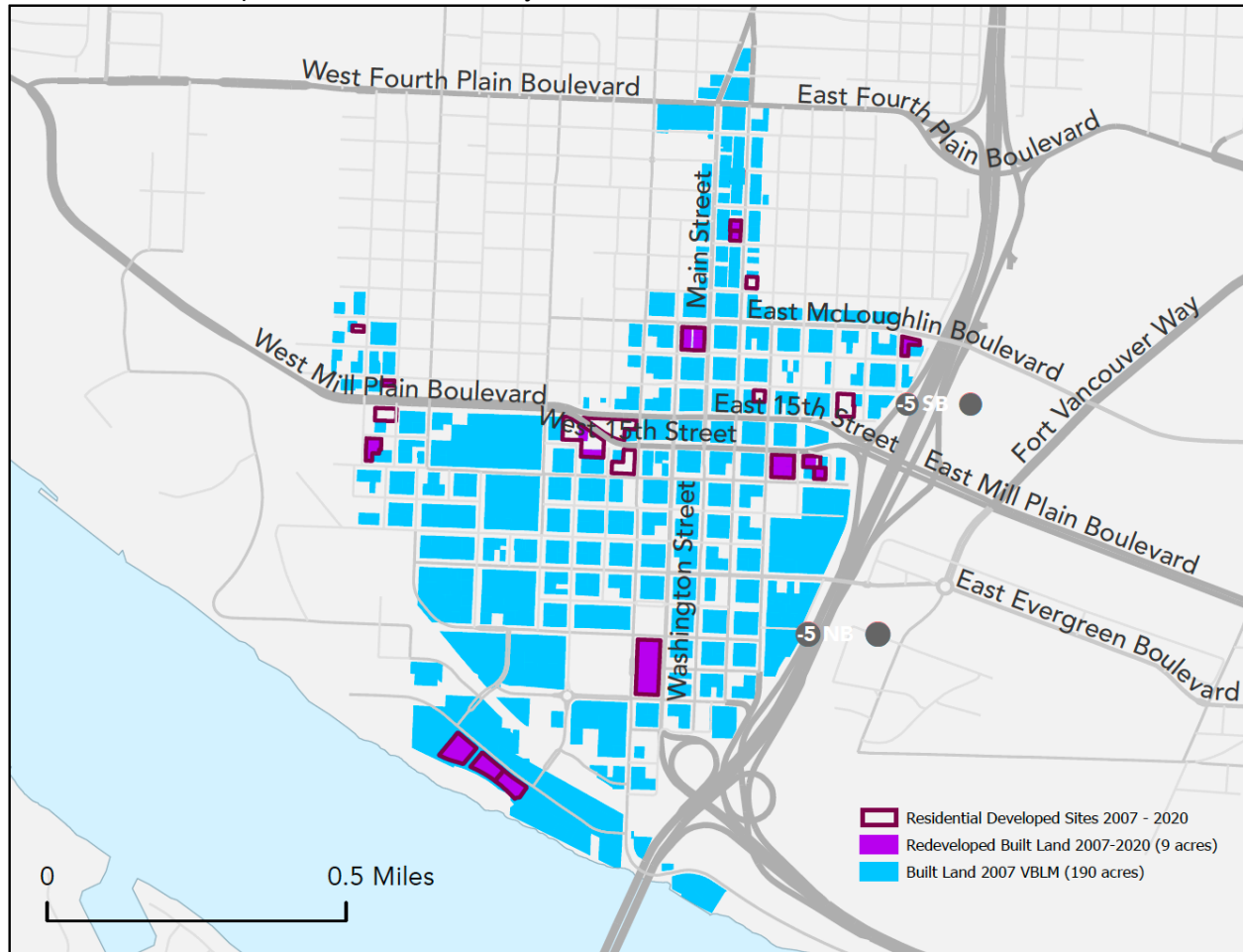
Source: Clark County

Redevelopment in Vancouver (Outside of the City Center)

County staff also reviewed the areas in Vancouver outside of the City Center. Staff's analysis focused on commercial built land redeveloped with residential uses since 2016 (when changes to zoning regulations allowing greater residential development took effect). The analysis found 1,220 acres of built commercial land outside of downtown Vancouver as of 2016, four acres of which redeveloped into housing since 2016. This translates to a redevelopment rate of 0.33% over the four-year period. If the same trend were extended over 20 years, this would translate to

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[19] While the data is from 2007, the City Center Plan went into effect in 2008, so we have counted from 2008 to 2020.

redevelopment rate of about 1.7%. However, given that the 2016-2020 timeframe included a strong multifamily development market in Vancouver, a rate closer to 1% looking ahead over a 20-year planning period is reasonable.

Further discussion of the approach to accounting for residential development in commercial areas is addressed in the next section.

Other Residential Development on Commercial Land

County staff found that roughly 6% of units (832 out of 13,095) built between 2016 and 2020 developed on non-residential land, excluding the commercial areas in Vancouver. This suggests that even with the proposed refinements above, the model will be missing some residential capacity in locations that are difficult to predict. The Project Team recommended retaining the 5% demand-side redevelopment assumption for housing as well as for employment (since the number of employees on existing developed sites can increase with or without redevelopment).

Modeling Mixed Use Areas

Since 2016 the City of Vancouver has experienced residential growth on commercial land outside of the downtown area, due to recent policy changes that allow more flexibility for residential development in commercial zones. Zoning regulations allow developments that are primarily residential though they may have a commercial component. There is often more flexibility to meet requirements for commercial use through live/work units or horizontal mixed use (i.e., residential and commercial in separate buildings on the same site or as part of one development) in addition to vertically integrated mixed-use development (i.e., residential development with commercial on the ground floor). However, unlike areas zoned for mixed-use, these residential developments are not captured in the VBLM because the model does not currently assume any residential development on commercial land except if it is designated or zoned for mixed use.

Recommendation

The BLPAC voted in support (9 of 12 members) of the following recommendation:

For vacant and underutilized Commercial land in the City of Vancouver, assume some of the land that develops will develop as residential: 15% outside City Center, and 30% inside City Center.

The recommended splits are as follows:

- Within City Center: 30% residential, 70% commercial
- Outside City Center: 15% residential, 85% commercial

(Note: Four of 12 BLPAC members also supported use of higher percentages of residential development, based on projects in the development pipeline, but this modification to the recommendation did not receive support from two-thirds of the BLPAC members.)

Supporting Analysis

Magnitude of Residential Development on Commercial Land

Exhibit 5 shows the number of developments and acres developed in commercially zoned areas outside of the downtown Vancouver area. The acreage developed was relatively small (19 acres) in the 2016-2020 time period; however, the density of units built was over 30 units an acre. Unlike residential zones there are no density ranges in the commercial zones, the only limitations on units are building height and lot coverage constraints. The total number of housing units created in four years on commercial land (651) was approximately 14% of the total number of housing units that the 2016 VBLM estimated for the City of Vancouver (4,579) over a 20-year period. On an annualized basis, this would equal 71% of the housing units expected in the City of Vancouver.

Exhibit 5. Recent Residential Development in Commercial Zones Outside of Downtown Vancouver

Project Name	Prop. ID.	Acres	Units	Year Built	Zoning	Units/Acre
Meriwether Place	**294500000**	**1.16**	**60**	2018	CC	51.72
Ellwood LLP	**294600000**	**0.84**	**46**	2020	CC	54.76
Sea Mar	**109980000**	**1.55**	**70**	2017	CC	45.16
Clara Court	**158587000**	**0.44**	**18**	2020	CC	40.91
Evergreen BL	30873000	0.18	12	2019	CC	66.67
Evergreen BL	30908000	0.23	12	2019	CC	52.17
Affinity	159847000	8.76	170	2019	CG	19.41
The Plaza Lofts	986051754	1.94	109	2018	CC	56.19
The Plaza Lofts	986051753	0.49	27	2018	CC	55.10
The Plaza Lofts	126466000	0.71	27	2018	CC	38.03
Westridge Lofts	126454007	2.88	100	2020	CC	34.72
		19.18	651			33.94
Bold indicates development on built land						
Source: Clark County GIS Assessor Taxlot 2 August 2020 and Tmp taxlots June 2020						

Data compiled by Clark County staff

Exhibit 6 below shows the number of developments in various stages of review as of February 2020. About half of the projects listed are at the early stage of the development review process, but the remaining are closer to construction. The demand for these developments outside of downtown on commercially zoned land appears to be continuing. The density of these pending developments is anticipated to be about 28 units per acre.

Exhibit 6. Pending Residential Projects in Commercial Zones Outside of Downtown Vancouver

Project	Location	Use	Zoning	Acres	Size	Residential Units	Status
65th Ave Apartments	2951 NE 65th ave	MF	CG	2.2	4-5 stories	90	Preapp submittal
12 Up Main	3916 Main St	Mixed Use	CC	0.6	4 story bldg.	12	Preapp submittal
Veteran's Village	5118 NE Saint James RD	MF	CC	1.1	micro-homes for female veterans w/ meeting hall &	18	Preapp submittal
Gregory Apartments	7401 NE 18th ST	Mixed Use	CC	2.6	3 stories	101	Preapp submittal
Acero Parkside - Ph II	1317 NE 136th Ave	Mixed Use	CC	10	multi-story	376	Preapp submittal
Vancouver Mall Mixed Use	4906 NE 72nd Ave	Mixed Use	CN	1.4	2 story	76	Preapp submittal
The Atlantic (meridian) Apartments#108141466	NE 78th AV/ NE Fourth Plain	MF	CC	0.22	(3) 3-story	46	Preliminary site plan submittal
First Street Village	316 NE 202nd	Mixed Use	CG	9	4 stories	115	Site plan reivew submitted
Lincoln Apartments	1111 W Fourth Plain BV	Mixed Use	CC	0.2	3 stories	6	Building plan review
Acero Parkside	NE 138th AV/NE 18th ST (1332 NE 136th AV?)	Mixed Use	CC/OCI	11.8	multi-story	260	plan review
Total				39.12		1,100	

Source: City of Vancouver

Data compiled by Clark County staff

Residential Development as a Percentage of All Development in Commercial Zones

The VBLM already uses percentages of land that will develop as residential and commercial for mixed use designated areas. Applying a ratio split between land that has developed as residential and commercial could capture potential residential development on commercially zoned land.

Of the commercial vacant land that has developed in Vancouver (outside the City Center) since 2016, 19% has been for residential development. However, given that the 2016-2020 timeframe included a strong multifamily development market in Vancouver, a rate closer to 15% of acres developing as residential looking ahead over a 20-year planning period is reasonable. Within the Vancouver City Center, about 11 acres of commercial vacant and underutilized land developed between 2007 and 2019. Of this development, about 36% (4 acres) was residential development. However, given the unusually strong multifamily development market in Vancouver's Central City in recent years, a rate closer to 30% of acres developing as residential looking ahead over a 20-year planning period is reasonable.

Market Factor

The existing methodology includes "never to convert" assumptions that account for the fact that not all developable land will be developed. In addition to deductions for constrained land (e.g., wetlands, flood plains, steep slopes, habitat areas, stream corridors, etc.), the methodology applies never-to-convert factors to vacant and underutilized residential land (10% and 30%, respectively). The methodology does not include specific never-to-convert assumption for commercial or industrial land except on constrained land.[20]

In addition to the never-to-convert factors used in the VBLM, Clark County uses a market factor that is applied on the demand side to the number of net acres needed to accommodate new population/employment growth.[21] In 2016, the County applied a 15% demand-side market factor for residential, commercial, and industrial.

Recommendation

The BLPAC voted in support (10 of 11 members[22]) of the following recommendation related to the *supply-side* market factor:

At a minimum, keep existing never-to-convert supply-side factors for residential: 10% for vacant land, 30% for underutilized.

Supporting Analysis

The Project Team introduced the topic of market factor at Meeting #3. Over a 20-year period the current market factor assumption is that 90% of vacant land will develop (10% never-to-convert factor) and 70% of underutilized land will develop (30% never-to-convert factor). County staff completed additional analysis to evaluate the current approach to market factor, including the never-to-convert factor. The new recommendation and additional analysis are described below.

The prior analysis on market factor looked at the total amount of vacant and underutilized residential land within the 1996 UGA boundary relative to the amount of vacant and underutilized residential land within that same area in 1996. This approach was useful as a reference point to compare against the combination of never-to-convert and demand-side market factors, but did not give a good indication of the never-to-convert element on its own. This was due, in part, to a lack of a method to differentiate whether land did not convert because of property-specific factors, as well as the availability of more land than needed as a

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[20] Note that the never-to-convert assumption accounts for a land market factor—that not all available land will be developed. In establishing residential land needs, the conversion from population projections to housing units needed accounts for housing unit vacancy separately. For commercial and industrial land, the use of observed employment densities (rather than built space) has historically meant that the County did not need to address vacancy in the same way for commercial and industrial development.

[21] This is taking into consideration the following assumptions approved by Council: OFM population projection, urban/rural split, persons per household, density targets, and infrastructure set-asides.

[22] At this point in the voting process, one member had left the meeting.

result of intentional policy choices intended to provide a buffer in the land market. The additional analysis by County staff described below uses an example study area to evaluate the never-to-convert assumptions more specifically. This analysis also provides a useful reference point for evaluating the critical areas deduction (currently 50% of critical areas are assumed not to develop).

Study Area Approach

The study area for evaluating the market factor (never-to-convert) and critical areas was brought into the Vancouver UGA in 2004 and had Urban Holding lifted in 2007. A new plan was adopted in 2007 that expanded the UGA in the study area to the east by 40 acres (including Urban Oaks and Dunning Meadows). This area has seen a high rate of growth since 2007 and there is over a decade's worth of development to analyze even with the slowdown of the Great Recession. The residential area is approximately 600 acres and is located at the Northeast corner of the Vancouver Urban Growth Area and is generally bound by SR503 to the west, 119th Street to the north, NE 99th Street to the south and NE 152nd Ave to the east (Exhibit 7).

The study area includes 43 residential development projects (including multi-phase projects).[23] All but four of these are platted subdivisions; the balance are apartment complexes located in the northwest corner of the study area near the intersection of NE 119th Street and SR-503.

The 2007 VLBM for this area was used as a baseline to identify the number of acres classified as Vacant, Vacant with critical, Underutilized and Underutilized with critical. The subdivisions and sites developed since 2007 were overlaid on the area to determine how much of each category had been developed in the intervening years and use the rate of development to compare with the VBLM assumptions. The amount of development in gross acres was used to test market factor and critical assumptions.

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[23] Austin Heritage development is shown on the map but this area was not included in any of the calculations because in 2007 it was zoned Mixed Use and no development occurred until after a zone change in 2012.

Exhibit 7: Market Factor Study Area (Northeast Vancouver UGA)

Source: Clark County GIS

Results

Exhibit 8 below shows the number of acres developed in the three residential VBLM categories and developed acres as a percentage of the total starting acreage in each category.

Exhibit 8. Gross Acres by VBLM Classification and Percent Developed, NE Vancouver UGA Study Area

Residential VBLM Classification	2007 VBLM Acres (Gross)	Acres Developed by 2020	% of Acres Developed by 2020 (13 years)	Average Annual Conversion Rate (Actual)	Assumed Conversion Rate over 20 years	Average Annual Conversion Rate (Assumed)
Vacant	101	80	79%	6.1%	90%	4.5%
Underutilized	218	134	61%	4.7%	70%	3.5%
Vacant w/Critical	140	47	34%*	2.6%*	45%	2.3%
Underutilized w/Critical	145	68	47%*	3.6%*	35%	1.8%
Total	604	329	54%			

Source: Clark County GIS data compiled by Clark County staff
* For purposes of this analysis, critical lands are considered "developed" if they are included within a plat or development site. This does not necessarily mean that they have been built over.

The average annual rate of development is above what is predicted under the current assumptions for all land classifications. However, in a greenfield area that is newly building out, development does not typically occur in a linear, evenly paced fashion over a 20-year period. The parcels remaining after 13 years of development appear to be generally smaller and more constrained than those that have developed. It may be that many of the readily buildable sites with willing owners have been developed in the first 13 years, and that development of the remainder will proceed more slowly. For the vacant and underutilized land, if the pace of development over the next 7 years slowed to roughly a quarter of rate observed in the first 13 years, over 20 years the overall conversion rate would be almost exactly the current assumed conversion rate. This supports continued use of the current never-to-convert factors for residential land.

Population Capacity

Clark County estimates the residential capacity of developable residential land based on a single density (expressed in housing units per net developable acre) for each UGA. These assumptions do not vary by zone / general plan designation. Density assumptions in the VBLM reflect the comprehensive plan policy targets, except for Woodland and Yacolt[24], for each UGA (see Table 3 from the 2015 Buildable Lands Report). They are applied to net acres, after accounting for infrastructure set-asides and discounting constrained acres.

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[24] Woodland and Yacolt do not have comprehensive plan density targets. These are used for capacity estimate purposes only.

Recommendation:

The BLPAC was split over whether to use achieved density by VBLM land use (Urban Residential High vs. Urban Residential Low) in the residential model—see discussion on page 28. However, the BLPAC voted in support (11 of 12 members) of the following recommendation:

If County Council decides to use achieved density as the basis for residential land capacity, the County should first work with jurisdictions to refine the data to remove outliers and anomalies.

Supporting Analysis

Several members of the BLPAC raised concerns about specific projects skewing the observed averages. For example, staff noted in a memorandum documenting achieved densities that Battle Ground Mixed use development included two single family homes on 13 acres and a church on 4.5 acres, and La Center Mixed Use includes a duplex on a 1.56 acre site that was constrained/critical as one of 7 units on three sites totaling 1.93 acres.

Infrastructure Gaps

The new Buildable Lands legislation requires that identification of land suitable for development and redevelopment must take into consideration infrastructure gaps, including but not limited to transportation, water, sewer, and stormwater.

Clark County does not currently have an explicit step in the Buildable Lands methodology to address infrastructure gaps. The Urban Holding overlay is used to protect land until it is ready for annexation and can be used for areas where infrastructure is not currently available or adequate. However, the Growth Management Act (GMA) requires that cities plan to provide urban services to land within their UGA within 20 years, including land within the Urban Holding overlay.

Recommendation

At Meeting #4, the BLPAC provided preliminary support for the following recommendation:

Do not exclude any land on the basis of infrastructure gaps; however, continue to apply reduced capacity assumptions for Yacolt due to lack of sewer facilities.

Since this recommendation did not affect the results of the VBLM, the BLPAC did not vote on this topic at the final meeting. Concerns related to this issue raised at Meeting #4 included:

- Yacolt will need to first establish density targets before consideration in the model, so they would not be subject to addressing infrastructure gaps.

- Yacolt should provide testimony before making a decision. *(There was public comment from several representatives from Yacolt at Meeting #4.)*

Supporting Analysis

As part of the VBLM review and work with the BLPAC, Clark County requested input from cities to identify any potential infrastructure gaps that merit consideration in the buildable lands inventory. The Project Team reported back to the BLPAC at Meeting #4 that none identified a potential infrastructure gap that could not be addressed within the 20-year plan timeframe as identified in their respective capital facilities plans. The responses received by staff included: Battle Ground, Camas, La Center, Ridgefield, and Vancouver.

Due to wastewater management issues, the urban development standards that apply to other jurisdictions do not apply to Yacolt. The Town of Yacolt has not been assigned an urban density target, due to their lack of sewer, therefore the recommendation is that the reporting requirement is not applicable to the Town of Yacolt and no change is proposed. (See Community Framework Plan policy 1.1.1 bullet #4, Countywide Planning Policy 1.1.13) This does not affect their existing land use which allows a minimum residential lot size of 12,500 sq. ft, subject to health department approval for on-site septic systems.

An email was sent to Mayor Listek to reiterate the proposed recommendation as stated above along with the March email that was sent to all jurisdictions seeking input on the infrastructure gaps.

Rural Land Capacity

The County's existing methodology accounts for rural land capacity, but the assumptions were not clearly documented. The Project Team documented the assumptions and presented them to the BLPAC at Meeting #5. Attachment B shows the methodology that the BLPAC reviewed and provided a preliminary recommendation on.

Recommendation

At Meeting #6, the BLPAC provided preliminary support for the following recommendation:

Keep existing methodology as described in Attachment B.

During this meeting, the BLPAC stated the following concerns related to the recommendation:
- The capacity analysis should include potential for accommodating commercial and industrial development on rural lands.
- This analysis aligns with the goal of estimating capacity, and other issues are related to the Comprehensive Planning Polices, not buildable lands.

Supporting Analysis

The Department of Commerce issued updated Buildable Lands Guidelines in 2018 based on the passage of ESSB 5254. The Guidelines reference the "annual collection of data on urban and rural land uses" however the Guidelines do not specify what data the county must collect and use. Specific data is addressed in WAC 365-196-425 (3)(b) below (emphasis added). The Clark County Buildable Lands Report has included items ii, iv, and ix since the first report in 2002.

> *b) Counties should perform a periodic analysis of development occurring in rural areas, to determine if patterns of rural development are protecting rural character and encouraging development in urban areas. This analysis should occur along with the urban growth area review required in RCW 36.70A.130 (3)(a). The analysis may include the following:*
>
> > *(i) Patterns of development occurring in rural areas.*
> >
> > **(ii) The percentage of new growth occurring in rural versus urban areas.**
> >
> > *(iii) Patterns of rural comprehensive plan or zoning amendments.*
> >
> > **(iv) Numbers of permits issued in rural areas.**
> >
> > *(v) Numbers of new approved wells and septic systems.*
> >
> > *(vi) Growth in traffic levels on rural roads.*
> >
> > *(vii) Growth in public facilities and public services costs in rural areas.*
> >
> > *(viii) Changes in rural land values and rural employment.*
> >
> > **(ix) Potential build-out at the allowed rural densities.**
> >
> > *(x) The degree to which the growth that is occurring in the rural areas is consistent with patterns of rural land use and development established in the rural element.*

Residential Methodology

The methodology for estimating capacity in the rural area is much simpler than the Vacant Buildable Lands Model method for the urban area. There are no density targets in the rural area. Capacity is estimated based on the rural densities allowed by the underlying zoning. The methodology for estimating the potential build out at rural densities is attached.

There is no infrastructure deduction in the rural area because private roads are being used to serve developments and are also included in lot area calculations. Lots abutting public roads can count up to 30' of the right-of-way as part of the lot area for the purposes of land division.

Critical areas are not considered a limiting factor in the potential development of land in the rural area. Development envelopes and cluster development standards allow flexibility in site planning to avoid critical areas. Both the habitat and wetland ordinances have a reasonable use provision that states: "This chapter shall not be used to deny or reduce the number of lots of a proposed rural land division allowed under the applicable zoning density."

Stormwater is typically treated on site through infiltration, low impact development Best Management Practices (BMP's) such as dispersion or bioretention ponds. Given the larger parcel sizes in the rural area these BMPs can be accommodated with no loss of potential lots.

Employment Methodology

The Growth Management Act (GMA) allows for the recognition of Limited Areas of More Intensive Rural Development (LAMIRD'S) that existed as commercial nodes in 1990 when the GMA became effective. In Clark County there are seven LAMIRDs, referred to as rural centers.

Commercial and Industrially zoned land in the rural area is concentrated in the rural centers. In addition to commercial businesses to serve the rural residents these rural centers have schools, fire stations and other public facilities. Two of the rural centers, Chelatchie Prairie and Brush Prairie, have land zoned for Heavy Industrial uses.

Forestry, surface mining, agriculture, wineries and equestrian businesses are sources of employment in the rural area that are land dependent.

Home businesses are also allowed on rural residential land on a scale commensurate with parcel size i.e. (a maximum of 6 non-resident employees and up to 5,000 sq. ft. accessory structures are allowed on parcels 20 acres or greater).

Employment data from the Employment Security Department (ESD) has been a challenge to use in the urban areas due to proprietary issues that changed how the ESD can share the data. These proprietary issues are further exacerbated in the rural area due to the limited number of employers, land-based employment and the data limitations, as only employees participating in the unemployment insurance program are counted.

From 1994 through 2016 the County's comprehensive plans have used employment projections and density assumptions for estimating the amount of land needed to accommodate 20 years of employment growth in the urban areas.

3. Additional Potential Refinements

This section summarizes topics that the BLPAC reviewed, but did not reach a two-thirds majority for a recommendation. The County Council should review these topics for potential refinements to add to the updated assumptions for the VBLM. The discussion of each topic provides the recommendation that the Project Team presented to the BLPAC, the level of support from the BLPAC, supporting analysis, and the Project Team's response.

Employment Land: Excess and Rearage Acres

Proposed Refinement and Level of Support

At Meeting #4, the BLPAC provided preliminary support for the following recommendation:

Add some of "excess" (75%) and "rearage" (20%) acres on built land to the employment land supply.

At the final meeting, the BLPAC did not reach a two-thirds majority on this topic, with 7 of 12 voting in favor. This topic did not receive further discussion at the meeting. The initial runs of the VBLM showed that accounting for this land would add about 217 net acres of industrial land and about 38 net acres of commercial land.[25]

The Project Team believes this refinement is appropriate and accurately captures available land, but is not necessary for legal compliance or to address state guidance.

Supporting Analysis

At Meeting #2, the Project Team presented preliminary information related to commercial and industrial land that showed a noticeable amount of development on land classified as "built", but the historical comparison of commercial and industrial model results was inconclusive. The Project Team encountered challenges in analyzing data at the parcel level, as commercial development typically happens at a site level, composed of multiple parcels with multiple buildings or other active uses (e.g., parking lots). PAC members expressed concerns about the validity of building value as an indicator of whether a parcel is vacant or underutilized.

In response, the Project Team explored several other possible ways to identify employment land (commercial and industrial) with additional development potential, including the Assessor's evaluation of excess and rearage land.

The Project Team reached out to the County Assessor to review and explore the Assessor's methods and data related to the assessment of additional available acreage for commercial and industrial uses. This includes acreage on lots that have an existing use, but the site may have

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[25] Note that the impact estimates were revised since the information provided to the BLPAC to correctly reflect the 75% and 20% of acreage to be included.

available acreage that is not actively in use. As part of their method, the Assessor evaluates both "excess" and "rearage" acreage. Excess is defined as extra acreage that is developable on a parcel, generally with its own street frontage. Rearage is land that is located behind the primary development on the parcel; it generally lacks frontage and/or access. The Assessor estimated that 75% of identified excess land will develop, while only 20% of rearage land will develop.

Exhibit 9 and Exhibit 10 show the distribution of net vacant acres in the Commercial and Industrial VBLM models, compared to the number of acres that the Assessor identified as "excess" or "rearage." Most of the excess and rearage is on land identified as "built" in both the commercial and industrial VBLMs. It is not surprising to see little "excess" on land classified as vacant in the VBLM, given that this land often does not have an existing use and is more likely to be identified as vacant by the Assessor.

Exhibit 9. Assessor Excess and Rearage Acres by General Commercial VBLM Classification.
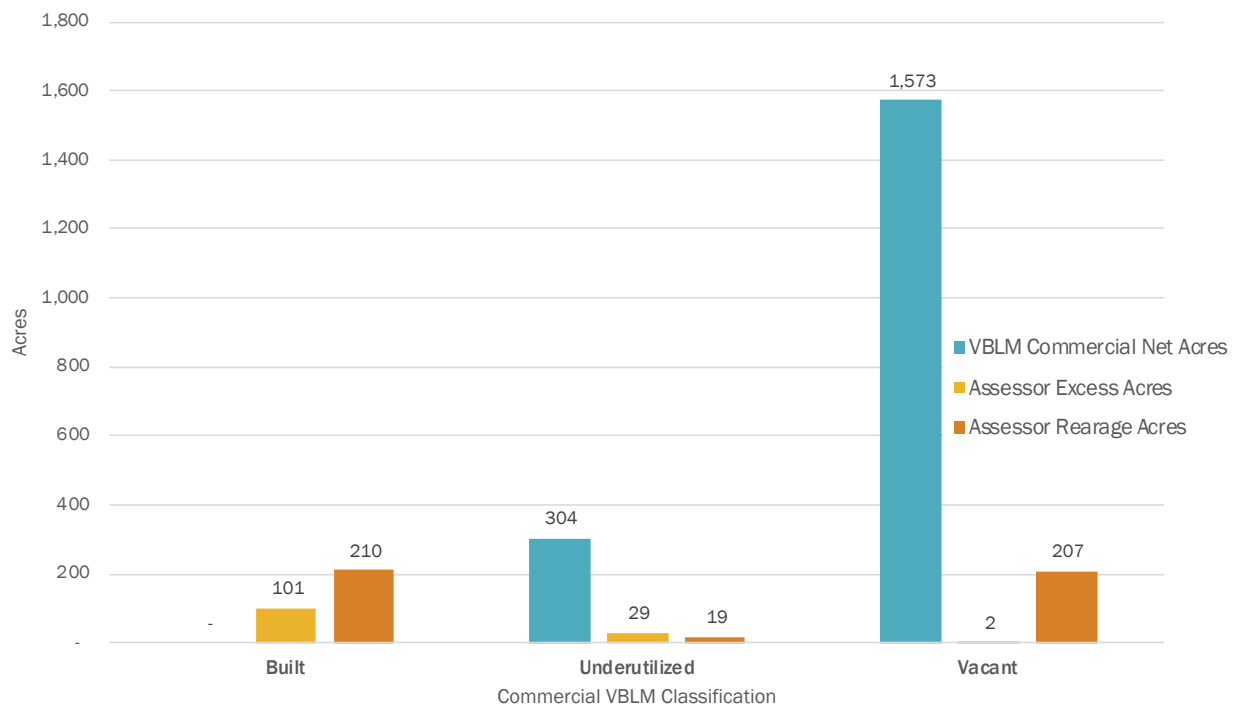
Source: ECONorthwest analysis of Clark County data.

Exhibit 10. Assessor Excess and Rearage Acres by General Industrial VBLM Classification.
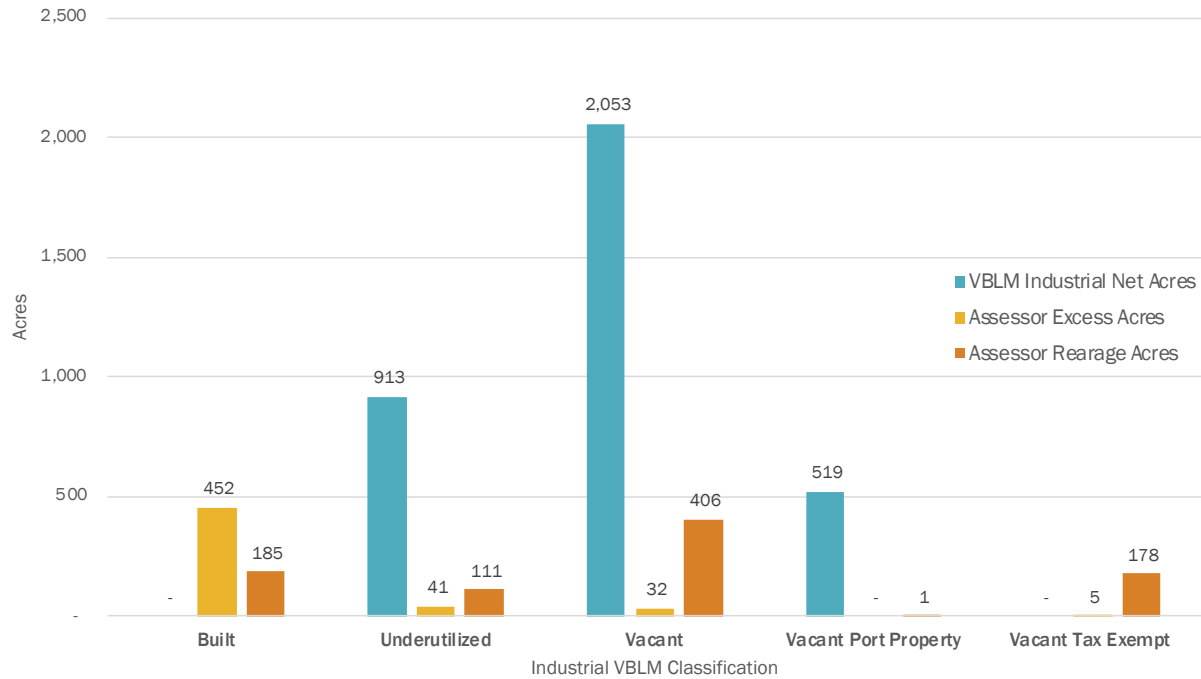
Source: ECONorthwest analysis of Clark County data.

Population Capacity

Proposed Refinement and Level of Support

At Meeting #8, 5 of 12 BLPAC members voted in support of the following recommendation:

Use achieved residential density by VBLM land use rather than policy target density.

As noted in the previous section, if the County Council decides to move forward with this recommendation, the BLPAC provided support contingent on further refinement of the density assumptions.

The Project Team recommends that the County Council adopt this refinement to use achieved densities by VBLM land use level after conversations with local jurisdictions to determine if the achieved densities seem accurate to assume in the future. This option is most consistent with State law and guidance.

Supporting Analysis

As noted previously, Clark County estimates the residential capacity of developable residential land based on a single density (expressed in housing units per net developable acre) for each UGA. These assumptions do not vary by zone / general plan designation. Density assumptions

in the VBLM reflect the comprehensive plan policy targets, except for Woodland and Yacolt[26], for each UGA (see Table 3 from the 2015 Buildable Lands Report). They are applied to net acres, after accounting for infrastructure set-asides and discounting constrained acres.

The current methodology largely overlooks the impact of zoning on capacity going forward, including differences in how remaining vacant land is zoned and changes to zoning regulations over time. The County will continue to calculate achieved density for each UGA overall to compare to the density targets set in Comprehensive Plan policy. The difference in the approaches relates to how capacity is estimated in the VBLM.

State Guidance

RCW 36.70A.215(3) includes the following requirements (emphasis added):

> *(3) At a minimum, the evaluation component of the program required by subsection (1) of this section shall:*
>
> *…*
>
> *(b) An evaluation and identification of land suitable for development or redevelopment shall include:*
>
> *(i) **A review and evaluation of the land use designation and zoning/development regulations**; environmental regulations (such as tree retention, stormwater, or critical area regulations) impacting development; and other regulations **that could prevent assigned densities from being achieved**;*
>
> *…*
>
> *(c) Provide an analysis of county and/or city development assumptions, targets, and objectives contained in the countywide planning policies and the county and city comprehensive plans when growth targets and assumptions are not being achieved. It is not appropriate to make a finding that assumed growth contained in the countywide planning policies and the county or city comprehensive plan will occur at the end of the current comprehensive planning twenty-year planning cycle without rationale;*
>
> *(d) **Determine the actual density of housing that has been constructed** and the actual amount of land developed for commercial and industrial uses within the urban growth area since the adoption of a comprehensive plan under this chapter or since the last periodic evaluation as required by subsection (1) of this section; and*
>
> *(e) **Based on the actual density of development as determined under (b) of this subsection, review** commercial, industrial, and **housing needs by type and***

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[26] Woodland and Yacolt do not have comprehensive plan density targets. These are used for capacity estimate purposes only.

density range to determine the amount of land needed for commercial, industrial, and **housing** *for the remaining portion of the twenty-year planning period used in the most recently adopted comprehensive plan.*

It further states that "zoned capacity of land alone is not a sufficient standard to deem land suitable for development or redevelopment within the 20-year period." (RCW 36.70A.215(3)

The Guidelines reinforce and clarify these regulations as follows (emphasis added):

In addition to being a Review & Evaluation Program requirement to evaluate whether planned densities are being achieved, achieved density data serve as the basis for capacity projections on land suitable for development and redevelopment and must be used to determine urban capacity for the remaining portion of the 20-year planning period.[27]

Jurisdictions typically analyze the achieved densities of development projects during the evaluation period and create an average achieved density per zoning category based on the actual development data.[28]

RCW 36.70A.215(3)(b)(i) provides that a review and evaluation of the land use designation and zoning/development regulations and infrastructure gaps are part of the evaluation criteria to determine if there is sufficient land suitable to accommodate county-wide population projections. **The goal is to understand if and how development regulations** *or infrastructure gaps* **may affect density** *or timing of growth.* [29]

…

It [RCW 36.70A.215(3)(a)] also states that zoned capacity of land alone is not a sufficient standard to deem land suitable for development or redevelopment within the 20-year period. This requirement places an expectation on jurisdictions to not just assume properties will develop to their maximum densities allowed under their zoning designations, but to conduct additional analysis related to how development and redevelopment might occur to support urban capacity findings. …

With vacant land at lower densities, lot sizes based on zoning may be used to estimate capacity. These calculations generally result in capacity estimates that are near zoned capacity. Estimating future development capacities for higher density development and redevelopment generally requires more analysis since many other factors, such as

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[27] Department of Commerce, *Buildable Lands Guidelines* (2018), page 34.

[28] Department of Commerce, *Buildable Lands Guidelines* (2018), page 24.

[29] Department of Commerce, *Buildable Lands Guidelines* (2018), page 30.

vertical construction costs, impact whether or not areas zoned for higher densities will develop at the intensities that have been planned.[30]

Taken together, the state laws and guidelines strongly suggest that achieved density should be the basis for capacity projections, and that it is important to consider zoning in evaluating achieved density and estimating capacity.

Achieved Densities and Capacity Calculations in the 2015 Buildable Lands Report

The 2015 Buildable Lands Report also includes achieved densities between 2006 and 2014 by jurisdiction. The calculations include achieved densities for single-family and multi-family development separately as well as combined, but the analysis aggregates data regardless of zone. Most jurisdictions did not meet their target densities in 2015. (Only Washougal met or exceeded the target.) The 2015 Buildable Lands Report calculates land need using both policy and achieved densities applied to the net vacant acres from the VBLM.

Achieved Density by Jurisdiction, 2016-2020

Exhibit 11 shows that each of the jurisdictions is meeting or exceeding their density targets in the 2016-2020 evaluation period.

Exhibit 11. Density Targets and Actuals by UGA, 2016-2020
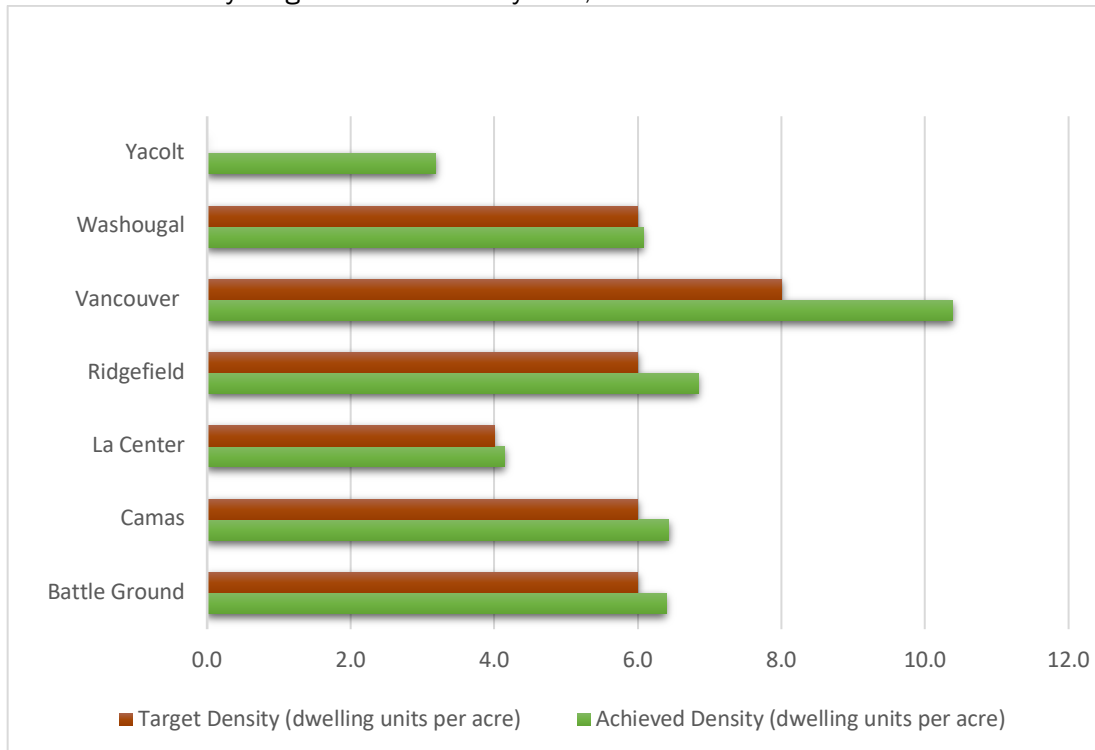
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[30] Department of Commerce, *Buildable Lands Guidelines* (2018), page 33.

Exhibit 12 shows the range of designations and densities achieved in the 2016-2020 evaluation period. The density is based on the assessor's data using housing units created by year and then summarized based on the land use designations used in the VBLM. There are a variety of Mixed-use designations that vary by jurisdiction. Vancouver is split into the portion within the City limits and the UGA to better reflect the new categories of Mixed-use City Center and Mixed-Use Commercial. Battle Ground also has two Mixed-use designations.

Exhibit 12. Achieved Density by Plan Designation and Jurisdiction, 2016-2020

Jurisdiction	Urban High	Urban Low	Mixed Use	Mixed Use City Center	Mixed Use Com	Mixed Use Employment	Total
Battle Ground	6.7	5.3	2.7*			22.5	6.4
Camas	8.8	5.1					6.4
La Center	7.7	3.7	3.6**				4.1
Ridgefield	13.1	5.2	13.0				6.8
Vancouver (City)	22.4	6.0		114.9	27.0		17.7
Vancouver UGA	16.4	5.7	10.2				7.8
Washougal	19.4	3.8	25.3				6.1
Yacolt		3.0					3.2

Source: Clark County
Note: 6.7% of units were developed on non-residential land excluding the development on Commercial land in Vancouver. 1.7% of those units were developed in a Ridgefield mixed use overlay that was unaccounted for in the VBLM.
*BG Mixed use included 71 units on 26 acres. This includes two single family homes on 13 acres and a church on 4.5 acres
**La Center Mixed Use includes 7 units on three sites totaling 1.93 acres. This includes a duplex on a 1.56 acre site that was constrained/critical.

Rationale for Use of VBLM Land Use vs. Zoning

- There may be little or no historical data in some zones due to limited development activity or new zoning designations.

- Residential density can show substantial year-over-year variation as well as outliers that can affect averages and is best analyzed with at least several years of data.

- The County does not currently have data on achieved densities by zone.

- Most residential zones in the County specify a maximum density; some also specify a minimum density, though most do not.

- Would require making assumptions for areas in UGAs that do not yet have urban zoning.

- Would create challenges for interim year model runs if new zoning designations are introduced.

BLPAC Discussion

At Meeting #6, BLPAC members stated that zoning seemed more accurate. The Project Team stated that using zoning would require major changes to the way the model is run. They recommended that the County start to collect data on densities by zone (also recommended by the Guidelines), to compare to the densities by VBLM land use going forward. The County can later evaluate if zoning is a more accurate metric, as the buildable lands report is completed on a 7-year cycle.

At Meeting #8, the BLPAC expressed concerns about:

- Average density used in Vancouver, especially for the Urban Low designation
- Outliers in smaller jurisdictions skewing the average. Asked about a median.
- Historic densities won't capture future/new code changes *(Project Team note: adjustments from achieved density could be made to account for changes to regulations; this is recommended in the Guidebook)*
- Observations and ground truthing are important going forward and should be based on real data, such as achieved densities.
- The information in the record supports using these densities, but some members would like refinements such as median densities

Critical Lands

Proposed Refinement and Level of Support

The Project Team recommends a plat deduction of 40% of *mapped* critical lands as protected, consistent with the team's analysis of plat data (this would replace the 50% factor currently applied to critical lands on top of the 10% and 30% market factors for vacant and underutilized land).[31]

At Meeting #8, the BLPAC considered and discussed several options for refinements related to critical lands, but ultimately did not take a final vote on this topic. The recommendation above strives to respond to feedback from the BLPAC at Meeting #8, incorporating elements of the options considered previously that are best supported by the evidence and the BLPAC's feedback. The BLPAC's discussion is summarized on page 35.

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[31] Mapped critical lands may be developable for several reasons, including: mapping errors, allowed uses within buffer areas, areas like critical aquifer recharge areas that can generally be developed, and other options to develop on critical lands through a discretionary process with adequate technical documentation.

Supporting Analysis

The critical lands layer is a tool used to flag potential critical lands so that an on-site assessment can be performed in conjunction with the development process. This assessment often identifies a smaller area that requires preservation. In addition, on-site and off-site mitigation allows for development on lands identified as critical in the on-site assessment in some cases. The VBLM identifies critical lands (constrained lands) including:

- 100-year floodplain (or flood fringe)
- Wetlands inventory (NWI, high quality, permitted, modeled) with 100-foot buffer
- Slopes:
  - Greater than 15 percent; or
  - Greater than 25 percent plus a 100-foot buffer within Vancouver
- Landslide areas with active or historically unstable slopes
- Designated shorelines
- Hydric soils plus a 50-foot buffer
- Habitat areas plus a 100-foot buffer
- Species areas plus 300-foot buffer
- Riparian stream buffers – varies by jurisdiction and stream type from 75 feet to 250 feet

Analysis by County staff of all constrained lands that became part of a plat used the same County-wide plat dataset analyzed by AHBL for purposes of establishing refined infrastructure set-aside assumptions. The analysis shows that in aggregate since 2000, 35% of the mapped critical lands were preserved as open space in tracts (Exhibit 13). There has been variation from year to year but no clear trend up or down over time. Most of the rest has become buildable home sites or infrastructure (e.g., roads or stormwater facilities).

Exhibit 13: Percent of Critical Lands in Plats Converted to Housing, Infrastructure, Critical Lands/Open Space,[32] or Other by Year (2000-2020)

Source: Clark County staff analysis

Analysis by AHBL and ECONorthwest of recent plats (2014-2020) shows this percentage is closer to 40% if co-mingled stormwater/wetlands areas are counted within the "preserved" critical areas.

BLPAC Discussion

At Meeting #8, there were a wide range of opinions about the options under consideration by the BLPAC. Several members expressed concern about double-counting deductions for critical lands by including both a market factor and a plat deduction, which the Project Team's current recommendation (above) addresses by making explicit that the critical land deduction is a plat deduction . Several members expressed support for applying infrastructure deductions to developable land only, excluding protected critical lands (see next section). Several members simply indicated a desire for data-driven assumptions on this subject.

Infrastructure Set-Asides

Proposed Refinements and Level of Support

- Reconcile methodology differences with calculations used by the development industry by estimating infrastructure as percentage of buildable land.

- Data supports infrastructure percentage deduction of 31.5% of <u>developable</u> acres.

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[32] This chart shows the percentage of "open space" tracts within plats; however, prior analysis by AHBL shows that nearly all tracts identified in County analysis as open space coincide with mapped critical lands.

- Monitor how changes to regulations related to co-location of stormwater and wetland on a tract affect this percentage.
- Apply this deduction to only half of the residential acres in the Urban Residential High designation in Vancouver.

At Meeting #8, the BLPAC considered and discussed several options for refinements related to infrastructure set-asides, but ultimately did not take a final vote on this topic. The recommendation above strives to respond to feedback from the BLPAC at Meeting #8, incorporating elements of the options considered previously that are best supported by the evidence and the BLPAC's feedback. The BLPAC's discussion is summarized on page 38.

Supporting Analysis

Infrastructure, including land dedicated to stormwater management, is deducted as one of the factors to adjust from gross to net acres. The County's current assumption (27.7%) was set in 2007. Some BLPAC members with experience in development have noted that recent changes to stormwater requirements tend to require more land be dedicated to stormwater management. The purpose of this update is to better reflect the impact of changing stormwater regulations and to align infrastructure deductions with the approach to critical lands so that they apply only to developable land (see previous section).

AHBL reviewed applicable stormwater regulations and analyzed plat data to evaluate whether and to what degree changing stormwater regulations have affected land needed for stormwater management, and trends in infrastructure deductions in plats more broadly.

Data Sources

Countywide Plat Dataset: Clark County staff provided a GIS dataset that included all residential plats (long plats) from 2002-2019 and identified the type of land within the plats according to the following categories, called "plat property types." The general categories were Housing, Open Space, Critical Land, Infrastructure, Stormwater Facility, or "unknown," and each category contained several sub-types to further describe the type of property. This dataset was generated based on the assessor's data and was refined by County staff to identify and correct irregularities in the data. AHBL further refined the data to correct any issues, to prevent double-counting, and to re-classify very large areas that had been identified as stormwater facilities but were located within wetlands.[33]

Example Recorded Plats: In addition, both staff and AHBL reviewed data provided by members of the BLPAC in prior testimony: the Responsible Growth Forum, Development Engineering Advisory Board (DEAB) and the Building Industry Association (BIA) submitted testimony in 2015 as part of the 2016 Comprehensive Plan update process that included analysis of land devoted to infrastructure in 21 subdivision plats from urban unincorporated Clark

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[33] AHBL identified and corrected 127 records where parcels over 3 acres in size had been identified as stormwater facilities, but were located in where hydric soils, wetlands, and/or buffer existed.

County and the City of Camas. Staff and AHBL reviewed the final recorded plats from the same subdivisions identified in the 2015 testimony in an effort to establish whether that data provides a suitable basis for the infrastructure deduction in the model. In many cases there were slight differences between the acreages listed in the BIA table for various types of infrastructure and those noted on the final plats. For some subdivisions, not all phases were complete at the time of the testimony; staff and AHBL gathered data for the remaining phases to ensure accurate representation of overall infrastructure percentages. There were also methodological differences, including the way "gross acres" was defined (excluding critical lands tracts—see discussion on page 34) and the treatment of wetland areas that were also used for stormwater management (see discussion on page 39). For areas where stormwater facilities were located within a wetland, AHBL estimated the share of the facilities that is actually used for stormwater (vs. wetland area) on a tract-by-tract basis.

Changes to Stormwater Management Requirements

AHBL summarized recent changes to stormwater regulations and their implications for stormwater facility sizing as follows: [34]

> *On January 13, 2009, Clark County adopted its own local stormwater manual, which is equivalent to the 2005 Ecology Manual, which resulted in a considerable increase in stormwater facility sizing. (The cities within the County were on separate timelines for their respective adoptions.) Prior to January 13, 2009, stormwater regulations in the County did not include continuous runoff modeling methods or modeling of sites in a forested condition. Other changes to the Ecology Stormwater Management Manual since 2005 include the Low Impact Development (LID) performance standard included within the 2012 Western Washington Phase II NPDES Municipal Stormwater Permit. In general, the 2012/2014 Ecology Manual requires on-site post-construction stormwater management practices for smaller projects as compared to the 2005 manual, and also includes more requirements for managing stormwater than the 2005 Manual. For development sites with good infiltration rates, the size of stormwater facilities will be very similarly sized under the 2012/14 Manual and the 2005 Manual. However, sites with poor infiltration rates will be subject to a more pronounced difference in facility sizing when comparing the two manuals.*

> *The thresholds for post-construction stormwater controls differ between the manuals. The 2012/2014 Manual requires projects with more than 5,000 square feet of new plus replaced impervious surface area to meet all of the minimum requirements. In the 2005 Manual, the project threshold was 5,000 square feet of new impervious surface coverage. The change to include replaced impervious surfaces means more projects trigger post construction stormwater controls.*

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[34] VBLM Infrastructure Deductions and Stormwater Facilities Analysis Memorandum. AHBL. May 28, 2020.

The biggest impact is that Minimum Requirement #5 "On site Management" has significantly changed. Within the UGA, an applicant may choose standard flow control as long certain on-site flow control BMPs such as dispersion, bioretention, and permeable pavements are considered.

For areas outside the UGA, meeting the LID flow control requirement through the use of a conventional stormwater pond requires larger ponds under the 2012/2014 Manual than would have been required under the 2005 Manual or equivalent manuals because of the need to meet the LID Performance Standard.

In addition, the County's critical areas ordinance on stormwater facilities located in wetlands or their buffers is not current and Washington State Department of Ecology identified that the County must address the degree to which stormwater facilities are allowed in wetlands and their buffers. The County needs to adopt regulations generally avoiding placing stormwater facilities in wetlands and their buffers going forward.[35]

Impact of Stormwater Manual Changes

To isolate the impact of the recent stormwater manual changes, AHBL compared data from "Pre-2005 manual adoption" years (2002-2007)[36], and "Post 2005 manual adoption" years (2017-2019) and differentiated by jurisdiction (and accordingly the stormwater manual in place in the respective location where the plat developed), for the plats recorded in 2017, 2018, 2019. The 2017-2019 data was split into plats developed in locations where post-2005 equivalent stormwater manuals apply (unincorporated areas within UGAs but outside of city limits and land within Vancouver, Battle Ground, Camas and Washougal), and plats developed in cities where post-2005 equivalent stormwater manuals are not being used (Woodland, La Center, Ridgefield and Yacolt).

This analysis found that: "the requirements for stormwater management have affected infrastructure set-asides for residential plats: as stormwater regulations have become increasingly rigorous (based on more sophisticated models and requirements), the amount of land used to meet the requirements has increased."[37] Specifically, AHBL's analysis found that the amount of land consumed to accommodate stormwater facilities following adoption of the 2005 stormwater manual increased by about 34 percent in jurisdictions subject to the new rules.

(Note that AHBL's analysis calculated stormwater and other infrastructure as a percent of total plat area rather than as a percentage of developable area. This difference in approach makes a substantial difference in the percentages, as discussed below. To avoid confusion, the

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[35] Limited exceptions include (1) some "additional" runoff treatment or flow control of stormwater may be allowed in limited cases where specific criteria are met and mitigation is applied; or (2) if it can be shown that treated stormwater is beneficial and can improve the hydrologic functions of the wetland.

[36] Clark County adopted its 2005 equivalent manual in early 2009.

[37] VBLM Infrastructure Deductions and Stormwater Facilities Analysis Memorandum. AHBL. May 28, 2020.

percentages identified by AHBL that were calculated as a percentage of total area are not repeated here.)

Impact of Changing Regulations for Managing Stormwater in Wetlands

To isolate the impacts of wetlands on stormwater facility sizing, AHBL used a different sub-set of the plat data that only included plats that did not have any wetland areas present, and removed plats that were part of a larger phased development with a wetland present. Due to sample size issues, this sub-set of the data did not exclude plats by year or location (with respect to stormwater manual adoption by municipalities).

This analysis found a higher percentage of plat area dedicated to stormwater in plats without wetlands, suggesting a need to increase the stormwater set-aside further relative to the percentage observed for plats subject to the current stormwater regulations.

Infrastructure as a Percent of Developable Acres

The methodology used in the DEAB testimony to calculate an infrastructure percentage subtracted the number of acres in a plat that contained critical lands that could not be used for housing in their calculation rather than the full starting acreage of the plat.[38]

In contrast, the analysis done by staff in the past and initial analysis by AHBL calculated infrastructure as a percentage of the total gross acres platted, rather than excluding critical lands within the plat. This difference in approach results in a different percentage, even when considering the same plats—removing the critical areas from the gross acreage prior to calculating the percentage results in a higher percentage.

AHBL's detailed review found that **infrastructure (streets, storm, and utility/other) represented 31.5% of developable acres—after excluding critical areas, open space, and future development tracts—in the BIA's identified subdivisions.** (See Exhibit 1.) For co-mingled stormwater/wetland facilities, AHBL estimated the share of the facilities that is actually used for stormwater (vs. wetland area) on a tract-by-tract basis, so this number is roughly reflective of the stormwater area that will be required when co-location is more restricted.

AHBL also looked at the Countywide plat data set, overlaying mapped critical lands to identify open space tracts that should be excluded to arrive at developable acres. This analysis focused on recent plats (since 2014) to reduce the impacts of older regulations. However, this subset did not fully address this issue: the prior analysis shows that even the recent plats from jurisdictions not yet subject to the 2005 Stormwater Manual had lower stormwater set-asides on average, and

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[38] Note that the information submitted listed these acreages as "gross" acres, which usually represents the full starting acreage of the plat, even though they did not include critical land, leading to some initial confusion over differences with the Project Team's analysis.

adjustments to past trends are needed to account for the additional stormwater land needs when they can no longer be co-located to the same degree.

AHBL's analysis shows that infrastructure (streets, storm, and utility/other) represented 28.5% of developable acres—after excluding critical areas, open space, and future development tracts—across all urban plats between 2014 and 2020. As noted above, the stormwater component would need to be adjusted upwards to account for the impacts of recent and anticipated changes to stormwater management regulations.

Exhibit 14. Plat Acreage for Urban Residential Plats 2014-2020

	Acres	Percent of Total Acres	Percent of Developable Acres
Total Acres	3225.9	100.0%	
Critical, Wetlands, Open Space, and Future	617.4	19.1%	
Developable Acres	2608.5	80.9%	100.0%
Acres Devoted to Lots	1864.5	57.8%	71.5%
Streets	612.9	19.0%	23.5%
Stormwater (excl. co-mingled)	112.2	3.5%	4.3%
Utility / Other	19.0	0.6%	0.7%
Infrastructure Total	744.0	23.1%	28.5%

Source: ECONorthwest summary of AHBL analysis of plat data provided by Clark County

Accounting for Differences in Multifamily Development

Multifamily development often has internal circulation that is not on public right-of-way and typically accommodates stormwater, shared open space, and other facilities on the same site as the housing rather than putting those facilities in separate tracts. As a result, the overall achieved development density largely accounts for these infrastructure elements and no additional infrastructure deduction is necessary.

The Residential-Urban High designation in Vancouver tends to develop with a mix of small-lot detached homes, townhomes, and multifamily units. Between 2016 and 2020, 124 acres of Residential Urban High developed in the City of Vancouver. Of these 124 acres, 84 developed on non-platted sites and 40 acres developed on plats. In the Vancouver UGA (outside of the City), 158 acres of Residential Urban High developed, of which 55 acres were on non-platted sites and 103 acres were on plats.

Exhibit 15. Single Family and Multifamily Split, Vancouver, 2016-2020

	Percent Single Family	Percent Multifamily
City of Vancouver	33%	67%
Vancouver UGA (outside City Limits)	65%	35%
Vancouver UGA Overall	51%	49%

Source: Clark County

BLPAC Discussion

The BLPAC had multiple discussions of this topic over the course of several meetings. Multiple BLPAC members expressed concerns early in the process that the infrastructure deduction was too low and failed to account for recent changes to stormwater regulations.

At Meeting #8, there were a wide range of opinions about the options under consideration by the BLPAC.

- Four members expressed support for increasing the infrastructure deduction from 27.7% (in the current model) to 31.5% of developable acres (within the range identified in the Project Team's final memo on this subject).

- Two members supported using the percentages previously estimated by AHBL (as a percentage of total acres), and specifically supported using reduced deductions in the Urban Residential High designation in Vancouver.

Attachment A

Buildable Lands Program Advisory Committee Meeting and Decision Protocols

CLARK COUNTY WASHINGTON

COMMUNITY PLANNING

Buildable Lands Program Advisory Committee Meeting and Decision Protocols

We will

- Treat everyone with respect.
- Listen carefully with the intent of understanding.
- Let others finish before speaking.
- Share the air – let others speak once before speaking twice.
- Raise issues honestly, clearly and early in the process.
- Focus questions and comments on the subject at hand and stick to the agenda.
- When discussing events or issues of the past, apply them productively to the present discussion and purpose of the committee.
- Seek to find common ground.
- Put cell phones on silent mode.

Other meeting protocols

- Meetings will end on time. If agenda items cannot be completed on time, the group will decide if the meeting should be extended or if an additional meeting should be scheduled.
- Meetings will be facilitated.
- We will make an effort to attend all meetings and will prepare for meetings by reading materials in advance and arriving on time.
- If we have an unavoidable conflict that requires us to be late or absent, we will notify staff in advance of the meeting, and may send written comments on the materials to staff to share with other members during the meeting. An alternate may attend, observe, and comment as a member of the public, but may not participate as a member of the committee (including for voting).

Accessibility to the public

- While the primary purpose of the committee meetings is to provide a forum for deliberation, all meetings will be open to the public.
- Meetings will be documented through summaries and recordings available to committee members and the public. Summaries will be reviewed and approved by the committee at the following meeting. Draft meeting summaries will be made available to the committee and the public a minimum of one week prior to the following meeting.

- Public comment will be accepted during a designated time on the agenda for each meeting, up to three minutes per individual.
- At the discretion of the facilitator, additional public comments may be provided during substantive review of workplan topics.
- Interested members of the public may provide comments in writing. Written comments should be submitted to staff for distribution to the committee and to be included in the written record for this project. All written comments received by staff will be provided to the committee at or in advance of the following meeting.

In other communications, members will

- Be free to speak with each other about issues and in ways that support the group process. Do not take actions or discuss issues in any way that undermines the group process.
- Call or email the staff with information that the other members need to be aware of. When sending information by email for distribution, note whether the information is of a critical nature or just background information.
- Notify staff about any communications with the news media.
- Communicate with our respective constituents and their decision-making bodies to ensure that our constituents are well informed of the group's discussions and progress and to ensure that issues are identified that need to be communicated to the rest of the committee.
- Disclose any direct conflicts that any of us have regarding a decision or recommendation to be made by the committee. These conflicts will not prevent the member from participating in discussions or decisions of the group.
- Be free to testify to the County Council or other decision-making bodies in writing or in person on issues before the committee as an individual (not on behalf of the committee)

Decision making

- The committee will make recommendations to the County Council.
- The committee will be notified in advance and receive critical materials at least a week in advance of any meeting at which the committee will make an official recommendation. Agendas will also indicate items that require an action from the committee.
- At least half of the appointed committee members must be present for the committee to make an official recommendation; however, the committee may conduct other business even if less than half of the appointed members are present.
- The committee will work toward consensus: a recommendation that all members can live with, even if it is not their preferred solution.
- If it is clear consensus cannot be reached, then a two-thirds majority of those present will be required for an outcome to be presented as a committee recommendation. Other views will also be recorded in the meeting summaries and forwarded to decision makers.
- If a two-thirds majority cannot be reached, then there will be no recommendation from the committee and all perspectives will be forwarded for consideration by the decision makers.

- For major committee recommendations, strive to allow additional time for public comment before finalizing a recommendation. For instance, when feasible, this could include forming a preliminary recommendation at one meeting and confirming or revisiting that recommendation at the next meeting.
- Respect group decisions as final unless the group as a whole reaches consensus that a decision needs to be revisited.

Attachment B

Rural Land Capacity Estimates Methodology

To: BLPAC

From: Jose Alvarez, Project Manager

Date: July 2, 2020

Subject: Rural Land Capacity Estimates

Background

The Department of Commerce issued updated Buildable Lands Guidelines in 2018 based on the passage of ESSB 5254. The Guidelines reference the "annual collection of data on urban and rural land uses" however the Guidelines do not specify what data the county must collect and use. Specific data is addressed in WAC 365-196-425 (3)(b) below. The Clark County Buildable Lands Report has included items ii, iv, and ix since the first report in 2002.

>*b) Counties should perform a periodic analysis of development occurring in rural areas, to determine if patterns of rural development are protecting rural character and encouraging development in urban areas. This analysis should occur along with the urban growth area review required in RCW 36.70A.130 (3)(a). The analysis may include the following:*
>
>*(i) Patterns of development occurring in rural areas.*
>*(ii) The percentage of new growth occurring in rural versus urban areas.*
>*(iii) Patterns of rural comprehensive plan or zoning amendments.*
>*(iv) Numbers of permits issued in rural areas.*
>*(v) Numbers of new approved wells and septic systems.*
>*(vi) Growth in traffic levels on rural roads.*
>*(vii) Growth in public facilities and public services costs in rural areas.*
>*(viii) Changes in rural land values and rural employment.*
>*(ix) Potential build-out at the allowed rural densities.*
>*(x) The degree to which the growth that is occurring in the rural areas is consistent with patterns of rural land use and development established in the rural element.*

Methodology

The methodology for estimating capacity in the rural area is much simpler than the Vacant Buildable Lands Model method for the urban area. There are no density targets in the rural area. Capacity is estimated based on the rural densities allowed by the underlying zoning. The methodology for estimating the potential build out at rural densities is attached as EXHIBIT 1.

There is no infrastructure deduction in the rural area because private roads are being used to serve developments and are also included in lot area calculations. Lots abutting public roads can count up to 30' of the right-of-way as part of the lot area for the purposes of land division.

Critical areas are not considered a limiting factor in the potential development of land in the rural area. Development envelopes and cluster development standards allow flexibility in site planning to avoid critical areas. Both the habitat and wetland ordinances have a reasonable use provision that states: "This chapter shall not be used to deny or reduce the number of lots of a proposed rural land division allowed under the applicable zoning density."

Stormwater is typically treated on site through infiltration, low impact development Best Management Practices (BMP's) such as dispersion or bioretention ponds. Given the larger parcel sizes in the rural area these BMPs can be accommodated with no loss of potential lots.

Employment

The Growth Management Act (GMA) allows for the recognition of Limited Areas of More Intensive Rural Development (LAMIRD'S) that existed as commercial nodes in 1990 when the GMA became effective. In Clark County there are seven LAMIRDs, referred to as rural centers.

Commercial and Industrially zoned land in the rural area is concentrated in the rural centers. In addition to commercial businesses to serve the rural residents these rural centers have schools, fire stations and other public facilities. Two of the rural centers, Chelatchie Prairie and Brush Prairie, have land zoned for Heavy Industrial uses.

Forestry, surface mining, agriculture, wineries and equestrian businesses are sources of employment in the rural area that are land dependent.

Home businesses are also allowed on rural residential land on a scale commensurate with parcel size i.e. (a maximum of 6 non-resident employees and up to 5,000 sq. ft. accessory structures are allowed on parcels 20 acres or greater).

Employment data from the Employment Security Department (ESD) has been a challenge to use in the urban areas due to proprietary issues that changed how the ESD can share the data. These proprietary issues are further exacerbated in the rural area due to the limited number of employers, land-based employment and the data limitations, as only employees participating in the unemployment insurance program are counted.

From 1994 through 2016 the County's comprehensive plans have used employment projections and density assumptions for estimating the amount of land needed to accommodate 20 years of employment growth in the urban areas.

EXHIBIT 1
7/2/2020

Estimating Potential Rural Housing Capacity

Clark County, Washington

Rural lands and rural development behave differently than urban development. This document describes how rural capacity is estimated by the Clark County Geographic Information Services (GIS).

The primary input into the process to estimate rural capacity is the land use layer[1].This layer is used to classify lands into three land use categories: Residential, Commercial or Industrial. The Assessor's database is used to classify the parcels into the following classifications based on the property type, ownership, and size: Vacant, Built, Underutilized, Excluded.

Rural Land Uses
Land use designations from the comprehensive plan or proposed zoning plan are categorized into three land use types.

- Residential – rural, rural center residential, agriculture, and forest land use designations
- Commercial – commercial land use designations
- Industrial – industrial land use designations

Residential Classifications
Property with a proposed land use of Residential are subdivided into the following categories based on information from the Assessor's database.

- Built
    - Parcel has existing housing units
    - Parcel is too small to be further divided based on minimum lot size requirements
- Vacant
    - No existing housing units
    - May contain outbuildings
- Underutilized
    - Parcel has existing housing units
    - Parcel is large enough to be further divided based on minimum lot size requirements
- Excluded
    - Forest zoned lands in the Current Use program (Timber or Designated Forest Land (DFL))
    - Remainder lots of cluster developments
    - Surface mining overlay area
    - Water Areas
    - Private street or Right of Way
    - Transportation or utilities
    - Private park or recreation area
    - Assessed as a zero value
    property

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[1] Layers are the mechanism used to display geographic datasets. Each layer references a dataset and specifies how that dataset is portrayed using symbols and text labels.

EXHIBIT 1
7/2/2020

- o   Size is less than 1 acre
- o   Tax exempt
- o   Mobile Home Parks

- Not a Residential land use

Residential Planning Assumptions:
- Housing capacity calculation:
    - One housing unit per undersized vacant parcel
    - Conforming vacant and underutilized parcels
        - Housing unit capacity is calculated by dividing the parcel acres by the minimum lot size.
        - For dividable parcels lots are considered buildable if they are within 10% of the minimum lot size.

- o   Population Capacity calculation
    - 2.66 persons per housing unit

Attachment C

2015 VBLM Methodology

APPENDIX C – VACANT BUILDABLE LANDS MODEL

The Vacant Buildable Lands Model (VBLM) is a planning tool developed to analyze residential, commercial, and industrial lands within urban growth areas. The model serves as a tool for evaluating urban area alternatives during Clark County 20-year Comprehensive Growth Management Plan updates and for monitoring growth patterns during interim periods. The VBLM analyzes potential residential and employment capacity of each urban growth area within the county based on vacant and underutilized land classifications. This potential capacity is used to determine the amount of urban land needed to accommodate projected population and job growth for the next 20 years during plan updates and to analyze land consumption or conversion rates on an annual basis for plan monitoring purposes.

In 1992, Clark County began evaluating vacant lands as part of the initial 20-year growth management plan. At that time, County staff met with interested parties from development and environmental communities to examine criteria and establish a methodology for computing potential land supply available for development. A methodology relying on the Clark County Assessor's database and Geographic Information System (GIS) as primary data sources was developed. As a result the VBLM is a GIS based model built on geoprocessing scripts.

In the spring of 2000, the Board of Clark County Commissioners appointed a technical advisory committee consisting of local government agencies, Responsible Growth Forum members, and Friends of Clark County to revisit this process. They reviewed definitions for each classification of land and planning assumptions for determining potential housing units and employment.

Another comprehensive review of the VBLM criteria and assumptions was undertaken in 2006 as part of the growth management plan update. This review compared the 1996 prediction to the 2006 model. This review demonstrated that for the most part the model was a good predictor of what land would develop. However, changes were made to the model based on results of this review. Important changes to the model include:

- Underutilized land determination for all models was changed to a building value per acre criteria.

- The industrial model and commercial model now have consistent classifications. The industrial model was revised to match the commercial process.

- Environmental constraints methodology changed from applying assumptions to parcels based on percentage of critical land to simply identifying constrained and non constrained land by parcel and applying higher deductions to constrained lands.

Example Map of Constrained Lands
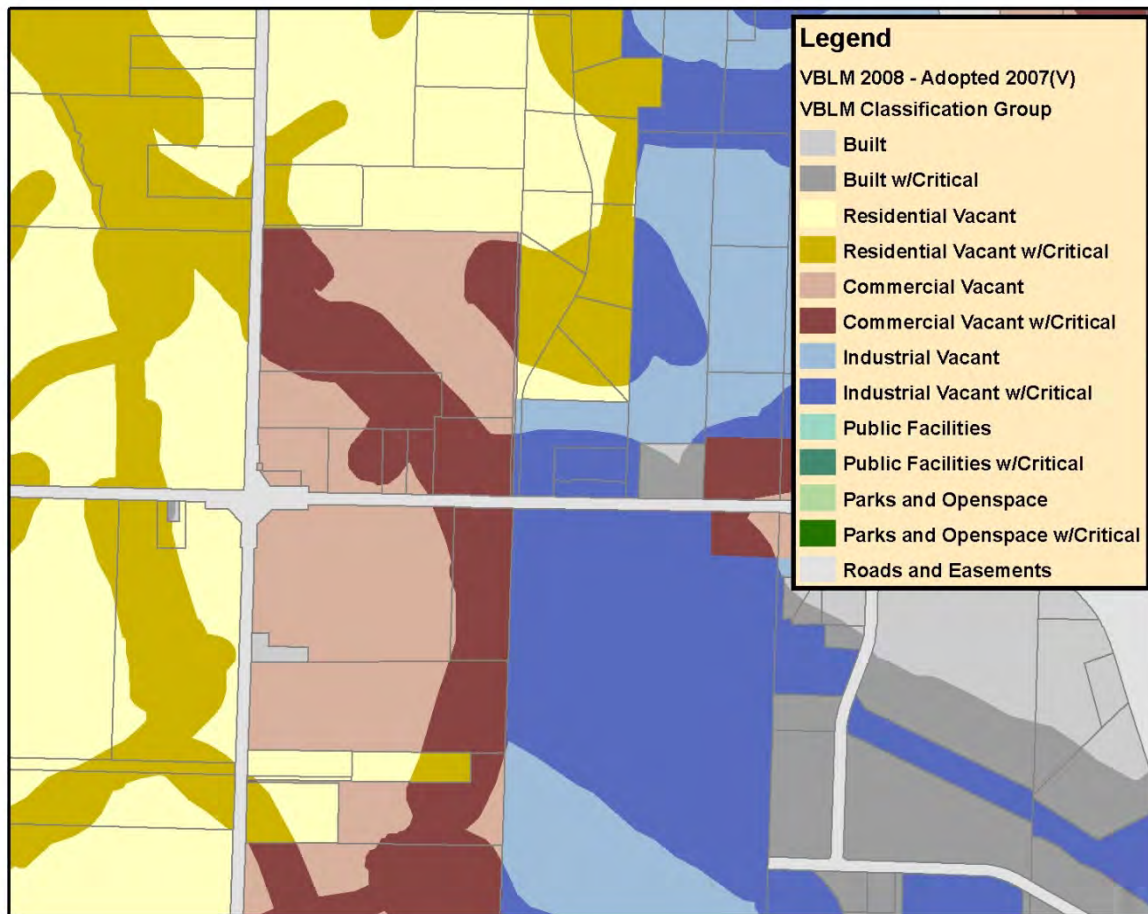
Benefits of the current improvements are more consistency and easier monitoring of the model. Better accounting for private open space, constrained lands, and exempt port properties. And calculations for underutilized lands are more dynamic.

Model Classifications

The model classifies lands into three urban land use categories--residential, commercial, and industrial. Lands are grouped into land use codes based on comprehensive plan designations for model purposes. Lands designated as parks & open space. public facility, mining lands, or airport within the urban growth areas are excluded from available land calculations. Additionally, all rural and urban reserve designated lands are excluded from the model. Table 1 lists a breakdown of the land use classes.

Table 1: Land Use Classes

LU	Comprehensive Plan Classification	VBLM Model
1	Urban Low Density Residential	Residential – Urban Low
1	Single-Family_Low	Residential – Urban Low
1	Single-Family_Medium	Residential – Urban Low
1	Single-Family_High	Residential – Urban Low
2	Urban Medium Density Residential	Residential – Urban High
2	Urban High Density Residential	Residential – Urban High
2	Multi-Family_Low	Residential – Urban High
2	Multi-Family_High	Residential – Urban High
3	Neighborhood Commercial	Commercial
3	Community Commercial	Commercial
3	General Commercial	Commercial
3	City Center	Commercial
3	Regional Center	Commercial
3	Downtown	Commercial
3	Commercial	Commercial
4	Mixed Use	Commercial
4	Town Center	Commercial
5	Office Park/Business Park	Commercial
5	Light industrial/Business park	Commercial
5	Employment Campus	Commercial
6	Light Industrial	Industrial
6	Heavy Industrial	Industrial
6	Railroad Industrial	Industrial
6	Industrial	Industrial
33	Mixed use - Residential	Residential
34	Mixed use - Employment	Commercial

The model classifies each urban parcel as built, vacant, or underutilized by the three major land uses. Additionally lands with potential environmental concerns and/or geologic hazards as consistent with the applicable section of the Clark County and other municipal codes are classified as constrained (critical lands) lands. Constrained lands are identified by parcel in the model.

Constrained lands include:

- 100 year floodplain or flood fringe

- Wetlands inventory (NWI, high quality, permitted, modeled) with 100 foot buffer
- Slopes greater than 15 percent (>25% for City of Vancouver)
- Land slide area that has active or historically unstable slopes
- Designated shorelines
- Hydric soils with 50 foot buffer
- Habitat areas with 100 foot buffer
- Species areas with 300 foot buffer
- Riparian stream buffers by stream type (Table 2)

Table 2: Riparian Buffers

Stream Type	Countywide	Vancouver Exception
Type S (Shoreline)	250 Feet	175 Feet
Type F (Fish Bearing)	200 Feet	175 Feet
Type NP (Non-fish bearing, perennial)	100 Feet	150 Feet
Type NP (Non-fish bearing, seasonal)	75 Feet	100 Feet

Residential Model

Important residential classifications include vacant, vacant critical, underutilized, and underutilized critical. These classes are used to determine gross acres available for development. Vacant exempt, vacant lots less than 5,000 square feet and all other classes are excluded from available land calculations. Table 3 lists all residential classes.

Table 3: Residential Classifications

RESCLASS	Description
0	Not Residential
1	Built
2	Unknown
3	Vacant
4	Underutilized
5	Roads and Easements
6	Mansions and Condos
12	Built Exempt
13	Vacant Exempt
14	Vacant Critical
18	Underutilized Critical
19	Less than 5,000 square feet
20	Private Open Space

21	Parks and Open Space

Criteria for classifying residential lands are as follows:

- ✦ Residential Vacant Criteria
    - ▪ Building value less than $13,000
    - ▪ Not tax exempt
    - ▪ Not an easement or right of way
    - ▪ Not a state assessed or institutional parcel
    - ▪ Not a mobile home park
    - ▪ Parcel greater than 5,000 square feet

- ✦ Underutilized
    - ▪ Same as Vacant except building value criteria is replaced with a building value per acre criteria.
    - ▪ Building value per acre of land is below the 10th percentile of building value per acre for all residential parcels within all UGAs. The 10th percentile is calculated by the model for each year and for each UGA alternative.
    - ▪ Parcel size greater than 1 acre

- ✦ Mansions and Condos
    - ▪ Parcel size greater than 1 acre
    - ▪ Building value per acre greater than the 10th percentile.

- ✦ Residential Exempt
    - ▪ Properties with tax exempt status

- ✦ Easements and right of ways

- ✦ Constrained (Critical lands)
    - ▪ All classifications may be subdivided into constrained vs. not constrained. Constrained lands are described above.

Commercial and Industrial Models

Commercial and industrial lands are classified using consistent criteria with one exception; industrial classes include exempt port properties in the current model.

Important commercial classes for determining gross acres available for development include vacant, vacant critical, underutilized, and underutilized critical. Vacant exempt and vacant lots less than 5,000 square feet are excluded from available land calculations. Table 4 lists all commercial classes.

Table 4: Commercial Classifications

COMCLASS	Description
0	Not Commercial
1	Built
2	Vacant
3	Underutilized
5	Vacant Lot less than 5,000 sq feet
7	Vacant Critical
9	Underutilized Critical
10	Vacant Exempt

Important industrial classes for determining gross acres available for development include vacant, vacant critical, exempt vacant port property, exempt vacant port property critical, underutilized, underutilized critical, exempt underutilized port property, and exempt underutilized port property critical. All exempt not port properties are excluded in the available land calculations. Table 5 lists all industrial classes.

Table 5: Industrial Classifications

INCLASS	Description
0	Not Industrial
1	Vacant
2	Underutilized
3	Vacant Critical
4	Underutilized Critical
6	Built
7	Exempt Vacant Port Property
8	Exempt Vacant Not Port
9	Exempt Vacant Port Property Critical
10	Exempt Underutilized Port
11	Exempt Underutilized Port Critical
12	Exempt Underutilized Not Port
15	Easements

Commercial and industrial models classify vacant and underutilized land as follows:

- Vacant land
    - Building value less than $67,500
    - Not "Assessed With"- Some parcels are assessed with other parcels. These parcels are often parking lots, or multiple parcels comprising a single development. All assessed with parcels are considered built.
    - Not Exempt.
        - Port property is exempt, and is included as a separate classification in the Industrial land model.
    - Not an Easement or right of way
    - Parcel greater than 5,000 square feet
    - Not a state assessed or institutional parcel

- Underutilized Lands
    - Same as vacant except building value criteria is replaced with a building value per acre criteria of less than $50,000.

- Constrained (Critical lands)
    - All classifications may be subdivided into constrained vs. not constrained. Commercial and industrial constrained lands are defined the same as residential constrained lands and are listed above.

- Exempt Port Properties in the Industrial Model
    - Includes lands that are under port ownership and available for development. Buildable exempt port properties are included in available land calculations.
    - Port properties can be classified as vacant, underutilized, or constrained.

The model produces a summary of gross residential, commercial, and industrial acres available for development. Gross acres are defined as the total raw land available for development prior to any deductions for infrastructure, constrained lands, and not to convert factors.

Planning Assumptions

The next step in the buildable lands process is applying planning assumptions to the inventory of vacant and underutilized gross acres in order to arrive at a net available land supply. These assumptions account for infrastructure, reduced development on constrained land, and never to convert factors. Use factors along with employment and housing units per acre densities are applied to derived net acres to predict future capacities.

Residential Model Planning Assumptions:

- 27.7% deduction to account for both on and off-site infrastructure needs. 20% infrastructure deduction for mixed use lands.
- Never to convert factor
  - 10% for vacant land
  - 30% for underutilized
- 50% of available constrained (critical) land will not convert
- 60% of mixed use land will develop as residential, 85% residential for Battle Ground mixed use - residential and 25% residential for mixed use - employment.

Commercial and Industrial Model Planning Assumptions

- 25% infrastructure factor applied for both commercial and industrial lands.
- 20% of available constrained (critical) commercial and mixed use land will not convert
- 50% of available constrained (critical) industrial land will not convert
- 40% of mixed use land will develop as commercial, 15% commercial for Battle Ground mixed use - residential and 75% commercial for mixed use - employment.

Employees and unit per acre density assumptions are applied to net developable acres to predict future employment and housing unit capacities. Densities are set by the Current Planning staff based on observed development and comprehensive plan assumptions for each UGA.

Applied residential densities vary by UGA. Table 6 lists the units per acre by UGA.

Table 6: Residential units per Acre

Urban Growth Area	Applied Housing Units per Net Developable Acre
Battle Ground	6
Camas	6
La Center	4
Ridgefield	6
Vancouver	8
Washougal	6
Woodland	6
Yacolt	4

Applied employment densities vary by land use as well. Commercial classes which includes commercial, business park, and mixed use categories apply 20 employees per acre while industrial classes apply 9 employees per acre.

Applying residential and employment planning assumptions to the VLM results produce housing units and employment carrying capacity estimates for urban growth areas. These estimates help monitor growth on an annual basis and is part of the criteria used for setting UGA boundaries during growth management plan updates.

Current model layers and reports are available for viewing in Clark County's GIS Maps Online web application at:

http://gis.clark.wa.gov/vblm/

Underutilized land classes are grouped with vacant classes by land use in Maps Online and on other map products. Table 7 lists the group classes used for mapping.

Table 7: Group Classes

GRPCLASS	Description
1	Built
2	Built w/Critical
3	Residential Vacant
4	Residential Vacant w/Critical
5	Commercial Vacant
6	Commercial Vacant w/Critical
7	Industrial Vacant
8	Industrial Vacant w/Critical
9	Public Facilities
10	Public Facilities w/Critical
11	Parks and Open Space
12	Parks and Open Space w/Critical
13	Roads and Easements

For more information on the model inputs, structure and outputs, please contact Clark County Community Planning at (360) 397-2280 or Clark County Geographic Information System (GIS) at (360) 397-2002.

Appendix B: Council Resolution 2021-06-20

1   RESOLUTION NO. 2021-<u>06-20</u>_____

2   **A RESOLUTION relating to the methodology and assumptions in the Vacant Buildable Lands**

3   **Model (VBLM), the tool used to estimate land capacity in Clark County.**

4   WHEREAS, Clark County adopted an updated 20-year Comprehensive Growth Management Plan

5 2015-2035 through Ordinances 2016-06-12 and 2017-07-04 to meet the goals and requirements of

6 Chapter 36.70A RCW; and

7   WHEREAS, in 2017, E2SSB 5254 was passed, amending RCW36.70A.215, by the Washington

8 State Legislature and constituted the first major revision to the Buildable Lands program since its

9 inception in 1997; and

10   WHEREAS, in 2018, Washington State Department of Commerce updated the Buildable Lands

11 Guidelines to include new state requirements; and

12   WHEREAS, Clark County is undertaking a review and evaluation of its Buildable Lands program,

13 as required by the Review and Evaluation Program (program) established in RCW 36.70.215 and WAC

14 365-196-315; and

15   WHEREAS, Chapter 36.70A.215 of the Revised Code of Washington requires a component of the

16 review and evaluation program to determine whether there is sufficient suitable land to accommodate

17 the countywide population projection established for the county pursuant to RCW 43.62.035 and the

18 subsequent population allocations within the county and between the county and its cities and the

19 requirements of RCW 36.70A.110.; and

20   WHEREAS, the Council approved a contract with ECONorthwest on October 1, 2019 that

21 included within the scope of work, refinements to the VBLM; and

22   WHEREAS, the Council approved RES2019-07-06 Buildable Lands Public Participation Plan that

23 included appointing a Project Advisory Committee; and

24   WHEREAS, the Buildable Lands Project Advisory Committee (BLPAC) met 8 times between

25 December 6, 2019 and January 6, 2021; and

26   WHEREAS, the BLPAC Recommendations report was presented to Council at a work session on

27 March 3, 2021; and

28   WHEREAS, at the April 14, 2021 Council time meeting, Council approved a motion to "include

29 the six points from the private development sector in the Vacant Buildable Lands Model letter in the

30 original formal report"; and a friendly amendment that "the points made in the above mentioned letter

31 be implemented as suggested for the Vacant Buildable Lands Model"; and

32   WHEREAS, the Council at a duly advertised public hearing took public testimony and considered

33 all comments presented to the Council; and

34   <mark>WHEREAS, the Council provided direction as is reflected in Exhibit 1, as amended; and</mark>

1   <mark>WHEREAS, the Council at a duly advertised public hearing on June 15, 2021, that was continued</mark>
2   <mark>to June 29, 2021,</mark> finds that adoption of this resolution will further the public health, safety and welfare;
3   now, therefore,

4   BE IT HEREBY RESOLVED BY THE CLARK COUNTY COUNCIL, CLARK COUNTY, STATE OF WASHINGTON, as
5   follows:

6   Section 1. Findings. The recitals above are incorporated into this resolution as findings.

7   <mark>Section 2. Adoption. The content for the Vacant Buildable Lands Model set forth in Exhibit 1, as</mark>
8   <mark>amended, is hereby adopted.</mark>

9   Section 3. Effective Date. This resolution will take effect immediately upon adoption.

10   Section 4. Instructions to Clerk.

11   The Clerk to the Council shall:

12   1. Transmit a copy of this resolution to the Washington State Department of Commerce within ten
13   (10) days of its adoption pursuant to RCW 36.70A.106.
14   2. Transmit a copy of the adopted resolution to the Community Planning Director.
15   3. Record a copy of this resolution with the Clark County Auditor.
16   4. Cause notice of adoption of this resolution to be published forthwith pursuant to RCW
17   36.70A.290 and Clark County Code 1.02.140.

18   Section 5. Roll Call Vote. The following persons voted in favor of the above resolution:
19   _____
20   _____
21   _____

22   ADOPTED this ____ day of _____ 2021.
23   COUNTY COUNCIL
24   CLARK COUNTY, WASHINGTON
25   Attest:
26
27   _____   By:_____
28   Clerk to the Council   Eileen Quiring O'Brien, Chair
29
30
31   Approved as to Form Only: By:_____
32   Anthony F. Golik   Temple Lentz, District 1
33   Prosecuting Attorney
34
35   By: _____   By:_____
36   Christine Cook   Julie Olson, District 2
37   Sr. Deputy Prosecuting Attorney
38

1
2   By:_____
3   Karen Dill Bowerman, District 3
4
5
6   By:_____
7   Gary Medvigy, District 4

Exhibit 1 – Proposed Refinements to the VBLM

Proposed Refinements to VBLM	BLPAC RECOMMENDATION	BIC RECOMMENDATION	COUNCIL DIRECTION
The first five items (below in red) were voted on as a bundle based on previous support and with the consent of BLPAC members.	Recommended 11-1		**Approved per BLPAC Recommendation**
Index building value threshold for vacant land based on trends in property values in the County	Recommended 11-1		**Approved per BLPAC Recommendation**
Create new classification for vacant platted lots (part of a plat within last 20 years)	Recommended 11-1		**Approved per BLPAC Recommendation**
Index land value and land value per acre based on trends in property values in the County	Recommended 11-1		**Approved per BLPAC Recommendation**
Classify undeveloped commercial and industrial properties with active businesses as underutilized rather than vacant	Recommended 11-1		**Approved per BLPAC Recommendation**
Retain existing employment density assumptions	Recommended 11-1		**Approved per BLPAC Recommendation**
Create new classification for residential infill/redevelopment (small underutilized residential lots) Apply to Urban High only	Recommended 11-1		**Approved per BLPAC Recommendation**
Create new classification for residential infill/redevelopment (small underutilized residential lots) Apply to Urban High and Urban Low	Recommended 10-2		**Approved per BLPAC Recommendation**
Exclusions: Do not exclude housing authority and other nonprofit housing ownership; Do not exclude port-owned properties in commercial	Recommended 10-2		**Approved per BLPAC Recommendation**
Reduce minimum lot size for commercial land from 5,000 to 4,000 square feet	Recommended 10-2		**Approved per BLPAC Recommendation**
Add some of "excess" and "rearage" acres on built land to the employment land supply.	Not Recommended 7-5		**Denied per BLPAC Recommendation**
Use observed residential density by VBLM land use rather than policy target density	Not Recommended 6-5		**Denied per BLPAC Recommendation**
If County Council decides to use observed density, the County should work with jurisdictions to refine the calculations	Recommended 11-1		**Not Applicable**
Assume a 5% residential redevelopment rate on built Vancouver City Center commercial land and a 1% rate on built commercial land in Vancouver outside the City Center	Recommended 10-2	Do Not add to the VBLM	**Approved per BLPAC Recommendation**
Assume a 9% residential redevelopment rate on built Vancouver City Center commercial land and a 2% rate on built commercial land in Vancouver outside the City Center.	Not Recommended 8-4	Do Not add to the VBLM	**Denied per BLPAC & BIC Recommendation**
Assume mixed use split for residential development on commercial land in the Vancouver City Center of 30% and 15% for Vancouver commercial land outside the City Center .	Recommended 9-3	Do Not add to the VBLM	**Denied per BIC Recommendation**
Assume mixed use split for residential development on commercial land in the City of Vancouver of 40%	Not Recommended 8-4	Do Not add to the VBLM	**Denied per BLPAC & BIC Recommendation**
The BLPAC voted on whether to keep the market factor assumptions for residential land as-is (i.e., 10% for vacant land and 30% for underutilized land), at minimum.	Recommended 11-1	20% for vacant and 40% for underutilized	**Approved per BIC Recommendation**
Critical lands deduction (Project Team recommendation 40%)	No vote was taken		**Denied**
Infrastructure set-asides (Project Team Recommendation 31.5%)	No vote was taken	34%	**Approved per BIC Recommendation**
Set aside for Schools (Project Team recommended use of district data when UGA review is considered)		7.9%	**Approved per BIC Recommendation**
Set aside for Parks (Project Team recommended use of jurisdiction data when UGA review is considered)		12.8%	**Approved per BIC Recommendation**

BLPAC = Buildable Land Project Advisory Committee. Advisory committee appointed by Council.

Project Team = ECONorthewest, AHBL (consultants) and County Staff

BIC = Building Industry Coalition - Includes representatives from the following organizations who were part of the BLPAC. Building Industry Association, Columbia River Eeconomic Development Council , Development Engineering Advisory Board, Responsible Growth Forum, Clark County Association of Realtors

Correction note: Three pages in this document reference the incorrect line number in "Exhibit 1 – Proposed Refinements to VBLM". The corrected line reference is <u>underlined</u> below.

"Line 20. Infrastructure set-asides" should read "<u>Line 21</u>. Infrastructure set-asides"

"Line 21. Set-aside for schools" should read "<u>Line 22</u>. Set-aside for schools"

"Line 22. Set-aside for parks" should read "<u>Line 23</u>. Set -aside for parks"

Clark County Community Planning Staff
8/6/2021

BIA

BUILDING INDUSTRY ASSOCIATION OF CLARK COUNTY

To accompany spreadsheet entitled "Exhibit 1 – Proposed Refinements to VBLM"

Line 19. Market Factor Assumptions

Staff Presentation – Slide 3 version 5
BLPAC Presentation – No data presented
BLPAC Report – Page 18

Opening discussion

Whereas BLPAC ultimately did recommend a market supply factor of 10% for vacant and 30% for underutilized. The Building Industry Coalition is concerned that without an accurate market supply factor that captures local trends and growth, Clark County will face a shortage of supply and as a result, a reduction in housing capacity. This point is exemplified by data from previous cycles. The council is well within their purview to adjust the market factor to prevent the overestimation of effective buildable land capacity. **RCW 36.70A.110(2**) "…An urban growth area determination may include a reasonable land market supply factor and shall permit a range of urban densities and uses. In determining this market factor, cities and counties may consider local circumstances. Cities and counties have discretion in their comprehensive plans to make many choices about accommodating growth." (Dept. of Commerce Buildable Lands Guidelines; Appendix A: market supply factor evaluation considerations, 2018 pg. 47).

In essence, cities and counties have discretion when determining a reasonable market factor. "Reasonable" is justified by looking at a variety of factors, but non-conversion rates and associated housing capacity are the key data points that justify our recommendation.

Recommendation
The Building Industry Coalition recommends a market supply factor for residential land of 20% for vacant and 40% for underutilized.

Supporting Analysis

Example #3:   A calculation of Market Supply Factor by deriving a non-conversion rate by studying the population of properties that have converted over a defined period of time. In the hypothetical example, among a population of sixty properties, forty of them converted in the last 10 years for a conversion rate of 67%. That translates into a non-conversion rate of 33% of properties in the set of interest. In terms of acreage, properties that converted comprise 400 hypothetical acres out of a total of 500 acres for a hypothetical conversion rate of 80%. That translates into a non-conversion rate of 20% based on acreage rather than property record counts. There resulting candidate range of Market Supply Factors for consideration would then be 27% to 33% with a midpoint of 20%.

Market Supply Factor Analysis Example #3: Query of Properties That Have Converted to New Use

County Assessor Data Query	Properties	Combined Acreage
Converted in the Last 10 Years	40	400
Total Candidate Properties	60	500
Conversion Rate	67%	80%
Non-Conversion Rate	33%	20%
Average	27%	

Potential Market Supply Factors: 33%
                                     20%
                                     27%

(Buildable Lands Guidelines Appendix A: Market Supply Factor Evaluation Consideration, 2018 pg. 60)

Additional Housing Capacity

Housing Capacity by Year
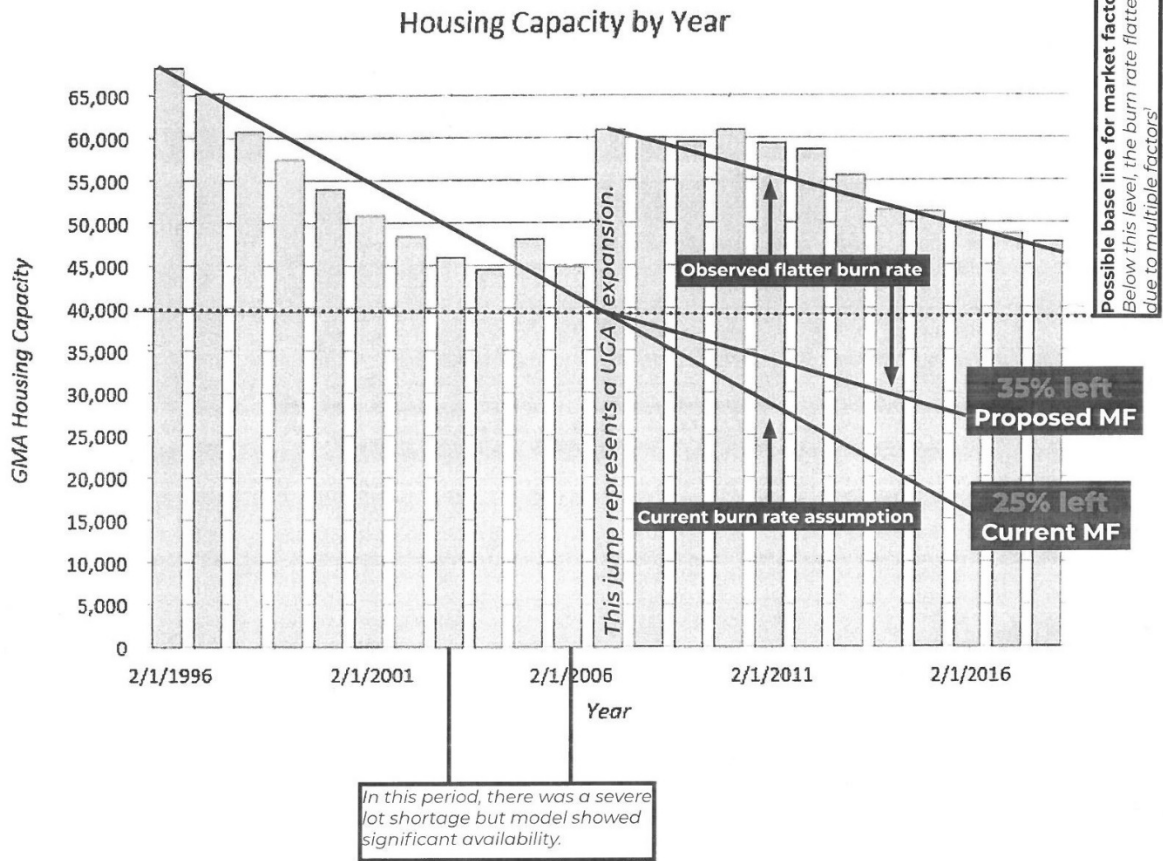
The market factor is basically a factor correlating to the land added in a UGA that doesn't develop in the 20-year cycle. This can be due to a multitude of factors including: willingness to sell, price expectations, and lack of available infrastructure and funding necessary to serve.

The base (or supply side) correlates to the burn rate and what is available at the end of 20 years. Currently, 10% vacant and 30% underutilized.

The demand side is a contingency added during the Comprehensive Plan. Currently this is at 15%.

Total current market factor is 25% for vacant. The Building Industry Coalition recommends increasing to 35% total to compensate for slower observed burn rate as the UGA matures.

⬧BIA

With the above information we can see an example of how a reasonable market factor is reached based on non-conversion rates of properties and combined acreage. Based on this example any figure between 20%-33% would be acceptable with supporting evidence based on local trends and growth. County staff has access to the data needed to calculate this non-conversion rate. The second figure shown illustrates what happens when the non-conversion rate is not calculated correctly for residential land. It should be noted that the data used in the second figure comes from the county. Housing capacity drops precipitously as capacity is used up, years before the UGA expansion. Adopting a higher market factor as suggested in our recommendations will flatten the burn rate, and in tow create more stability in the housing market. Also, it is worth mentioning that having stable housing capacity will allow for a diversity of housing types to be built which is one of the guiding principals of the Growth Management Act. Our recommended market factor is similar to the market factor calculated in the BLPAC report from Feb. 2021 (PAC Meeting 7 memo, pg. 10) 13 years into the comprehensive plan cycle, the non-conversion rate for vacant was 21% and 39% for underutilized. This may reflect the true non-conversion rate due to factors that make land unrealistic to develop this far into the comprehensive plan cycle.

- "Homes priced at $350,000 to $500,000 had an estimated 0.2 month of supply remaining, and homes priced from $500,000 to $750,000 had 0.3. Those two brackets are the largest by far in terms of sales activity, together accounting for roughly 74 percent of the region's new listings and 77 percent of sales in May." (Columbian, June 2021). https://www.columbian.com/news/2021/jun/15/clark-county-housing-market-stays-hot-in-may/

- Unmapped critical areas have gone unreported. Land that is thought to be buildable is severely restricted or undevelopable due to these unmapped critical areas.
- Land that has not converted in the 20 year cycle is still being counted as buildable, creating a "shadow inventory".
- Clark County has historically underestimated population growth leading to low supply and a housing affordability crisis. (DEAB Memo, May 2016)
- The non-conversion rate calculated in the BLPAC report was 21% for vacant and 39% for underutilized right in line with our recommendations.

Conclusion

Justification for the market factor comes from a variety of sources including concrete data, local trends, and industry input. We believe the supporting analysis above justifies our recommendations.

To accompany spreadsheet entitled "Exhibit 1 – Proposed Refinements to VBLM"
6/28/2021 from Building Industry Coalition

Line 20. Infrastructure set-asides

Staff Presentation – No data
BLPAC Presentation – No data shown because BLPAC took no vote on initial 31.5% recommendation
BLPAC Report – Pages 35-41

Opening discussion
Whereas BLPAC ultimately did not take a vote on the 31.5% infrastructure set-side recommended by the project team, the Building Industry Coalition is concerned that with no deduction for critical lands, schools, parks or infrastructure (as shown in staff's Exhibit 1) an unrealistic model would result showing land available for development that, in fact, is not available. There are many unintended consequences of such omissions, including overestimates of real capacity, absence of planning for our real capacity, lack of diversity of housing types and continued difficulty with affordability for the variety of housing types.

"Infrastructure" includes land dedicated to stormwater management, streets and utility with 27.7% set aside in 2007.

Recommendation
The Building Industry Coalition recommends an infrastructure percentage deduction of 34% of developable acres.

Supporting Analysis
The source of the following information is ECONorthwest (page 40 of Feb 2021 Report) summary of AHBL analysis of plat data provided by Clark County. Critical lands, wetlands and open space (19.1% of total acres) are removed from the total 3225.9 acres.

2014 – 2020 Plat Acreage for Urban Residential	Acres	% of Developable Acres
Acres devoted to lots	1864.5	71.5%
Streets	612.9	23.5%
Stormwater (excl co-mingled)	112.2	4.3%
Utility / other	19.	0.7%
Infrastructure total	744.0	28.5%

With the above information and considerations such as the need to "monitor how changes to regulations related to co-location of stormwater and wetland on a track affect this percentage," and that this deduction should be applied "to only half of the residential acres in the Urban Residential High designation in Vancouver, ECONorthwest concluded that data support an infrastructure deduction of 31.5% of developable acres after excluding critical areas, open space and future development tracts. Because of factors such as the following that brought change since 2015, the Building Industry Coalition concluded that data support an infrastructure deduction of 34%.

- Clark County has adopted its own stormwater manual starting in January 2019, resulting in an increase in facility sizing because of new factors such as continuous runoff modeling methods. The current *Clark County Stormwater Manual 2021* includes a 19-page chart with scores of detailed changes, many requiring additional land; a guide to manual revisions impacting a development project design is now included. For example grading permit projects being building projects under Title 14 are separate from development projects under Title 40 and as such, they are required to meet the requirements of the stormwater manual for post construction BMPs. More land is required for meeting flow and pollution requirements. Utilities or sewer lines cannot be placed in infiltration trenches.
- Sites with poor infiltration rates require greater facility sizing, as typically located in northern Clark County, north of 119th, but not accounted for in the model.
- New and also replaced impervious surface area are now required to meet minimum requirements. With the replaced surfaces requirements, stormwater controls increase.
- Flow control requirements result in the requirements for larger ponds
- Regulations to avoid placing stormwater facilities in wetlands and their buffers are now required by Ecology. This end to co-location increases the land for deduction from developable land. Analysis also found "a higher percentage of plat area dedicated to stormwater in plats without wetlands, suggesting a need to increase the stormwater set-aside further relative to the percentage observed for plats subject to the current stormwater regulations" (page 39, ECONorthwest Feb 2021 Report).
- Increased rigor has resulted in this conclusion by ECONorthwest (page 38 of Feb 2021 Report), "AHBL's analysis found that the amount of land consumed to accommodate stormwater facilities following adoption of the 2005 stormwater manual (adopted in 2009) increased by about 34 percent in jurisdictions subject to the new rules."

It should be noted that infrastructure analysis is not new to staff or to PAC. As far back as its July 18, 2014 memo to the Board of County Commissioners summarizing feedback on the Comprehensive Plan update the Development and Engineering Advisory Board (DEAB) wrote:

"The Development and Engineering Advisory Board (DEAB) has reviewed documents and proposals regarding the current Comprehensive Plan Update. Members of the board have expressed concern regarding the assumed infrastructure deduction percentage being used to develop the plan. The commissioners asked DEAB to provide some info and input regarding the infrastructure deduction percentage. This letter is in response to that request.

Currently the assumed infrastructure deduction percentage rate is 27.7% for residential and 25% for Commercial and Industrial. This rate has not changed with updated stormwater ordinances. While these assumptions may be appropriate in areas of well draining soils, we believe they underestimate the impact in areas of poorly draining soils which is where most of the undeveloped portion of the urban growth area is located. DEAB has conducted some research with the help of other local engineering consultants. We have attached some sample infrastructure percent calculations in soils with fairly low infiltration rates similar to the areas at the fringe of the urban growth boundary. First we looked at a few theoretical examples prepared by SGA Engineering or the county during the previous stormwater code update. On some, it was assumed LID was feasible, but in low rate soils this may not be the case, or utilizing LID may only compensate for the new LID flow standard.

With DOE forested standard with low infiltration the infrastructure % on these three example projects are: **39%, 51%, and 32%.**

Next we obtained a few calculations on sample projects from several local consultants. These examples do not account for the new LID flow standard. It is assumed this will add cost but not likely take additional area.

Sterling Design provided a calculation for Whispering Pines subdivision. Under the old stormwater rules the infrastructure is 31% with the current adopted rules it goes to **34.5%**.

Olson Engineering provided 4 examples in the Battleground area. No exhibits are attached but could be provided upon request. The summary is below:
18 Lot subdivision - **42%**
167 lot Subdivision - **25%**
117 Lot Subdivision - **32%**
26.3Ac Commercial - **34%**

In conclusion DEAB feels the 27.7% is low and doesn't accurately reflect the percentage of land lost to infrastructure. The average infrastructure percentage in the 8 examples we looked at was about **36.2%**. It should be noted that not all land brought into the urban growth boundary is in poorly drained soil. **But based on a weighted average 32-35% is likely a more accurate range for the assumed Infrastructure Percent Deduction."**

Other examples provided in 2014 by DEAB for the Comprehensive Plan were as follows showing a weighted average of 36.3% without accounting for increases from current adopted stormwater rules.

2014 On Site Residential Infrastructure

Name	Jurisdict	Gross Ac	Streets	Storm	Other	Infrast	Net acres	Units	Density	Infra-structure	Comments
Whipple Creek Village	Clark	7.33	1.81	0.68		2.49	4.84	48	9.9	34.0%	2007 Plat town-houses
North Hills	Camas	9.98	4.07	0.34	0.1	4.41	5.57	44	7.9	44.2%	SF
Belz Place, Phase 1	Camas	14.25	3.74	1.3	0.33	5.37	8.88	48	5.4	37.7%	SF
Kates Cove	Camas	6.59	2.67	0.48		3.15	3.44	29	8.4	47.8%	SF
Winston Estates	Clark	5.45	0.89	0	0	0.89	4.56	24	5.3	16.3%	SF, no storm
Cascade Woods	Clark	2.07	0.11	0.42	0	0.53	1.54	28	18.2	25.6%	attached, existing streets
Birrel Estates	Clark	0.93	0.22	0	0	0.22	0.71	14	19.7	23.7%	attached, no storm, pvt streets
Generation place	Clark	4.85	1.19	0.37	0	1.56	3.29	56	17.0	32.2%	attached
Hills at Round Lake Ph1	Camas	4.64	1.33	0	0.52	1.85	2.79	19	6.8	39.9%	SF
Hills at Round Lake Ph2	Camas	5.51	2.41		0.41	2.82	2.69	24	8.9	51.2%	SF
Hills at round Lake Ph3	Camas	3.94	1.07			1.07	3.94	17	4.3	27.2%	SF
Hills at round Lake Ph4	Camas	13.88	2.03	7.31		9.34	4.54	30	6.6	67.3%	SF, Storm area serves other phases
Hills at Round Lake Ph5	Camas	3.56	1.4			1.4	2.16	25	11.6	39.3%	SF
Hills at Round Lake Ph6	Camas	5.86	2.51		0.11	2.62	3.24	38	11.7	44.7%	SF
Hills at Round Lake Ph7	Camas	3.2	0.8		0.33	1.13	2.07	24	11.6	35.3%	SF

Winsdust Meadows Ph1	Camas	18.58	5	2.36		7.36	10.91	83	7.6	39.6%	SF
Windust Meadows Ph2	Camas	19.87	5.57			5.57	14.33	96	6.7	28.0%	SF
1555 - Cougar Creek	Clark County	5.26	1.66	0.22		1.88	3.38	57	16.9	35.7%	SF
1409 - Cooledge Meadows	Clark County	5.23	1.45	0.56		2.01	3.22	58	18.0	38.4%	SF
1316 - Gaiser Estates	Clark County	4.76	1.29	0.2		1.49	3.27	59	18.0	31.3%	Additional storm in private roads
1202 - Ashley Ridge	Clark County	42.49	7.03	4.06		11.09	31.4	60	1.9	26.1%	Additional storm in private roads
Totals		188.23	48.25	18.3	1.8	68.25	120.77	881	7.3		
						weighted average of infrastructure				**36.3%**	

The feedback given from the building industry seven years ago was not incorporated into the comprehensive plan then, and was ignored again in 2016 when their feedback on the assumed infrastructure deduction was again crystal clear. They further pointed out then that the official rate was not changed with updated stormwater requirements and ordinances. It has again been ignored in 2021 in the drafting of documents presented to County Council, presumably for adoption, despite the fact that stormwater ordinances have been updated multiple times since 2016 thus increasing infrastructure needs even more.

To accompany spreadsheet entitled "Exhibit 1 – Proposed Refinements to VBLM" 6/28/2021 from Building Industry Coalition

Line 21. Set-aside for schools

Staff Presentation – Slide 3, Version 5: No data
BLPAC Presentation – No data shown because BLPAC recommends 0 deduction
BLPAC Report – Page 16 is cited but has no reference to schools

Opening discussion
Set-aside for schools is not mentioned in the index of topics covered in the BLPAC Report, which is perhaps explained by a staff footnote to its Exhibit 1 spreadsheet "Page 16 of the PAC Meeting 7 memo includes the following: After further consideration the Project Team recommends accounting for the land needed for schools and parks on the demand side (not in the VBLM) for sizing of UGB boundaries based on the population forecast and adopted parks and schools land need formulas, because the needs are linked to population growth." Thus, they recommended zero deduction whatsoever for schools on the supply side. The Building Industry Coalition instead asks that Clark County proactively plans for available land, knowing that school land is clearly not developable. The building industry that is "on the ground" versus operating in a theoretical world must have data on land that is actually available for development.

Recommendation
The Building Industry Coalition recommends a set-aside for schools of 7.9%.

Supporting Analysis
On average 10 acres are required for elementary schools, 20 acres for secondary/middle schools and 40 acres for high schools. Appendix E of the 2016 Comprehensive Plan (pages 388-390) show that using those averages, 520 acres of land were needed for schools in the 2015-2035 plan period. The 2015 BLM yield report shows there were 7,512.6 residential developable net acres.

In addition, a review[1] of change in the amount of school lands between 2016 and June 2021 was identifiable in the Assessors database by owner name. The figures are not pure because whereas 169 acres of new school land were added, 108 were surplused. This results in a delta of 60.6 acres, but exactly what will happen with the developability of surplus land is not fully known and they may remain undevelopable. In addition, new school land came from a mix of landuses beyond just residential.

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[1] The review was provided on June 18, 2021 by Bob Pool on a PowerPoint entitled "School and Park Lands."

Using the results provided above, 520 + 60.6 = 580.6/7513 = 7.73%. The final figure of 7.9% is recommended because of the unknown number of surplused acres that remain undevelopable; if all 108 remained undevelopable, the final figure would be a less conservative 9.2%.

Building Industry Association of Clark County

To accompany spreadsheet entitled "Exhibit 1 – Proposed Refinements to VBLM" 6/28/2021 from Building Industry Coalition

Line 22. Set-aside for parks

Staff Presentation – Slide 3, Version 5: No data
BLPAC Presentation – No data shown because BLPAC recommends 0 deduction
BLPAC Report – Page 16 is cited but has no reference to parks

Opening discussion

The 2016 Comprehensive Plan (page 28) states that Clark County has been involved in land acquisition for parks since the 1930's and established the Clark County Parks Division in 2014 under the Department of Public Works along with and the associated Clark Parks Advisory Board (PAB). Our parks provide regional system of parks, trails, recreation facilities and conservation lands. In the first Parks, Recreation & Open Space Plan, completed in 2015, it was noted that the County uses a 6 acres/1,000 population target which is lower than the National Recreation and Parks Association standard of 10 acres/1,000 population for urban parks and natural areas. The 6 acres/1,000 population includes a neighborhood park standard of 2 acres/1,000 population, community parks target of 3 acres/1,000 and urban natural areas aim for 1 acre/1,000. Where there are deficits in a particular category, these standards enable planners to consider action steps that should be taken.

Despite significant planning related to parks, this planning does not carry to VBLM. Set-aside for parks is not mentioned in the index of topics covered in the BLPAC Report, which is perhaps explained by a staff footnote to its Exhibit 1 spreadsheet "Page 16 of the PAC Meeting 7 memo includes the following: After further consideration the Project Team recommends accounting for the land needed for schools and parks on the demand side (not in the VBLM) for sizing of UGB boundaries based on the population forecast and adopted parks and schools land need formulas, because the needs are linked to population growth." Thus, they recommended zero deduction whatsoever for parks on the supply side. The Building Industry Coalition instead asks that Clark County proactively plans for available land, knowing that park land is clearly not developable. The building industry that is "on the ground" versus operating in a theoretical world must have data on land that is actually available for development.

Recommendation
The Building Industry Coalition recommends a set-aside for parks of 12.8%.

Supporting Analysis
Intuitively it is clear that Parks data would be straightforward for staff to produce from County and other jurisdictional records. However GIS concluded "Parks and Cities results are inconclusive due to data issues….A summary of the amount of Parks lands acquired or surplused will require a substantial manual clean up and review."[1] Staff did not do that and report results to County Council as requested.

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[1] "School and Park Lands" PowerPoint by Bob Pool, June 18, 2021.

Not only did staff fail to provide analysis showing the 12.8% deduction, but they also failed to pull the analysis from historical records which they had been provided by the business industry and discussed at that time. What follows is the "Responsible Growth Forum" page 4 from 2016 that was shared with all parties in discussion of the 2016 comprehensive plan. The data still stand.

Parks Vancouver

Vancouver & Clark County Parks Plan requires 7.5 Ac Urban Parks per 1,000 population

Vancouver code requires 6 Ac Urban Parks per 1,000 population = 5 parks and 1 open space

For the Current Plan of 135,348 population growth, this would calculate to 1015 Acres of urban parks at the 7.5 ac standard

For the Current Plan of 135,348 population growth, this would calculate to 812 Acres of urban parks at the 7.5 ac standard

Using the 6 ac Standard

1000 pop/2.66 pop per hh = 6 ac per 376 HH = .016 ac per HH * 8hh per ac = 0.128 ac parks per 1.0 ac

This equates to 12.8% of Vacant Buildable Land for parks

Parks Camas

Camas has planned 5 ac Neighborhood Parks and Community Parks per 1000 population

Camas also has planned in addition 10 acres of Open Space per 1000 population.

4 | 2016 CLARK COUNTY COMPREHENSIVE PLAN ESTIMATED PROJECTIONS

Appendix C: Housing Inventory and Data Analyses

Housing Inventory and Analysis: Clark County Unincorporated Vancouver Urban Growth Area

March 2021

ECONorthwest
ECONOMICS · FINANCE · PLANNING

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Table of Contents

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1. Introduction

Like communities across the region, the unincorporated area of the Vancouver Urban Growth Area (Study Area) is facing increasing housing prices alongside new population growth. This area experiences similar challenges to other communities in the region: affordable rental and homeownership options are increasingly out of reach for current residents and those seeking a new life in the community, construction costs have risen, and there is a limited supply of available land.

To address these concerns, Clark County began the Housing Options Study and Action Plan in 2020 to identify barriers to providing a greater variety of housing types as well as the strategies needed to provide future generations with access to affordable, quality, and flexible housing opportunities.

> Clark County is one of several jurisdictions planning for future housing needs in Clark County.
>
> Vancouver, Camas, Ridgefield, Battle Ground, and Woodland are also in the process of working on housing options projects.

This Housing Inventory and Analysis report is one deliverable within the larger Housing Options Study and Action Plan. Its purpose is to summarize quantitative analysis and qualitative information collected through stakeholder interviews to paint a picture of current housing issues in the unincorporated portion of the Study Area. The findings in this report provide a coherent analysis of housing supply, demand, needs, and preferences throughout the Study Area to provide context for evaluating potential actions.

The Impact of COVID-19 on the Housing Market

Since its emergence, the pandemic has slowed the production of housing in many regions and due to growing remote work practices, commuting rates have diminished and housing preferences are shifting:

- **Up to one-third of the workforce could be working from home multiple days per week by 2021**, based on analysis by the Global Workplace Analytics estimates (1)

- **The supply of for-sale homes is very tight in comparison to previous decades.** This trend, combined with record low mortgage rates, is likely to lead to continued home price increases (2)

- **Due to disruptions in income, many households continue to struggle to pay for housing and rents consistently which will likely exacerbate housing availability and stability.** Lost or reduced employment income due to COVID-19 has exacerbated rental affordability and homeownership security issues and intensified housing cost burden especially for low-income households and those not gaining CARES Act support or other forms of relief (2)

These types of trends should be monitored as conditions and communities adjust and recover. Much of the analysis of housing needs was based on data produced before the COVID-19 pandemic.

Sources:
1. https://globalworkplaceanalytics.com/work-at-home-after-covid-19-our-forecast;
2. Joint Center for Housing Studies of Harvard University, the State of the Nation's Housing 2020. https://www.jchs.harvard.edu/sites/default/files/reports/files/Harvard_JCHS_The_State_of_the_Nations_Housing_2020_Report_Revised_120720.pdf

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About the Study Area

The Study Area—the unincorporated portion of the Vancouver Urban Growth Area (VUGA)—is located in the southwest quadrant of Clark County and north of incorporated Vancouver (see Exhibit 1). About 161,300 people reside in the Study Area. For context and in terms of population, the City of Vancouver—the largest city in Clark County—is only slightly larger than the Study Area, with a population of approximately 184,452 people (2015-2019 ACS). All other cities in Clark County have proportionately fewer people than the City of Vancouver and the Study Area.

Despite the Study Area's comparatively large population, it has a mostly rural development pattern with predominately large lot, single-family residential development. Commercial and industrial uses are more intensified along the I-5 corridor.

While this project is focused on the Study Area, this analysis often includes countywide data to provide additional context and a means to compare characteristics of the Study Area with Clark County.

Report Organization

This report is organized as follows:

- **Chapter 2. Key Findings**

- **Chapter 3. Housing Needs Analysis.**
  Presents an inventory of existing housing units and an overview of housing needs within the Vancouver UGA.

- **Chapter 4. Housing Capacity and Implications.** Compares housing needs findings with data outputs from the County's buildable lands model.

- **Appendix A. Methods and Study Area Geographies**

- **Appendix B. Glossary**

Exhibit 1. Study Area - Unincorporated Vancouver Urban Growth Area (VUGA)
Source: United States Census Bureau, State of Washington.

Area
- ☐ Clark County
- ☐ Incorporated Vancouver UGA
- ☐ Unincorporated Vancouver UGA

2. Key Findings

Like communities across the Portland region, the Study Area is at a crossroads. The population has grown and is expected to continue to grow at a rapid pace. At the same time, housing production has not kept pace with the amount of new housing needed. This section provides an overview of the key findings from this report.

Who lives in the Study Area today?

- **The majority of households (73%) in the Study Area, across all household sizes, are homeowners.** Most households (58%) are made of one or two people and about 46% of all households are living in a three-bedroom housing unit.

- **The majority of households (73%) in both the Study Area and Clark County are composed of married families.** 36 percent of all households in the Study Area are households with children.

- **Within the Study Area, 14% of residents in the Study Area are 65 or older.** Forty percent of residents in the Study Area are between the ages of 40 and 64.

- **About one fifth of the population in the Study Area experiences a disability** (most commonly ambulatory difficulty and cognitive difficulty).

- **The Study Area and Clark County share a similar ethnic and racial makeup.** The largest minority group in the Study Area are residents who identify as Hispanic or Latino of any race (9.1% of residents). In the Study Area, less than 5% of households identify as having limited English proficiency.

- **Most people who live in the Study Area do not work there, which adds to their transportation costs**. While the Study Area has seen an increase in employment since 2012, most workers living in the Study Area still commute to their jobs, often more than 45 minutes away. Jobs further away from a household's home increases their transportation expenses, resulting in less disposable income for other essential needs. There are few industries that have jobs accessible by transit.

What are the current housing conditions in the Study Area?

- **Housing is getting increasingly expensive in the Study Area.** Both ownership and rental housing costs have increased about 4% annually since 2015 in the Study Area.

- **The Study Area's housing stock lacks diversity, with most units being single-family, owner occupied units.** Three quarters of housing units in the Study Area are single-family detached units. Multifamily units and townhomes tend to be newer, while single-family units have been built more steadily over time. The majority of the Study Area's single-family housing units (57%) are between 1,000 and 2,000 square feet.

- **The Study Area's multifamily housing stock is mostly mid-range to higher-end in quality, and represents about 13% of all units.** Just 4% of the Study Area's multifamily buildings rated as functionally obsolete.

- **The Study Area contains 1,520 units of regulated affordable housing,** about 26% of the total regulated affordable units in Clark County. In addition to these rent-restricted units, the Study Area contains 2,687 licensed beds in adult family home facilities, assisted living facilities, and enhanced services facilities.

- **Many of the Study Area's households are cost burdened.** About 44% of households who rent and 23% of households who own their own home are cost burdened or severely cost burdened in the Study Area.

- **Most households with household incomes at 60% of AMI or below need to rent a home, but there is a limited supply of affordable, multifamily rental products within the Study Area, which further increases competition for these units**. The average rent for multifamily housing in the Study Area is $1,276 for a two-bedroom unit, which is affordable to households earning approximately 58% of AMI (about $51,040). About 30% of the Study Area's households have incomes below this level and cannot afford the average rent. Of the Study Area's regulated affordable units with known affordability characteristics (1,194 units), most (85%) are affordable to households earning 60% of AMI.

- **For households looking to buy a home, entry level homes are increasingly out of reach**. The median home sales price of housing in the Study Area is about $343,000, which is affordable to households earning about 112% to 130% of the median family income (about $98,000 to $114,000). About 65% of the Study Area's households have incomes below this level. Households at middle incomes are less able to afford housing in this market. Home prices continue to rise; most single-family units in the Study Area cost $400,000 or more. The Study Area remains one of the more affordable areas in the Portland region, increasing competition for the more moderately-priced homes.

- **While many of the residents living in the Study Area have stable housing situations, some residents are living on the brink.** The number of people experiencing homelessness in the County has increased 22% since 2017, and the number of people who remain unsheltered has increased by 92%. In addition, a small share of the Study Area's larger households appear to be living in units that may be overcrowded.

- **Housing production in the Study Area has increased since 2010,** averaging 930 units per year, with a low of 164 units built in 2011 to a high of 2,106 units built in 2017.

How much housing does the County need to plan for in the Study Area?

- **Clark County will need to plan for 13,281 new dwelling units within the Study Area through 2035**, which is close to the Study Area's current housing capacity of 20,200 units.

- **Housing production has been steady since the mid 2010s, but the Study Area has not yet produced enough housing to meet demand.** Based on the ratio of housing units produced and new households formed in the Study Area over time, there has been an underproduction of 2,571 units.

- **Housing construction will need to continue at a steady clip to keep pace with demand.** Housing production in the Study Area averaged 1,070 units from 2000 to 2019, which is above the 885 units per year that the Study Area will need over the next 15 years.

- **The County will need to plan for a sizable share of future housing units to be affordable to low-income households.** Of the needed units within the Study Area, 15% of units (2,029) need to accommodate households earning less than 50% of AMI.

- **Given changes in demographics and housing affordability concerns, the County will need to plan for a shift in the types of housing needed in the Study Area**. The aging of Baby Boomers and the household formation of Millennials will drive demand for renter and owner-occupied housing of all sizes.

3. Housing Needs Analysis

To provide context for the Study Area's housing needs, this chapter presents:

- The characteristics of the Study Area and Clark County's population and households.

- An inventory of existing housing units within the Study Area and Clark County, using U.S. Census and County Assessor data. Assessor data points included in the inventory are dwelling type, year built, lot size, zoning, square footage, and assessed market value.

- Housing affordability characteristics.

- A summary of the Study Area's housing needs and its housing affordability gaps.

Demographics and Households

This section documents demographic, socioeconomic, and other trends relevant to the Study Area to provide a context for growth in the region. The Study Area exists in a regional economy and characteristics in the region impact the local housing market. Factors such as age, income, migration, and race/ethnicity are indicators of how the population has grown in the past and provide insight into factors that may affect growth moving forward. To provide context, this section compares the Study Area to Clark County. A demographic analysis is an important component of a thorough understanding of the dynamics of the Study Area's housing market.

In addition to the analysis presented in this section, Clark County's Public Health Department recently published an InfoMap to provide the community with resources and a new opportunity to learn about public health issues in the county. The InfoMap (which includes graphs, charts, maps, and brief discussions) conveys a wide range of demographic information to tell a story about the community. For more information, visit the "Healthier Clark County InfoMap."[1]

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[1] Healthier Clark County InfoMap:
https://gis.clark.wa.gov/portal/apps/MapSeries/index.html?appid=33acdf14803e4982bcd7e046a25d748c

Like other communities in the region, the Study Area's population has grown at a steady pace and is forecasted for continued growth.

Between 2015 and 2020, the Study Area grew by 17,777 people, according to OFM's Small Area Estimate Program—an increase of about 13%. This growth outpaced Clark County as a whole, which grew by 11%, from 451,820 in 2015 to 499,200 people by 2020.

The Study Area is forecast to grow by 24,989 people to 184,446 in 2035. This is a 15.7% increase in population.

Exhibit 2. Population Forecast,[2] Study Area and Clark County, 2020 through 2035
Source: OFM SAEP, Clark County.

	Study Area	Clark County
Population Growth (2015-2020)	17,777 *(+12.5%)*	47,380 *(+10.5%)*
Population Forecast (2020-2035)	24,989 *(+15.7%)*	78,231 *(+15.7%)*

Note: The population forecast for the Study Area assumes that the unincorporated Vancouver UGA will continue to capture the same 32% share of Clark County's total population as it currently does as of 2020.

Like Clark County, the Study Area has a relatively high number of older residents.

Over half of the population in the Study Area is 40 years or older, similar to Clark County as a whole.

About a quarter of the population are between 20 and 39 years of age and about 14% of the population are 65 years of age and older.

Exhibit 3. Resident Age, Unincorporated Vancouver UGA and Clark County, 2018
Source: U.S. Census 5-year ACS, 2014-2018.

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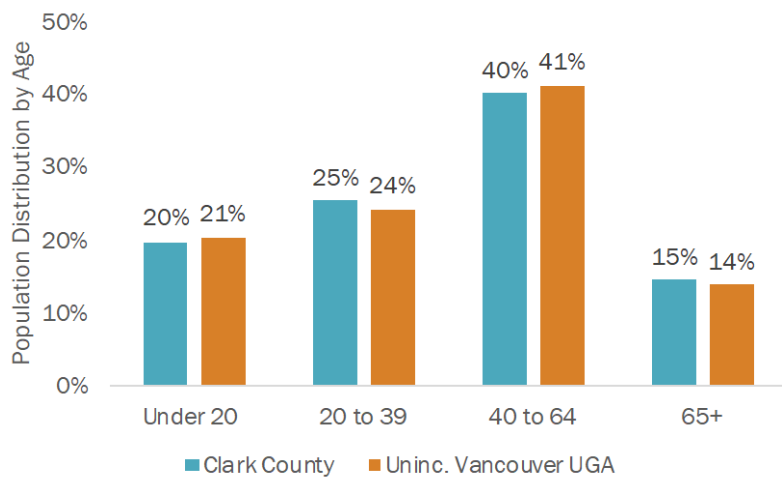
[2] The population forecast for the Study Area (unincorporated Vancouver UGA) is 32% of the forecasted population for Clark County. The 32% factor is based on the share of Clark County's total population within the UGA in 2020, per the Small Area Estimate Program. The analysis uses Clark County's medium OFM forecast that was adopted in Clark County's 2016 Comprehensive Plan.

The Study Area and Clark County share a similar ethnic and racial makeup.

The largest minority group in the Study Area are residents who identify as Hispanic or Latino of any race (about 14,600 people).

This group is followed by individuals that identify as two or more races (about 7,200 people) and as Asian (about 6,900 people).

The Study Area and County have a similar ethnic and racial makeup.

Exhibit 4. Share of Population by Race and Ethnicity, Unincorporated Vancouver UGA and Clark County, 2018
Source: U.S. Census 5-year ACS, 2014-2018.

Category	Clark County	Uninc. Vancouver UGA
Hispanic / Latino (of any race)	9.3%	9.1%
Some other Race	0.2%	0.3%
American Indian / Alaska Native	0.5%	0.5%
Pacific Islander / Native Hawaiian	0.8%	0.6%
Black	1.6%	1.7%
Two or More Races	4.3%	4.5%
Asian	4.4%	4.3%
White	78.9%	79.0%

■ Clark County ■ Uninc. Vancouver UGA
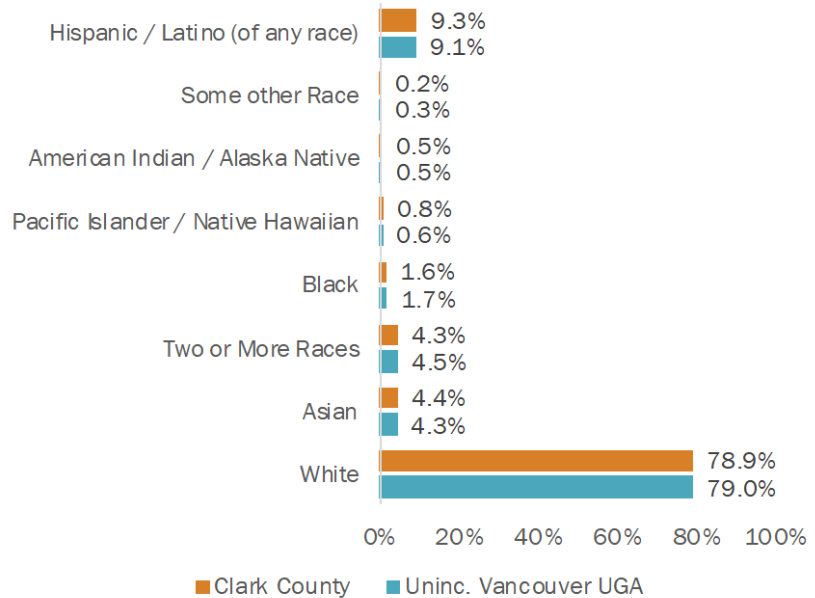
Changes in Housing Preferences: National Trends

Housing preference will be affected by changes in demographics, most notably: the aging of Baby Boomers, housing demand from Millennials and Generation Z, and growth of immigrants.

- **Baby Boomers.** In 2020, the oldest members of this generation were in their seventies and the youngest were in their fifties. The continued aging of the Baby Boomer generation will affect the housing market. In particular, Baby Boomers' will influence housing preference and homeownership trends. Preferences (and needs) will vary for Boomers' moving through their 60s, 70s, and 80s (and beyond). They will require a range of housing opportunities. For example, "aging baby boomers are increasingly renters-by-choice, [preferring] walkable, high-energy, culturally evolved communities."[3] Many seniors are also moving to planned retirement destinations earlier than expected as they experience the benefits of work-from-home trends (accelerated by COVID-19). Additionally, the supply of caregivers is decreasing as people in this cohort move from giving care to needing care, making more inclusive, community-based, congregate settings more important. 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 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.[4] A broader definition exists, which explains that aging in place means "remaining in the current community and living

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[3] Urban Land Institute. Emerging Trends in Real Estate, United States and Canada. 2019.

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

in the residence of one's choice."[5] Some Boomers are likely to stay in their home as long as they are able, and some will prefer to move into other housing products, such as multifamily housing or age-restricted housing developments, before they move into 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."[6]

Clark County developed an Aging Readiness Plan and Commission on Aging in preparation for the wave of aging Baby Boomers. County-level research on the topic is consistent with national trends. By 2035, more than 25% of the Clark County population, or one in four residents, will be 60 and better.

- **Millennials.** Over the last several decades, young adults have increasingly lived-in multigenerational housing—more so than older demographics.[7] However, as Millennials move into their early to mid-thirties, postponement of family formation is ending, and millennials are likely to prefer detached, single family homes in suburban areas.

  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. As this generation continues to progress into their homebuying years, they will seek out affordable, modest-sized homes. This will prove challenging as the market for entry-level, single-family homes has remained stagnant. Although construction of smaller homes (< 1,800 sq. ft.) increased in 2019, they only represented 24% of single-family units.

  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 2020, Millennials comprised 38% of home buyers, while Gen Xers comprised 23% and Boomers 33%.[8] "By the year 2061, it is estimated that $59 trillion will be passed down from boomers to their beneficiaries," presenting new opportunities for Millennials (as well as Gen Xers).[9]

- **Generation Z.** In 2020, the oldest members of Generation Z were in their early 20s and the youngest in their early childhood years. By 2040, Generation Z will be between 20 and 40 years old. While they are more racially and ethnically diverse than previous generations, when it comes to key social and policy issues, they look very much like Millennials. Generation Z was set to inherit a strong economy and record-low unemployment.[10] However, because the long-term impacts of COVID-19 are unknown, Generation Z may now be looking at an uncertain future.

  While researchers do not yet know how Generation Z will behave in adulthood, many expect they will follow patterns of previous generations. A segment is expected to move to urban areas for reasons similar to previous cohorts (namely, the benefits that employment, housing, and entertainment options bring when they are in close proximity). However, this cohort is smaller than Millennials (67 million vs. 72 million) which may lead to slowing real estate demand in city centers.

- **Immigrants.** Research on foreign-born populations shows that immigrants, more than native-born populations, prefer to live in multigenerational housing. Still, immigration and increased homeownership among minorities could also play a key role in accelerating household growth over the next 10 years.

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[5] *Ibid.*

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

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

[8] National Association of Realtors. (2020). 2020 Home Buyers and Sellers Generational Trends Report, March 2020. Retrieved from: https://www.nar.realtor/research-and-statistics/research-reports/home-buyer-and-seller-generational-trends

[9] PNC. (n.d.). Ready or Not, Here Comes the Great Wealth Transfer. Retrieved from: https://www.pnc.com/en/about-pnc/topics/pnc-pov/economy/wealth-transfer.html

[10] Parker, K. & Igielnik, R. (2020). On the cusp of adulthood and facing an uncertain future: what we know about gen Z so far. Pew Research Center. Retrieved from: https://www.pewsocialtrends.org/essay/on-the-cusp-of-adulthood-and-facing-an-uncertain-future-what-we-know-about-gen-z-so-far/

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 declines, the foreign-born population again began contributing to household growth, despite decline in immigration rates in 2019. The Census Bureau's estimates of net immigration in 2019 indicate that 595,000 immigrants moved to the United States from abroad, down from 1.2 million immigrants in 2017-2018. However, as noted in The State of the Nation's Housing (2020) report, "because the majority of immigrants do not immediately form their own households upon arrival in the country, the drag on household growth from lower immigration only becomes apparent over time."

- **Diversity.** The growing diversity of American households will have a large impact on the 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. White households had a 73% homeownership rate in 2019 compared to a 43% rate for Black households. This 30-percentage point gap is the largest disparity since 1983. Although homeownership rates are increasing for some minorities, Black and Hispanic households are more likely to have suffered disproportionate impacts of the pandemic and forced sales could negatively impact homeownership rates. This, combined with systemic discrimination in the housing and mortgage markets and lower incomes relative to White households, leads to higher rates of cost burden for minorities —43% for Blacks, 40% for Latinx, 32% for Asians and 25% for Whites in 2019. As noted in The State of the Nation's Housing (2020) report "the impacts of the pandemic have shed light on the growing racial and income disparities in the nation between the nation's haves and have-nots are the legacy of decades of discriminatory practices in the housing market and in the broader economy."

Sources (unless otherwise noted):
The Joint Center for Housing Studies, The State of the Nation's Housing 2020.
Urban Land Institute, 2021 Emerging Trends in Real Estate.

In the Study Area, less than 5% of households struggle with the English language.

About 2.4% of all households in the Study Area have English language speaking proficiency limitations.

Exhibit 5. Households with Limited English-Speaking Proficiency (LEP), Unincorporated Vancouver UGA, 2018
Source: U.S. Census ACS, 2014-2018.
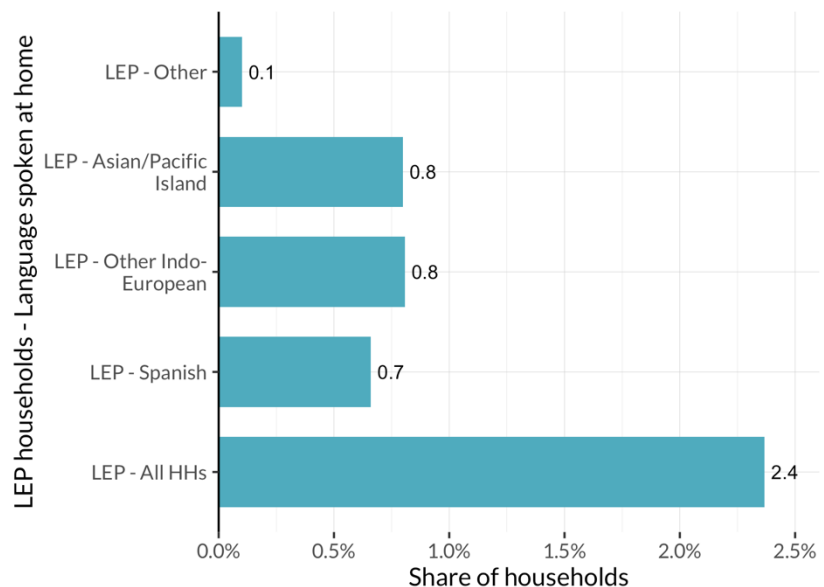
About one fifth of the population in the Study Area experiences a disability.

About 21% of the Study Area's population (or about 33,848 people) experiences one or more disabilities, with ambulatory difficulty and cognitive difficulty as the most common disabilities.

Exhibit 6. Number of People with a Disability by Type of Disability and by Age, Unincorporated Vancouver UGA, 2018
Source: U.S. Census ACS, 2014-2018.

Vision difficulty	1,381	945	Total = 2,480 people
Self-care difficulty	1,550	1,638	Total = 3,475
Hearing difficulty	2,047	3,295	Total = 5,480
Independent living difficulty	3,158	2,749	Total = 5,907
Cognitive difficulty	1,183	4,184	2,049	Total = 7,416
Ambulatory difficulty	4,350	4,613	Total = 9,090

■ Under 18 years ■ 18 to 64 years ■ 65 years and over
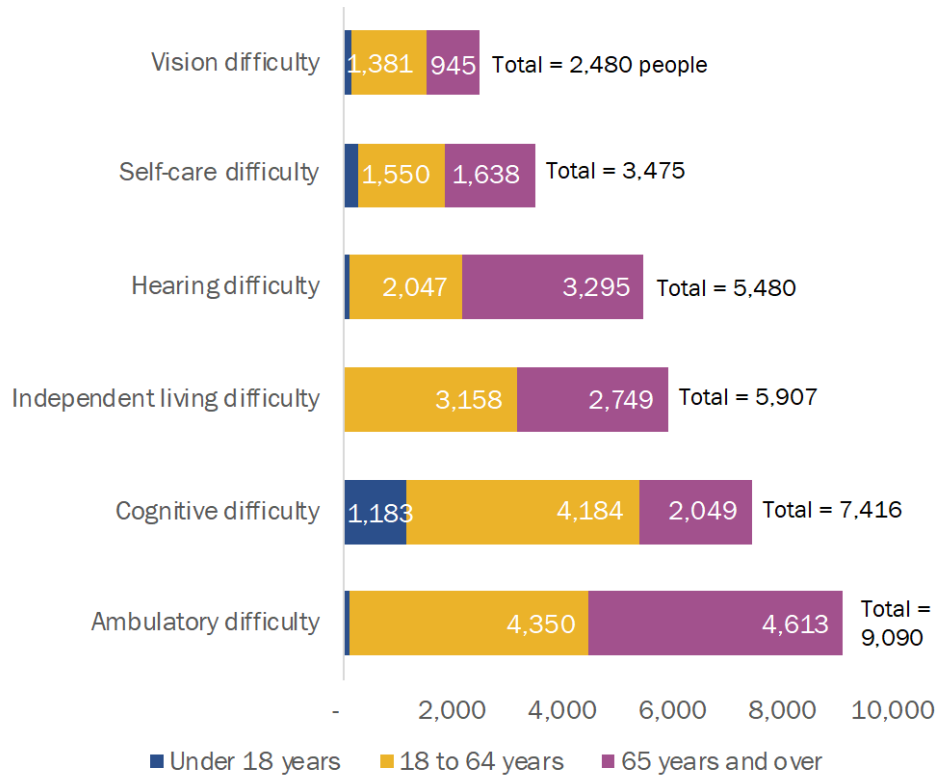
Data on Disabilities in the State of Washington

Per the 2019 Caseload and Cost Report from the Washington Developmental Disabilities Administration (DDA), there were 1,485 adults with intellectual and developmental disabilities (IDD) and 1,432 children with IDD enrolled in state services in Clark County.

National studies estimate that about 70% of all individuals with IDD in Washington live with a family caregiver. About 12% live in a residential supervised setting (e.g., group home, foster care, or IDD institution). About 18% live on their own, independently, or with a roommate (note: this is higher than other states, such as Oregon with 13% of persons with IDD living alone / independently).

Housing Needs for People with Intellectual and Developmental Disabilities

In 2020, ECONorthwest prepared a report for the Kuni Foundation evaluating the housing needs and housing challenges for individuals with intellectual and developmental disabilities (IDD) in Southwest Washington.[11] The study highlighted numerous gaps in data and information relating to the IDD community, particularly as it relates to current housing situations, desired housing preferences, and alignment between state disability agencies and state housing agencies. It recommends better data and coordination between state agencies to support the housing needs and preferences of this historically overlooked and marginalized community.

The report found that about 4,500 adults may be living with IDD in Clark, Cowlitz, Skamania, Klickitat, Lewis, Wahkiakum, and Pacific counties. According to data from the Washington Developmental Disabilities Administration (DDA), there were 1,485 adults with IDD enrolled in state services in Clark County,[12] but national research demonstrates that only a fraction of the total estimated number of people with IDD enrolled in state services.[13] The ECONorthwest study estimated that roughly 3,800 adults, or 85% of the estimated population of adults with IDD in these seven counties, may be at risk of housing insecurity due to an aging caregiver or due to housing costs exceeding an appropriate amount of gross income.

Beyond the IDD community, many adults with an array of disabilities struggle to find adequate housing in Southwest Washington. The ECONorthwest study did not find a clear estimate of the number of regulated affordable housing units restricted to individuals with disabilities in Washington State. In addition, the study found that the average cost of a 1-bedroom apartment in many areas in Southwest Washington would consume 91% of the 2020 median monthly Supplemental Security Income (SSI) payment – a vital source of income for many individuals with disabilities. Clearly more work needs to be done to provide better housing choices for individuals with disabilities in Southwest Washington.

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[11] ECONorthwest, "Housing Needs for Individuals with Intellectual and Developmental Disabilities," (Vancouver, WA: The Kuni Foundation, 2020), https://www.kunifoundation.org/wp-content/uploads/2020/09/ECONorthwestStudy.pdf

[12] Washington Developmental Disabilities Administration, "2019 Caseload and Cost Report," https://www.dshs.wa.gov/sites/default/files/DDA/dda/documents/2019%20Caseload%20and%20Cost%20Report.pdf.

[13] Sheryl Larson, Heidi Eschenbacher, Lynda Anderson, Sandy Pettingell, and Amy Hewitt, "In-Home and Residential Long-Term Supports and Services for Persons with Intellectual or Developmental Disabilities: Status and Trends Through 2016," (Minneapolis, MN: The Residential Information Systems Project, 2018), https://risp.umn.edu/.

Household Characteristics

The Study Area has a mix of large and small households.

The Study Area has 132,380 households (73% homeowners, 28% renters). Of these households, 58% (76,230) have one or two people, 30% have three or four people (39,102), and 13% have five or more people (17,048).

The majority of households, across all household sizes, are homeowners.

Exhibit 7. Households (HHs) by Household Size and Tenure, Unincorporated Vancouver UGA, 2019
Source: PUMS 2019. Note: N = total households in category.
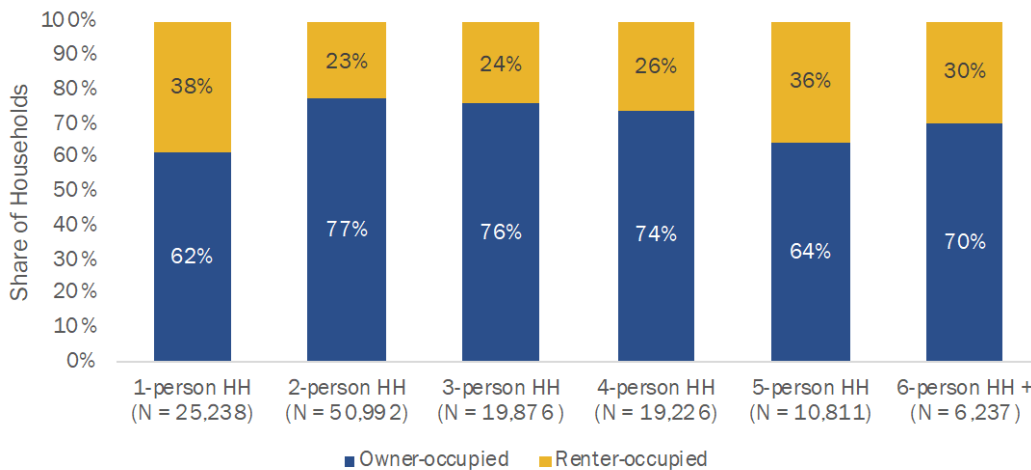
A small share of the Study Area's larger households may be overcrowded at home.

Larger households may struggle to find large units with enough bedrooms, resulting in overcrowding.

Exhibit 8. Households (HHs) by Household Size and by Housing Unit Size, Unincorporated Vancouver UGA, 2019
Source: PUMS 2019. Note1: N = total households in category. Note 2: percentages under 5% are not displayed.
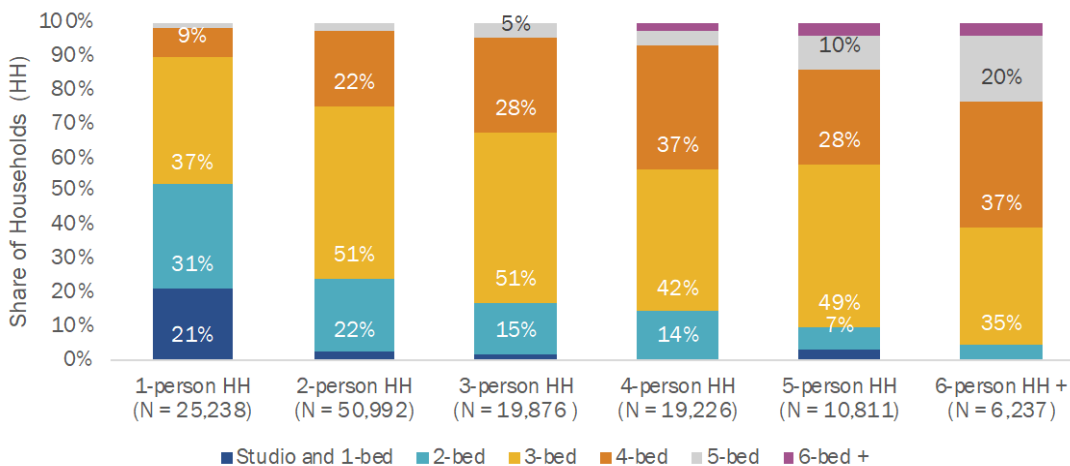
The majority of households in both the Study Area and Clark County are composed of married families.

About 20% of households (11,555) in the Study Area are single-person households. Nearly 5,000 of these single-person households are 65 years of age and older.

Note: "Living alone" includes "Living alone, 65 years or older." Also, "Married family" includes "Married family with own children."

Exhibit 9. Household Composition, Unincorporated Vancouver UGA and Clark County, 2019
Source: U.S. Census ACS, 2014-2018.

Household type (top to bottom):

- Living alone, 65 years or older: 8.5 / 9.9
- Living alone: 20.0 / 23.3
- Single parent with own children: 7.4 / 7.8
- Household with senior present: 26.9 / 27.8
- Household with child present: 35.6 / 34.0
- Married family with own children: 31.4 / 30.4
- Married family: 73.4 / 69.7

Share of population

Area: Clark County — Uninc. Vancouver UGA
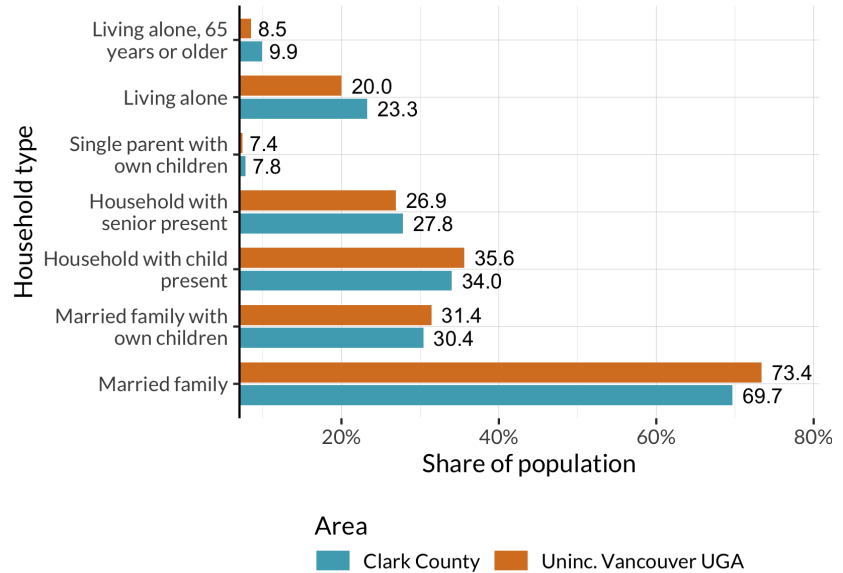
The share of people experiencing homelessness has increased since 2017, and many of those residents remain unsheltered.

In 2020, 916 people experienced homelessness in Clark County—an increase of 167 people from 2017 (or a 22% change).

In 2020, 516 people experienced homelessness and were unsheltered—an increase of 247 people from 2017 (or a 92% change).

Exhibit 10. Homelessness Estimate (Sheltered and Unsheltered), Clark County, 2017 through 2020
Source: Council for the Homeless, PIT Estimates. Clark County 2019-2022 Homeless System Action Plan, PIT Estimates.

Note: N = total number of persons experiencing homelessness.

Year	Unsheltered	Sheltered
2017 (n =749)	36%	64%
2018 (n = 795)	47%	53%
2019 (n = 958)	51%	49%
2020 (n = 916)	56%	44%

Share of Homeless by Living Situation

■ Unsheltered ■ Sheltered
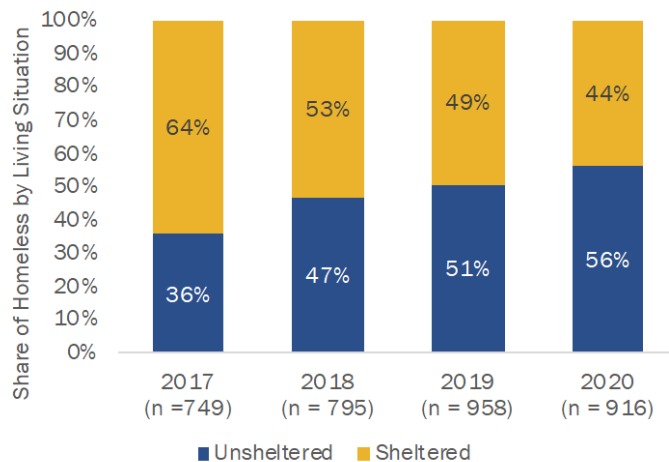
Household size varies by race and ethnicity in the Study Area.

Exhibit 11 shows that in the VUGA, households identifying as Asian, Hispanic/Latino (of any race), and American Indian/Alaska Native have the largest share of large households. About 64% of Asian, 63% of Hispanic/Latino, and 60% of American Indian/Alaska Native households have a household size of three persons or more.

Exhibit 11. Household Size by Race and Ethnicity, Unincorporated Vancouver UGA, 2019
Source: U.S. Census PUMS, 2019.
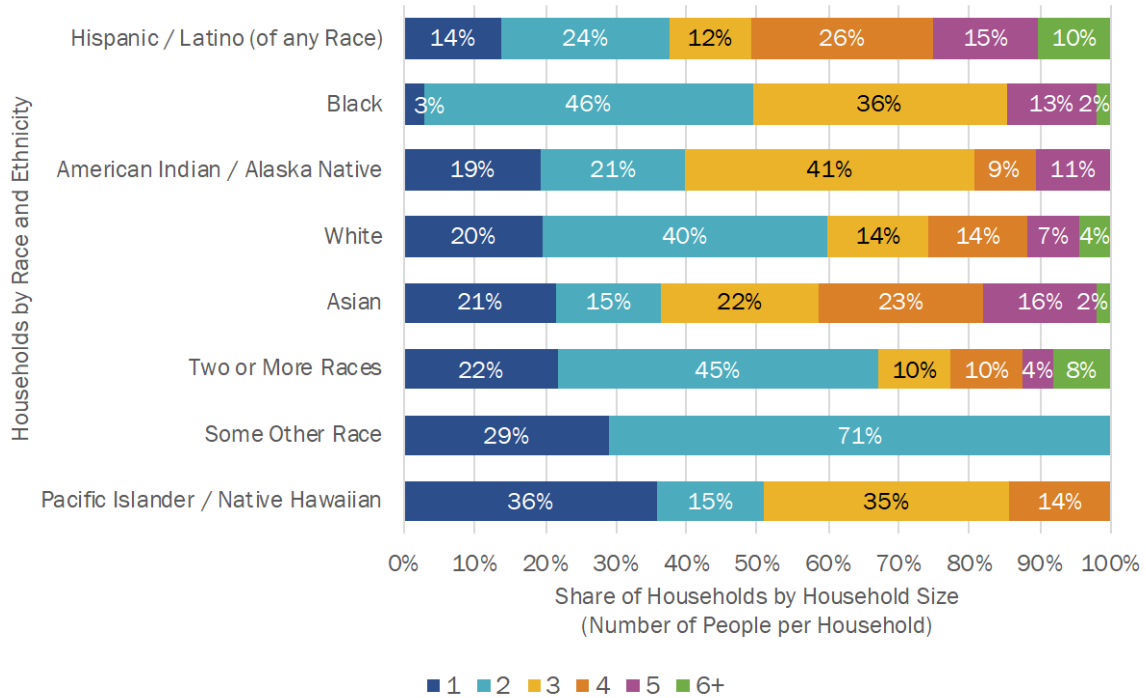
Within the Study Area, the most common unit sizes are three- and four-bedroom homes, while the most common household size is two people.

Exhibit 12. Comparison of Household Sizes and Occupied Housing Units, Unincorporated Vancouver UGA, 2019
Source: U.S. Census PUMS, 2019.
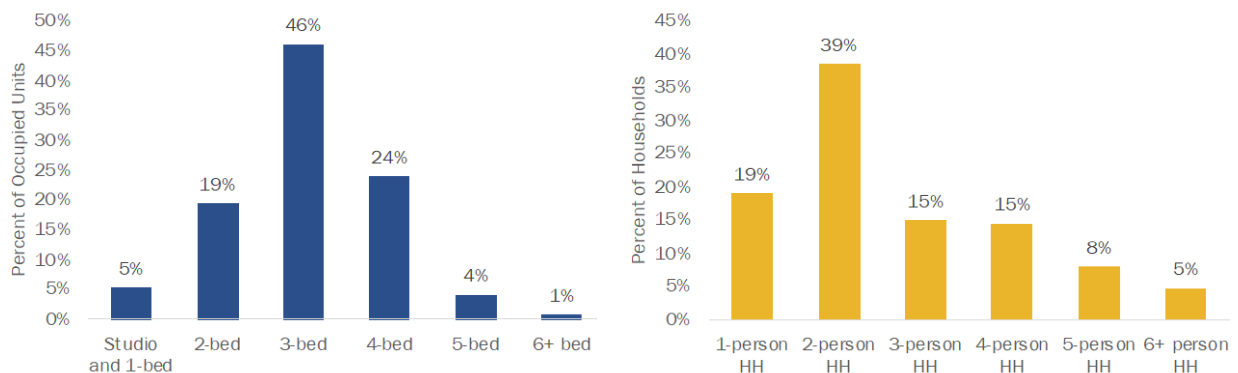
Household Income Characteristics

While the Study Area has a greater share of households at the higher end of the income spectrum than Clark County, nearly a third of households in the Study Area have household incomes lower than $50,000.

About 30% of households have an income of $50,000 or less, compared to 34% of households in Clark County.

About 35% of households in the Study Area have an income of $100,000 or more, compared to 33% of households in Clark County.

Households in the Study Area have proportionately higher incomes than households in Clark County as a whole.

Exhibit 13. Household Income Distribution, Unincorporated Vancouver UGA, Clark County, and the Portland Region, 2019
Source: U.S. Census 5-Year ACS, 2014-2018. Note: Portland Region includes Clackamas, Multnomah, and Washington County.
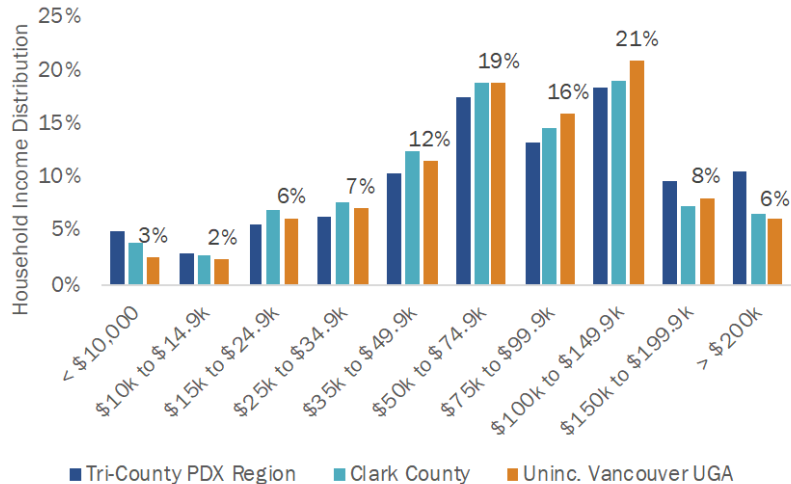
Household incomes vary by race and ethnicity in the Study Area.

Groups that identified as Black and some other race have a comparatively lower median household income (MHI) than groups of other races and ethnicities in the Study Area.

Exhibit 14. Median Household Income by Race and Ethnicity, Unincorporated Vancouver UGA, 2019
Source: U.S. Census PUMS, 2019.
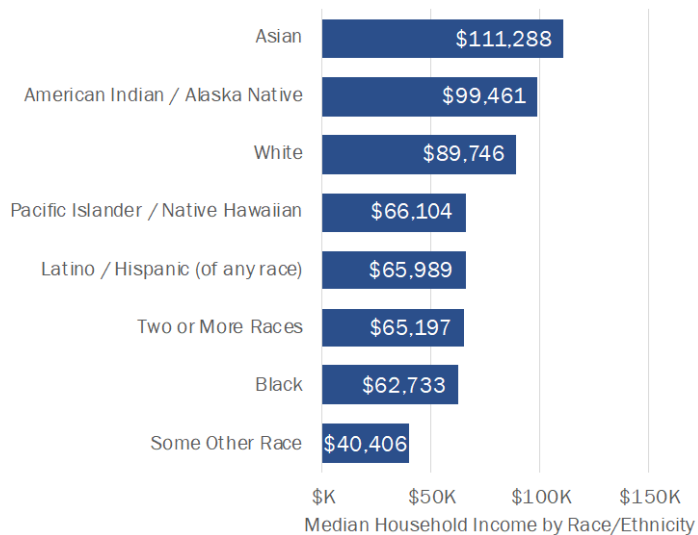
The Study Area has fewer residents at the lowest end of the income spectrum than Clark County, but a similar share of middle-income households.

In the Study Area,

- **15%** of households earned less than 50% of AMI for a 4-person HH (< $43,950). These households can afford a monthly housing cost of **$700 or less** without cost burdening themselves.

- **27%** earned between 50% and 100% of AMI for a 4-person HH ($43,950 to $87,900). These households can afford a monthly housing cost **between $700 and $1,100**.

- **58%** earned 100% of AMI or more for a 4-person HH ($87,900+). These households can afford a monthly housing cost **greater than $1,100**.

Exhibit 15. Household Income Distribution by AMI, Unincorporated Vancouver UGA and Clark County, 2019
Source: U.S. Census PUMS, 2019.
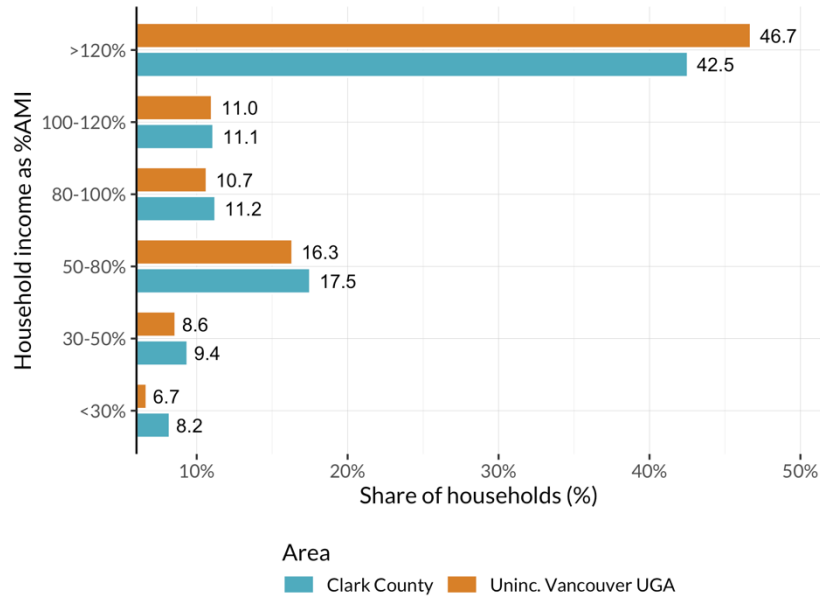
Note: Exhibit 13 and Exhibit 15 might appear to show a discrepancy in the distribution of household income for our study areas, but it is important to keep in mind that differences between the two exhibits stem from significant differences in study area geographic units used (tracts versus larger PUMAS, see Exhibits 55 and 56), in the scale of the surveys used (1-year versus 5-year), and in the fact that HUD's AMI levels are scaled by household size.

In the Study Area, the majority of residents across the income spectrum are homeowners.

Exhibit 16. Household AMI by Tenure, Unincorporated Vancouver UGA, 2019
Source: U.S. Census PUMS, 2019.
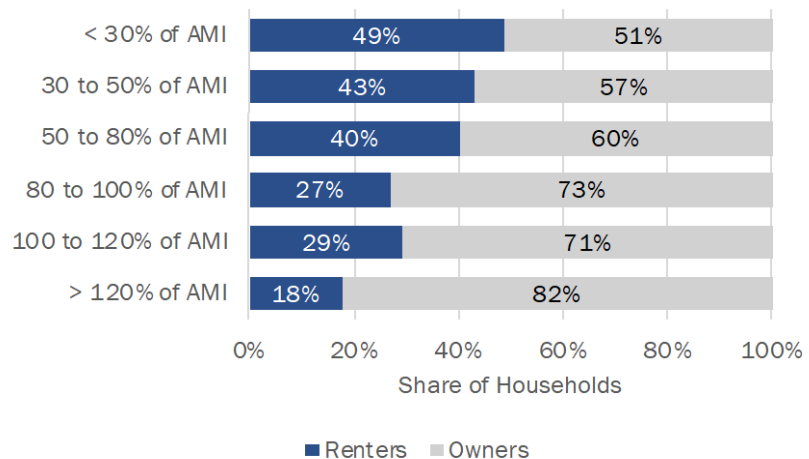
Cost Burdening

A typical standard used to determine housing affordability is that a household should pay no more than a certain percentage of household income for housing, including mortgage payments and interest or rent, utilities, and insurance. HUD guidelines indicate that households paying more than 30 percent of their income on housing experience "cost burdening" and households paying more than 50 percent of their income on housing experience "severe cost burdening." Cost burdening means that households can have too little income leftover after paying for housing costs, to afford other necessities, such as transportation, food, medicine, or childcare. Housing cost burdening is particularly important for low-income households, who have very little income to begin with.

Policymakers typically focus on renters when assessing rates of cost burden as it signals a lack of affordable housing in a region. Policy makers place less focus on homeowners because a lender will assess a buyer's ability to pay for a mortgage before the household can buy a home.

Similar to Clark County, a large share of the Study Area's renters experienced housing cost-burden.

About 16,000 renter households and 22,000 households who own their own home are cost burdened or severely cost burdened in the Study Area.

Exhibit 17. Cost Burdened and Severely Cost Burdened Renters, Unincorporated Vancouver UGA, 2019
Source: U.S. Census PUMS, 2019.

Homeowners: 8,690 (Severely cost-burdened), 13,069 (Cost-burdened), 73,768 (Not burdened) — 23% of homeowners

Renters: 6,881 (Severely cost-burdened), 9,321 (Cost-burdened), 20,651 (Not burdened) — 44% of renter households

■ Not burdened   ■ Cost-burdened   ■ Severely cost-burdened
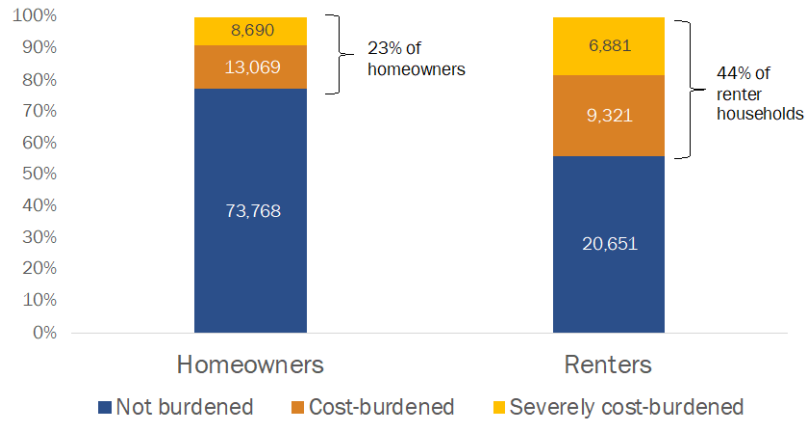
Of all rent-burdened households in the Study Area, 72% identified as White and 16% identified as Hispanic/Latino.

Exhibit 18. Cost Burdened Renters by Race and Ethnicity, Unincorporated Vancouver UGA and Clark County, 2019
Source: U.S. Census PUMS, 2019.
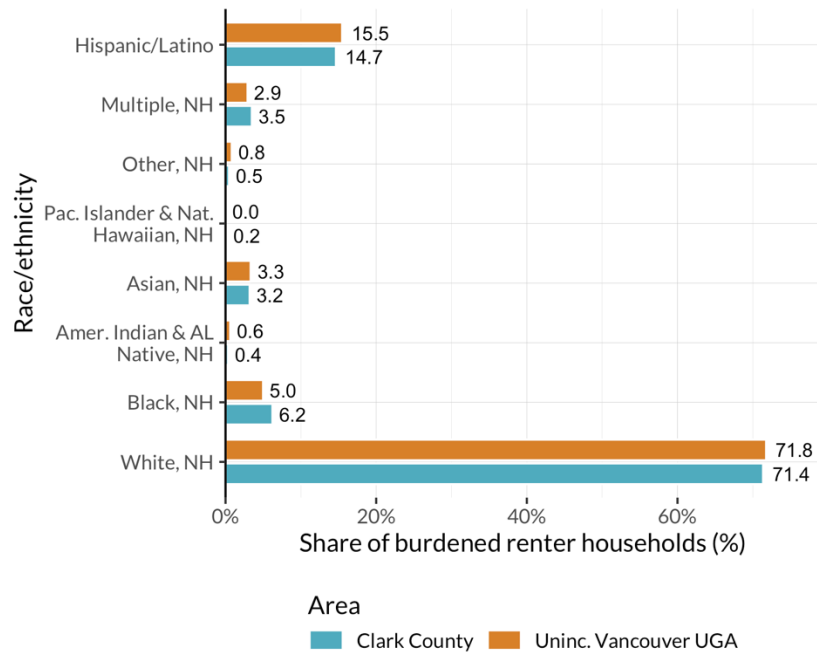
The Portland region is the second most expensive area to live in the Northwest, behind the Seattle region.

A renter household would need to earn $28.75 per hour to afford a two-bedroom unit at the Fair Market Rent.

Exhibit 19. Housing Wage for Two-Bedroom Unit, Most Expensive Areas in Northwest, 2020
Source: Out of Reach 2020. National Low-Income Housing Coalition.
https://reports.nlihc.org/oor

Most Expensive Areas	Housing Wage
Seattle-Bellevue HMFA	$40.37
Portland-Vancouver-Hillsboro MSA	**$28.75**
Tacoma HMFA	$27.08
Bremerton-Silverdale MSA	$24.92
San Juan County	$23.69

Note 1: MSA is Metropolitan Statistical Area and HMFA is HUD Metro FMR Area.

Note 2: To be considered affordable, the cost of rent and utilities must not exceed 30% of household income.

Transportation costs add to the overall housing burden that households face.

The standard definition of cost burden (more than 30% of household income spent on housing costs) does not factor in transportation costs. Today, housing advocates and economic research stress the importance of considering transportation costs in affordability analyses, because many households relocate to the outer edges of metro areas in search of affordable housing, thereby increasing their transportation costs to city or job centers. The Center for Neighborhood Technology publishes a Housing + Transportation Affordability Index, providing a ready-made data source for assessing the possible transportation cost burdening of residents (see Exhibit 20).

Study Area households experience greater housing and transportation cost burdens than the County.

In the Study Area, a "typical" household earning 100% of AMI would spend 53% of its income on housing and transportation costs. A household earning 80% of AMI would spend 62% of its income on these necessities.

Exhibit 20. Housing + Transportation Costs as a Percent of Household Income, Unincorporated Vancouver UGA and Clark County, 2017
Source: Center for Neighborhood Technology, https://htaindex.cnt.org/.

Jurisdiction	H+T Costs as % of income (100% of AMI)	H+T Costs as % of income (80% of AMI)
Uninc. Vancouver UGA	53%	62%
Clark County	45%	52%

Employment and Transportation

This section provides a summary of employment for the Study Area, compared to Clark County. The analysis uses two-digit data from the U.S. Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES) data.

Importantly, this section presents data about employment change by industry and median salaries by industry. This data matters to the overall analysis as household income and earnings are intrinsically linked to households' ability to pay for housing.

Since 2012, the Study Area has seen an increase in employment.

Employment trends in the Study Area improved from 2012 to 2018. In this time, jobs increased by 8,780 (30% change).

Prior to 2012, the Study Area experienced a decline in employment by about 2,488 jobs, from 2008 to 2012.

Exhibit 21. Employment Trends (Number of People Employed within the Study Area), Unincorporated Vancouver UGA, 2008 through 2018
Source: LODES.
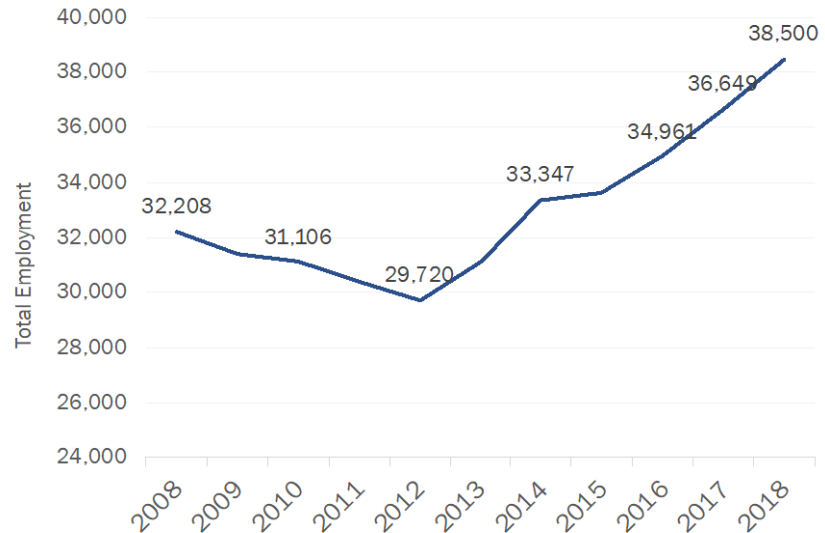
Understanding the makeup of the Study Area's employment base can help the County to understand the residents that will need housing in the future. The employment estimates presented in Exhibit 22 show the total number of residents working in each two-digit NAICS sector in the Study Area and Clark County in 2008 and 2018.

Between 2008 to 2018, employment in the Study Area increased by 6,292 jobs (which represented 21% of total job growth in Clark County overall). The industries experiencing the most growth in the Study Area are (1) Educational Services and Health Care and Social Assistance, (2) Professional, Scientific, Management, Administrative, and Waste Management Services, and (3) Arts, Entertainment, Recreation, Accommodations, and Food Services. Combined, these three sectors added 4,436 jobs to the Study Area between 2008 and 2018.

Exhibit 22. Employment by Industry in Study Area, 2008 and 2018
Source: LODES.

Industry	Uninc. Vancouver UGA			
	2008	2018	Change	
			#	%
Educational Services, Health Care, Social Assistance	7,405	9,920	2,515	34%
Retail Trade	5,203	5,680	477	9%
Construction	4,931	5,398	467	9%
Arts, Entertainment, Recreation, Accommodation, Food Services	3,055	4,004	949	31%
Professional, Scientific, Mngmt, Administrative, Waste Mngmt	3,022	3,994	972	32%
Manufacturing	2,082	2,355	273	13%
Wholesale Trade	1,403	2,047	644	46%
Transportation, Warehousing, Utilities	1,011	1,355	344	34%
Other Services, Except Public Administration	1,689	1,610	(79)	-5%
Finance, Insurance, Real Estate, Rental, Leasing	1,439	1,282	(157)	-11%
Information	552	489	(63)	-11%
Agriculture, Forestry, Fishing, Hunting, Mining	285	192	(93)	-33%
Public Administration	131	174	43	33%
Total	**32,208**	**38,500**	**6,292**	**20%**

Many of the jobs in the Study Area are middle-income jobs, with a median salary around 60% of AMI.

About 38,500 people are employed in the Study Area. The industries with the greatest number of people employed are (1) Educational Services and Health Care and Social Assistance, (2) Retail Trade, and (3) Construction. Combined, these sectors employed 20,998 people (about 55% of total employment in the Study Area).

Exhibit 23 shows that the industries with the largest median salaries in the Study Area are Public Administration ($71,300); Finance, Insurance, Real Estate, Rental, and Leasing ($68,400); and Wholesale Trade ($64,200). These industries have comparatively fewer employees than other industries with lower median earnings.

Exhibit 23. Median Salary by Industry (with AMI, Housing Cost, Employment), Unincorporated Vancouver UGA, 2018
Source: U.S. Census 5-Year ACS, 2014-2018.   Note: AMI category comparisons are based on $87,900 (100% AMI) in 2019.

Industry	Median Salary	% of AMI	Monthly Affordable Housing Cost (based on med. salary)	% of people employed (2018)
Public Administration	$71,259	81%	$1,781	0.5%
Finance, Insurance, Real Estate, Rental, Leasing	$68,411	78%	$1,710	3%
Wholesale Trade	$64,200	73%	$1,605	5%
Transportation, Warehousing, Utilities	$62,578	71%	$1,564	4%
Information	$60,953	69%	$1,524	1%
Manufacturing	$60,216	69%	$1,505	6%
Professional, Scientific, Mngmt, Administrative, Waste Mngmt Services	$58,224	66%	$1,456	10%
Construction	$54,792	62%	$1,370	14%
Educational Services, Health Care, Social Assistance	$53,447	61%	$1,336	26%
Agriculture, Forestry, Fishing, Hunting, Mining	$41,823	48%	$1,046	0.5%
Other Services, Except Public Administration	$41,477	47%	$1,037	4%
Retail Trade	$35,313	40%	$883	15%
Arts, Entertainment, Recreation, Accommodation, Food Services	$32,792	37%	$820	10%

Most people commute out of the Study Area for work.

About 38,500 people work in the Study Area. A majority of these people (70%) commute into the Study Area for work.

About 65,846 people live in the Study Area but commute outside of the Study Area for work.

Exhibit 24. Commuting Flows, Unincorporated Vancouver UGA, 2018
Source: LODES.

Like Clark County as a whole, the majority of people living in the Study Area commute to work by car.

A more granular assessment of the data finds that commuting by car is the dominant form of transportation for all racial and ethnic groups in the Study Area and in Clark County as a whole.

Exhibit 25. Commute Mode, Unincorporated Vancouver UGA and Clark County, 2019

Source: U.S. Census PUMS, 2019. Note: The 'Other' category includes options such as taxi/rideshare and motorcycle.
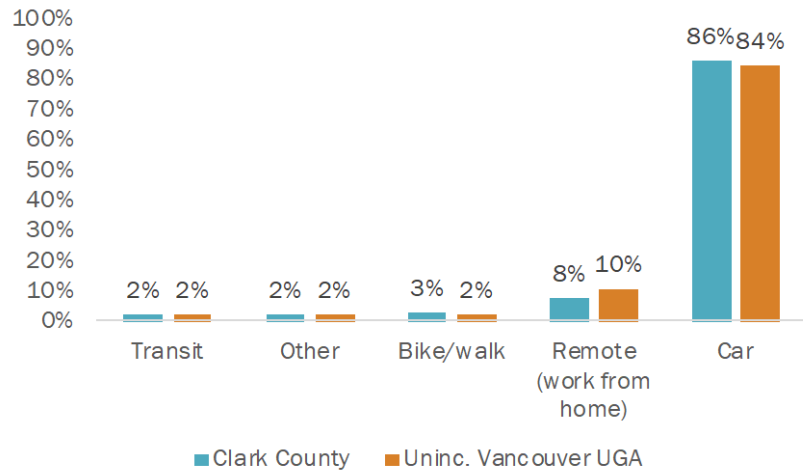
The need to commute out of the Study Area increases transportation expenses for Study Area households, resulting in less disposable income for other essential needs.

When few jobs or services are accessible within a reasonable commute time to the average resident, wages can stagnate and prices increase due to lack of competition, further exacerbating transportation and housing cost burdens.

Exhibit 26 illustrates areas accessible by transit and by car (within a 45-minute trip) for the average person living with the Study Area. [14]

Methodology: [15] Access to employment is measured for both transit and auto use, using a preset limit of 45 minutes to generate isochrones (travel sheds). ESRI Services is used to create drive-time isochrones, simulating traffic conditions typical of 8:00AM, Wednesday. Transit isochrones are created using OpenTripPlanner and the current, consolidated GTFS (General Transit Feed Specification) schedule databases for C-TRAN and TriMet.

Job totals are derived from the US Census' 2018 LODES database, joined to census block geometries.

Exhibit 26. Travel Shed for the Average Person Living in the Study Area
Source: Trimet, C-TRAN, OpenStreetMap, HERE, US Census Bureau.

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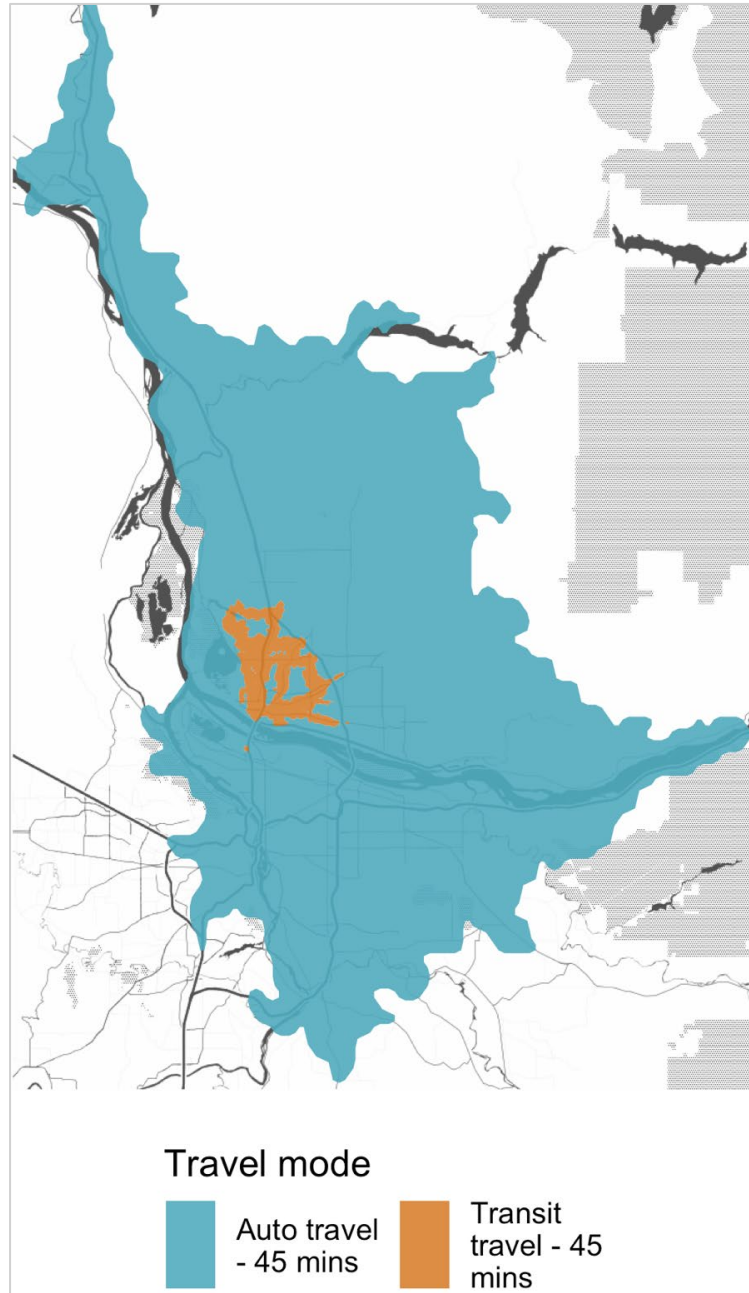
[14] This exhibit shows areas within a 45-minute trip at a point in time, as determined by ESRI. This study acknowledges that traffic congestion at peak hours may—and often will— reduce the displayed travel shed within

There are few industries in the Study Area that have jobs accessible by transit.

Based on analysis conducted and displayed in Exhibit 26, few industries with workplaces are accessible by transit. Those that are have few jobs in the Study Area: Utilities (11% of total jobs) and Public Administration (7%).

The industries with the largest share of jobs accessible by car are Transportation and Warehousing (79% of total jobs), Utilities (74%), Health Care and Social Assistance (74%), and Real Estate / Rental and Leasing (72%).

Exhibit 27. Access to Employment—Travel Shed, Percent of Jobs Accessible to the Average Person Living in the Study Area, by NAICS Sector
Source: LODES.

NAICS Sector	Total Regional Jobs	Jobs Accessible by Car (45-minutes)		Jobs Accessible by Transit (45-minutes)	
		Jobs	% of Jobs	Jobs	% of Jobs
Health Care and Social Assistance	144,838	107,685	74.3%	5,013	3.5%
Manufacturing	113,657	56,451	49.7%	1,208	1.1%
Retail Trade	108,736	69,138	63.6%	3,838	3.5%
Educational Services	89,768	61,898	69.0%	1,697	1.9%
Accommodation and Food Services	86,853	59,489	68.5%	2,521	2.9%
Professional, Scientific, and Technical Service	77,130	53,509	69.4%	1,381	1.8%
Construction	67,118	41,436	61.7%	1,359	2.0%
Administrative and Support and Waste	62,247	35,199	56.5%	1,206	1.9%
Wholesale Trade	56,573	36,188	64.0%	796	1.4%
Finance and Insurance	43,396	28,133	64.8%	755	1.7%
Other Services (except Public Administration)	40,890	26,434	64.6%	916	2.2%
Management of Companies and Enterprises	40,122	24,451	60.9%	228	0.6%
Transportation and Warehousing	39,421	31,187	79.1%	517	1.3%
Public Administration	30,312	20,221	66.7%	1,976	6.5%
Information	26,306	16,370	62.2%	555	2.1%
Real Estate and Rental and Leasing	19,315	13,942	72.2%	673	3.5%
Arts, Entertainment, and Recreation	17,239	10,823	62.8%	249	1.4%
Agriculture, Forestry, Fishing and Hunting	7,887	1,540	19.5%	30	0.4%
Utilities	5,804	4,266	73.5%	631	10.9%
Mining, Quarrying, and Oil and Gas Extraction	546	174	31.9%	0	0.0%

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this threshold of time. In addition, some people in the Study Area commute further distances than what is captured in the exhibit.

[15] To determine the "average commuter," ECONorthwest generated transit isochrones from every active transit stop in the Study Area. Each stop is weighted by the population within a half-mile of the stop (a straight distance, using ACS 2014-2018 five-year estimates). The weighted average number of jobs within the isochrones was taken as the "average commuter's" job access. Auto isochrones are handled in a similar manner, generated from the centroid of each block group in the Study Area, and weighted by that block group's population (using ACS 2014-2018 5-year estimates).

Housing Inventory

As of 2020, the Study Area has 60,093 dwelling units in its housing stock. About 33% of the Study Area's housing units were built in the 1990s or earlier and about 76% of the Study Area's housing stock is single-family detached housing. In addition to these characteristics, the majority of the Study Area's occupied housing stock is occupied by homeowners (73%).

The Study Area has 1,520 regulated affordable housing units, which are typically restricted to households earning less than 60% or 80% of MFI. Given the limited supply of these units, households at these income levels must compete for older, lower cost, and lower amenity market rate housing. A household earning 80% of Clark County's AMI for a family of four[16] (about $70,300) can afford a monthly rent of about $1,760 without being cost-burdened, and there is little housing available at this price point (e.g., about 8,177 multifamily units), particularly units with multiple bedrooms. This memorandum discusses housing affordability in greater detail in later subsections.

> In this document, we use HUD's Median Family Income (MFI) and Area Median Income (AMI) interchangeably. AMI and MFI were $87,900 in 2019 for a family of four for the Portland-Vancouver-Hillsboro, OR-WA MSA (which includes Clark County).

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[16] The U.S. Department of Housing and Urban Development determines MFI thresholds for families of various sizes, not just families of four. These thresholds can be searched for and viewed here: https://www.huduser.gov/portal/datasets/il.html.

The majority of housing units in the Study Area are single-family units.

Three quarters of the Study Area's housing stock comprised single-family detached housing. Multi-family housing makes up the next largest housing type with 13%.

Note: These housing types are defined in Appendix B.

Exhibit 28. Housing Units by Type, Unincorporated Vancouver UGA and Clark County, 2020
Source: Clark County Assessor, 2020.
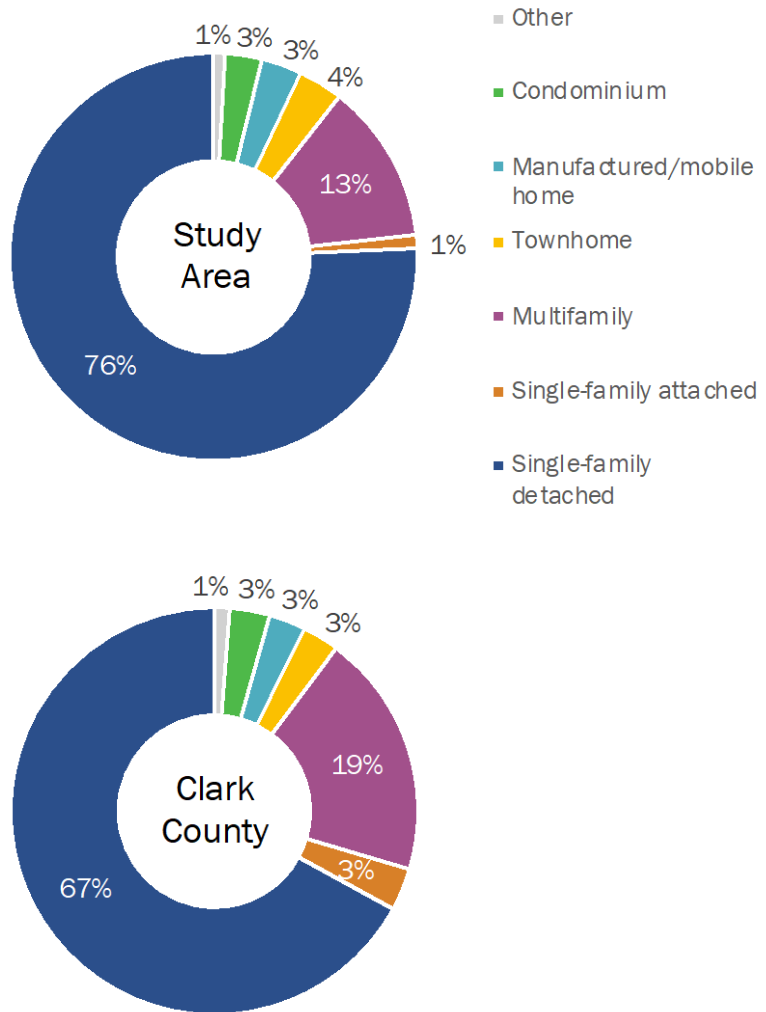
The majority of housing units in the Study Area were built after 1990.

About a third of the Study Area's housing stock (of any type) was built before 1990, 49% between 1990 and 2009, and 18% in 2010 and after.

Exhibit 29. Housing Units by Age of Structure, Unincorporated Vancouver UGA and Clark County, 2019
Source: Clark County Assessor, 2020.
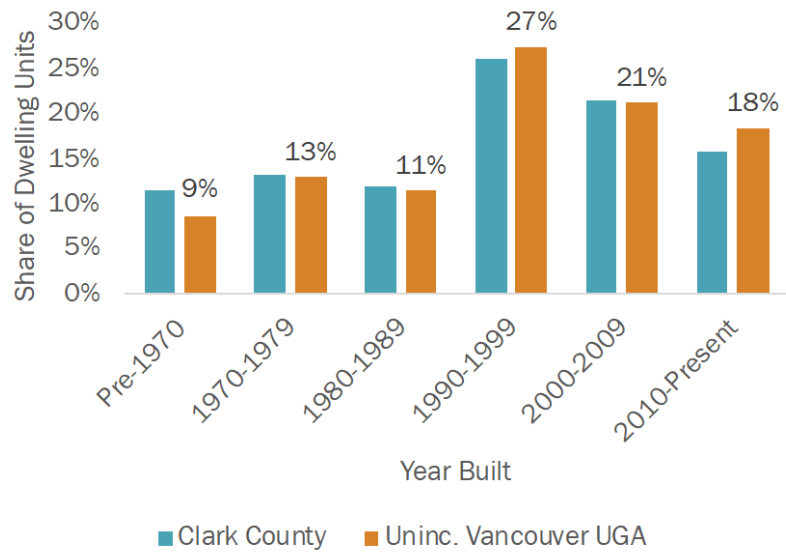
Most homes in the Study Area are owner-occupied.

About 73% of homes in the Study Area are owner-occupied and 27% are renter-occupied.

In Clark County, about 66% of homes are owner-occupied and 34% are renter-occupied. Thus, the Study Area has higher homeownership rate than the County.

Exhibit 30. Occupied Housing by Tenure, Unincorporated Vancouver UGA and Clark County, 2019
Source: U.S. Census 5-Year ACS, 2014-2018.
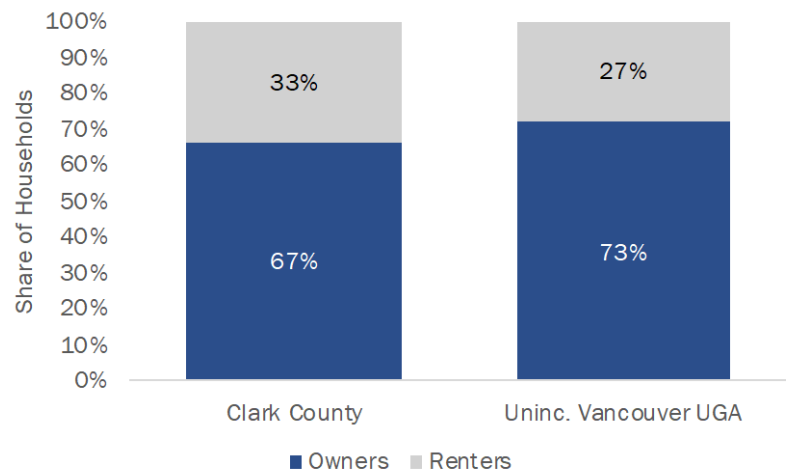
Multifamily units and townhomes tend to be newer, while single-family units have been built more steadily over time.

Since 2000, about 23,700 new housing units were built in the Study Area. Of these units, 74% are single-family detached, 14% are multifamily, 8% are townhomes, and 3% are some other housing type (e.g., manufactured/mobile homes, single-family attached homes, condominiums, and "other").

Exhibit 31. Housing Units by Type and Age, Unincorporated Vancouver UGA, 2020
Source: Clark County Assessor, 2020.
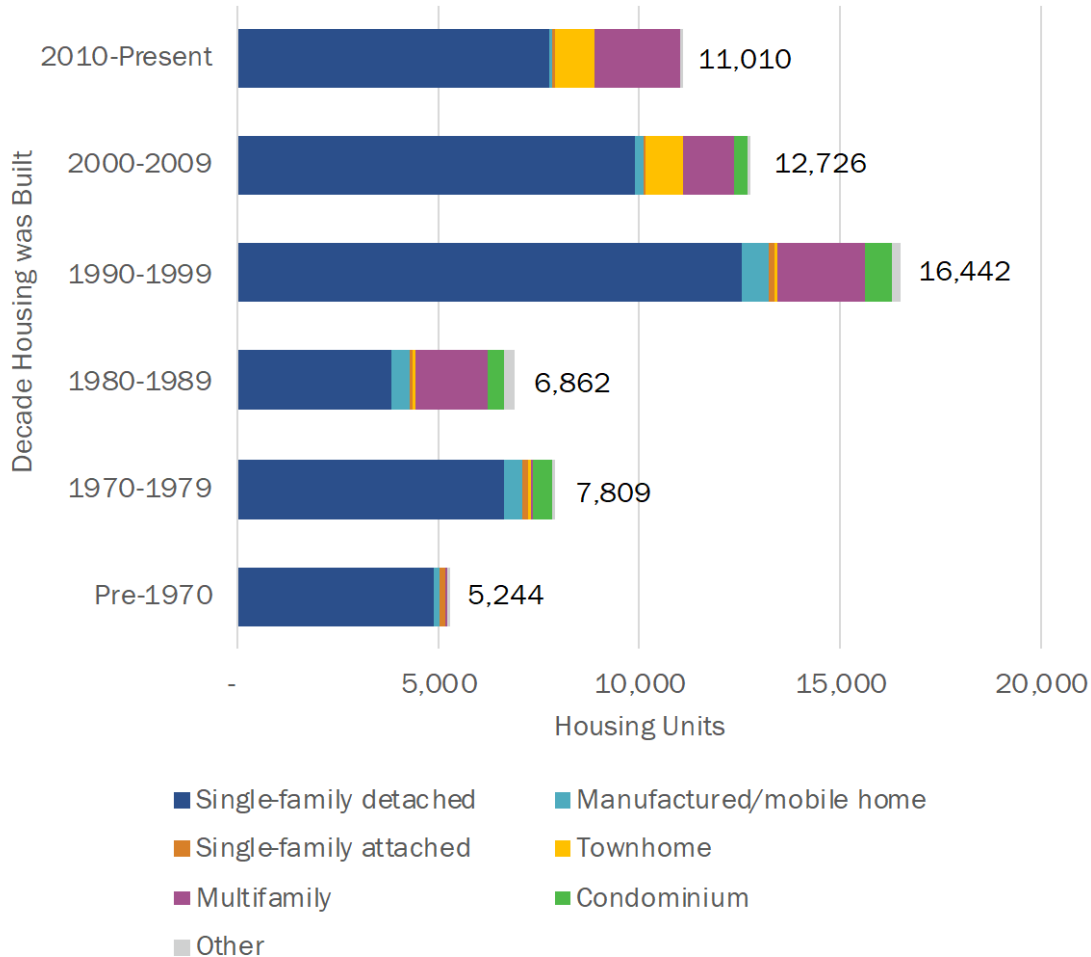
Most of the land in the Study Area designated for residential uses has an urban low density designation, and single family homes are the main type of housing built in both low density and medium density residential areas.

The majority of the Study Area's housing units (73%) and acreage (59%) have an Urban Low Density Residential comprehensive plan designation (UL). Combined, the Urban Medium Density Residential (UM) and Urban High Density Residential (UH) comprehensive plan designations make up 7% of the acreage of the Study Area and 24% of housing units.

Exhibit 32. Housing Units and Acres by Land Use, Unincorporated Vancouver UGA and Clark County, 2020
Source: Clark County Assessor, 2020.

Comprehensive Plan Designation	Housing Units	Share of Housing Units (%)	Acres	Share of Acres (%)
Urban Low Density Residential (UL)	44,612	73%	19,850	59%
Urban Medium Density Residential (UM)	8,892	15%	1,738	5%
Urban High Density Residential (UH)	5,555	9%	662	2%
Other	2,020	3%	11,328	34%
TOTAL	**61,079**	**100%**	**33,578**	**100%**

Note: The "Other" designation in Exhibit 32 includes all other comprehensive plan designations within the Study Area that are not UL, UM or UH.

Of the 8,892 housing units developed in the Urban Medium Density Residential designation, 36% are multifamily and 44% are single family homes.

Of the 5,555 housing units developed in the Urban High Density Residential designation, 68% are multifamily and 15% are single family homes.

Exhibit 33. Housing Units by Land Use, Urban High Density and Urban Low Density, Unincorporated Vancouver UGA, 2020
Source: Clark County Assessor, 2020.
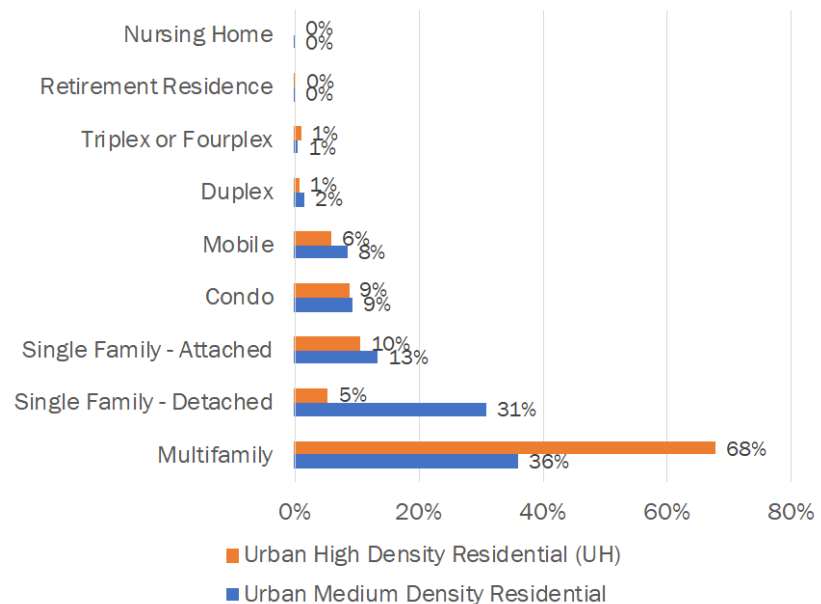
About 87% of the Study Area's single-family housing stock is located on lots greater than 5,000 square feet in size.

When limiting the Study Area to just single-family detached and single-family attached housing, and breaking parcels down by lot sizes typically used in local zoning regulations, the largest share (32%) of units is located on lots larger than 10,000 sq. ft.

Small lots, those less than 5,000 sq. ft., accounted for 13% of the Study Area's single-family units.

Exhibit 34. Housing Units by Lot Size, Single-Family Detached and Single-Family Attached Parcels, Unincorporated Vancouver UGA, 2020
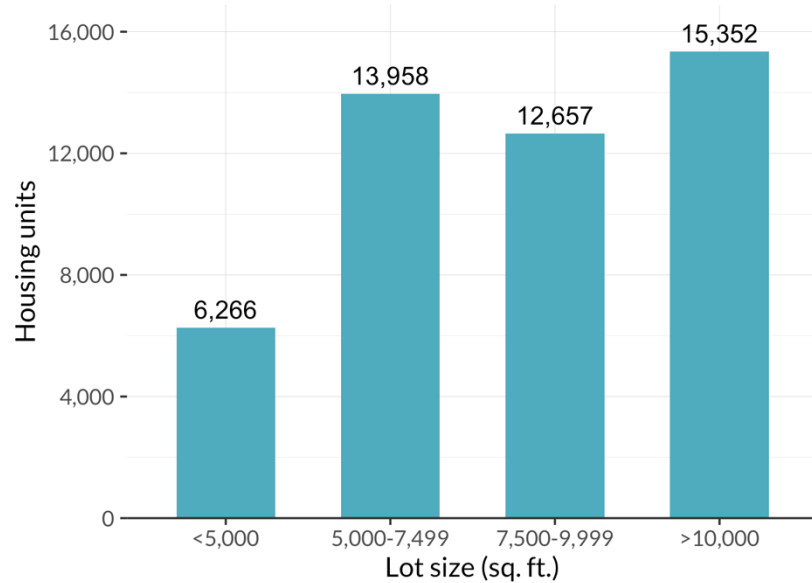
Source: Clark County Assessor, 2020.

The majority of the Study Area's single-family housing units (57%) are between 1,000 and 2,000 square feet.

Exhibit 35. Single-Family Housing Units by Square Footage, Unincorporated Vancouver UGA and Clark County, 2020

Source: Clark County Assessor, 2020.
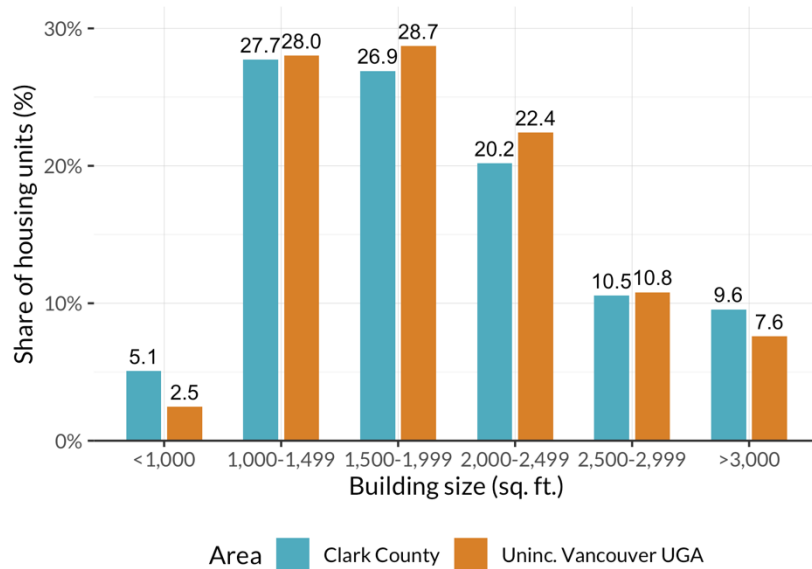
The median single-family detached house in Clark County and the Study Area has grown by just under 1,000 sq. ft. since around the 1960s, from just over 1,250 feet to around 2,250 sq. ft.

Exhibit 36. Median Building Size of Single-Family Detached Housing, Unincorporated Vancouver UGA and Clark County, Pre-1970 to 2020
Source: Clark County Assessor, 2020.
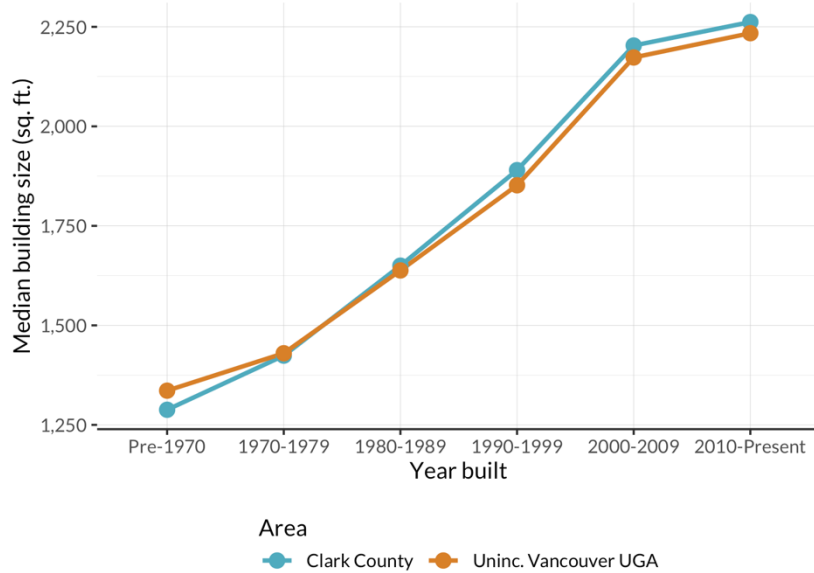
The median single-family detached lot size in the Study Area has fluctuated over the last 10 years, with a slight overall decrease to around 6,000 square feet. Median single-family detached lot sizes in Clark County, by comparison, have shown a slightly more pronounced decrease in the last 10 years, from around 7,500 square feet in 2010 to 6,500 square feet in 2020.

Exhibit 37. Median Lot Size of Single-Family Detached Housing, Unincorporated Vancouver UGA and Clark County,
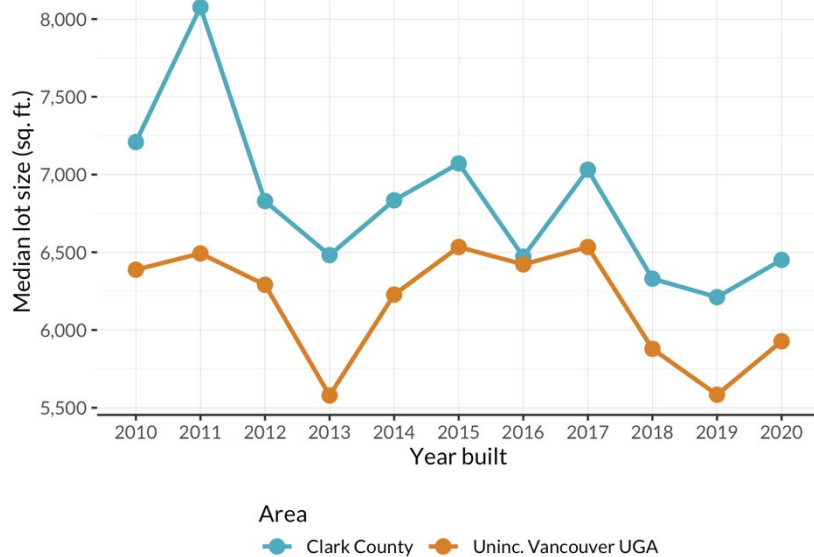
The Study Area's multifamily housing stock quality ranges from mid-range to higher-end, with just 4% of the Study Area's multifamily developments rated as functionally obsolete.

Compared to the County, the Study Area has a greater share (47% compared to 42%) of units rated with three stars or above.

Exhibit 38. Multifamily Housing Quality (Share of Costar Inventory by Costar Star Rating[17]), Unincorporated Vancouver UGA and Clark County, 2020
Source: CoStar.
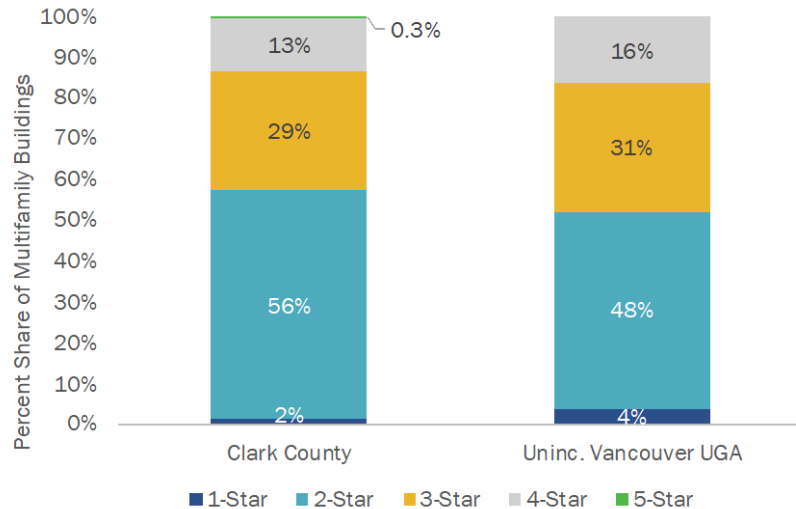
About 76% of regulated affordable units in the Study Area are one- and two-bedroom units.

Exhibit 39. Regulated Affordable Units, Unincorporated Vancouver UGA and Clark County, 2020
Source: Washington State Housing Finance Commission, Vancouver Housing Authority, U.S. Department of Housing and Urban Development, and U.S. Department of Agriculture.

	Clark County		VUGA	
	#	%	#	%
Studio units	666	12%	118	8%
1-bedroom units	2,551	44%	551	36%
2-bedroom units	1,826	32%	708	47%
3-bedroom units	614	11%	120	8%
4-bedroom units	110	2%	23	2%
Total	5,767	100%	1,520	100%

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[17] CoStar ratings consider design, amenities, certification, and landscaping among other factors—as assessed by CoStar. A five-star building represents the luxury end of multifamily buildings defined by finishes, amenities, the overall interior/exterior design and the highest level of specifications for its style (garden, low-rise, mid-rise, or high-rise). Four-star buildings are constructed with higher end finishes and specifications, providing desirable amenities to residents and are designed/built to competitive and contemporary standards. Three-star buildings are likely smaller and older with less energy-efficient and controllable systems, have average finishes, a layout conducive to compact lifestyle, and have few on-site shared facilities and spaces. Two-star buildings have small, adequate windows, average aesthetics, purely functional systems, and below-average finishes and use of space with one or no on-site shared facilities. One-star buildings are practically uncompetitive with respect to typical multifamily investors, may require significant renovation, and are possibly functionally obsolete.

Of the Study Area's regulated affordable units with known affordability characteristics (1,194 units), most (85%) are affordable to households earning 60% of AMI, suggesting a highly limited supply of housing for households that are very low- and extremely low-income.

Of Clark County's regulated affordable units with affordability characteristics (4,419 units), most (75%) are affordable to households earning 60% of AMI.

Exhibit 40. Regulated Affordable Units by AMI, Unincorporated Vancouver UGA, 2020

Source: Washington State Housing Finance Commission, Vancouver Housing Authority, U.S. Department of Housing and Urban Development, and U.S. Department of Agriculture.

Note: Housing totals in Exhibit 40 do not sum to totals in Exhibit 39 as affordability levels are not known for each regulated affordable housing development.

| Percent of AMI | Income Level | Regulated Affordable Housing | | | |
| | | Clark County | | VUGA | |
		Units	% of Total	Units	% of Total
30% AMI	$26,370	242	5%	39	3%
35% AMI	$30,765	-	0%	-	0%
40% AMI	$35,160	74	2%	15	1%
45% AMI	$39,555	15	0%	-	0%
50% AMI	$43,950	779	18%	125	10%
60% AMI	$52,740	3,309	75%	1,015	85%
Total	-	4,419	100%	1,194	100%

In addition to the supply of regulated affordable housing, the Study Area had 1,186 housing choice voucher recipients in 2020.

The Study Area has 219 adult family home facilities (with 1,220 licensed beds), 18 assisted living facilities (with 1,431 licensed beds), and three enhanced services facilities (with 36 licensed beds).

Exhibit 41. Long-Term Care Units, Unincorporated Vancouver UGA, 2020
Source: Washington Geospatial Open Data Portal. DSHS Long Term Care - Residential Care. 2020.
https://geo.wa.gov/datasets/12cacca85238434b9bf54f8e47ece35f_1
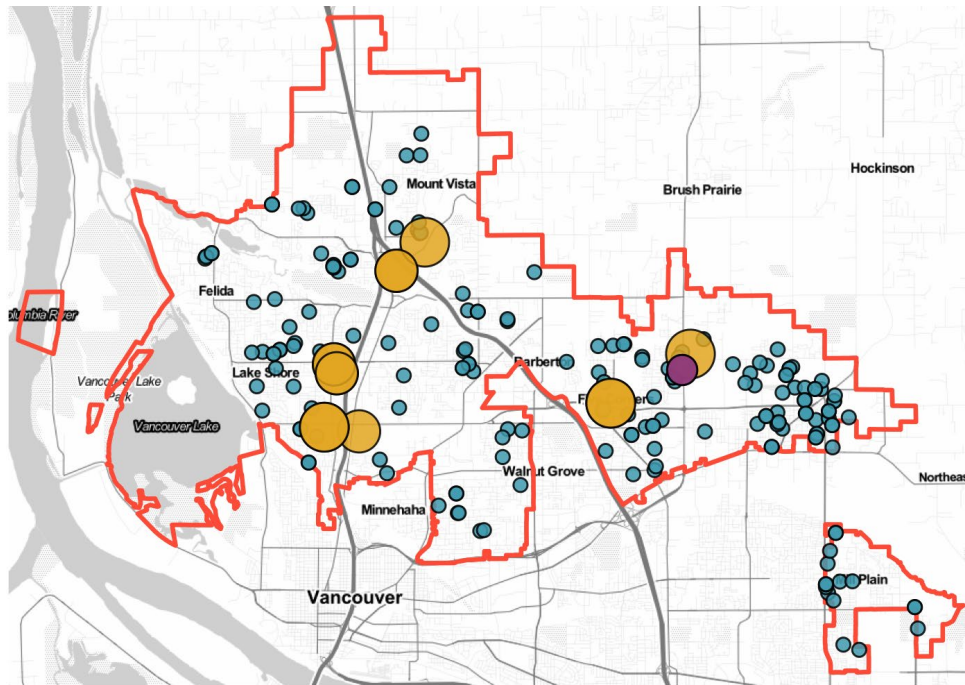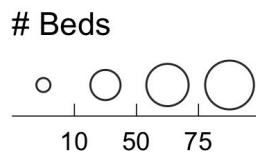
Housing Market Conditions

Both the Study Area and County have relatively few vacant units.

Vacant units comprised 3.5% of the Study Area's housing stock and 4.6% of Clark County's housing stock.

Exhibit 42. Vacancy Rates, Unincorporated Vancouver UGA and Clark County, 2018
Source: U.S. Census 5-Year ACS, 2014-2018.
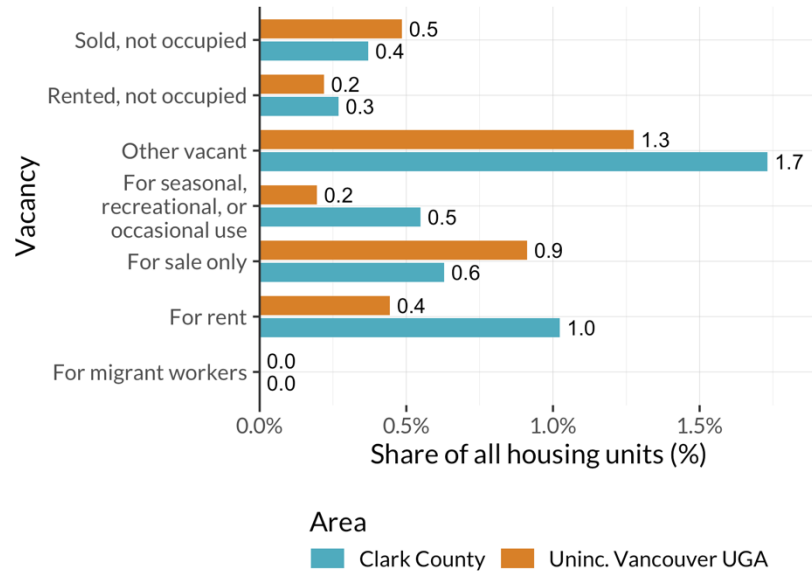
Rents have increased steadily in the Study Area since 2010.

Between 2010 and 2020, average rents in the Study Area for one- and two-bedroom units increased at an average annual growth rate of about 4% (compared to 1.2% in 2000 to 2010).

The average asking rent for a one-bedroom unit in a multifamily structure is $1,074, which is affordable to a household earning $42,960.

The average asking rent for a two-bedroom unit in a multifamily structure is $1,276, for a two-bedroom unit, which is affordable to a household earning $51,040.

Between 2015 and 2020, the average asking rent for a 1-bedroom multifamily unit increased by $186 (21% change). In this period, the average asking rent for a 2-bedroom multifamily unit increased by $216 (20% change).

Exhibit 43. Quarterly Average Asking Rental Rates for Multifamily Units, Unincorporated Vancouver UGA, 2000 Q1 through 2020 Q3
Source: CoStar.
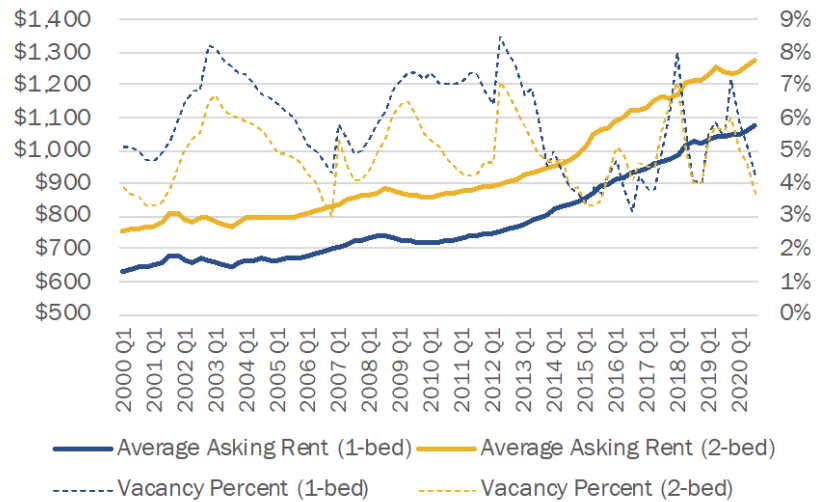
Like in Clark County, home prices in the Study Area are increasingly out of reach for middle income households looking to buy.

The real market value of single-family housing in the Study Area is greater than in Clark County when normalized by lot square footage.

The Study Area has a larger share of single-family housing units valued more than $30 per square foot compared to the County overall.

Exhibit 44. Single-Family Housing Units by Real Market Value per Lot Square Foot, Unincorporated Vancouver UGA and Clark County, 2020
Source: Clark County Assessor, 2020.
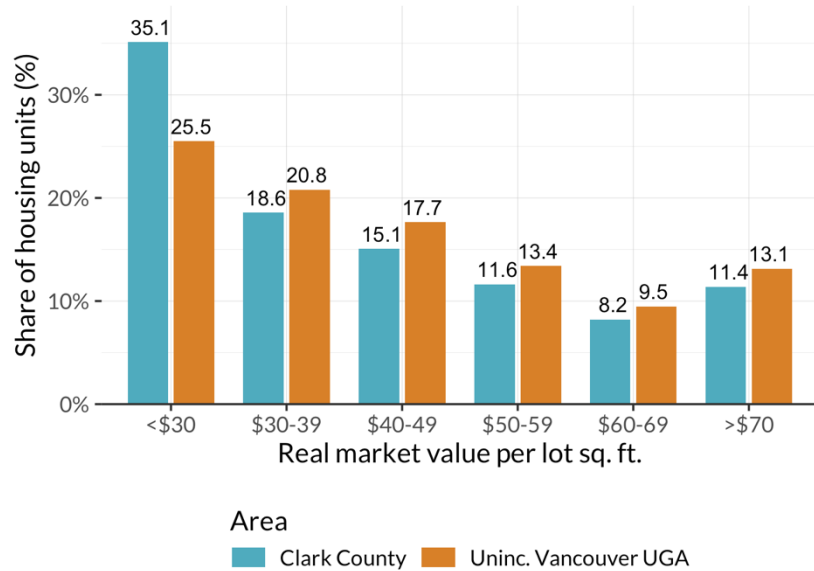
Median home sales prices in the Study Area have roughly kept pace with prices in Clark County, and have risen since 2017.

As of 2019, the median price of a home in the Study Area was about $381,000. This price is approximately affordable to a household earning about $109,000 to $127,000 per year (about 124% to 144% of AMI).

Between 2017 and 2019, the median home sale price of single-family detached homes in the Study Area increased by $25,970.

Exhibit 45. Median Home Sales Price (Single-Family Detached Units), Unincorporated Vancouver UGA and Clark County, 2017 to 2019
Source: Clark County Assessor, 2020.

Note: Prices are inflation-adjusted to 2020 dollars, and properties must have had a minimum sale price of $100,000 to be considered a market-representative transaction.
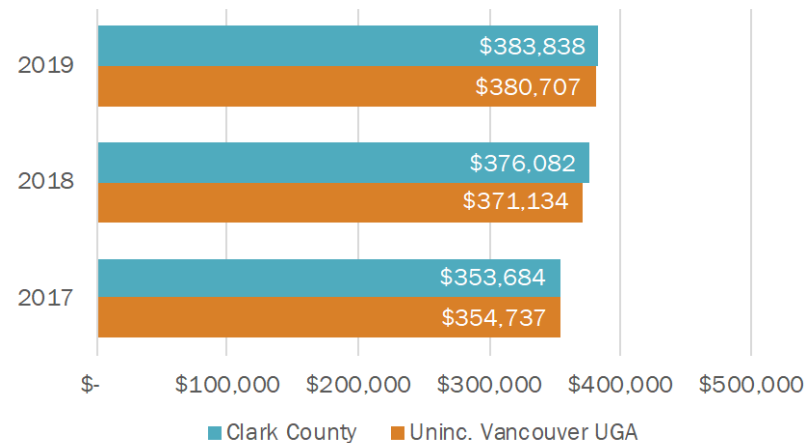
The median sale price per lot square foot of single-family homes decreased between 2008 and 2011 (during the recession) and has increased since 2011.

In the Study Area, the median home sale price per lot square foot increased from $28.96 in 2011 to $58.81 in 2019.

Exhibit 46. Median Home Sales Price per Lot Square Foot (Single-Family Detached Units), Unincorporated Vancouver UGA and Clark County, 2005 through 2019

Source: Clark County Assessor, 2020.

Note: Prices are inflation-adjusted to 2020 dollars, and properties must have had a minimum sale price of $100,000 to be considered a market-representative transaction.
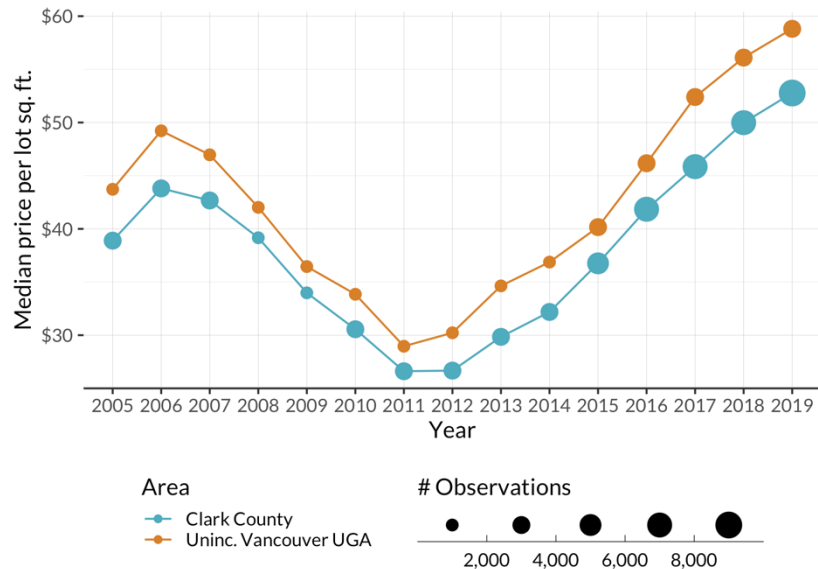
Most single-family units that are for sale in the Study Area cost $400,000 or more, which is unaffordable to many potential homebuyers.

Of the 53 single-family homes for sale in the Study Area in December 2020, asking prices ranged from $389,900 to $689,900.

The average asking price was $485,657. This price is generally affordable to a household earning between $138,700 and $161,900 (about 158% to 184% of AMI).

Exhibit 47. Single-Family Residences for Sale by Price, Unincorporated Vancouver UGA, December 2020

Source: Redfin.
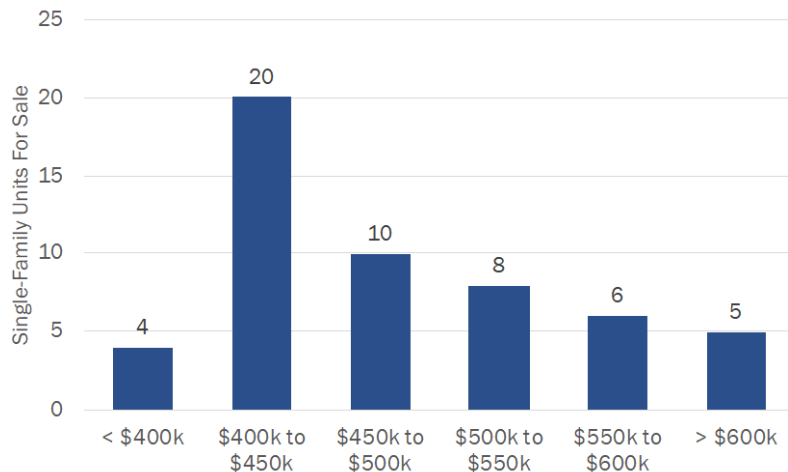
Households at the lower and middle part of the income spectrum often have no choice but to pay increasingly higher rents, because homeownership is out of reach.

Another way to look at housing affordability is to assess affordable housing costs for the broader region. For example, a household earning median family income for Clark County and the entire Portland Metropolitan Region ($87,900) can afford a monthly rent of about $2,200 or a home roughly valued between $308,000 and $352,000.

Exhibit 48. Financially Attainable Housing, by Median Family Income (MFI) for Clark County and the Portland Metropolitan Region ($87,900), 2019
Source: U.S. Department of Housing and Urban Development, Clark County and the Portland Metropolitan Region, 2019. Oregon Employment Department.

Notes: (1) MFI is Median Family Income for a Family of 4, (2) the assumed affordable monthly rent is 30% of a family's monthly salary, and (3) an affordable home sale price is assumed to be 3 to 3.5 times MFI at 50% of MFI and 3.5 to 4 times MFI at 80%, 100%, and 120% of MFI.

If your household earns....

$26,400	$44,000	$70,300	$87,900	$105,500
(30% of MFI)	(50% of MFI)	(80% of MFI)	(100% of MFI)	(120% of MFI)

Then you can afford....

$660	$1,100	$1,760	$2,200	$2,640
monthly rent	monthly rent	monthly rent	monthly rent	monthly rent
	OR	OR	OR	OR
	$132,000-$154,000	$246,000-$281,000	$308,000-$352,000	$369,000-$422,000
	home sales price	home sales price	home sales price	home sales price

Fast Food Worker $27,510

Nursing Assistant $35,090

Construction Laborer $46,430

Graphic Designer $60,750

Middle School Teacher $74,760

Insurance Sales Agent $81,450

Electrical Engineer $93,900

Computer Systems Analyst $95,780

Lawyer $123,750

The Study Area has seen increased housing construction activity.

The Study Area has seen an increase in housing production, from a low of 164 units in 2011 (during the Great Recession) to a high of 2,106 units per year in 2017.

Exhibit 49. Housing Units Constructed by Year in the Unincorporated Vancouver UGA, 2010 through 2019
Source: Clark County Assessor, 2020.
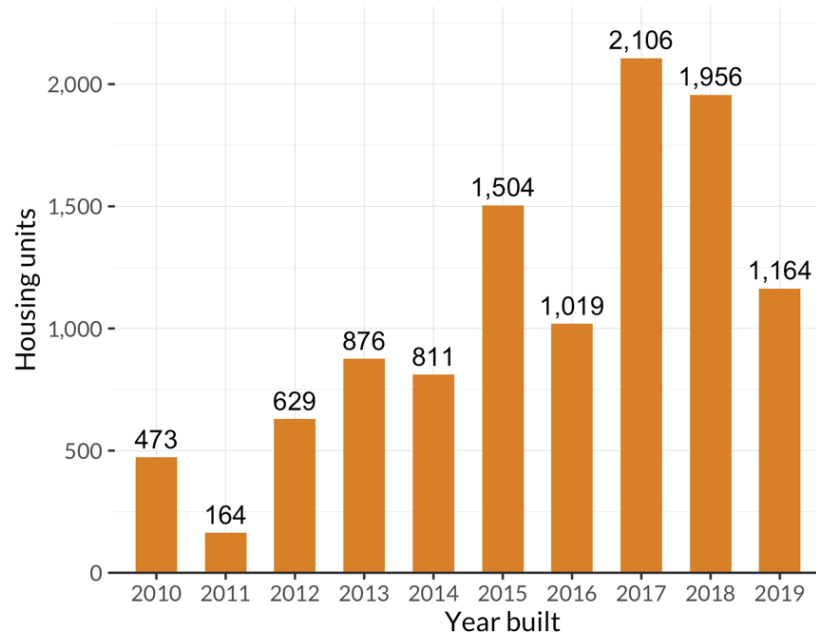
Market-Rate Affordable Housing Supply

In addition to the 1,520 units of regulated affordable housing, the Study Area also has some market-rate rental units that are affordable to households at the lower end of the income spectrum. [18] These units are sometimes called NOAHs, or Naturally Occurring Affordable Housing (see sidebar). This section identifies the Study Area and Clark County's supply of affordable housing, including housing that is affordable without government subsidy.

NOAHs are units that are affordable to households earning less than 80% of AMI but are unregulated and unrestricted by government programs. NOAH units are an important part of a community's housing stock but can be at risk of dramatic price increases because they are not regulated.

There is a low supply of housing units affordable to households at the lowest end of the income spectrum, and few of these units are larger than two bedrooms.

The Study Area is home to about 25% of the NOAH units in the County. Of the 3,747 units affordable to households earning less than 80% of AMI ($70,320) in the Study Area, about one third are affordable to household earning 50% of AMI ($43,950) or less (1,247 units). The other two thirds of NOAH units (2,500 units) are affordable to households earning between 50% and 80% of AMI.

Of the 3,747 NOAH units within the Study Area, most are two bedrooms or fewer. About 32% are studio or one-bedroom units, 53% are two-bedroom units, 12% are three-bedroom units, and 3% are 4-bedroom units. Exhibit 50 presents data on the Study Area's multifamily NOAH units (defined as units with a three-star rating in CoStar).

Multifamily units in the Study Area are an important source of naturally occurring affordable housing.

The multifamily housing stock in the Study Area totals 8,177 units. The majority of these units (71%) are affordable to households earning between 50% and 80% of AMI. Of the 8,177 multifamily NOAH units, 83% (6,828 units) are one-bedroom and two-bedroom units.

Exhibit 50. Multifamily Rental Housing Units Affordable by AMI, Unincorporated Vancouver UGA, 2020
Source: CoStar.

AMI Category	Income Range	Studio	1-Bedroom	2-Bedroom	3-Bedroom	4-Bedroom	Total
< 30% AMI	$26,370 or less	77	52	39	7	3	178
30% to 50% AMI	$26,370 to $43,950	218	1,036	700	33	15	2,002
50% to 80% AMI	$43,950 to $70,320	0	1,122	3,879	711	131	5,843
80% to 100% AMI	$70,320 to $87,900	0	0	0	154	0	154
100% to 120% AMI	$87,900 to $105,480	0	0	0	0	0	0
> 120% AMI	$105,480 or more	0	0	0	0	0	0
Total		295	2,210	4,618	905	149	8,177

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[18] Households do not need to spend more than 30% of their income on housing for it to be affordable.

Future Housing Needs

This section identifies the housing costs that different households can afford, the existing housing available to meet those needs, and the gaps between what is available and what households can afford. A detailed explanation of our methodology is included in the inset "Calculating Underproduction and Housing Need." See page 7 for an explanation of the population forecast assumptions.

Clark County will need to plan for 13,281 new dwelling units within the Study Area through 2035 to address the Study Area's underproduction of housing and develop new housing demanded by population growth.

The unincorporated UGA's population is forecast to grow by 24,989 people by 2035, from 159,457 to 184,446 people (see page 7 for an explanation of the population forecast methods).

To accommodate new growth in the unincorporated UGA, the County will need to plan for 13,281 units by 2035:

- 10,710 housing units to meet the demand from new population growth

- 2,571 housing units to address past underproduction

Of the needed units in the Study Area, about 20% are intended to address current housing underproduction and 80% are intended to address future housing need.

To meet this need, developers in the Study Area would need to build an average of 885 new dwelling units annually over the next 15 years.

Exhibit 51. Existing Housing Underproduction and Forecasted Future Housing Need, Unincorporated Vancouver UGA, 2020 to 2035
Source: OFM SAEP, Clark County.
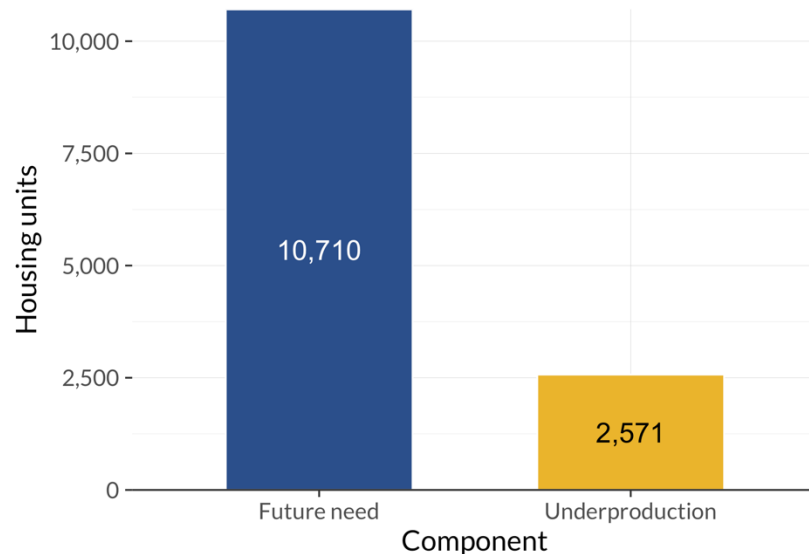
Note: Past underproduction is defined as the gap needed to be filled in order to bring the unincorporated UGA up to the same ratio of housing units to households for Clark County as a whole (about 1.03).

Exhibit 52. Total Needed Housing Units in Unincorporated Vancouver UGA by 2035
Source: OFM SAEP, Clark County, summary by ECONorthwest.

Underproduction (2020) 2,571 units	+	Future Need (2020-2035) 10,710 units	=	Total Needed Housing Units 13,281 units
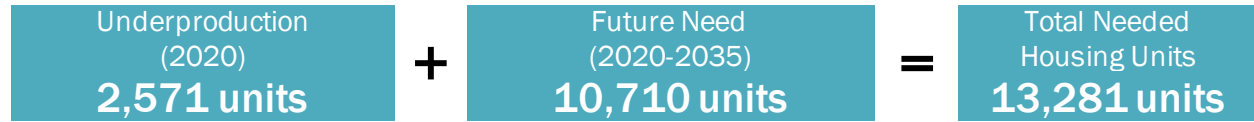
Target: # units to achieve County average ratio

Key Assumptions:
- Housing-units-to households: 0.99 (Study Area), 1.03 (County average and target ratio)
- 2.66 persons-per-household ratio
- Clark County's OFM Small Area Estimate population estimate for 2020

Target: # units needed to achieve national target ratio

Key Assumptions:
- 1.14 housing-units-to households' target ratio (national average)
- 2.66 persons-per-household ratio
- Clark County's OFM Small Area Estimate 2020 population estimate
- Adopted 2035 population forecast for Clark County

While households in the Study Area may have slightly higher incomes, the Study Area still has an unmet need for housing affordable to people across the income spectrum.

Of the 13,281 needed units within the Study Area, 15% of units (2,029) need to accommodate households earning less than 50% of AMI.

About 27% of units will accommodate households earning between 50 and 100% of AMI.

About 58% of units will accommodate households earning more than 100% of AMI.

Exhibit 53. Existing Housing Underproduction and Forecasted Future Housing Need by AMI, Unincorporated Vancouver UGA, 2020 to 2035
Source: OFM SAEP, Clark County, U.S. Census PUMS 2019.
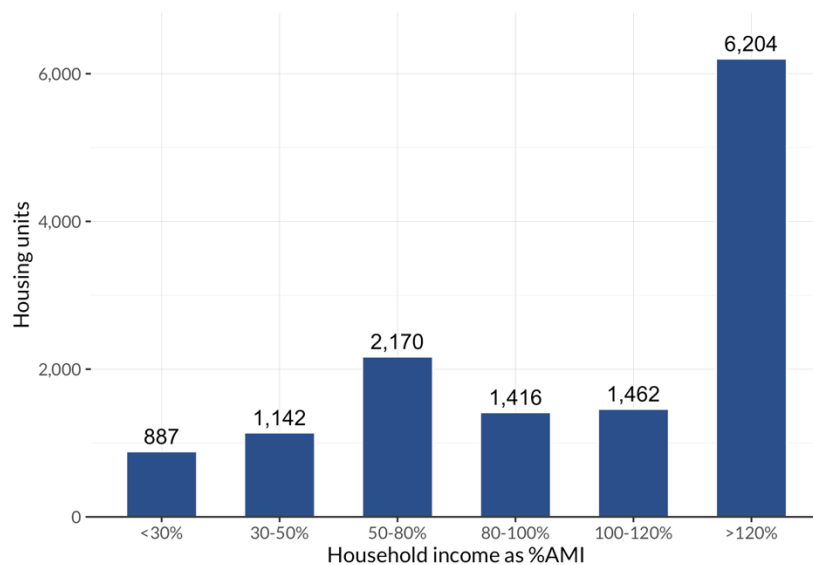
Assuming current household income trends continue, there will be a continued need for housing that is affordable to people at the low- to middle-income parts of the income spectrum. Within the Study Area, 44% percent of renter households and 23% of homeowners are cost burdened or severely cost burdened, meaning they spend more than 30% of their incomes on housing costs. Without substantial changes in housing policy to address housing costs in the area, these characteristics will continue to persist. In addition, a majority of the Study Area's residents commute outside of the area to get to their jobs—meaning they are also spending a portion of their incomes on transportation costs (further impacting household budgets). When accounting for housing and transportation cost burdening factors, ECONorthwest finds that the typical household (earning 100% of AMI) is spending 53% of their income on housing and transportation costs.

Housing Need and Housing Capacity

The County's Vacant Buildable Lands Model provides an estimate of the development potential of vacant residential lands, absent constraints, to accommodate new housing based on a range of assumptions including residential densities. Based on the 2016 VBLM Model,[19] the existing residential capacity for the Study Area (Vancouver Unincorporated Growth Area) is **20,200 housing units.**

> ECONorthwest used the results from the 2016 VBLM model because the County Council will not approve the revised VBLM model until mid-2021.

The Study Area appears to have enough housing capacity to address future housing needs, but the confluence of demographic changes with site constraints will likely require a departure from current housing production patterns. When the updates to the VBLM model is complete, the County can revisit this analysis to better ascertain the difference between housing capacity and housing need.

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[19] This number is the 2020 capacity based on the 2016 VBLM model.

Calculating Underproduction and Housing Need

ECONorthwest calculated future housing needs as the current underproduction of housing plus the future needs based on projections from the County's 2035 population projections. Without accounting for past and current underproduction, development targets focused solely on future housing needs will continue to underproduce relative to the actual need.

To calculate the underproduction and future housing need, ECO used a target ratio of developing 1.14 housing units per new household. This ratio was the national average of housing units to households in 2019. It is important to use a ratio greater than 1:1, since healthy housing markets allow for vacancy, demolition, second/vacation homes, and broad absorption trends. Using this ratio suggests that at a minimum, the jurisdiction should be hitting the national average and is preferred as the existing regional ratio may capture existing issues in the housing market (such as existing housing shortages).

Current Underproduction

ECONorthwest calculated the current underproduction of housing based on the ratio of housing units produced and new households formed over time. We first calculated the current underproduction of units in the Study Area's housing stock. We estimated the underproduction based on the ratio of housing units produced and new households formed in the Study Area over time using population data and assumptions provided by Clark County. This approach to underproduction uses the best available data that is both local and the most recent. This analysis does not differentiate between renter and owner households, account for local or regional housing preferences by type or tenure, or account for housing affordability. The steps for calculating current underproduction are as follows:

- Calculate the count of housing units and population.
- Convert population to households by using average household size of 2.66 for the County from the 2018 PUMS dataset.
- Compare the Study Area's ratio of total housing units to households (0.99) to that of the County (1.03) as the target ratio.

Future Housing Needs

We estimated the Study Area's future housing needs based on the Study Area's forecasted population growth through 2035 (see explanation on page 7), using the County's average household size of 2.66.

To allocate the units by income level, we looked at the most recent distribution of households by income level (using PUMS to determine area median income or "AMI") in the Study Area. Because forecasting incomes at the household level over time can be challenging at best, and misleading at worst, this data evaluates housing need using current income distributions forecast forward. The forecast housing need by income category at both the city level and at the subregion is likely to vary depending on policy choices made over the next 20 years. That is to say that if local jurisdictions choose to take less action on increasing housing production and affordability worsens due to demand outpacing supply, the forecast need for lower income households is likely to be less because those low-income households that are most at risk from housing price changes are more likely to be displaced from the subregion. The ultimate income distribution in 2035 will be the result of regional housing trends and policy decisions made at the local level.

Appendix A. Methodology

This analysis compares unincorporated Vancouver UGA with trends in Clark County. It identifies gaps in the housing supply based on current and projected needs.

This analysis uses applicable data sets and an analytic approach based on conversations with the Clark County team and the Project Advisory Group (PAG). To accurately project the expected housing needs in the future, the evaluation of Projected Housing Need focuses on analyzing current housing and household characteristics as well as trends relating to: housing production (by type, size and price), affordability (cost burdening by income), demographics (changes in household size, age, race and ethnicity), and employment trends (fastest growing jobs and wages).

Data Sources

To evaluate housing and demographic trends, this analysis primarily relies on data from Washington Office of Financial Management (OFM), the U.S. Census Bureau's Public Use Micro Sample (PUMS), U.S. Census Bureau's American Community Survey (ACS 2014-2018), U.S. Census Longitudinal Employer-Household Dynamics (LEHD) data, GTFS schedule databases (C-TRAN, Trimet), and the Clark County Assessor. Additional data derived from other sources included:

- **CoStar:** CoStar is a proprietary data source commonly used for market analysis in the real estate industry. While CoStar is one of the best available sources of rent and vacancy data overall, the data has gaps and limitations that make it less reliable in areas with few existing buildings. Newer buildings and those that are professionally managed are more likely to have reliable rent and vacancy information, while smaller, older buildings may have incomplete data or be missing from the system entirely. The analysis uses CoStar's multifamily datasets.

- **Redfin:** Redfin has real estate data comparable to Zillow. Redfin provided the analysis with aggregated data for housing market trends.

- **Long-Term Residential Care.** The Washington Geospatial Open Data Portal maintains a dataset of Long Term Care Adult Family Homes, Assisted Living Facilities, and Enhanced Services Facilities licensed by the Washington State Department of Social and Health Services (DSHS). It also presents the business locations of Certified Residential Service and Supports Providers and their Group Training Homes when available. The data is extracted nightly from the Washington State Department of Social and Health Services (DSHS) Aging and Long Term Support Administration's (ALTSA), Facilities Management System (FMS) and geocoded using the Washington Master Address Services (WAMAS) address correction and geocoding tool. This is the same data that is available in the lookup tools in the Residential Care Services web site with the addition of location data columns.

- **Clark County's Public Health Department** recently published an InfoMap to provide the community with resources and a new opportunity to learn about public health issues in the county. The InfoMap (which includes graphs, charts, maps, and brief discussions) convey a wide range of demographic information to tell a story about the community. For more information, visit the "Healthier Clark County InfoMap."[20]

Study Geographies

ECONorthwest and the Clark County project team identified the geographic scope of the data collection and scale of the analyses. The primary scope of the study looks at unincorporated Vancouver UGA (Exhibit 55) and Clark County, as shown in Exhibit 54.

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[20] Healthier Clark County InfoMap:
https://gis.clark.wa.gov/portal/apps/MapSeries/index.html?appid=33acdf14803e4982bcd7e046a25d748c

Exhibit 54. Study Area - Unincorporated Vancouver Urban Growth Area (VUGA)
Source: United States Census Bureau.
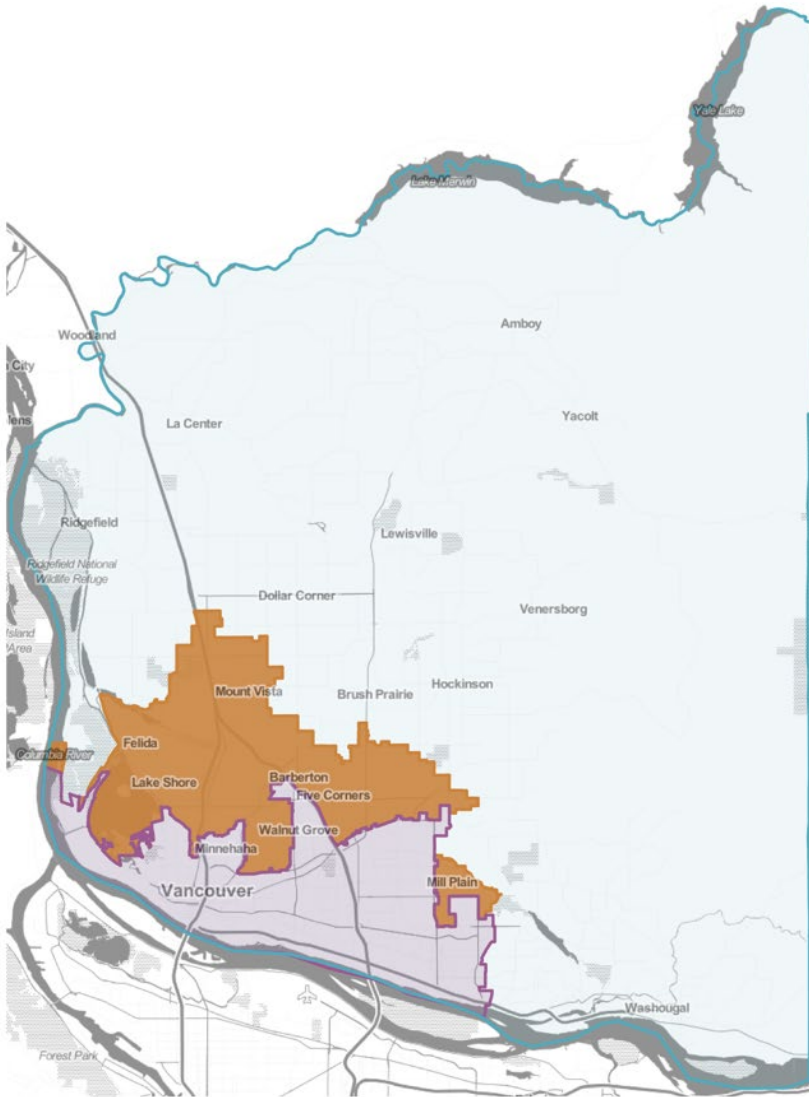
Area

- ☐ Clark County
- ☐ Incorporated Vancouver UGA
- ■ Unincorporated Vancouver UGA

To describe housing needs, this analysis uses two types of data, described below.

Public Use Microsample (PUMS) Geographic Data

To characterize housing need (demographics/income), this analysis uses Public Use Microsample (PUMS) data. PUMS enables one-year estimates to quantify household incomes

and housing costs in terms of percentages of Area Median Income (AMI), which is not possible to assess using pre-made American Community Survey tract-level data. PUMS also allows analysis of incomes and housing cost cross-tabulations (as a percent of AMI) along with analysis of household demographics such as age, race/ethnicity, and employment info, etc.

PUMS data are only available for geographies called Public Use MicroSample Areas (PUMAs) which contain about 100,000 people. Exhibit 55 shows the Study Area's PUMA geographies.

Exhibit 55. PUMA Geographies, overlaid on Unincorporated Clark County Vancouver Urban Growth Areas
Source: U.S. Census Bureau.
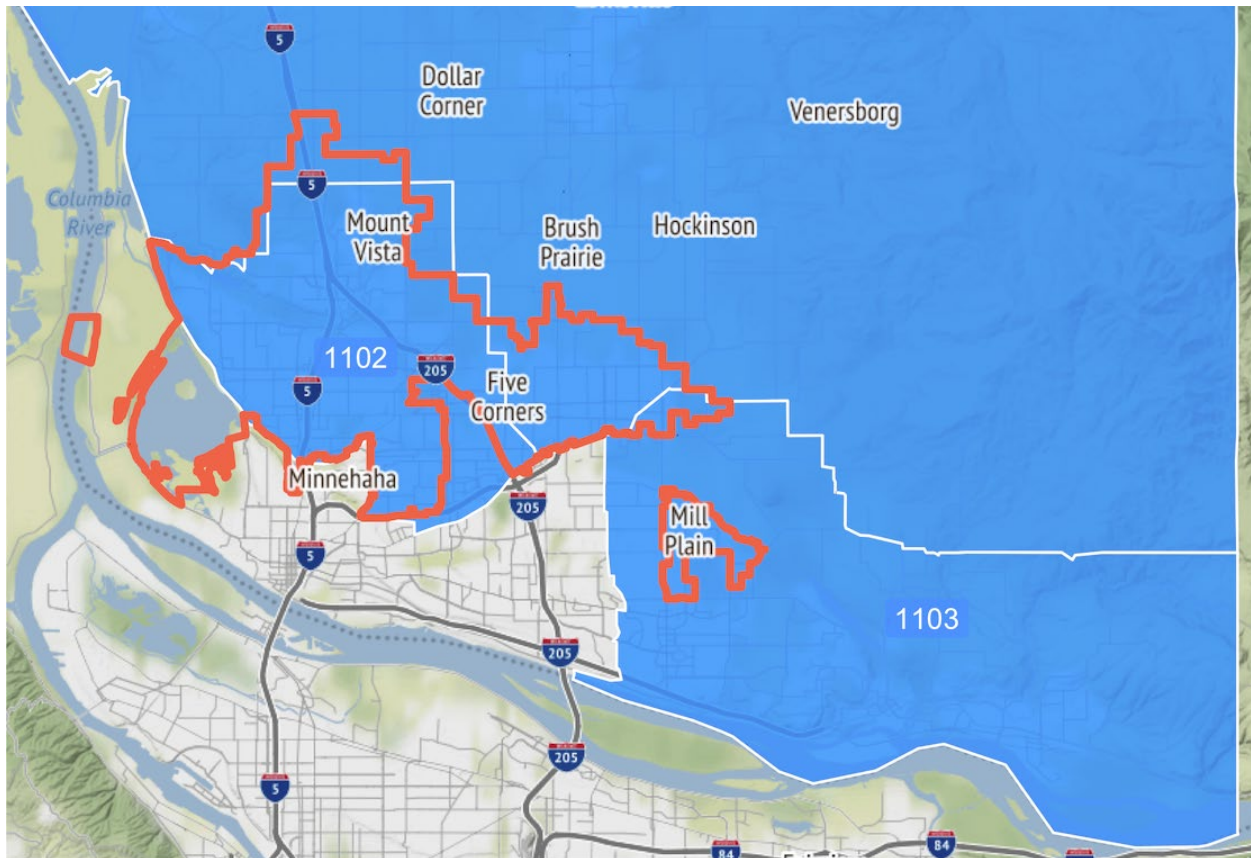
Census Tracts with ACS Geographic Data

For certain data points, the Census tracks allow for better spatial conformity with the Study Area when analyzing more basic demographic data from the ACS. The tracts used in this analysis are shown in Exhibit 56. Some of the Census Tracks (e.g., in the northern portion of the UGA) are not included in the analysis as they extend too far from the Study Area and they do not contain residential development.

Exhibit 56. Tract Geographies, Overlaid on Unincorporated Clark County Urban Growth Areas
Source: United States Census Bureau.
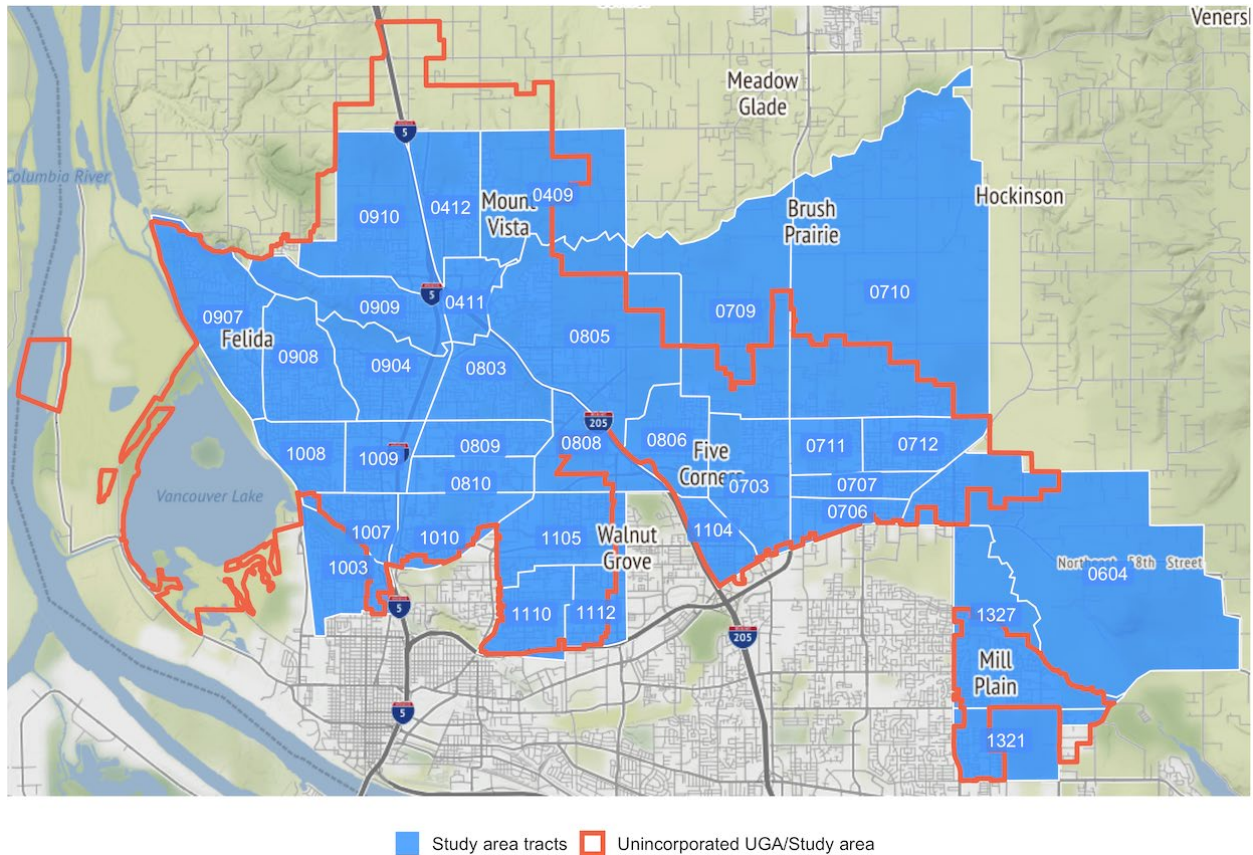
Appendix B. Glossary

Appendix B defines key terms used throughout the analysis. Many of definitions for housing types derive from Clark County's development code.[21]

- **Condominium:** An individually owned dwelling unit in a multifamily building or in a complex of homes.

- **Duplex:** A building, on a single lot, designed or used for residence purposes by not more than two (2) families, and containing two (2) dwelling units.

- **Manufactured home:** A structure constructed after June 15, 1976, in accordance with state and federal requirements for manufactured homes. These units must conform to federal Manufactured Home Construction and Safety Standards rather than to the Building Code requirements. Manufactured homes can be sited on lots or in manufactured home parks.

- **Mobile Home:** A structure constructed before June 15, 1976, transportable in one (1) or more sections, which is built on a permanent chassis, and is designed for use with or without a permanent foundation when attached to the required utilities. This structure is not a recreational vehicle.

- **Multifamily:** A building or portion thereof designed or used as a residence by three (3) or more families and containing three (3) or more dwelling units. This category of housing would include triplexes, quadplexes, and buildings with five or more units per structure.

- **Single-Family Attached:** A physically attached building designed or used for residential purposes by not more than one (1) family and containing one (1) dwelling unit only. "Attached" may mean sharing a common wall or walls that separate interior occupant space or attached garage space on separate lots.

- **Single-Family Detached:** A physically separated building designed or used for residential purposes by not more than one (1) family and containing one (1) dwelling unit only.

- **Townhome:** A form of attached single-family housing where two (2) or more dwelling units share one (1) or more common walls with other dwelling units, and with each dwelling occupying an individually owned parcel of land.

- **Unincorporated Vancouver UGA:** The analysis' Study Area.

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[21] For more information:
https://www.codepublishing.com/WA/ClarkCounty/html/ClarkCounty40/ClarkCounty40100/ClarkCounty40100070.html

Appendix D: Annual Residential, Commercial, and Industrial Development by Jurisdiction

Single Family Development by Jurisdiction (2016-2020)

Jurisdiction	Units 2016	Units 2017	Units 2018	Units 2019	Units 2020	Total Units (2016-2020)	Acres 2016	Acres 2017	Acres 2018	Acres 2019	Acres 2020	Total Acres (2016-2020)
Battle Ground	139	157	162	198	172	828	19.9	32.2	24.0	33.5	37.6	147.2
Battle Ground (U)	1	5	3	-	1	10	1.0	6.6	12.1	-	1.5	21.2
UGA Total	140	162	165	198	173	838	21	39	36	34	39	168
Camas	263	141	308	373	294	1,379	43.8	20.2	58.4	70.2	57.4	250.0
Camas (U)	-	1	-	1	-	2	-	4.7	-	0.5	-	5.2
UGA Total	263	142	308	374	294	1,381	44	25	58	71	57	255
La Center	22	23	29	83	127	284	5.2	9.5	12.3	20.0	18.8	65.8
UGA Total	22	23	29	83	127	284	5.2	9.5	12.3	20.0	18.8	65.8
Ridgefield	328	208	345	315	674	1,870	53.2	32.2	56.5	48.2	89.4	279.5
Ridgefield (U)	-	1	2	2	-	5	-	3.7	7.4	87.5		98.6
UGA Total	328	209	347	317	674	1,875	53	36	64	136	89	378
Vancouver	483	234	330	300	472	1,819	56.2	36.4	41.6	34.0	44.4	212.8
Vancouver (U)	1,009	1,365	1,633	1,164	928	6,099	158.4	193.6	269.4	173.7	153.0	948.1
UGA Total	1,492	1,599	1,963	1,464	1,400	7,918	215	230	311	208	197	1,161
Washougal	88	81	40	55	49	313	17.9	15.2	13.8	8.0	15.1	65.1
Washougal (U)	-	-	1	2	-	3	-	-	3.2	4.2	-	7.4
UGA Total	88	81	41	57	49	316	18	15	17	12	15	72
Woodland (Part)	-	-	-	-	1	1	-	-	-	-	0.2	0.2
UGA Total	-	-	-	-	1	1	-	-	-	-	0.2	0.2
Yacolt	6	32	1	7	-	46	1.6	10.2	0.3	2.3	-	14.5
UGA Total	6	32	1	7	-	46	1.6	10.2	0.3	2.3	-	14.5
Rural Clark County	228	263	375	301	244	1,411	1,362.6	1,384.7	2,402.8	1,754.1	1,597.7	8,501.9
Clark County	**2,567**	**2,511**	**3,229**	**2,801**	**2,962**	**14,069**	**1,720**	**1,749**	**2,902**	**2,236**	**2,015**	**10,617**

Source: Clark County GIS, Assessor's Data, June 2021
Note: (U) refers to the unincorporated urban area.

Multi-Family Development by Jurisdiction (2016-2020)

Jurisdiction	Units 2016	Units 2017	Units 2018	Units 2019	Units 2020	Total Units (2016-2020)	Acres 2016	Acres 2017	Acres 2018	Acres 2019	Acres 2020	Total Acres (2016-2020)
Battle Ground	191	14	-	2	2	209	8.7	2.3	-	5.2	0.1	16.3
Camas	2	120	8	344	74	548	0.2	4.6	0.7	30.8	11.6	47.9
La Center	11	6	-	-	-	17	1.0	2.1	-	-	-	3.1
Ridgefield	4	-	-	302	202	508	0.2	-	-	25.0	2.8	27.9
Vancouver	1,075	1,704	766	1,241	844	5,630	37.9	52.5	28.6	47.4	28.2	194.6
Vancouver (U)	11	520	537	47	319	1,434	2.4	28.5	26.1	2.2	15.5	74.6
Washougal	2	120	2	6	6	136	0.2	4.7	0.4	0.3	0.2	5.8
Woodland	-	-	-	-	-	-	-	-	-	-	-	-
Yacolt	-	-	-	-	-	-	-	-	-	-	-	-
Clark County	**1,296**	**2,484**	**1,313**	**1,942**	**1,447**	**8,482**	**51**	**95**	**56**	**111**	**58**	**370**

Source: Clark County GIS, Assessor's Data, June 2021

Note: (U) refers to the unincorporated urban area.

No multi-family units were created in Woodland or Yacolt.

Industrial Development by Jurisdiction (2016-2020)

Jurisdiction	VBLM Model	SQ. FT. 2016	SQ. FT. 2017	SQ. FT. 2018	SQ. FT. 2019	SQ. FT. 2020	Total SQ. FT. (2016-2020)	Acres 2016	Acres 2017	Acres 2018	Acres 2019	Acres 2020	Total Acres (2016-2020)
Battle Ground	Industrial	34,940	77,548	53,080	16,520	38,040	220,128	10	12	6	5	25	58
Camas	Industrial	-	-	-	-	148,021	148,021	-	-	-	-	8	8
La Center	Industrial	-	-	-	-	-	-	-	-	-	-	-	-
Ridgefield	Industrial	-	184,162	134,978	388,754	20,368	728,260	-	31	17	32	2	82
Vancouver	Industrial	125,781	747,501	114,345	198,476	508,788	1,694,890	34	94	25	32	28	212
Vancouver (U)	Industrial	13,084	46,440	5,580	72,844	176,374	314,322	15	7	7	46	27	102
Washougal	Industrial	24,300	35,636	49,500	-	7,600	117,036	3	3	6	-	3	14
Woodland (Part)	Industrial	-	-	-	-	-	-	-	-	-	-	-	-
Yacolt	Industrial	-	-	-	-	-	-	-	-	-	-	-	-
Clark County	Grand Total	198,105	1,091,287	357,483	676,593	899,191	3,222,657	61	146	62	114	93	476

Source: Clark County GIS, Assessor's Data, September 2021

Note: (U) refers to the unincorporated urban area.

There was no industrial development in La Center, Woodland, or Yacolt

Commercial Development by Jurisdiction (2016-2020)

Jurisdiction	VBLM Model	SQ. FT. 2016	SQ. FT. 2017	SQ. FT. 2018	SQ. FT. 2019	SQ. FT. 2020	Total SQ. FT. (2016-2020)	Acres 2016	Acres 2017	Acres 2018	Acres 2019	Acres 2020	Total Acres (2016-2020)
Battle Ground	Commercial	25,647	5,731	3,688	7,935	20,837	63,838	20	5	6	11	2	43
Camas	Commercial	19,704	-	18,725	192,742	3,359	234,530	7	-	3	19	1	29
La Center	Commercial	-	-	-	-	8,840	8,840	-	-	-	-	1	1
Ridgefield	Commercial	-	-	-	68,289	24,662	92,951	-	-	-	7	29	36
Vancouver	Commercial	68,068	393,244	521,753	636,884	509,961	2,129,909	6	24	28	21	75	153
Vancouver (U)	Commercial	118,407	41,003	103,575	100,783	110,096	473,864	18	8	18	14	7	64
Washougal	Commercial	-	22,558	5,400	5,986	11,220	45,164		4	1	1	5	11
Woodland (Part)	Commercial	-	-	-	-	-	-	-	-	-	-	-	-
Yacolt	Commercial	128	-	-	-	-	128	3	-	-	-	-	3
Clark County	Grand Total	231,954	462,535	653,141	1,012,619	688,975	3,049,224	53	40	55	73	119	340

Source: Clark County GIS, Assessor's Data, September 2021

Note: (U) refers to the unincorporated urban area.

There was no commercial development in Woodland.

Appendix E: Clark County Urban Growth Area Maps

Figure 12

Battle Ground
Urban Growth Area

Comprehensive Plan

KEY

- ··· City Limits
- ▭ Urban Growth Area

Comprehensive Plan Overlay
- ⧄ Urban Reserve
- ⧄ Urban Holding
- ⧄ Surface Mining

Comprehensive Plan
- Urban Low Density Residential
- Urban Medium Density Residential
- Urban High Density Residential
- Mixed Use
- Commercial
- Public Facility

Battle Ground

Clark County

CLARK COUNTY, WASHINGTON

NOTE: Information shown on this map was collected from several sources. Clark County accepts no responsibility for any inaccuracies that may be present.

0   0.5   1 Miles

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Camas
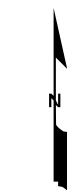Urban Growth Area
Comprehensive Plan

KEY

Incorporated Area
Urban Growth Area
County Boundary

Comprehensive Plan Overlay

Urban Holding

Comprehensive Plan

Urban Low Density Residential
Urban Medium Density Residential
Industrial
Public Facility
Parks/Open Space
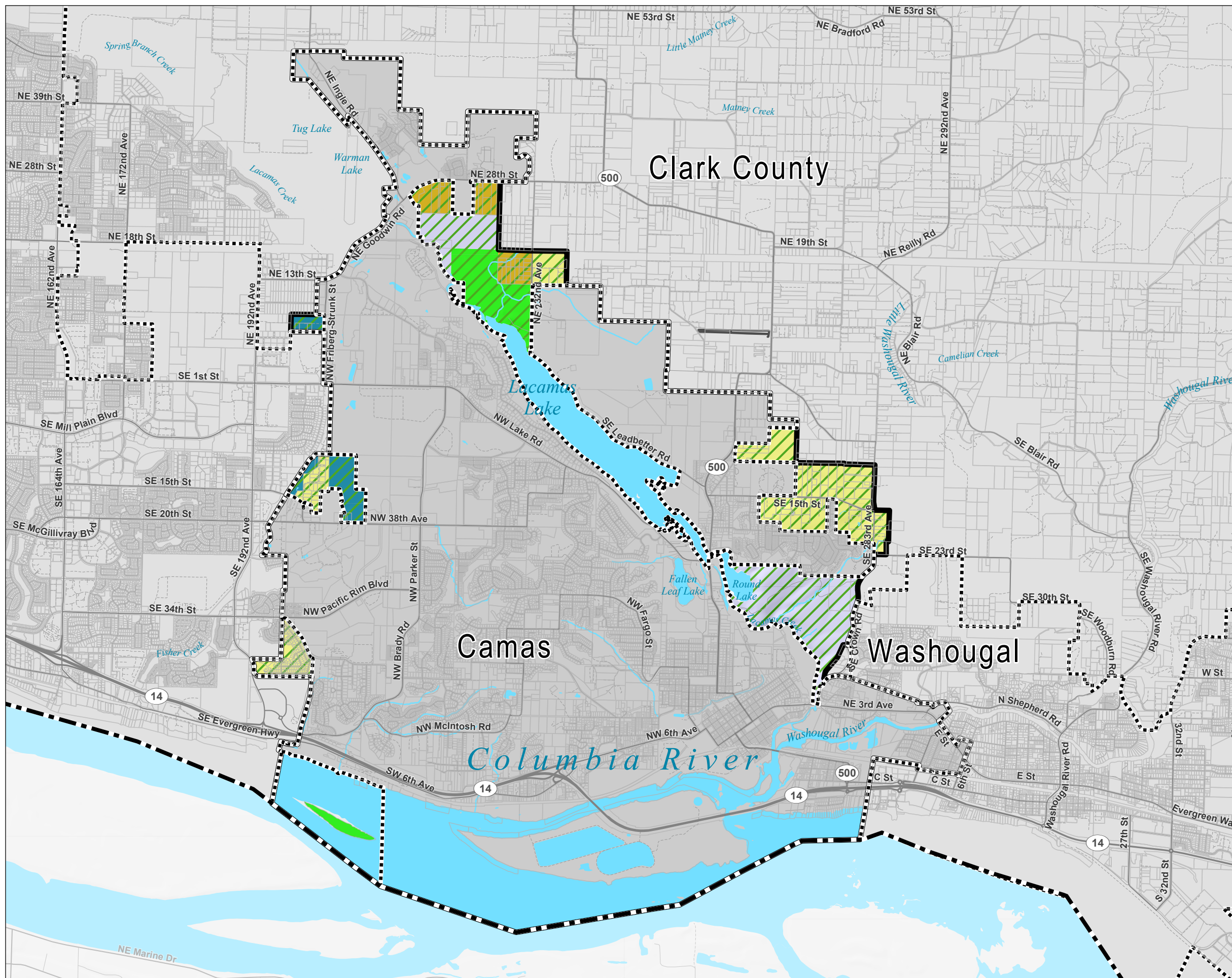
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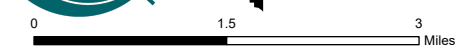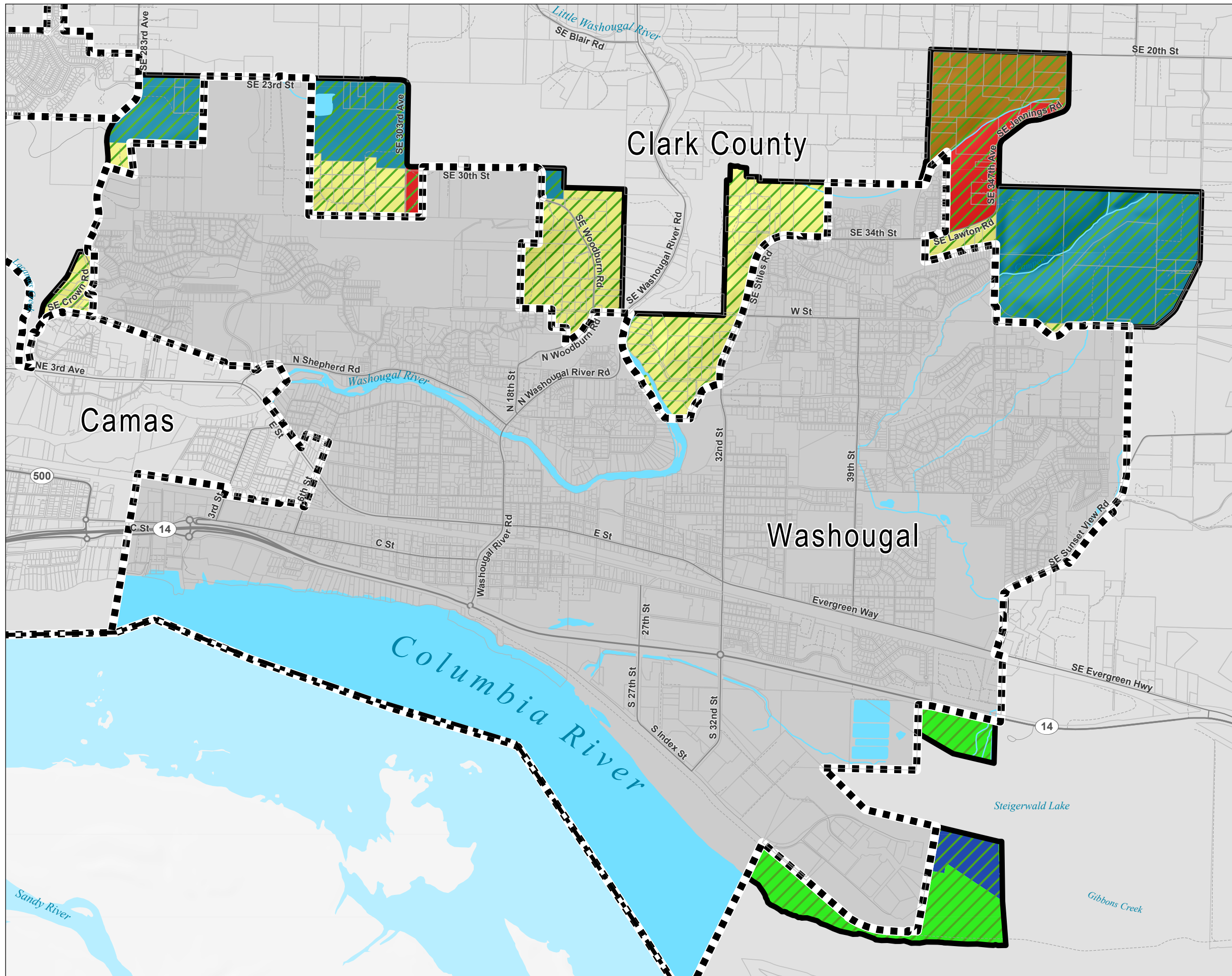
Figure 13

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**La Center
Urban Growth Area**

Comprehensive Plan

KEY
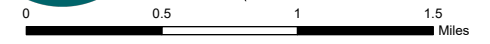
- Incorporated Area
- Urban Growth Area

Comprehensive Plan Overlay
- Urban Reserve
- Urban Holding

Comprehensive Plan
- Urban Low Density Residential
- Urban Medium Density Residential
- Parks/Open Space
- Water
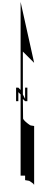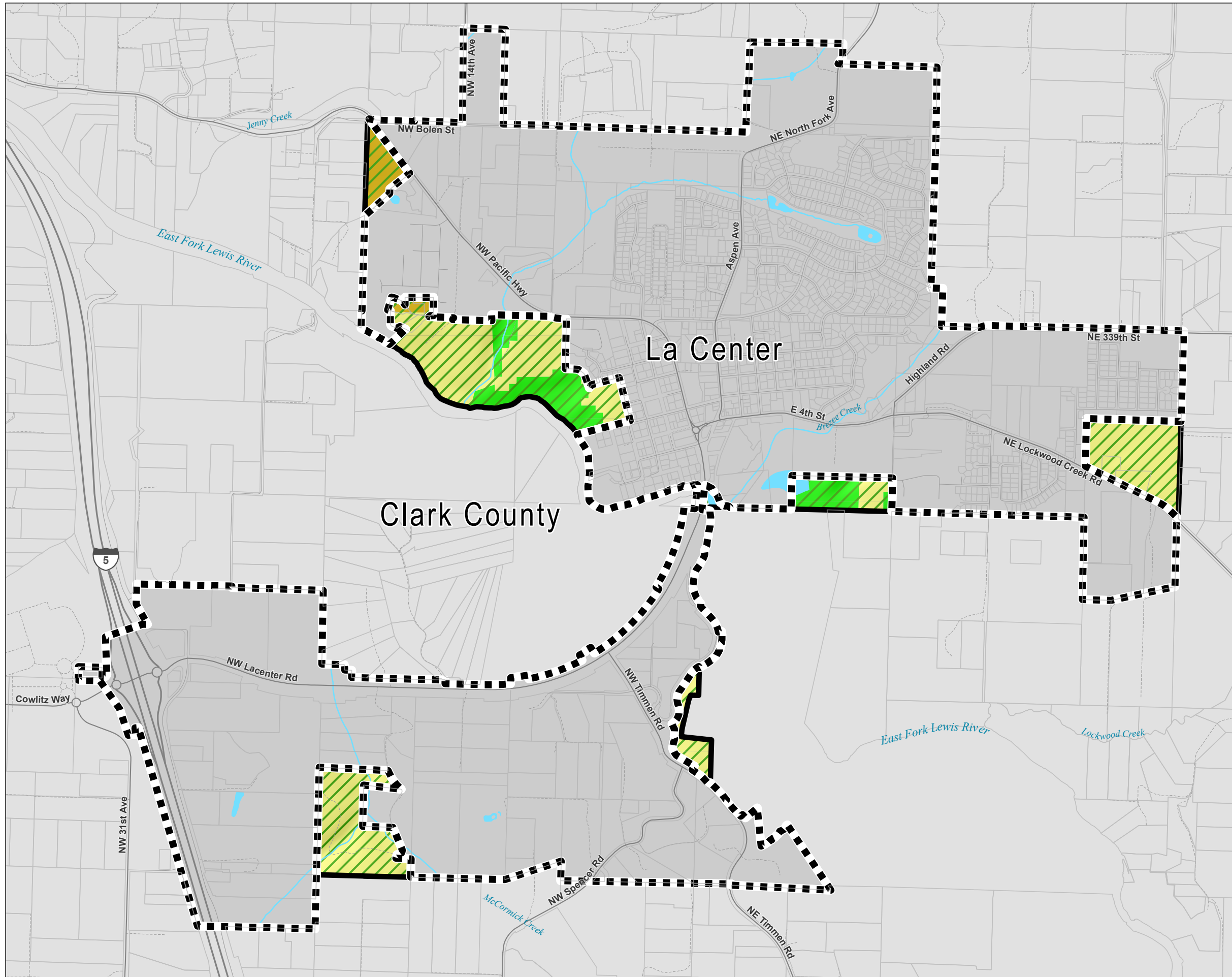
La Center

Clark County

NOTE: Information shown on this map was collected from several sources. Clark County accepts no responsibility for any inaccuracies that may be present.

CLARK COUNTY, WASHINGTON

0   0.25   0.5
Miles

Figure 14

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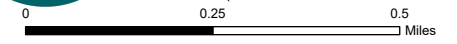
Ridgefield Urban Growth Area

Comprehensive Plan

KEY

- ▪▪▪ Incorporated Area
- ▬ Urban Growth Area

Comprehensive Plan Overlay
- ⧄ Urban Holding

Comprehensive Plan
- Urban Low Density Residential
- Urban Medium Density Residential
- Commercial
- Industrial
- Parks/Open Space
- Water
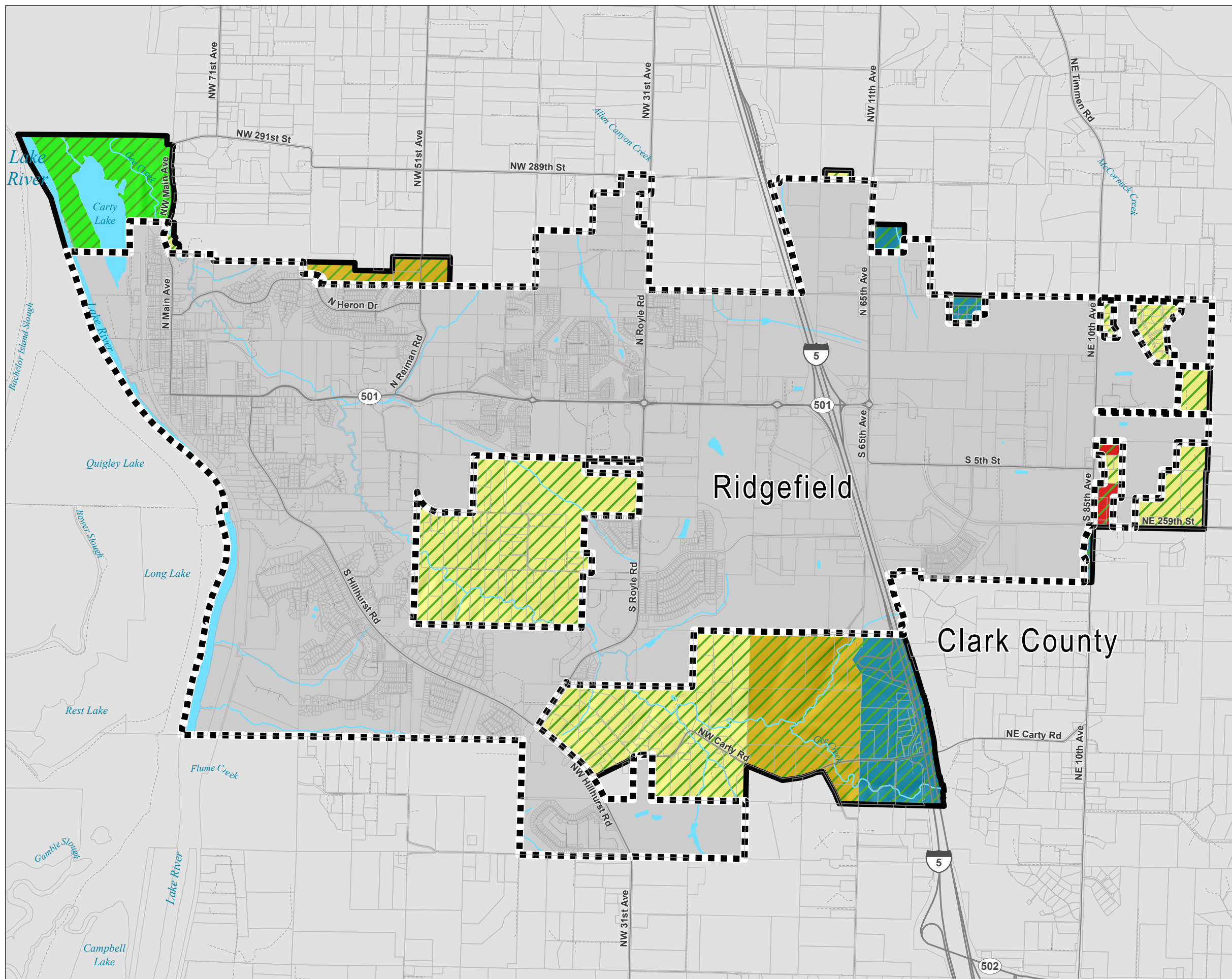
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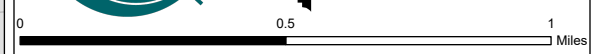
CLARK COUNTY, WASHINGTON

0   0.5   1 Miles

Figure 15

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Figure 16

Vancouver
Urban Growth Area
Comprehensive Plan

KEY
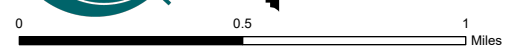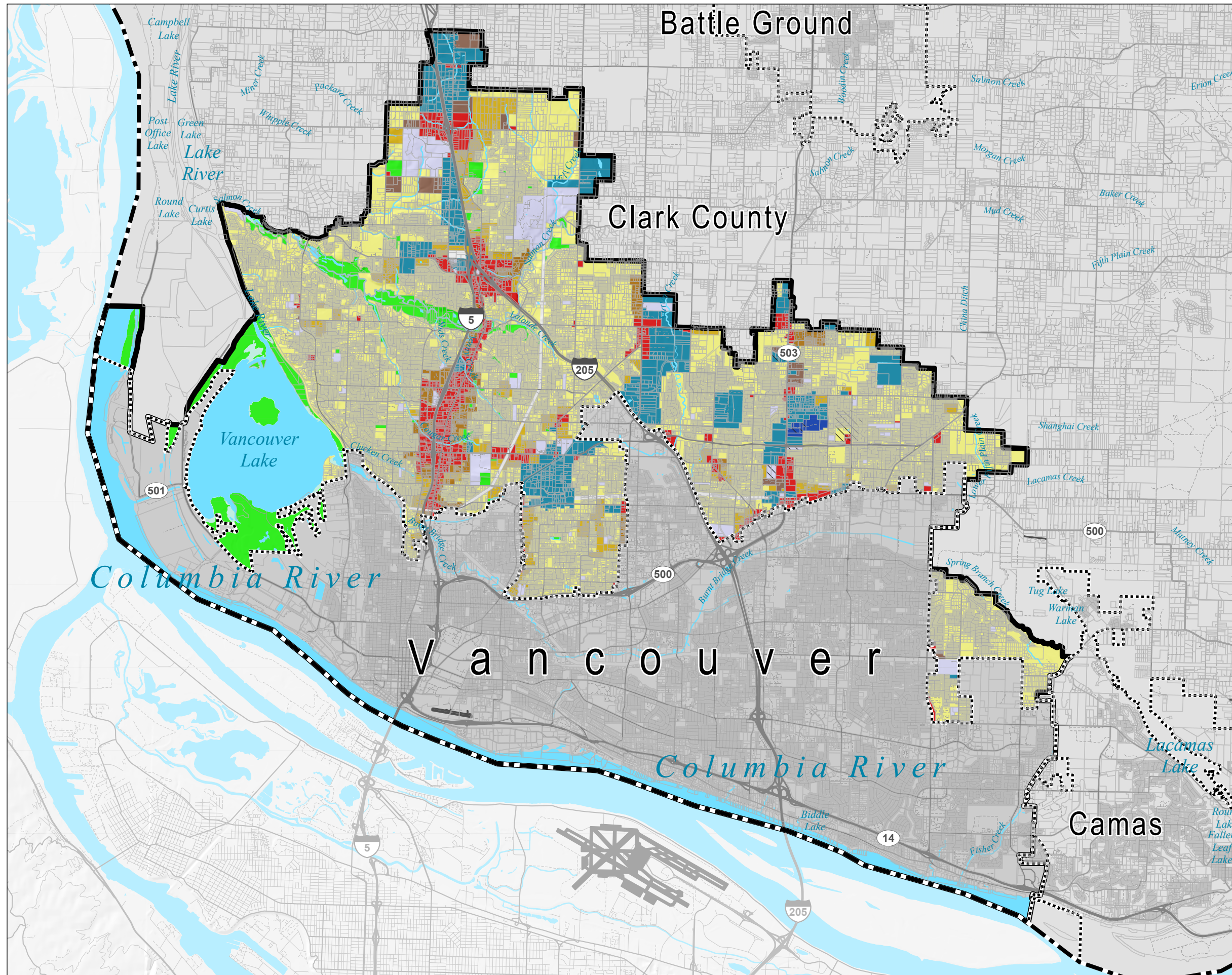
- ⌐⌐⌐ Incorporated Area
- ▭ Urban Growth Area
- ▭ County Boundary

Comprehensive Plan Overlay
- /// Railroad Industrial Urban Reserve
- /// Surface Mining

Comprehensive Plan
- Urban Low Density Residential
- Urban Medium Density Residential
- Urban High Density Residential
- Mixed Use
- Commercial
- Industrial
- Heavy Industrial
- Public Facility
- Bonneville Power Administration
- Parks/Open Space
- Airport
- Water

NOTE: *Information shown on this map was collected from several sources. Clark County accepts no responsibility for any inaccuracies that may be present.*

CLARK COUNTY, WASHINGTON

0   1.5   3 Miles

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**Washougal
Urban Growth Area**

Comprehensive Plan

KEY

- ⋯⋯ Incorporated Area
- ▭ Urban Growth Area
- County Boundary

Comprehensive Plan Overlay
- /// Urban Holding
- /// Columbia River Gorge Scenic Area

Comprehensive Plan
- Urban Low Density Residential
- Urban Medium Density Residential
- Urban High Density Residential
- Commercial
- Industrial
- Heavy Industrial
- Parks/Open Space
- Water
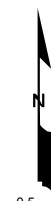
NOTE: Information shown on this map was collected from several sources. Clark County accepts no responsibility for any inaccuracies that may be present.

CLARK COUNTY, WASHINGTON

0   0.5   1 Miles

Figure 17

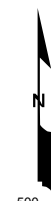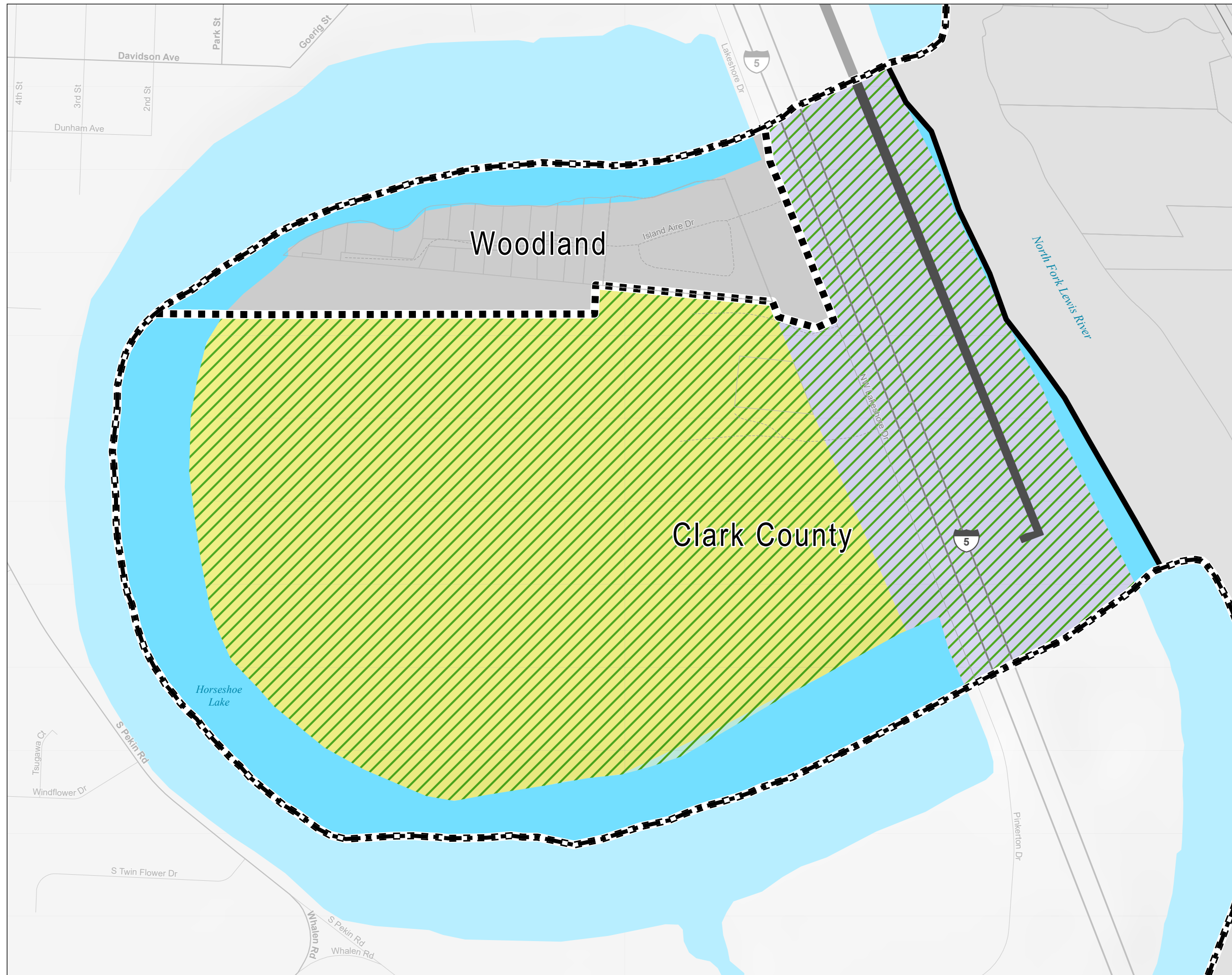\\olympus\GIS\Projects\conSrvs\CommDev\20123\2020\ComplanUpdates.aprx, Printed on: May 05, 2020

Woodland
Urban Growth Area

Comprehensive Plan

KEY

- Incorporated Area
- Urban Growth Area
- County Boundary

Comprehensive Plan Overlay

- Urban Holding

Comprehensive Plan

- Urban Low Density Residential
- Public Facility
- Water

NOTE: Information shown on this map was collected from several sources. Clark County accepts no responsibility for any inaccuracies that may be present.
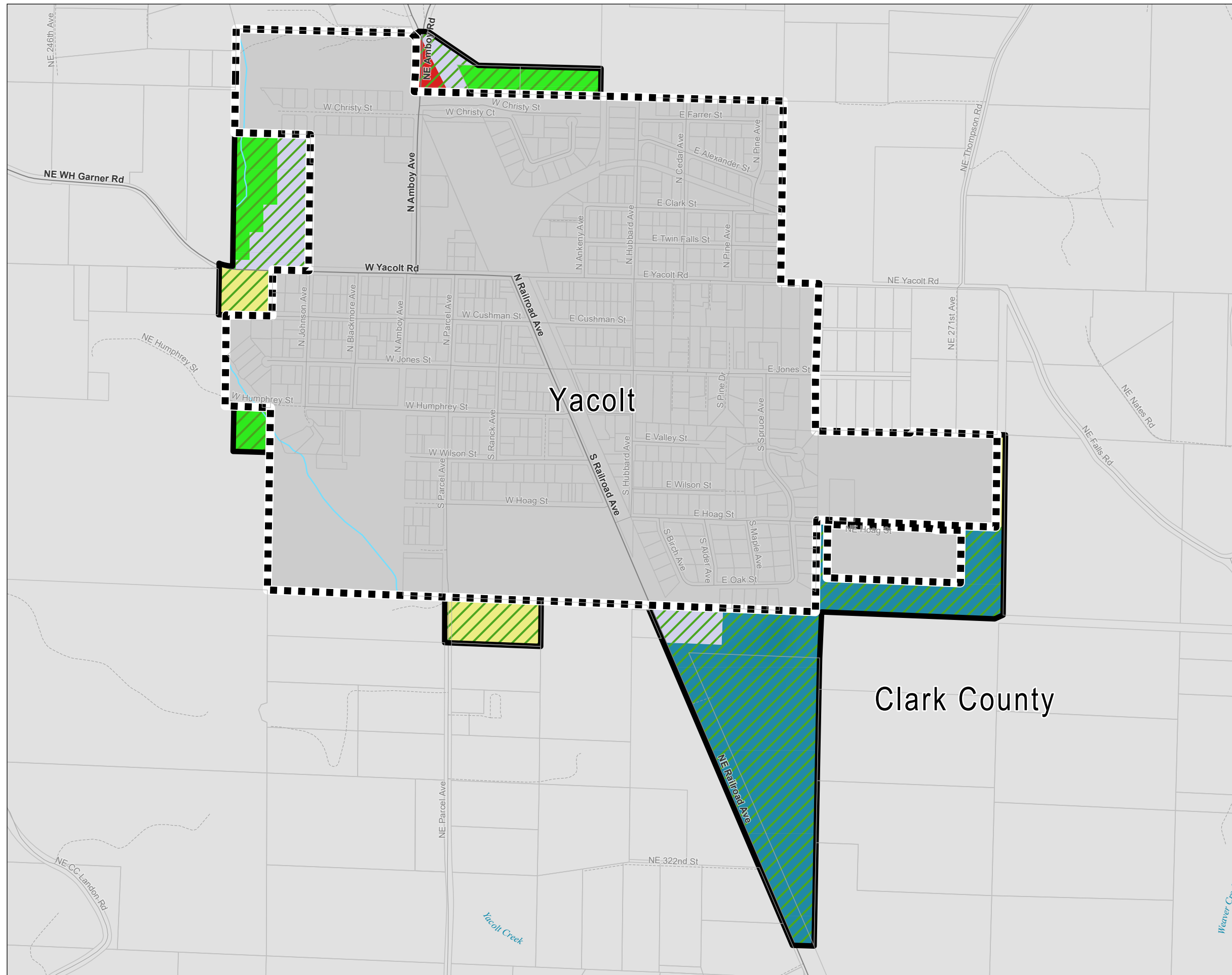
Figure 19

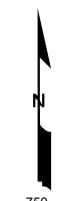\\olympus\GIS\Projects\conSrvs\CommDev\20123\2020\ComplanUpdates.aprx, Printed on: May 05, 2020

0   500   1,000 Feet

Yacolt
Urban Growth Area

Comprehensive Plan

KEY

```
┈┊┈  Incorporated Area
▭  Urban Growth Area
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Comprehensive Plan Overlay

```
///  Urban Holding
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Comprehensive Plan

- Urban Low Density Residential
- Commercial
- Industrial
- Public Facility
- Parks/Open Space

NOTE: Information shown on this map was collected from several sources. Clark County accepts no responsibility for any inaccuracies that may be present.
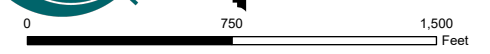
0   750   1,500
Feet

CLARK COUNTY, WASHINGTON

Yacolt

Clark County

Figure 18

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