



# Lewis County 2045

*Shaping the Future of Lewis County*

## Comprehensive Plan Periodic Update

### Land Capacity Analysis

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Final

Nov 2024

## Land Capacity Analysis (LCA) Report

The purpose of this report is to compile current results of the land capacity analysis (LCA) for Lewis County 2045 Comprehensive Plan Periodic Update. The LCA compiles current data regarding land use and development constraints such as critical areas, market factors, and existing development that may impact the overall capacity of land available in Lewis County. This information is used to determine whether the County has sufficient capacity based on available land and current zoning designations for future anticipated housing and employment growth.

### Acronyms

LCA: Land Capacity Analysis

LAMIRD: Limited Areas of More Intense Rural Development

RCW: Revised Code of Washington

UGA: Urban Growth Area

WAC: Washington Administrative Code

GMA: Growth Management Act

OFM: Office of Financial Management

### Population Growth

For the next planning cycle between 2025-2045, Lewis County is expected to increase in population by 21,505 people, or a growth rate of 25.77%. 96% of this growth is allocated to urban growth areas (UGAs) that are within incorporated city boundaries. Each city performs their own land capacity analysis to determine their capacity to accommodate the growth targets allocated to them. The growth allocated for Lewis County's unincorporated UGAs and one LAMIRD is 853 people, or a growth rate of 2%. Surrounding the city limits are pockets of unincorporated UGA that are also within the county jurisdiction and are included in the County's growth target allocation.

## Planning Context

### Growth Management Act

The Washington State Growth Management Act requires cities and counties to develop comprehensive plans and development for their communities. Some of the planning goals for the GMA, listed under [RCW 36.70A.020](#), are to encourage development in appropriate areas, reduce sprawl, and provide for housing for the community which includes a variety of housing types across multiple income brackets. To adequately assess the use of the land and the provision of housing and employment for the community, jurisdictions are required to complete a land capacity analysis as part of the comprehensive plan periodic update. The analysis accounts for all land within the jurisdictional boundary and determines how much of the land can be used to accommodate future growth in housing, employment, or other necessary public facilities. The

land capacity analysis is used to identify whether a jurisdiction currently has enough land available which is zoned appropriately to accommodate their anticipated growth for housing and employment with a 20-year population forecast that is determined by the Office of Financial Management ([WAC 365-196-325](#)).

## Growth Allocations

In December 2023, the County adopted their new growth allocations which are determined for both the unincorporated Urban Growth Areas (UGA) associated with cities in Lewis County and unincorporated areas of the county. These allocations are distilled down from the countywide population allocations produced by the Washington Office of Financial Management. Further explanation of the methodology can be found in the signed [Ordinance 1346](#).

Table 1. identifies the adopted growth allocations required by the GMA for the county to identify and accommodate for projected growth. It is important to note that Lewis County allocates the population for each city to includes both the incorporated city but also the unincorporated UGA associated with each city. In other words, Centralia’s population allocation is 24,000 people and that includes people living in the city limits and the unincorporated UGA.

This projection is used to demonstrate that adequate capacity for the population can be provided within Lewis County’s existing urban and rural areas. This is also used to demonstrate that current development regulations allow for the type of development that yields the correct housing types to accommodate for the project population growth.

LCA Table 1. Lewis County Adopted Growth Allocations

**Table 1: Lewis County 2045 Population Allocation RECONCILIATION**

City	2022 Total Population	2045 Population Allocation	20-Year Population Increase	20-Year Growth Rate
Centralia	22,376	24,000	1,624	7.26%
Chehalis	9,845	13,500	3,655	37.13%
Morton	1,302	1,351	49	3.75%
Mossyrock	906	1,058	152	16.78%
Napavine	1,969	2,978	1,009	51.24%
Pe Ell	658	680	22	3.30%
Toledo	747	2,537	1,790	239.63%
Vader	899	1,110	211	23.47%
Winlock	2,115	4,756	2,641	124.87%
<b>Total City</b>	<b>40,817</b>	<b>51,969</b>	<b>11,152</b>	<b>27.32%</b>
Onalaska UGA	562	700	138	24.56%
Packwood LAMIRDs	910	1,200	290	31.87%
Other Rural	41,157	40,479	794	2.00%
<b>Total Unincorporated</b>	<b>42,629</b>	<b>42,379</b>	<b>1,222</b>	<b>2.97%</b>
<b>Total Lewis County</b>	<b>83,446</b>	<b>94,348</b>	<b>12,374</b>	<b>13.06%</b>

Table 1. Lewis County 2045 Population Allocations, Ordinance 1346, Adopted December 2023.

Table 2. Is now required by the state under [HB 1220](#). This table will be used in the housing needs assessments to allocate the different housing types into specific income brackets. Similar to Table 1, the housing allocations for each city including housing needs with in the city limits and the unincorporated UGA associated with each city.

**LCA Table 2. Lewis County 2045 Housing Allocations**

**Table 2: Lewis County 2045 Housing Allocation RECONCILIATION**

Total 2045 Population = 94,348			Permanent Housing Needs by % of Area Median Income							Emergency Housing
			0-30%		>30-50%	>50-80%	>80-100%	>100-120%	>120%	
	Total	Non-PSH	PSH	>30-50%	>50-80%	>80-100%	>100-120%	>120%		
Unincorporated Lewis County	Estimated Housing Supply (2020)	19,519	667	25	3,146	4,704	2,798	2,016	6,163	0
	Allocation Method C (2020-2045)	570	88	38	272	68	28	23	53	21
Onalaska UGA	Portion of Unincorporated Allocation	64	27	11	88	29	3	3	6	4
Packwood LAMIRD	Portion of Unincorporated Allocation	135	61	27	184	39	7	5	13	17
City of Centralia	Estimated Housing Supply (2020)	7,593	578	14	1,614	3,154	1,153	302	778	38
	Allocation Method C (2020-2045)	758	227	184	0	0	0	134	213	78
City of Chehalis	Estimated Housing Supply (2020)	3,139	140	0	442	1,537	509	140	371	22
	Allocation Method C (2020-2045)	1,707	537	263	341	192	71	55	248	142
City of Morton	Estimated Housing Supply (2020)	506	16	0	167	221	69	8	25	0
	Allocation Method C (2020-2045)	23	5	1	4	3	2	1	7	1
City of Mossyrock	Estimated Housing Supply (2020)	322	10	0	160	108	14	7	23	0
	Allocation Method C (2020-2045)	71	16	5	12	7	5	4	23	4
City of Napavine	Estimated Housing Supply (2020)	718	11	0	135	286	120	42	124	0
	Allocation Method C (2020-2045)	471	89	28	90	75	28	32	129	16
City of Pe Ell	Estimated Housing Supply (2020)	284	6	0	90	157	9	6	16	0
	Allocation Method C (2020-2045)	10	2	1	2	1	1	1	3	1
City of Toledo	Estimated Housing Supply (2020)	303	5	0	64	152	30	13	39	0
	Allocation Method C (2020-2045)	836	92	27	139	210	125	40	202	16
City of Vader	Estimated Housing Supply (2020)	257	0	0	100	90	43	6	18	0
	Allocation Method C (2020-2045)	99	30	7	0	6	2	10	44	5
City of Winlock	Estimated Housing Supply (2020)	564	30	0	121	323	32	16	42	0
	Allocation Method C (2020-2045)	1,233	271	115	282	210	83	50	222	67
<b>Total</b>	<b>Sum of Allocations to Jurisdictions</b>	<b>5,778</b>	<b>1,357</b>	<b>670</b>	<b>1,141</b>	<b>773</b>	<b>344</b>	<b>350</b>	<b>1,144</b>	<b>352</b>
	<b>Percent of Sum of Allocations to Jurisdictions</b>	<b>100.02%</b>	<b>23.49%</b>	<b>11.59%</b>	<b>19.75%</b>	<b>13.38%</b>	<b>5.95%</b>	<b>6.05%</b>	<b>19.80%</b>	<b>6.09%</b>

Table 2. Lewis County 2045 Housing Allocations, Reconciled, 2024.

## Methodology

### Study Area

The LCA reviews all the urban growth areas outside of incorporated city limits. Each city in the county has some unincorporated UGA areas around the city limits which are combined and allocated together in Ordinance 1346 adopted by Lewis County. However, because both county and cities must complete their own land capacity analysis to adequately provide for housing and

employment as required by state law, these areas have been separated into different geographies to demonstrate that each City as well as Lewis County (through its unincorporated areas and UGAs) adequately meet their growth targets. Land capacity analysis reports from city jurisdictions are attached in this document. The County has jurisdiction over the Onalaska urban growth area and the Packwood Limited Area of More Intense Rural Development (LAMIRD), which was allocated growth in the adopted growth allocations.

### **Data Sources and Collection**

Data was collected from Lewis County agencies and all cities within Lewis County. Parcel data was collected from the Lewis County Assessor’s Office. For data that was not available, Google Maps, Streetview, and Google Earth aeriels were used to make assumptions about existing conditions on parcels.

### **Deductions**

For critical areas, including wetlands, floodways, stream, and stream buffers, GIS data was collected from the Lewis County GIS department and appropriate areas were deducted from parcels using GIS software. Public facilities were identified from the Lewis County public facilities data layer. The analysis assumes a 25% deduction of land for future infrastructure. Building permit data for recently completed development projects was not available. The County’s methodology for determining the assumed density used in the analysis is described in the following sections.

### **Achieved Densities**

The Onalaska UGA and Packwood LAMIRD had no recent development to assess achieved densities through building permit data. The historical residential properties built in the early 1900s are still used and have been remodeled or expanded. For all existing single-family homes, the achieved density was assumed to be one dwelling unit. For any property identified to have two-four units in the assessor data aerial photography and Google Streetview was reviewed and the estimated number of units were counted. For any property identified to have five or more units in the assessor data, aerial photography and Google Streetview was reviewed and the estimated number of units were counted.

### **Assumed Densities**

Due to the lack of building permit data for the unincorporated areas, the County identified a conservative assumed density using the midpoint between the minimum and maximum density permitted within each zone.

Zone	Density (Units per Acre)	Reasoning Summary
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<b>RDD</b>		Midpoint between the minimum and the maximum density allowed.
<b>RDD</b>		Midpoint between the minimum and the maximum density allowed.
<b>RDD</b>		Midpoint between the minimum and the maximum density allowed.
<b>STMU</b>	13	Midpoint between the minimum and the maximum density allowed.
<b>RM</b>	8	Midpoint between the minimum and the maximum density allowed.
<b>RH</b>	13	Midpoint between the minimum and the maximum density allowed.
<b>RL</b>	5	Midpoint between the minimum and the maximum density allowed.
<b>RVL</b>	4	Midpoint between the minimum and the maximum density allowed.
<b>MU</b>	24	Midpoint between the minimum and the maximum density allowed.

*Table 5. Assumed densities used for the Lewis County Land Capacity Analysis.*

### LCA Estimates – By UGA and Zone

Table 3 demonstrates that sufficient capacity can be provided to meet the adopted growth allocation targets, as required by RCW 36.70A.115 and WAC 365-196-325. However, to understand potential impacts to the land use element, and for the purpose of analysis in the housing needs assessment, land capacity was analyzed by zone and land use. Providing land capacity by zone and land use can assist in identifying potential regulatory barriers to development that would prevent the county from meeting population allocations. To encourage coordination with the cities and the County during the periodic update, the cities performed their own land capacity analyses as part of their comprehensive plans and submitted their results to Lewis County to include in the County’s land capacity analysis. Each land capacity analysis completed by the cities identifies the capacity of both their incorporated and unincorporated UGA to understand considerations to the land use are needed but more importantly to demonstrate that Lewis County is adequately satisfying state requirements that the land capacity analysis demonstrates sufficient land for development or redevelopment to meet their adopted growth allocations<sup>1</sup>. The Land Capacity Analysis performed by each city in Lewis County is included in the Appendix.

**Table 3, Population Growth Capacity and Allocations**, shows the growth target allocations along with determined capacity for the urban growth areas in Lewis County. The rural unincorporated

<sup>1</sup> Washington Administrative Code (WAC) 365-196-325

County lands outside of the Onalaska UGA and Packwood LAMIRD were not analyzed for housing capacity as the allocated housing growth would be satisfied through the Packwood LAMIRD and Onalaska UGA.

Jurisdiction	Population Allocation	Population Capacity	Surplus (Deficit)
Unincorporated County*			
<i>Onalaska UGA</i>			
<i>Packwood LAMIRD</i>			
Centralia			
Chehalis			
Morton			
Mossyrock			
Napavine			
Pe Ell			
Toledo			
Vader			
Winlock			
<b>Total Lewis County</b>			

**Table 3. Housing Capacity and Allocations**

Jurisdiction	Housing Allocation	Housing Capacity**	Surplus (Deficit)
Unincorporated County*	570	NA	NA
<i>Onalaska UGA</i>	64	324	2,813
<i>Packwood LAMIRD</i>	135	2,948	4,476
Centralia	758	5,234	(60)
Chehalis	1,707	1,647	1,490
Morton	23	1,513	174
Mossyrock	71	245	938
Napavine	471	1,409	1,500
Pe Ell	10	1,510	837
Toledo	836	1,673	1,024
Vader	99	1,123	2,436
Winlock	1,233	3,669	15,888
<b>Total Lewis County</b>	<b>5,778</b>	<b>21,295</b>	<b>2,813</b>

*Table 1. Population Growth Capacity and Allocations*

*\*Does not include any Municipal unincorporated UGAs*

*\*\*Housing Capacity shown is from individual jurisdiction LCAs*

Table 4. Analyzes the capacity by land use in the Onalaska UGA demonstrates the lack of available land for future multifamily housing units. These will be further analyzed in the Housing Needs Assessment to understand how the land use in the UGA can be modified to meet housing allocations for all income levels.

**Table 4. Onalaska Unincorporated UGA**

<b>Zone/Land Use Designation</b>	<b>Net Developable Acres</b>	<b>Housing Capacity</b>	<b>Population Capacity</b>	<b>Net Employment Capacity</b>
<i>Small Town Mixed Use (STMU)</i>	<b>41.54</b>	<b>324</b>	<b>804</b>	<b>754</b>
<i>Single-Family</i>	32.22	304	755	-
<i>Multifamily</i>	3.19	20	49	-
<i>Commercial Industrial</i>	5.08	-	-	525
<i>Commercial Retail</i>	3.33	-	-	229

*Table 6. Housing and Employment Capacity in the Onalaska UGA by Zone and Land Use*

Table 5. Analyzes the capacity by land use in the Packwood LAMIRDs demonstrates the lack of available land for future multifamily housing units. These will be further analyzed in the Housing Needs Assessment to understand how the land use in the UGA can be modified to meet housing allocations for all income levels.

**Table 5. Packwood LAMIRD**

<b>Zone/Land Use Designation</b>	<b>Net Developable Acres</b>	<b>Housing Capacity</b>	<b>Population Capacity</b>	<b>Employment Capacity</b>
<i>Central Business District (CBZ)</i>	7.92	187	462	-
<i>Mixed-Use (MU)</i>	30.11	692	1,717	-
<i>Residential Very Low (RVL)</i>	55.53	202	499	-
<i>Residential Low (RL)</i>	95.95	439	1,088	-
<i>Residential Medium (RM)</i>	163.57	1,144	2,843	-
<i>Residential Medium (RH)</i>	22.32	284	704	-
<i>Commercial Industrial</i>	13.65	-	-	1,412
<i>Commercial Retail</i>	17.34	-	-	1,196

*Table 7. Housing and Employment Capacity in the Packwood LAMIRD by Zone and Land Use*



The zone designations used in the land capacity analysis for the Packwood LAMIRD are new designations recently adopted by the County. These were preemptively discussed prior to the comprehensive plan periodic update to provide for sufficient land capacity for Packwood’s future growth. With these zoning designations Packwood has adequate housing to meet their populations projections.

### Employment Capacity

All the cities in Lewis County performed employment capacity estimates for their urban growth area boundaries. See attached appendixes for employment capacity estimates. For the Onalaska UGA and Packwood LAMIRD the total land classified as industrial or commercial was used for the employment calculations. It was assumed that Lewis County’s code allows for a floor area ratio of 1.0 in the UGA and LAMIRD. The commercial occupancy rate was assumed to be 95%.

<b>Onalaska UGA</b>						
<b>Net Employment Capacity</b>	<b>Net Acreage</b>	<b>Assumed FAR</b>	<b>Total Capacity (SF)</b>	<b>Net Capacity</b>	<b>Total Occupied</b>	<b>Total Emp Capacity</b>
<b>Commercial Industrial</b>	5.08	1.0	221,372	221,372	210,303	525
<b>Commercial Retail</b>	3.33	1.0	144,940	144,940	137,693	229
	8.41					754

<b>Packwood LAMIRD</b>						
<b>Net Employment Capacity</b>	<b>Net Acreage</b>	<b>Assumed FAR</b>	<b>Total Capacity (SF)</b>	<b>Net Capacity</b>	<b>Total Occupied</b>	<b>Total Emp Capacity</b>
<b>Commercial Industrial</b>	13.65	1.0	594,619	594,619	564,888	1,412
<b>Commercial Retail</b>	17.34	1.0	755,191	755,191	717,432	1,196
	30.99					2,608

### Estimated Employment Demand

The estimated employment demand was calculated based on the project housing demand and the American Survey Estimate for job status by households and family to find the average jobs per household number<sup>2</sup>.

<b>Onalaska UGA</b>	
Housing Increase	324
Assumed jobs/household	1.55

<sup>2</sup> 2022 ACS, Employment Characteristics of Families (S2302). Family and household are not counted the same by the US Census, but we used family as a proxy.

Exported November 2024

20-year employment demand	502.2
Total Employment Capacity	754
Project surplus/deficit	+252

Packwood LAMIRD	
Housing Increase	2948
Assumed jobs/household	1.55
20-year employment demand	4,569
Total Employment Capacity	2,608
Project surplus/deficit	-1,961

## Appendices

### Appendix A. GIS Assumptions and Data Limitations

The following assumptions were used when calculating total land capacity for the analysis.

#### Onalaska UGA

<b>Developable Areas</b>	
<b>Critical Areas</b>	GIS
<b>Future Public Uses</b>	Data from County
<b>Infrastructure Assumption</b>	25%
<b>Local Review of Parcels</b>	Data from County
<b>Market Adjustment (Vacant)</b>	15%
<b>Market Adjustment (Partially-Utilized)</b>	25%
<b>Min Lot Size (STMU)</b>	6,000
<b>93rd Percentile of Jurisdiction Improvement Value</b>	
<b>Density Assumption</b>	
<b>Achieved Density</b>	
<b>Assumed Density</b>	13
<b>Household Size</b>	2.63 U.S. Census Persons per Household for Pierce County (2018-2022 Estimates)
<b>Housing Occupancy Rate</b>	94.5% 2020 Decennial Census
<b>FAR Assumption (STMU)</b>	1.0
<b>Comm Occupancy Rate Assumption</b>	95%
<b>Employment Density (Industrial)</b>	400
<b>Employment Density (Commercial)</b>	650
<b>Employment Density (Retail)</b>	600
<b>Property Status Determination</b>	
<b>Vacant</b>	Improvement Value less than \$10,000 and greater than 2,400 sf in size
<b>Partially-Used</b>	Single-family only. Parcel size greater than 3x min allowed under zoning. Remove parcels with improvement value greater than 93rd percentile for jurisdiction unless first criteria is met
<b>Under-utilized</b>	Multi-family, commercial, industrial only. Single-family uses on multi-family, commercial, or industrial parcels. Ratio between improvement value and land value less than 1.0.

<b>Land Use Types</b>	
single-residential	
multi-residential	
commercial retail	
commercial industrial	

**Packwood LAMIRD**

<b>Developable Areas</b>	
<b>Critical Areas</b>	GIS
<b>Future Public Uses</b>	Data from County
<b>Infrastructure Assumption</b>	25%
<b>Local Review of Parcels</b>	Data from County
<b>Market Adjustment (Vacant)</b>	15%
<b>Market Adjustment (Partially-Utilized)</b>	25%
<b>Min Lot Size</b>	
<b>CBZ - Central Business District</b>	10,000
<b>MU - Mixed Use</b>	0
<b>RVL - Residential Very Low</b>	10,000
<b>RL - Residential Low</b>	7,500
<b>RM - Residential Medium</b>	5,000
<b>RH - Residential High</b>	
<b>93rd Percentile of Jurisdiction Improvement Value</b>	
<b>Density Assumption</b>	
<b>Achieved Density</b>	
<b>Assumed Density</b>	Took midpoint of densities shown in Packwood Plan
<b>CBZ - Central Business District</b>	24
<b>MU - Mixed Use</b>	24
<b>RVL - Residential Very Low</b>	4
<b>RL - Residential Low</b>	5
<b>RM - Residential Medium</b>	8
<b>RH - Residential High</b>	13
<b>Household Size</b>	2.63 U.S. Census Persons per Household for Pierce County (2018-2022 Estimates)
<b>Housing Occupancy Rate</b>	94.5% (2020 Decennial Census)
<b>FAR Assumption</b>	
<b>CBZ - Central Business District</b>	1.0
<b>MU - Mixed Use</b>	1.0
<b>Comm Occupancy Rate Assumption</b>	95%
<b>Employment Density (Industrial)</b>	400
<b>Employment Density (Commercial)</b>	650
<b>Employment Density (Retail)</b>	600

<b>Property Status Determination</b>	
<b>Vacant</b>	Improvement Value less than \$10,000 and greater than 2,400 sf in size
<b>Partially-Used</b>	Single-family only. Parcel size greater than 3x min allowed under zoning. Remove parcels with improvement value greater than 93rd percentile for jurisdiction unless first criteria is met
<b>Under-utilized</b>	Multi-family, commercial, industrial only. Single-family uses on multi-family, commercial, or industrial parcels. Ratio between improvement value and land value less than 1.0.
<b>Land Use Types</b>	
<b>single-residential</b>	
<b>multi-residential</b>	
<b>commercial retail</b>	
<b>commercial industrial</b>	

## Appendix B. Detailed Methodology for Lewis County

The attached methodology was established by Lewis County through the Planned Growth Committee to ensure that all jurisdictions within Lewis County used the same methodology for the Land Capacity Analysis.

## Appendix C. Centralia UGA

The attached land capacity analysis was completed by the local jurisdiction for the UGA capacity within city boundaries and the unincorporated UGA boundaries.

## Appendix D. Chehalis UGA

The attached land capacity analysis was completed by the local jurisdiction for the UGA capacity within city boundaries and the unincorporated UGA boundaries.

## Appendix E. Morton UGA

The attached land capacity analysis was completed by the local jurisdiction for the UGA capacity within city boundaries and the unincorporated UGA boundaries.

## Appendix F. Mossy Rock UGA

The attached land capacity analysis was completed by the local jurisdiction for the UGA capacity within city boundaries and the unincorporated UGA boundaries.



## Appendix G. PE EII UGA

The attached land capacity analysis was completed by the local jurisdiction for the UGA capacity within city boundaries and the unincorporated UGA boundaries.

## Appendix H. Toledo UGA

The attached land capacity analysis was completed by the local jurisdiction for the UGA capacity within city boundaries and the unincorporated UGA boundaries.

## Appendix I. Vader UGA

The attached land capacity analysis was completed by the local jurisdiction for the UGA capacity within city boundaries and the unincorporated UGA boundaries.

## Appendix J. Winlock UGA

The attached land capacity analysis was completed by the local jurisdiction for the UGA capacity within city boundaries and the unincorporated UGA boundaries.