



City of
Sherwood
Oregon

**ECONOMIC OPPORTUNITIES ANALYSIS
(OREGON STATEWIDE PLANNING GOAL 9)**

March 2023

Acknowledgments

Johnson Economics prepared this report for the City of Sherwood. Johnson Economics and the City of Sherwood thank the many people who helped to develop this document.

City Staff

Keith Campbell, City Manager
Bruce Coleman, Economic Development Manager
Erika Palmer, Planning Manager
Eric Rutledge, Community Development Director
Colleen Resch, Planning Technician

Technical Advisory Committee

Megan Thornton, Sherwood Chamber of Commerce
Daniel Bantz, Planning Commissioner
Stu Peterson, Macadam Forbes
Bret Marchant, Greater Portland Inc.
Matt Craigie, Washington County Economic Development
Suzannah Stanley, NAIOP
David Balfour, Local Area Resident/Commercial Appraiser
Kirk Olsen, Trammell Crow Company
Doug Scott, City Councilor
Leigh McIlvaine, Oregon Department of Land Conservation and Development
Colin Sears, Business Oregon
Tim Rosener, Mayor (Alternate)
Laura Kelly, Oregon Department of Land Conservation and Development (Alternate)
Adrienne Chaille, Washington County Economic Development (Alternate)

Consultants

Jerry Johnson, Johnson Economics

Table of Contents

I.	INTRODUCTION	1
II.	ECONOMIC TRENDS.....	2
	NATIONAL TRENDS	2
	PORTLAND METRO AND WASHINGTON COUNTY ECONOMIC TRENDS	6
	SHERWOOD UGB ECONOMIC TRENDS.....	12
	<i>Population and Workforce</i>	16
III.	TARGET INDUSTRY ANALYSIS.....	18
	JOBS – HOUSING BALANCE.....	18
IV.	FORECAST OF EMPLOYMENT AND LAND NEED	20
	CITY OF SHERWOOD UGB EMPLOYMENT FORECASTS	20
	<i>Overview of Employment Forecast Methodology</i>	20
	<i>Scenario 1: Safe Harbor Forecast</i>	21
	<i>Scenario 2: Sherwood Trend Forecast</i>	21
	<i>Scenario 3: Adjusted Employment Forecast</i>	22
	<i>Summary of Employment Forecast Scenarios</i>	22
	EMPLOYMENT LAND FORECAST	24
	<i>Land Demand Analysis – Adjusted Forecast</i>	24
	<i>Additional Considerations in Land Demand</i>	28
V.	BUILDABLE LANDS INVENTORY	29
	INTRODUCTION	29
	METHODOLOGY	29
	DEVELOPMENT CONSTRAINTS.....	30
	2023 LAND BASE	30
	SHORT-TERM LAND SUPPLY.....	32
	<i>Analysis of short-term supply of land</i>	32
VI.	RECONCILING FORECASTED NEED WITH CAPACITY	34
	<i>Site Needs</i>	35
VII.	ECONOMIC DEVELOPMENT STRATEGIES.....	36
	APPENDIX A – BLI METHODOLOGY	44
	2023 BLI METHODOLOGY	44
	SHORT TERM LAND SUPPLY	55
	<i>Policy context</i>	55

I. INTRODUCTION

This report summarizes an Economic Opportunities Analysis (EOA) prepared for the City of Sherwood, Oregon. The report is an update and refinement of a previously recently completed EOA adopted by the City in 2021. The City of Sherwood has seen very robust employment growth in the last few years, with the demonstrated demand for land significantly exceeding recent forecasts. This document updates the previous report with revised employment and land demand forecasts, as well as updating the employment Buildable Lands Inventory (BLI).

Cities are required to reconcile estimates of future employment land demand with existing inventories of vacant and redevelopable employment land within their Urban Growth Boundary (UGB). The principal purpose of the analysis is to provide an adequate land supply for economic development and employment growth. This is intended to be conducted through a linkage of planning for an adequate land supply to infrastructure planning, community involvement and coordination among local governments and the state.

To this end, this report is organized into six primary sections:

- **Economic Trends:** Provides an overview of national, state, and local economic trends affecting Washington County and the City of Sherwood, including population projections, employment growth and a demographic profile.
- **Target Industries:** Analysis of key industry typologies the City should consider targeting as economic opportunities over the planning period.
- **Employment Land Needs:** Examines projected demand for industrial and commercial land based on anticipated employment growth rates by sector.
- **Capacity:** Summarizes the City's inventory of vacant and redevelopable industrial and commercial land (employment land) within City of Sherwood's UGB.
- **Reconciliation:** Compares short- and long-term demand for employment land to the existing land inventory to determine the adequacy and appropriateness of capacity over a five and twenty-year horizon.
- **Economic Development Potential and Conclusions:** Summary of findings and policy implications.

II. ECONOMIC TRENDS

This report section summarizes long and intermediate-term trends at the national, state, and local level that will influence economic conditions in the City of Sherwood over the 20-year planning period. This section is intended to provide an economic context for growth projections and establish a socioeconomic profile of the community. This report's national evaluation has a focus on potential changes in structural socioeconomic conditions both nationally and globally. Our localized analysis considers local growth trends, demographics, and economic performance.

NATIONAL TRENDS

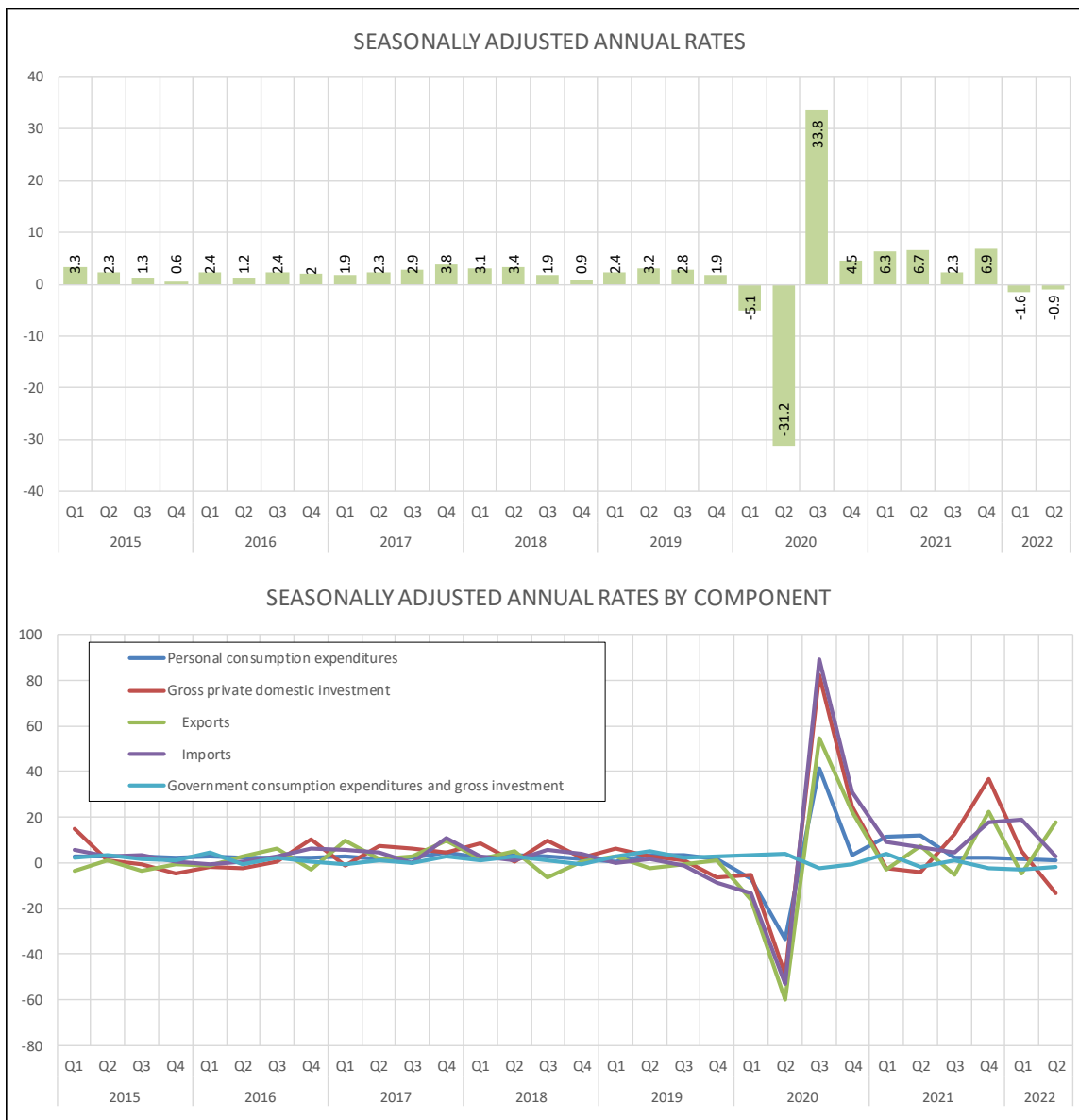
The United States enjoyed a sustained economic expansion over the last decade, which was sharply truncated by the Covid-19 pandemic in March 2020. The current economic climate is unusually volatile. Specific observed and anticipated impacts of the pandemic on the economy will be addressed later in this narrative.

At a national level there has been a shift within the economy from consumption of goods to consumption of services, especially services oriented around personal wellbeing (health, private education, finance). This is reflective of increasing levels of wealth and discretionary income in the population. At the same time, growth in fixed investment (equipment and structures) and government defense spending is moderating – making manufactured goods a less important part of the economy. While a pattern at the national level, this has not been the case in the Portland metro area.

A commonly used and reported measure of economic prosperity is real gross domestic product (GDP). Real GDP is essentially a measure of national wealth adjusted for inflation, and the increased purchasing power of the population translates into greater investment in health care, education, housing, leisure, and many other factors. U.S. real GDP expanded at an average annual rate of 2.3% from 2010 through 2019. In comparison, the average growth rate over the 1970 to 1999 period was 3.2%. The rate of growth during expansion cycles has shown a general decline over the last several cycles, but the most recent cycle was unusually consistent.

The pandemic had a pronounced impact on GDP growth, which declined sharply during the first half of 2020 and subsequently rebounded. The recovery stalled in the first half of 2022. The modest decline reflected continued elevated rates of inflation which more than offset what would have been robust GDP numbers. We are expecting higher rates to slow economic growth, but hopefully falling short of a full recession. The forecast for real GDP growth in 2022 is now closer to 1.4%, remaining below 2.0% through 2023. While two quarters of consecutive negative growth is often used to define a recession, this downturn has been atypical. Industrial production, employment, and real personal income continue to increase, but overall production has been unable to match the pace of inflation.

FIGURE 2.01: NATIONAL REAL GROSS DOMESTIC PRODUCT TRENDS



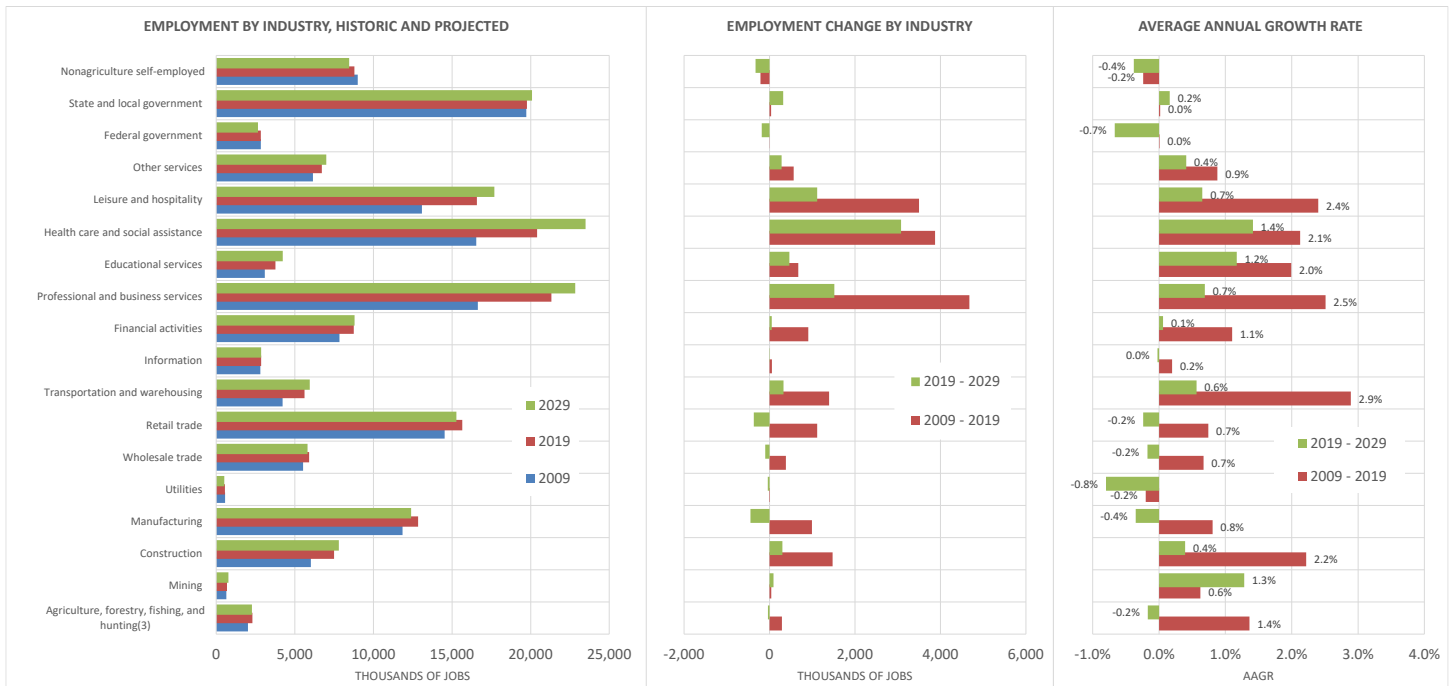
SOURCE: US Bureau of Economic Analysis

Potential GDP growth, which measures the GDP growth that can be sustained at a constant rate of inflation, indicates future long-term growth at around 2.0% per year. Over the last century, the average annual growth rate has been 1.8%, despite considerable shifts in economic and social conditions. Long-term economic growth is more related to broad trends, such as population growth and investment in physical and human capital, than temporary economic fluctuations, like the current recession and government policy.

During the last expansion cycle employment growth at the national level has been led by professional and business services, health care and social assistance, and leisure and hospitality. Robust growth was also recorded in the construction, transportation and warehousing, financial activities, and manufacturing

sectors. Federal projections anticipate future growth to be led by health care and social assistance, followed by professional and business services and leisure and hospitality.

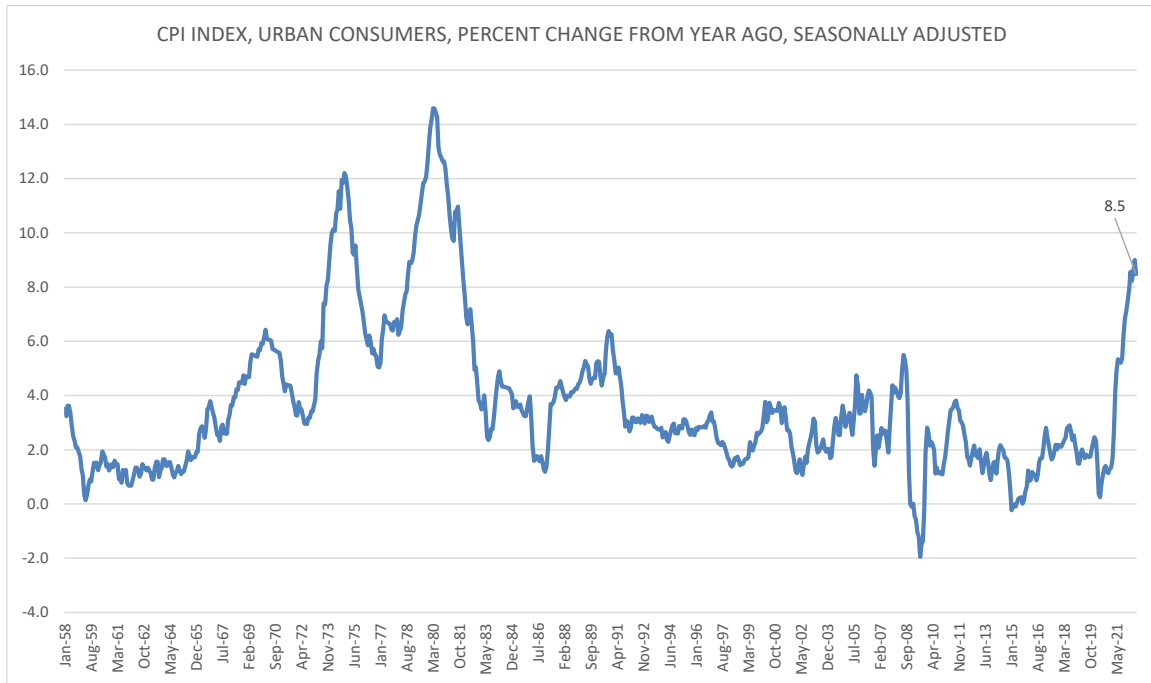
FIGURE 2.02: HISTORIC AND PROJECTED EMPLOYMENT SHIFTS BY INDUSTRY, NATIONAL



SOURCE: US Bureau of Labor Statistics

Recently inflation has arisen as the most significant issue impacting the national economy, with the consumer price index for all urban consumers (CPI-U) up 8.5% year over year. The inflationary environment has widespread implications for the economy and the real estate industry specifically. The Federal Reserve has begun to tighten in earnest, which has already had a significant impact on interest rates. As the Fed intervenes in the markets to try to offset inflationary pressure, short- to mid-term forecasts of economic activity will be unusually difficult.

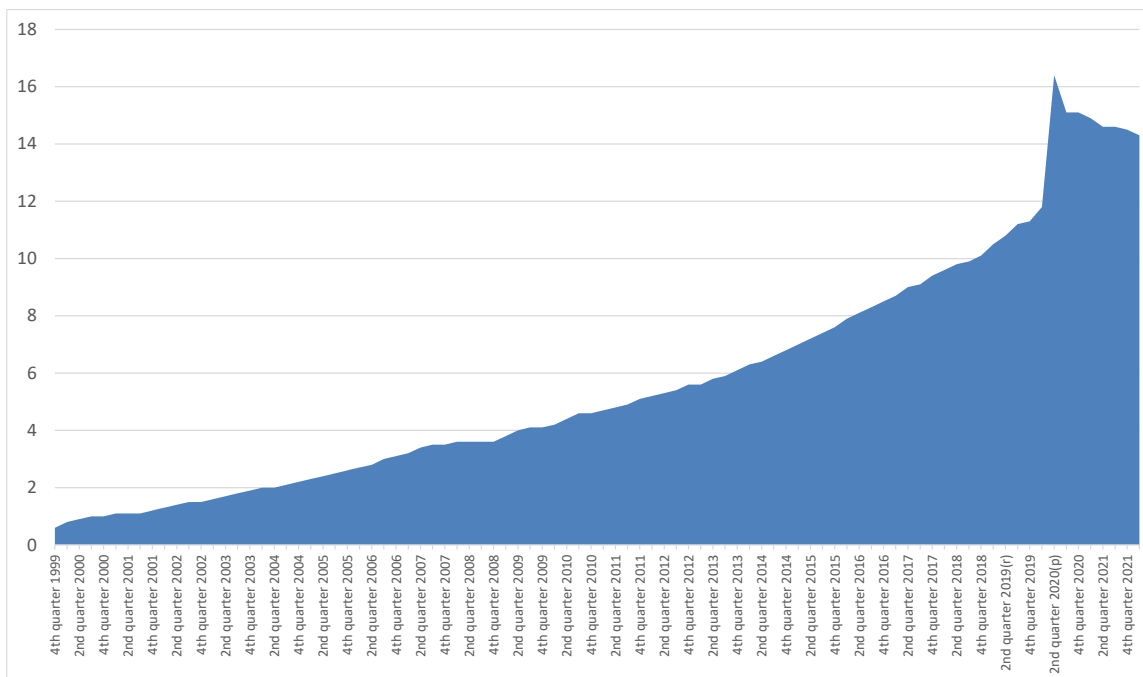
FIGURE 2.03: CPI INDEX, URBAN CONSUMERS, PERCENT CHANGE FROM YEAR AGO



SOURCE: US Department of Commerce

The dramatic spending shift in the context of real estate in recent times has been the growth in online shopping, which has reduced the overall need for brick-and-mortar space, especially from retailers selling physical goods. During the height of the pandemic, e-commerce predictably saw a huge rise in retail sales, peaking at over 16% of total retail sales in the United States. As stores have been reopening, this trend is beginning to fall. However, e-commerce sales numbers are still substantially higher than they were before the pandemic, potentially signaling a long-term shift towards more e-commerce activity.

FIGURE 2.04: E-COMMERCE AS A PERCENT OF TOTAL RETAIL SALES, UNITED STATES



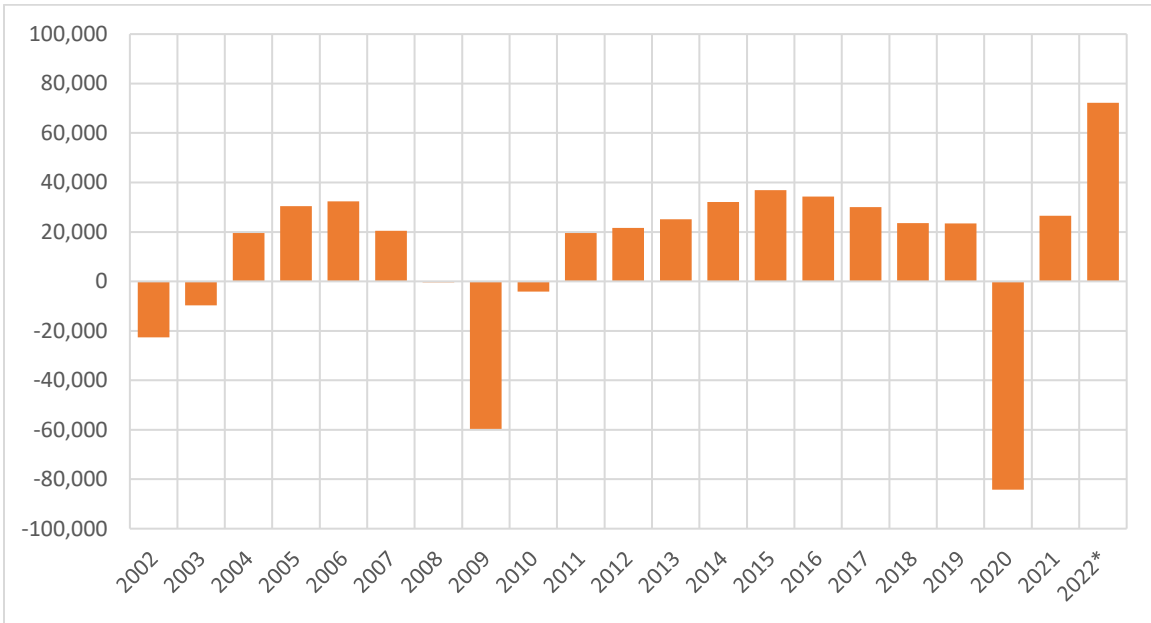
SOURCE: Retail Indicators Branch, US Census Bureau, JOHNSON ECONOMICS

This pattern has been reflected in the State of Oregon, with e-commerce employment increasing at the expense of brick-and-mortar retail employment. This is causing a shift in storage needs from retail stores to warehouses and distribution centers. At the same time, automation is causing a consolidation within the warehousing and distribution industry, leading to increasing reliance on larger third-party operators able to make heavy investments in capital and expertise. Automation is also impacting the manufacturing industry, though to a lesser extent and primarily among larger industry leaders. Finally, changes in the use of electronic devices and growth in online services are causing a shift in the tech sector, from hardware manufacturing to software development.

PORTLAND METRO AND WASHINGTON COUNTY ECONOMIC TRENDS

Employment growth in the Portland metropolitan area has been robust, with employment levels during the first half of 2022 running over 72,000 higher than the same period in 2021. While much of this gain can be attributed to a continued opening of the economy, local employment now exceeds the pre-pandemic levels. The Portland metro area has consistently outperformed the nation as well as the State of Oregon over the last decade. Most sectors are now above their February 2020 employment levels, although educational services, government, and leisure & hospitality have yet to regain their recent losses. The metro area has seen significant strength in construction, professional and business services, and manufacturing.

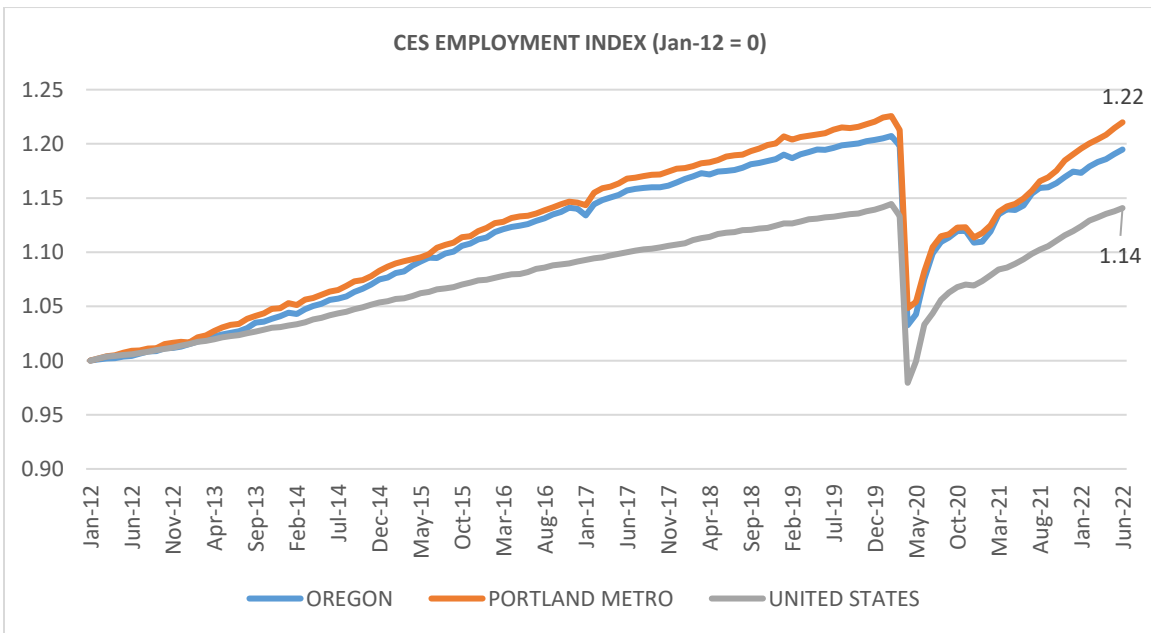
FIGURE 2.05: AVERAGE EMPLOYMENT CHANGE BY YEAR, PORTLAND METRO AREA



• Annualized based on data through June 2022
 SOURCE: Oregon Employment Department, JOHNSON ECONOMICS

The Portland metro area has consistently outperformed the nation and state in terms of employment growth, with employment levels up an estimated 22% over the last decade (compared to 14% at the national level). The local employment base is now above its' pre-pandemic high.

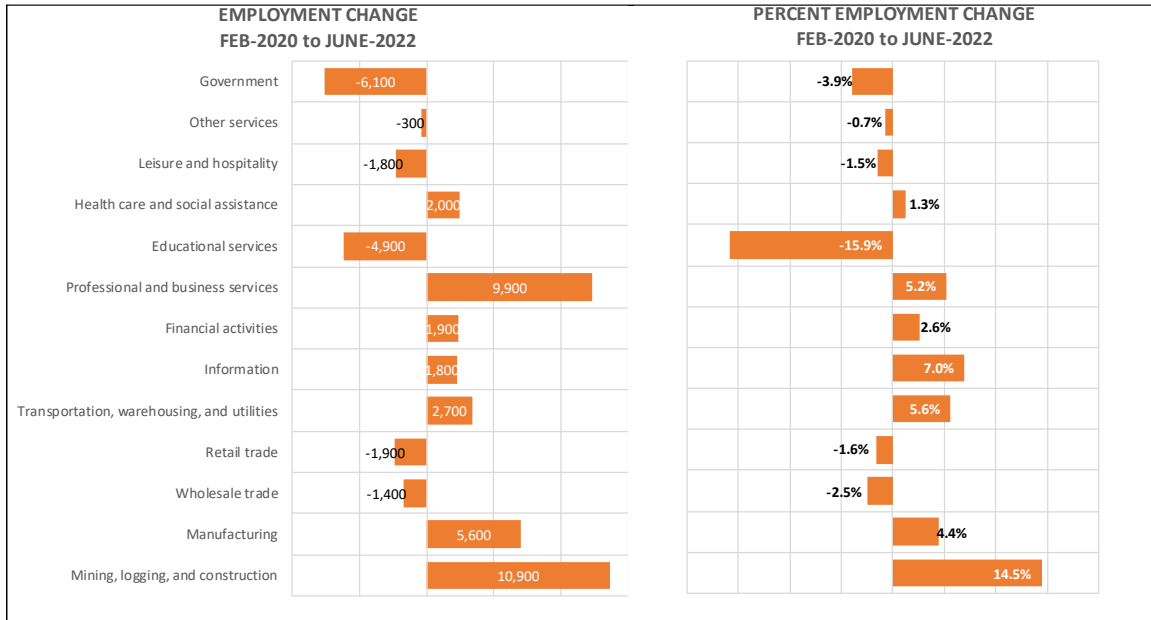
FIGURE 2.06: COMPARISON OF RELATIVE EMPLOYMENT CHANGE OVER TIME



SOURCE: Oregon Employment Department, JOHNSON ECONOMICS

Employment growth since February 2020 has been led by construction, professional and business services, and manufacturing. Employment remains below pre-pandemic levels in government, educational services, leisure and hospitality, and trade.

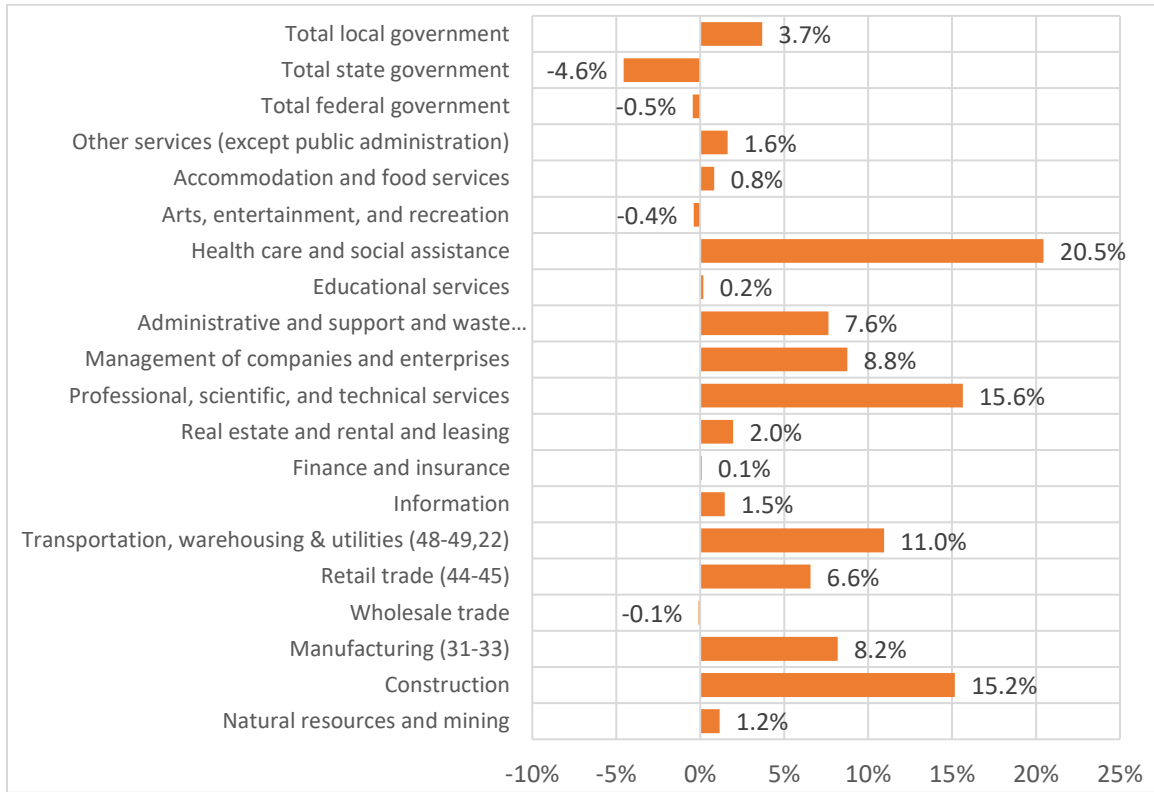
FIGURE 2.07: EMPLOYMENT SHIFTS BY INDUSTRY SINCE PANDEMIC START



SOURCE: Oregon Employment Department, JOHNSON ECONOMICS

Over the last decade, the metro area has seen robust growth in health care, professional and technical services, and construction. The area has also seen strong growth in manufacturing and transportation, warehousing, and utilities. These sectors are major drivers of industrial land demand.

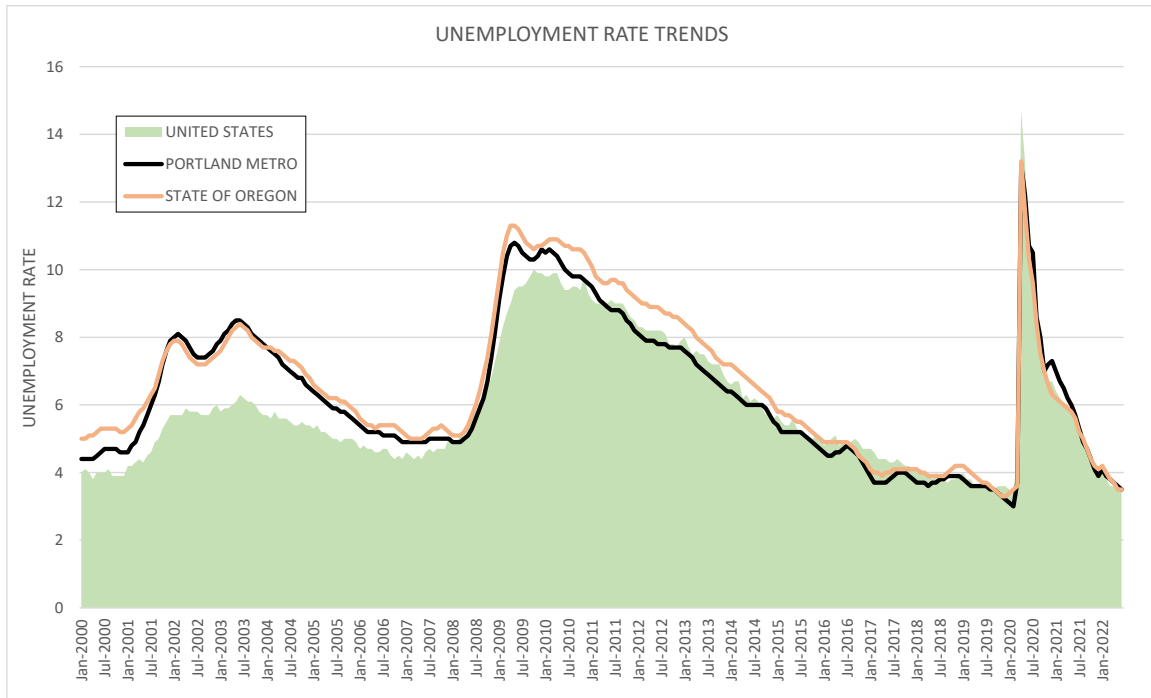
FIGURE 2.08: PERCENTAGE CHANGE IN EMPLOYMENT, PORTLAND METRO AREA (OREGON PORTION), 2010-21



SOURCE: Oregon Employment Department, JOHNSON ECONOMICS

While the expansion in the last several years has led to only modest increases over pre-pandemic employment levels, the labor market has been unusually tight. The unemployment rate has dropped to 3.5% at the statewide and metro area level, and 3.6% at the national level. The tight labor market and high inflation rate is expected to continue to place pressure on wage levels. Higher wage levels are inflationary as well, and this feedback loop is one of many challenges associated with controlling inflationary pressure.

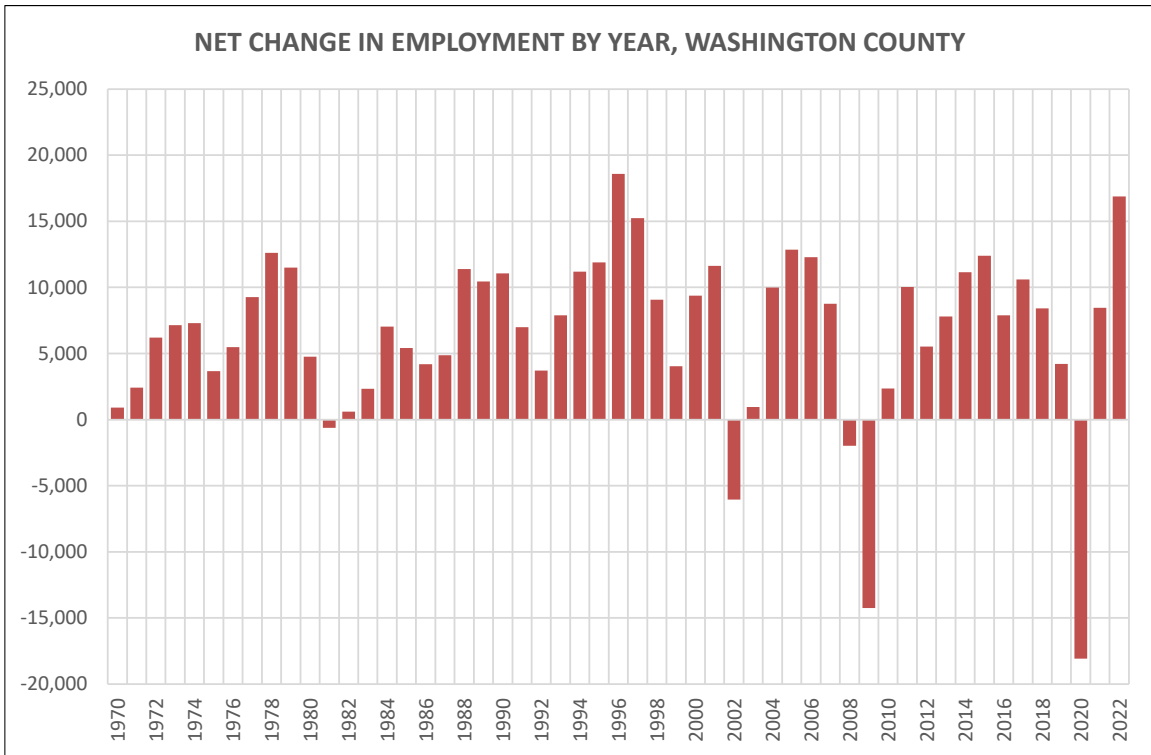
FIGURE 2.09: EMPLOYMENT SHIFTS BY INDUSTRY SINCE PANDEMIC START



SOURCE: Oregon Employment Department, JOHNSON ECONOMICS

Consistent with national and regional trends, employment growth in Washington County has been robust in the last few years following a sharp decline in 2020. The county saw a decrease of roughly 18,000 jobs in 2020 but added roughly 8,000 jobs in 2021 and 17,000 in 2022. During the last several expansion cycles employment levels in the county have increased by 5,000 to 12,000 jobs per year. The long term employment trend in the county has been both robust and remarkably consistent.

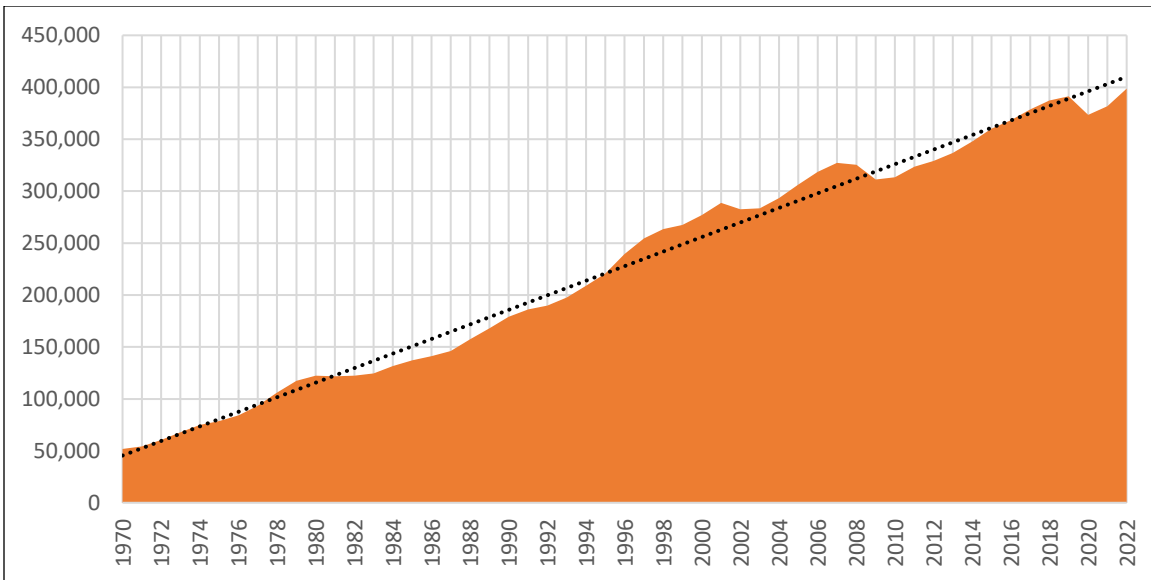
FIGURE 2.10: WASHINGTON COUNTY EMPLOYMENT TRENDS



SOURCE: Oregon Employment Department, JOHNSON ECONOMICS

Employment growth in Washington County has been both more consistent as well as more robust than the broader metro area. Growth in the county has been on a steady upward trajectory for over fifty years.

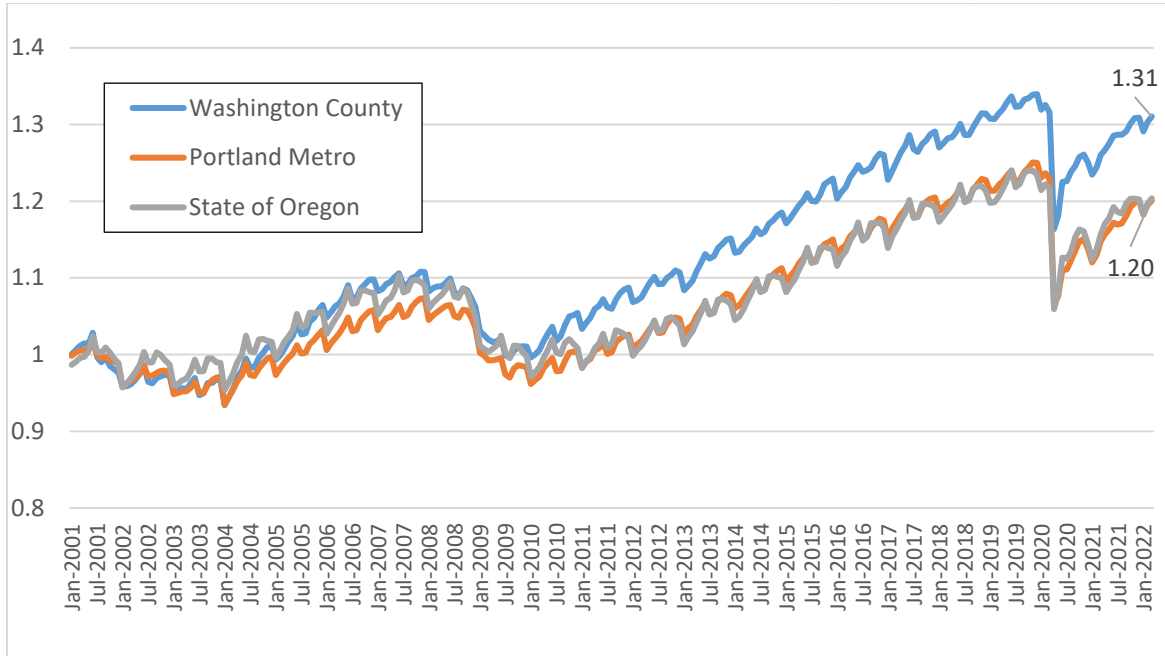
FIGURE 2.11: WASHINGTON COUNTY TOTAL EMPLOYMENT TRENDS



SOURCE: Oregon Employment Department, JOHNSON ECONOMICS

Washington County’s employment base has grown significantly faster than the State of Oregon and the Portland metro area over the last two decades, with the rate of expansion more than 50% higher than the regional rate since 2001.

FIGURE 2.12: COMPARATIVE EMPLOYMENT GROWTH INDEX (2001 = 100)

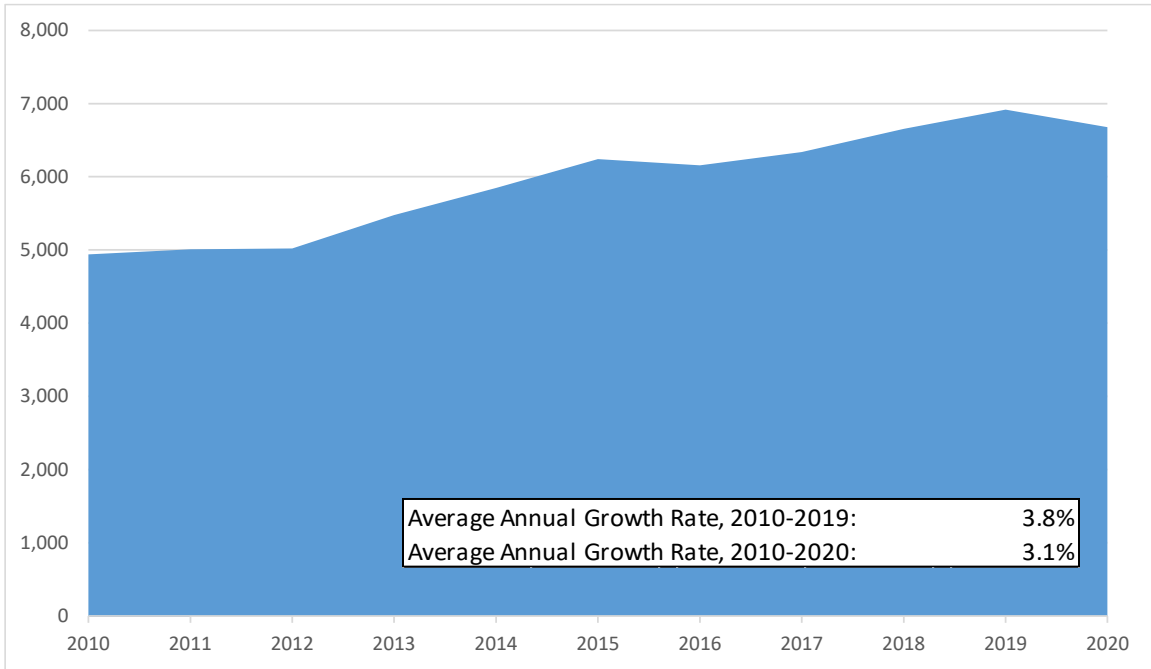


SOURCE: Oregon Employment Department, JOHNSON ECONOMICS

SHERWOOD UGB ECONOMIC TRENDS

The City of Sherwood’s UGB has significantly outperformed Washington County in terms of employment growth over the last decade. The average annual growth rate from 2010 through 2020 was 3.1%, compared to a countywide average of 1.9% during the same period. The employment base in Sherwood’s UGB grew at an average annual rate of 3.8% from 2010 through 2019, prior to the pandemic disruption.

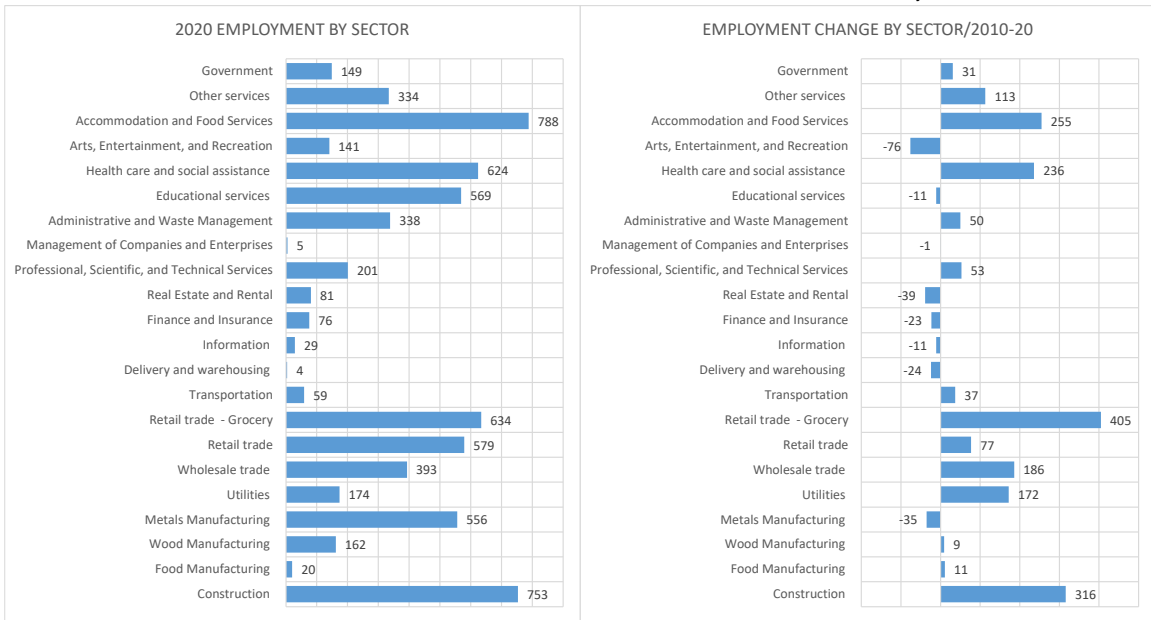
FIGURE 2.13: TOTAL COVERED EMPLOYMENT, SHERWOOD UGB



SOURCE: Oregon Employment Department, JOHNSON ECONOMICS

The employment base by industry sector is quite diverse, with retail trade, accommodation and food services, construction, healthcare, and educational services having high levels of employment. Employment growth in the area over the last decade has been concentrated in retail trade, construction, accommodation and food services, and health care.

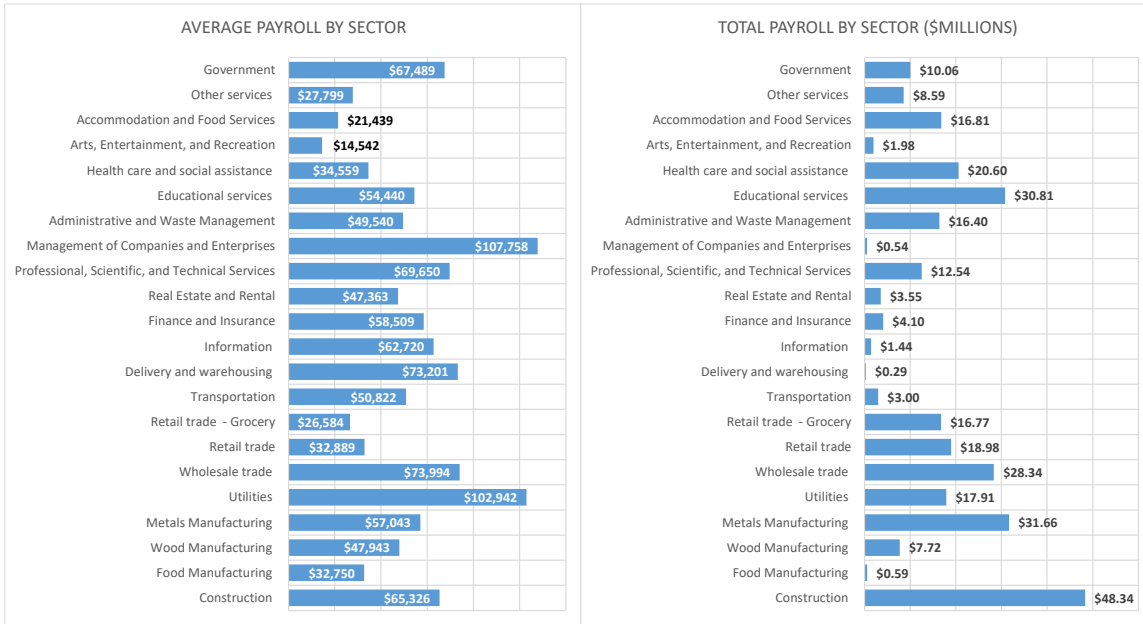
FIGURE 2.14: EMPLOYMENT COMPOSITION AND GROWTH BY SECTOR, SHERWOOD UGB



SOURCE: Oregon Employment Department, QCEW Data, JOHNSON ECONOMICS

The average annual payroll levels are highest in the management, utilities, wholesale trade, and professional and technical services industries. The construction industry is the top contributor to total payroll in the study area, followed by retail trade, metals manufacturing, and educational services.

FIGURE 2.15: PAYROLL CHARACTERISTICS BY SECTOR, SHERWOOD UGB, 2020



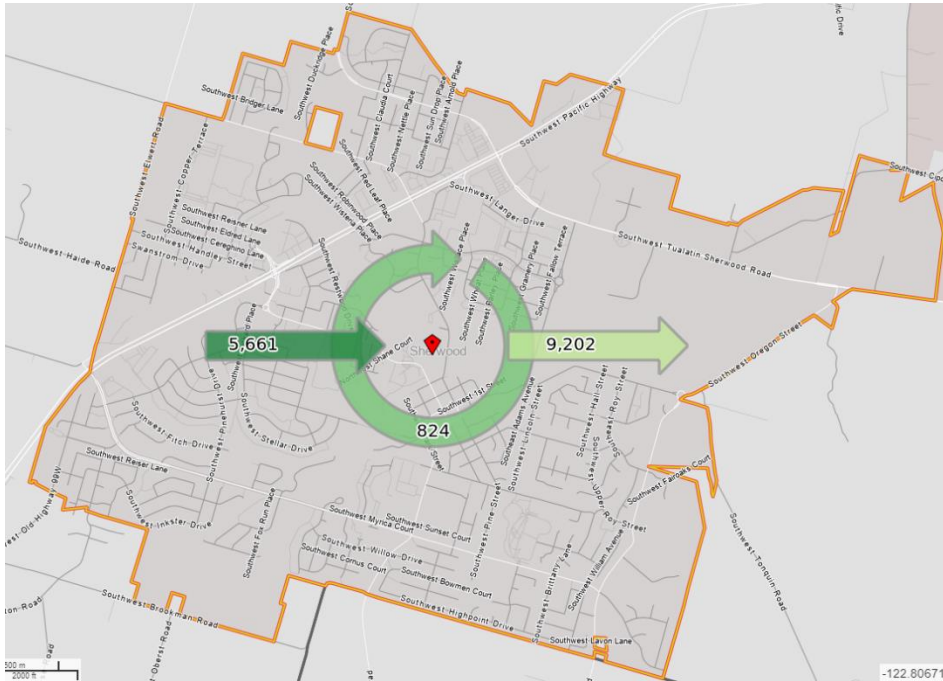
SOURCE: Oregon Employment Department, JOHNSON ECONOMICS

The City of Sherwood can be categorized as a “bedroom community,” as it is currently an exporter of labor within the Portland metropolitan area. The City of Sherwood had an estimated workforce of just over 10,000 in 2019, while having less than 6,500 estimated local jobs. The City was estimated to have 5,661 people commuting in for work, while 9,202 people commuted out. An estimated 21.3% of Sherwood residents commute to Portland, with 30.4% commuting to other jurisdictions in Washington County. The City’s labor shed includes many of the same jurisdictions.

Commuting patterns are an important element in the local economy. They are indicative of the labor shed companies can draw workers from, the extent to which job creation translates into increased demand for housing, goods, and services, and the overall balance of population and employment in the community. If the labor force can find appropriate local employment opportunities, it facilitates and reduces the need to commute for employment. This can provide a substantive benefit for residents through the reduction of travel times and associated costs. While having a balance between local jobs and workforce does not assure that residents will live and work locally, not having adequate employment opportunities precludes it.

While population and household growth has been increasing rapidly within the city, it will need to attract employment growth at a greater rate if it wants to balance its workforce and employment opportunities.

FIGURE 2.16: NET INFLOW-OUTFLOW OF EMPLOYEES, CITY OF SHERWOOD, 2019



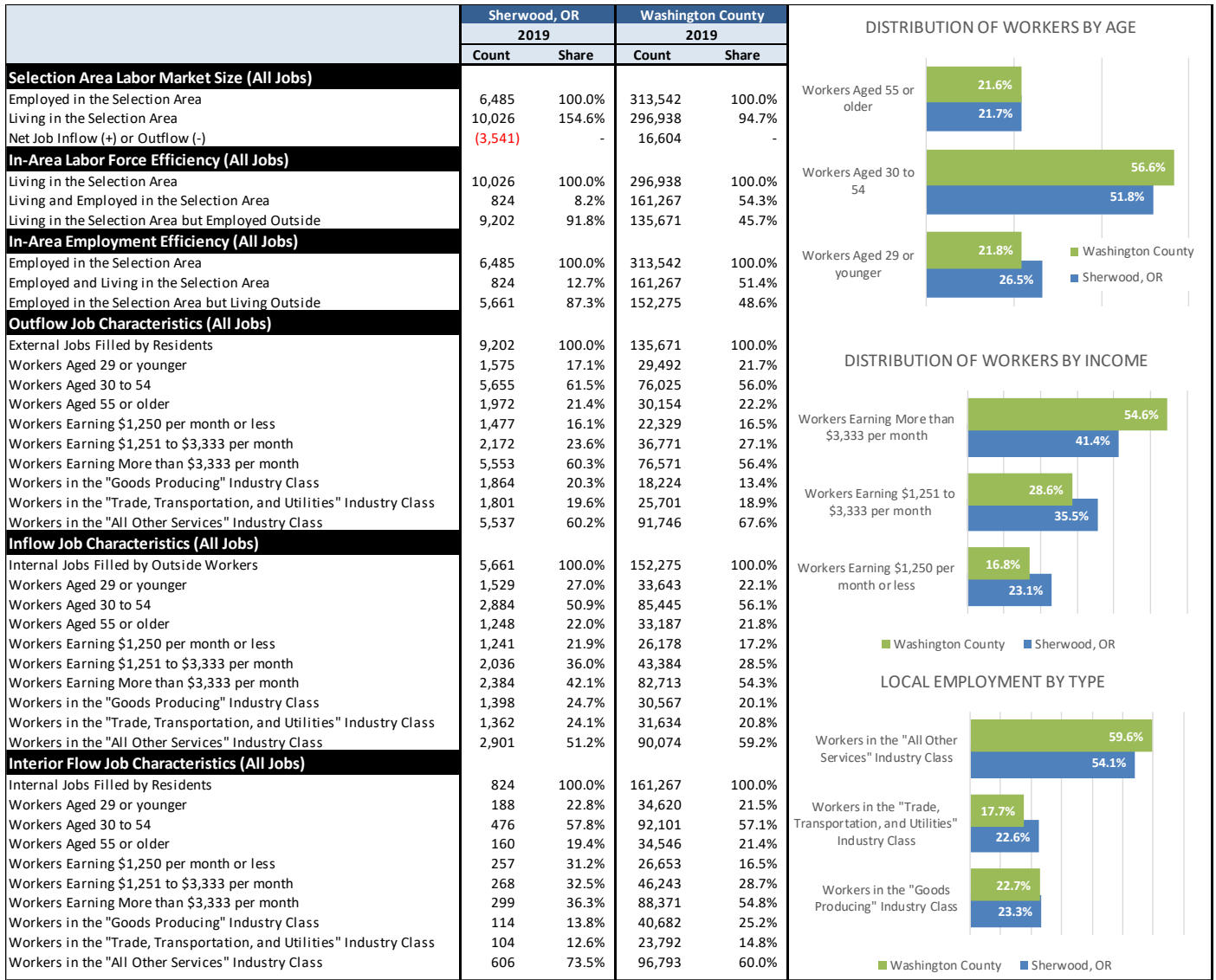
	2019	
	Count	Share
LIVE IN SHERWOOD, COMMUTE TO:		
Portland city, OR	2,137	21.3%
Sherwood city, OR	824	8.2%
Hillsboro city, OR	801	8.0%
Tualatin city, OR	801	8.0%
Tigard city, OR	737	7.4%
Beaverton city, OR	711	7.1%
Wilsonville city, OR	428	4.3%
Lake Oswego city, OR	324	3.2%
Newberg city, OR	265	2.6%
Salem city, OR	234	2.3%
All Other Locations	2,764	27.6%
WORK IN SHERWOOD, COMMUTE FROM:		
Sherwood city, OR	824	12.7%
Portland city, OR	583	9.0%
Beaverton city, OR	321	4.9%
Tigard city, OR	297	4.6%
Hillsboro city, OR	285	4.4%
Newberg city, OR	244	3.8%
Tualatin city, OR	199	3.1%
Aloha CDP, OR	186	2.9%
Salem city, OR	154	2.4%
Wilsonville city, OR	147	2.3%
All Other Locations	3,245	50.0%

SOURCE: Census Bureau, LEHD Data

While the City of Sherwood is a net exporter of labor, Washington County is a net importer. The County had over 313,500 jobs in 2019, with a workforce of less than 297,000. Workers employed in the City of Sherwood are relatively young when compared to Washington County, with 26.5% aged 29 or younger. Consistent with that local wage levels are significantly below the county average.

The City of Sherwood has recognized many of these issues, with the City Council formally adopting a goal to “bring jobs to Sherwood that provide wages that allow people to live and work in Sherwood.” This goal will inform later discussions regarding encouragement and support of future employment growth, as well as a preference for relatively high paying industries.

FIGURE 2.17: NET INFLOW-OUTFLOW DETAIL, CITY OF SHERWOOD AND WASHINGTON COUNTY, 2019



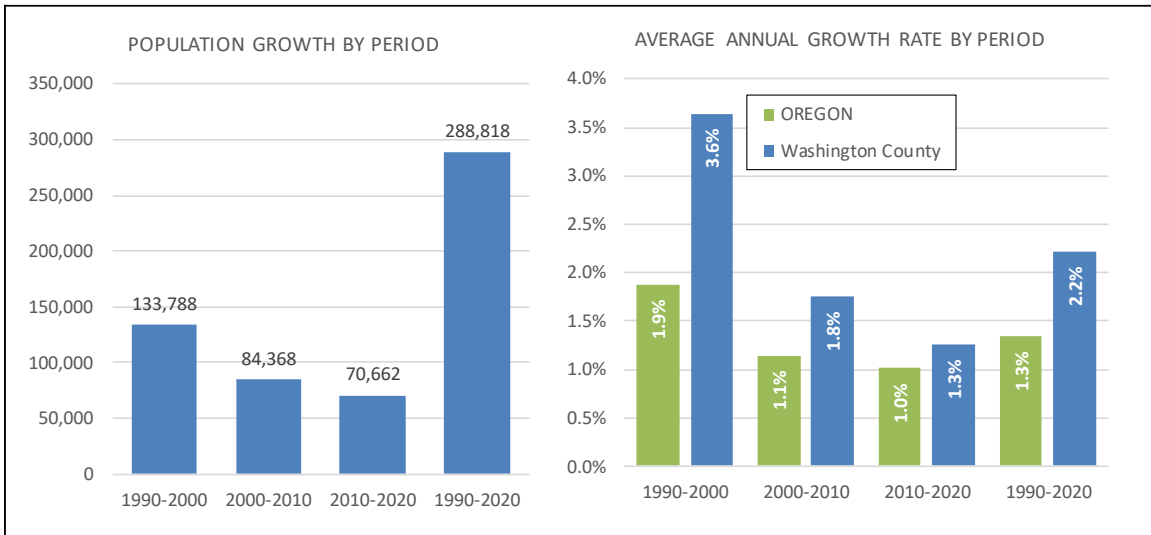
SOURCE: US Census Bureau, LEHD Origin-Destination Employment Statistics

POPULATION AND WORKFORCE

Washington County’s population base has seen robust growth over the last three decades, with growth averaging 2.2% from 1990 through 2020. This rate of growth is well above the statewide average, which was 1.3% during the same period.

As a net importer of labor, growth in the local population base at the county level is supportive of economic development objectives as it accommodates an increase in the local labor force.

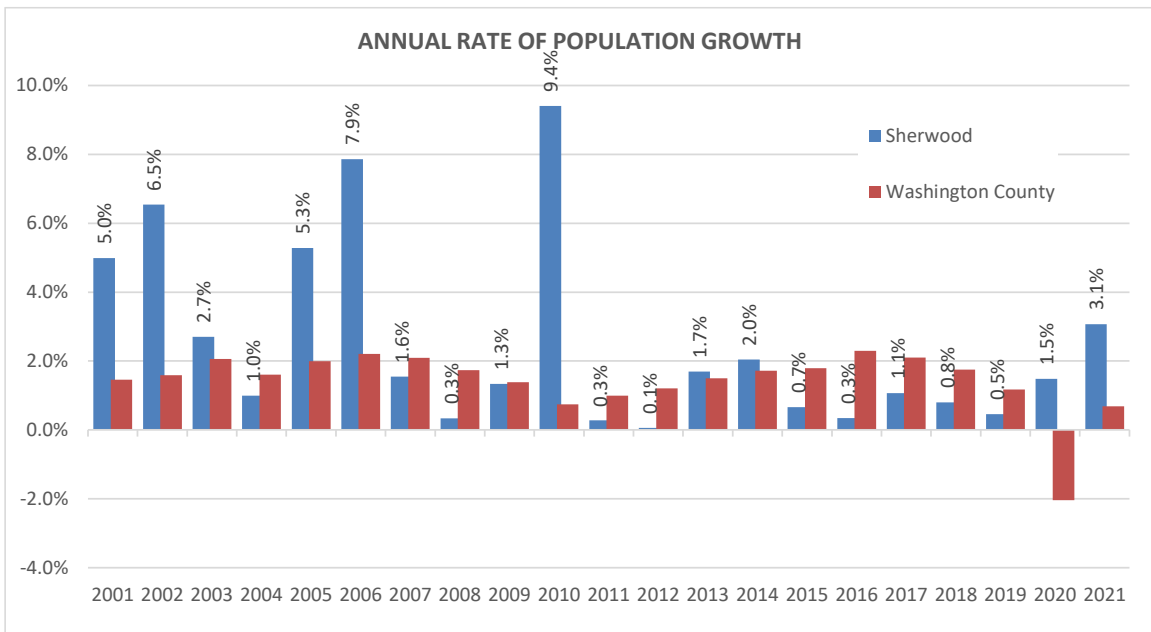
FIGURE 2.18: HISTORIC POPULATION TRENDS, WASHINGTON COUNTY AND OREGON



SOURCE: Population Research Center, Portland State University

The City of Sherwood has seen a high degree of variability in its' population growth. Local population levels have surged during periods in which residential construction was robust, but the rate of growth has been less robust in the last decade.

FIGURE 2.19: HISTORIC POPULATION TRENDS, CITY OF SHERWOOD AND WASHINGTON COUNTY



SOURCE: Population Research Center, Portland State University

III. TARGET INDUSTRY ANALYSIS

This element of the Economic Opportunities Analysis assesses the economic landscape in Washington County and the Sherwood UGB, identifying a range of industry types that can be considered targeted economic opportunities over the planning period. This process was done in the previously adopted EOA, and this EOA retains those targeted sectors.

The following is a list of the sectors that are expected to drive growth in current and subsequent cycles, which was developed in the 2021 EOA.

FIGURE 3.01: SUMMARY OF TARGETED INDUSTRIES

<ul style="list-style-type: none">• Manufacturing<ul style="list-style-type: none">• Technology and Advanced Manufacturing• Machinery Manufacturing• Clean Tech• Professional and Business Services<ul style="list-style-type: none">• Software and Media• Clean Tech• Athletics and Outdoors• Other Services	<ul style="list-style-type: none">• Wholesale• Services for Visitors• Services for Residents<ul style="list-style-type: none">• Medical Services• Legal Services• Financial Services,• Retail• Personal Services• Restaurants
---	--

Key economic development advantages for the City of Sherwood include the following:

- *Housing availability, both workforce and executive*
- *Existing labor force*
- *Highly rated school district*
- *Proximity to the Sunset Corridor and technology cluster*

The City’s distance from I-5 will limit its attractiveness for distribution uses, as well as regionally serving office concentrations.

JOBS – HOUSING BALANCE

In addition to specific targeted industries, the City of Sherwood has adopted goals to improve the local balance of jobs and housing. The intent is to increase local employment opportunities for City residents, allowing them increased flexibility to reduce commuting times and distances. Increasing the level of employment-related development would also provide fiscal benefits to the City, as commercial and industrial development typically generates a higher level of tax revenues relative to services vis-à-vis residential uses.

While not representing an industry-specific target, attracting new marginal employment-related development will be necessary to improve the local jobs housing balance. As outlined in the following table, the City of Sherwood would need to add roughly 3,000 jobs to its current employment base to provide an employment level commensurate with its current labor force.

FIGURE 3.02: SUMMARY OF CURRENT JOBS/HOUSING RELATIONSHIP IN SHERWOOD

	Sherwood	Metro Area	Source
Households	6,498	925,631	US Census Bureau, ACS
Labor Force	9,996	1,299,427	US Census Bureau, ACS
Employees/HH	1.54	1.40	Calculation
Employment-QCEW	6,485	1,232,813	BLS, LEHD, 2019
Jobs per Labor Force	0.649	0.949	Calculation
Needed Jobs for Balance	9,484		
Current Surplus/(Deficit)	(2,999)		

Over the forecast period, the City would like to establish a more favorable relationship. Consistent with that objective, the City will target robust local employment growth over the planning horizon. The City also favors growth in industries with relatively higher wage levels.

IV. FORECAST OF EMPLOYMENT AND LAND NEED

CITY OF SHERWOOD UGB EMPLOYMENT FORECASTS

Goal 9 requires that jurisdictions plan for a 20-year supply of commercial and industrial capacity. Because employment capacity is the physical space necessary to accommodate new workers in the production of goods and services, employment need forecasts typically begin with a forecast of employment growth in the community. The previous analysis of economic trends and targeted industries set the context for these estimates. This analysis translates those trends into estimates of employment growth by broad industry. Forecasts are produced at the sector or subsector level (depending on available information), and subsequently aggregated into two-digit NAICS sectors. Estimates in this analysis are intended for long-range land planning purposes and are not designed to predict or respond to business cycle fluctuation.

The projections in this analysis are built on an estimate of employment in 2022, the commencement year for the planning period. Employment growth will come as the result of net-expansion of businesses in the community, new business formation, or the relocation/recruitment of new firms. Forecast scenarios consider a range of factors influencing growth. Long-range forecasts typically rely on a macroeconomic context for growth. The forecast does not consider the impact of a significant exogenous shift in employment such as recruitment of a major employer.

OVERVIEW OF EMPLOYMENT FORECAST METHODOLOGY

Our methodology starts with employment forecasts by major industry classification. Forecasted employment is allocated to building type, and a space demand is a function of the assumed square footage per employee ratio multiplied by projected change. The need for space is then converted into land and site needs based on assumed development densities using floor area ratios (FARs).



The first analytical step of the analysis is to update covered employment to the 2022 base year. Quarterly Census of Employment and Wages (QCEW) data was used to determine the City of Sherwood UGB’s covered employment by industry through 2020. To update these estimates, we use observed industry specific growth rates for Washington County between 2020 and 2022. Trend data was not available at the geographic level of the Sherwood UGB.

The second step in the analysis is to convert “covered”¹ employment to “total” employment. Covered employment only accounts for a share of overall employment in the economy. Specifically, it does not consider sole proprietors or commissioned workers. Covered employment was converted to total employment based on observed ratios at the national level derived from the Bureau of Economic Analysis from 2010 through 2020. The adjusted 2022 total employment base for the City of Sherwood UGB is 9,449 jobs.

FIGURE 4.02: UPDATE TO 2020 BASELINE AND CONVERSION OF COVERED TO TOTAL EMPLOYMENT

Major Industry Sector	QCEW Employment			Total Emp. Conversion ²	2022 Estimate
	2020 Employment	'20-'22 County Δ ¹	2022 Estimate		
Construction	753	7.4%	809	79%	1,024
Manufacturing	738	3.2%	762	96%	793
Wholesale Trade	393	1.1%	397	79%	503
Retail Trade	1,213	1.9%	1,237	82%	1,508
T.W.U.	237	2.6%	243	77%	316
Information	29	0.3%	29	83%	35
Finance & Insurance	76	-0.3%	76	58%	131
Real Estate	81	-0.3%	81	24%	336
Professional & Technical Services	201	1.5%	204	56%	364
Administration Services	343	0.5%	345	80%	431
Education	569	1.4%	577	50%	1,154
Health Care/Social Assistance	624	1.4%	633	80%	791
Leisure & Hospitality	929	7.7%	1,000	78%	1,280
Other Services	334	6.0%	354	56%	632
Government	149	0.3%	149	99%	151
TOTAL	6,669	3.4%	6,895	73%	9,449

1/Growth rate calculated using CES data for Washington County

2/ US Department of Commerce

T.W.U. = Transportation, Warehousing, and Utilities

SCENARIO 1: SAFE HARBOR FORECAST

The Goal 9 statute does not have a required method for employment forecasting. However, OAR 660-024-0040(9)(a) outlines several safe harbor methods, which are intended to provide jurisdictions a methodological approach that will not be challenged. The most applicable for the City of Sherwood is 660-024-0040(9)(a)(A), which recommends reliance on the most recent regional forecast published by the Oregon Employment Department. This method applies industry specific growth rates for the Portland Workforce Region (Clackamas, Multnomah, and Washington counties) to the City of Sherwood’s 2022 base. This method results in an average annual growth rate of 2.0%, with total job growth of 4,586 jobs over the forecast period.

SCENARIO 2: SHERWOOD TREND FORECAST

A second forecast scenario was based on employment growth patterns observed in the Sherwood UGB from 2010 through 2020. Continuing recent historical trends results in a forecasted average annual growth rate of 3.4%. This yields net employment growth of 9,132 over the planning period.

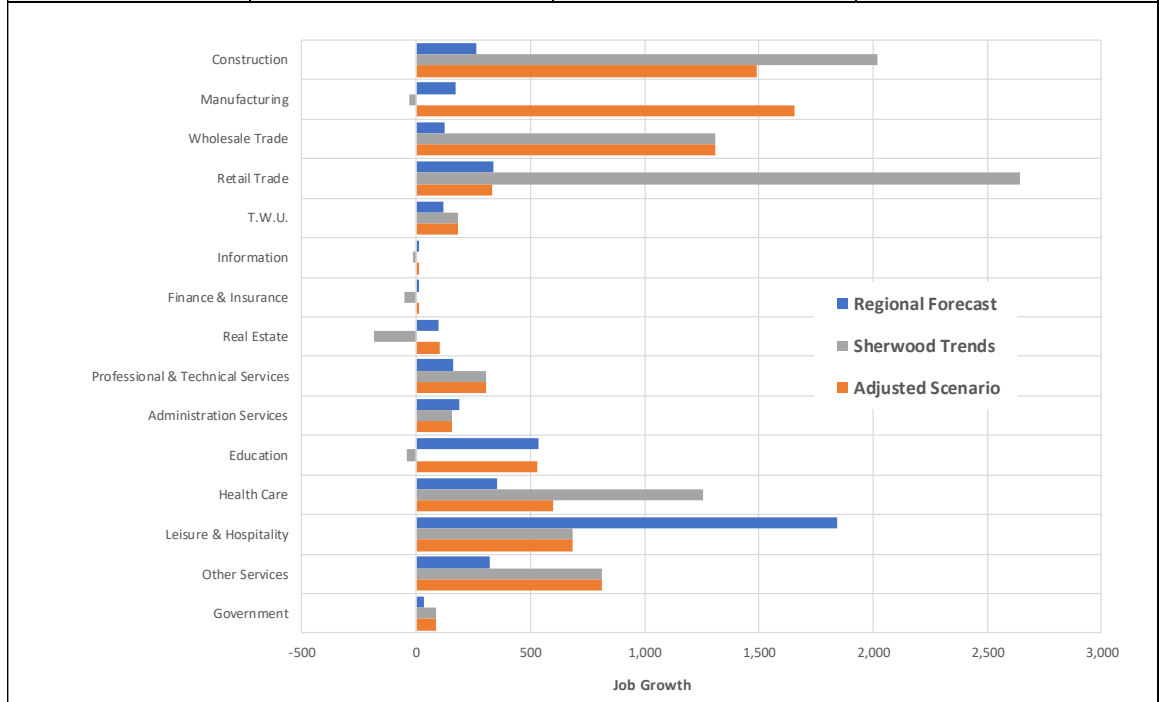
¹ The Department of Labor’s Quarterly Census of Employment and Wages (QCEW) tracks employment data through state employment departments. Employment in the QCEW survey is limited to firms with employees that are “covered” by unemployment insurance.

SCENARIO 3: ADJUSTED EMPLOYMENT FORECAST

The third forecast scenario was influenced by the research and analysis conducted in the EOA. This scenario formulates an employment growth trajectory based on identified trends, a more optimistic growth outlook for targeted industries, and input from the project technical advisory committee. Further, the alternative scenario recognizes that economic development efforts and public policy can influence realized growth in targeted sectors. This scenario considers the influence of known or anticipated development over the near and medium-term horizon. This scenario forecasts an average annual growth rate of 3.2% for the period, yielding a net increase in 8,280 jobs through 2042.

FIGURE 4.03: COMPARISON OF ALTERNATIVE FORECASTS, CITY OF SHERWOOD UGB

Industry	SCENARIO I (Regional Forecast)				SCENARIO II (Sherwood Trend)				SCENARIO III (Adjusted)			
	2022	2042	Chg.	AAGR	2022	2042	Chg.	AAGR	2022	2042	Chg.	AAGR
Construction	1,024	1,288	264	1.2%	1,024	3,040	2,016	5.6%	1,024	2,513	1,489	4.6%
Manufacturing	793	967	173	1.0%	793	762	-31	-0.2%	793	2,450	1,656	5.8%
Wholesale Trade	503	628	124	1.1%	503	1,814	1,310	6.6%	503	1,814	1,310	6.6%
Retail Trade	1,508	1,849	341	1.0%	1,508	4,152	2,644	5.2%	1,508	1,838	330	1.0%
T.W.U.	316	437	121	1.6%	316	501	186	2.3%	316	501	186	2.3%
Information	35	49	14	1.7%	35	18	-17	-3.2%	35	49	14	1.7%
Finance & Insurance	131	143	12	0.4%	131	77	-54	-2.6%	131	141	11	0.4%
Real Estate	336	434	98	1.3%	336	153	-183	-3.9%	336	440	103	1.3%
Professional & Technical Services	364	527	163	1.9%	364	672	308	3.1%	364	672	308	3.1%
Administration Services	431	617	187	1.8%	431	586	156	1.6%	431	586	156	1.6%
Education	1,154	1,690	536	1.9%	1,154	1,111	-43	-0.2%	1,154	1,684	530	1.9%
Health Care	791	1,145	354	1.9%	791	2,046	1,255	4.9%	791	1,392	601	2.9%
Leisure & Hospitality	1,280	3,124	1,844	4.6%	1,280	1,964	684	2.2%	1,280	1,964	684	2.2%
Other Services	632	954	322	2.1%	632	1,444	812	4.2%	632	1,444	812	4.2%
Government	151	184	33	1.0%	151	241	90	2.4%	151	241	90	2.4%
TOTAL:	9,449	14,036	4,586	2.0%	9,449	18,581	9,132	3.4%	9,449	17,729	8,280	3.2%



SUMMARY OF EMPLOYMENT FORECAST SCENARIOS

The three forecast scenarios in this analysis range from 2.0% to 3.4% average annual growth. Job growth estimates range from 4,586 to 9,132 jobs. The estimates in the preceding analysis are useful in creating a

baseline understanding of growth prospects by industry. These are common and accepted approaches when looking at large geographic regions. Forecasts grounded in broad based economic variables do not account for the realities of local businesses and trends among evolving industries. Any long-term forecast is inherently uncertain and should be updated on a regular basis to reflect more current information. This is particularly true in a smaller jurisdiction such as Sherwood, in which a single firm’s location and/or operational decision may substantively impact the rate of growth.

The forecasts were broken down into four five-year increments, assuming a consistent rate of growth over the period. We would fully expect that a twenty-year forecast will include multiple business cycles, and that growth will be variable.

FIGURE 4.04: SUMMARY OF PROJECTION SCENARIOS, CITY OF SHERWOOD UGB

Industry	Overall Employment					Net Change by Period				Total 22-42
	2022	2027	2032	2037	2042	22-27	27-32	32-37	37-42	
SCENARIO II (Sherwood Trends)										
Construction	1,024	1,532	2,033	2,537	3,040	508	502	503	503	2,016
Manufacturing	793	781	773	767	762	-12	-8	-6	-5	-31
Wholesale Trade	503	808	1,128	1,464	1,814	305	320	336	349	1,310
Retail Trade	1,508	2,195	2,857	3,509	4,152	687	662	652	643	2,644
T.W.U.	316	375	423	465	501	59	48	41	37	186
Information	35	27	23	20	18	-8	-4	-3	-2	-17
Finance & Insurance	131	107	93	84	77	-24	-14	-9	-7	-54
Real Estate	336	250	204	174	153	-87	-46	-30	-21	-183
Professional & Technical Services	364	457	536	607	672	93	79	71	65	308
Administration Services	431	483	524	557	586	53	40	34	29	156
Education	1,154	1,137	1,126	1,118	1,111	-16	-11	-9	-7	-43
Health Care	791	1,125	1,441	1,747	2,046	334	316	307	299	1,255
Leisure & Hospitality	1,280	1,502	1,679	1,831	1,964	222	177	152	134	684
Other Services	632	859	1,065	1,259	1,444	227	206	194	185	812
Government	151	180	203	223	241	29	23	20	18	90
TOTAL:	9,449	11,819	14,108	16,362	18,581	2,369	2,290	2,254	2,219	9,132
SCENARIO III (Adjusted)										
Construction	1,024	1,428	1,805	2,165	2,513	405	376	361	348	1,489
Manufacturing	793	1,204	1,615	2,031	2,450	411	411	416	419	1,656
Wholesale Trade	503	808	1,128	1,464	1,814	305	320	336	349	1,310
Retail Trade	1,508	1,624	1,710	1,779	1,838	116	86	70	59	330
T.W.U.	316	375	423	465	501	59	48	41	37	186
Information	35	40	44	47	49	5	4	3	3	14
Finance & Insurance	131	134	137	139	141	4	3	2	2	11
Real Estate	336	372	399	421	440	35	27	22	19	103
Professional & Technical Services	364	457	536	607	672	93	79	71	65	308
Administration Services	431	483	524	557	586	53	40	34	29	156
Education	1,154	1,329	1,466	1,583	1,684	175	137	116	102	530
Health Care	791	976	1,131	1,268	1,392	185	155	137	124	601
Leisure & Hospitality	1,280	1,502	1,679	1,831	1,964	222	177	152	134	684
Other Services	632	859	1,065	1,259	1,444	227	206	194	185	812
Government	151	180	203	223	241	29	23	20	18	90
TOTAL:	9,449	11,772	13,864	15,839	17,729	2,322	2,092	1,975	1,890	8,280

- T.W.U. (Transportation, Warehousing, Utilities)

EMPLOYMENT LAND FORECAST

The next analytical step in our analysis is to convert projections of employment into forecasts of land demand over the planning period. For this analysis we utilized the hybrid Scenario III, which reflects observed trends and modifies some of the industry patterns based on the target industry analysis and known developments in the pipeline.

The generally accepted methodology for this conversion begins by allocating employment by sector into a distribution of building typologies those economic activities usually locate in. As an example, insurance agents typically locate in traditional office space, usually along commercial corridors. However, a percentage of these firms are in commercial retail space adjacent to retail anchors. Cross tabulating this distribution provides an estimate of employment in each typology.

The next step converts employment into space using estimates of the typical square footage exhibited within each typology. Adjusting for market clearing vacancy, we arrive at an estimate of total space demand for each building type.

Finally, we can consider the physical characteristics of individual building types and the amount of land they typically require for development. The site utilization metric commonly used is referred to as a “floor area ratio” or FAR. For example, assume a 25,000-square foot general industrial building requires roughly two acres to accommodate its structure, setbacks, parking, and necessary yard/storage space. This building would have a FAR of roughly 0.29. Demand for space is then converted to net acres using a standard floor area ratio FAR for each development form.

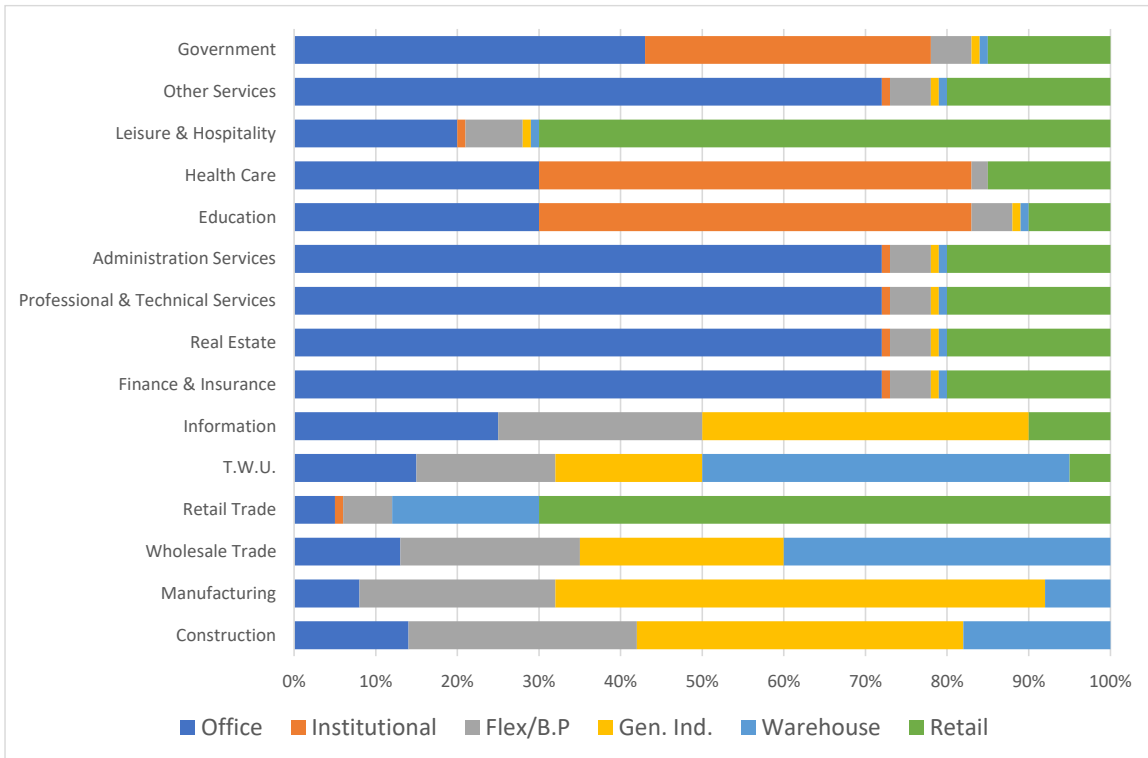
LAND DEMAND ANALYSIS – ADJUSTED FORECAST

In this analytical step we allocate employment growth to standard building typologies. The building typology matrix represents the share of sectoral employment that locates across various building types.

FIGURE 4.05: DISTRIBUTION OF EMPLOYMENT BY SPACE TYPE, CITY OF SHERWOOD UGB

Industry Sector	20-year Job Forecast		BUILDING TYPE MATRIX					
	Number	AAGR	Office	Institutional	Flex/B.P	Gen. ind.	Warehouse	Retail
Construction	1,489	4.6%	14%	0%	28%	40%	18%	0%
Manufacturing	1,656	5.8%	8%	0%	24%	60%	8%	0%
Wholesale Trade	1,310	6.6%	13%	0%	22%	25%	40%	0%
Retail Trade	330	1.0%	5%	1%	6%	0%	18%	70%
T.W.U.	186	2.3%	15%	0%	17%	18%	45%	5%
Information	14	1.7%	25%	0%	25%	40%	0%	10%
Finance & Insurance	11	0.4%	72%	1%	5%	1%	1%	20%
Real Estate	103	1.3%	72%	1%	5%	1%	1%	20%
Professional & Technical Services	308	3.1%	72%	1%	5%	1%	1%	20%
Administration Services	156	1.6%	72%	1%	5%	1%	1%	20%
Education	530	1.9%	30%	53%	5%	1%	1%	10%
Health Care	601	2.9%	30%	53%	2%	0%	0%	15%
Leisure & Hospitality	684	2.2%	20%	1%	7%	1%	1%	70%
Other Services	812	4.2%	72%	1%	5%	1%	1%	20%
Government	90	2.4%	43%	35%	5%	1%	1%	15%
TOTAL	8,280	3.2%	25%	8%	16%	24%	13%	14%

FIGURE 4.06: ASSUMED DISTRIBUTION OF SPACE BY TYPE AND INDUSTRY SECTOR, CITY OF SHERWOOD UGB



Under the adjusted employment forecast scenario, employment housed in office, general industrial and flex/business park space accounts for the greatest share of growth, followed by employment housed in retail, warehouse/distribution, and institutional space.

FIGURE 4.07: NET CHANGE IN EMPLOYMENT ALLOCATED BY BUILDING TYPE, CITY OF SHERWOOD UGB

Industry Sector	NET CHANGE IN EMPLOYMENT BY BUILDING TYPE - 2022-2042						Total
	Office	Institutional	Flex/B.P.	Gen. Ind.	Warehouse	Retail	
Construction	208	0	417	596	268	0	1,489
Manufacturing	133	0	398	994	133	0	1,656
Wholesale Trade	170	0	288	328	524	0	1,310
Retail Trade	17	3	20	0	59	231	330
T.W.U.	28	0	32	33	83	9	186
Information	4	0	4	6	0	1	14
Finance & Insurance	8	0	1	0	0	2	11
Real Estate	74	1	5	1	1	21	103
Professional & Technical Services	221	3	15	3	3	62	308
Administration Services	112	2	8	2	2	31	156
Education	159	281	27	5	5	53	530
Health Care	180	318	12	0	0	90	601
Leisure & Hospitality	137	7	48	7	7	479	684
Other Services	584	8	41	8	8	162	812
Government	39	31	4	1	1	13	90
TOTAL	2,074	655	1,318	1,983	1,095	1,155	8,280

Employment growth estimates by building type are then converted to demand for physical space. This conversion assumes the typical space needed per employee on average. This step also assumes a market clearing vacancy rate, acknowledging that equilibrium in real estate markets is not 0% vacancy. We assume a 10% vacancy rate for office, retail, and flex uses, as these forms have high rates of speculative multi-tenant usage. A 5% rate is used for general industrial and warehouse—these uses have higher rates of owner occupancy that lead to lower overall vacancy. Institutional uses are assumed to have no vacancy.

The demand for space is converted into an associated demand for acreage using an assumed Floor Area Ratio (FAR). The combined space and FAR assumptions further provide estimates indicated of job densities, determined on a per net-developable acre basis.

FIGURE 4.08: NET ACRES REQUIRED BY BUILDING TYPOLOGY, CITY OF SHERWOOD UGB, 20-YEAR

	DEMAND BY GENERAL USE TYPOLOGY, 2022-2042						Total
	Office	Institutional	Flex/B.P	Gen. Ind.	Warehouse	Retail	
Employment Growth	2,074	655	1,318	1,983	1,095	1,155	8,280
Allocated to Employment Zoned	1,638	655	1,160	1,745	1,095	987	7,279
Avg. SF Per Employee	350	600	990	600	1,475	500	637
Demand for Space (SF)	573,400	393,000	1,147,900	1,046,800	1,614,500	493,700	5,269,300
Floor Area Ratio (FAR)	0.25	0.25	0.30	0.30	0.30	0.20	0.28
Market Vacancy	10.0%	0.0%	10.0%	10.0%	10.0%	10.0%	
Implied Density (Jobs/Acre)	35.5	16.3	13.5	22.3	8.0	18.3	17.1
Net Acres Required	58.5	40.1	97.6	89.0	137.3	63.0	485.5

Commercial office and retail densities are 35.5 and 18.3 jobs per acre, respectively. Industrial uses range from 22.3 for general industrial use to 8.0 jobs per acre for warehouse/distribution. The overall weighted employment density is 17.1 jobs per acre, with the projected 8,280-job expansion in the local employment base through 2042 requiring an estimated 485.5 net acres of employment land.

In addition to assuring adequate capacity for employment-driven land needs over a twenty-year horizon, local jurisdictions are also required to demonstrate that they have an adequate capacity of readily available sites to meet their more immediate needs, which are defined as employment land needs over the next five years. As shown in the following table, that need is estimated at 143.1 net acres in the City of Sherwood UGB.

FIGURE 4.09: NET ACRES REQUIRED BY BUILDING TYPOLOGY, CITY OF SHERWOOD UGB, 5-YEAR

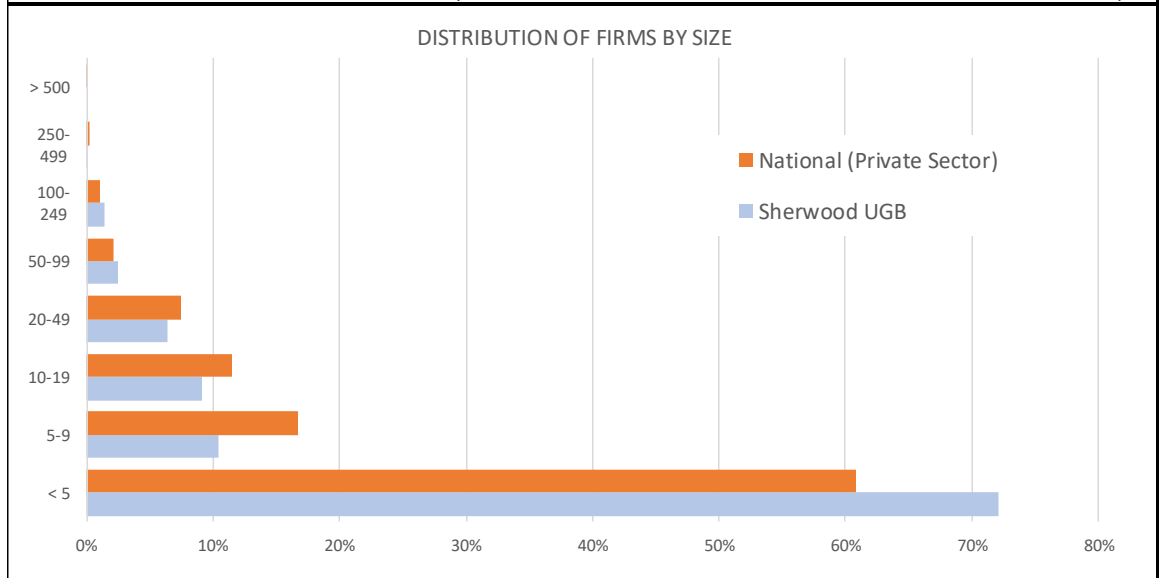
	DEMAND BY GENERAL USE TYPOLOGY, 2022-2042						Total
	Office	Institutional	Flex/B.P	Gen. Ind.	Warehouse	Retail	
Employment Growth	606	208	347	505	284	372	2,322
Allocated to Employment Zoned	479	208	305	445	284	318	2,038
Avg. SF Per Employee	350	600	990	600	1,850	500	665
Demand for Space (SF)	167,600	125,100	302,300	266,700	524,500	158,900	1,545,100
Floor Area Ratio (FAR)	0.25	0.25	0.30	0.30	0.30	0.20	
Market Vacancy	10.0%	0.0%	10.0%	10.0%	5.0%	10.0%	
Implied Density (Jobs/Acre)	35.4	16.3	13.5	22.3	6.4	18.3	16.2
Net Acres Required	17.1	12.8	25.7	22.7	44.6	20.3	143.1

There is a significant distinction between capacity and readily available site supply. The readily available inventory must currently have appropriate entitlements and infrastructure capacity to accommodate short-term development.

The local employment base is largely dominated by relatively small firms, with the local economic base showing a higher proportion than the national average for firms below 20 employees. The local economy had no firms with more than 100 employees in 2018.

FIGURE 4.10: DISTRIBUTION OF FIRMS BY SIZE, CITY OF SHERWOOD UGB - 2020

Industry	Size of Firm/Employees								Total
	< 5	5-9	10-19	20-49	50-99	100-249	250-499	> 500	
Agriculture, forestry, fishing, and hunting	3	0	0	0	0	0	0	0	3
Mining	55	8	3	5	4	1	0	0	76
Construction	5	0	1	0	0	0	0	0	6
Food Manufacturing	6	2	1	2	1	0	0	0	12
Wood Manufacturing	10	3	4	3	1	2	0	0	23
Metals Manufacturing	0	0	0	0	0	1	0	0	1
Utilities	51	5	3	4	1	0	0	0	64
Wholesale trade	19	5	6	1	1	2	0	0	34
Retail trade	12	9	4	2	1	1	1	0	30
Transportation	1	0	0	0	0	0	0	0	1
Delivery and warehousing	17	1	0	0	0	0	0	0	18
Information	32	3	0	0	0	0	0	0	35
Finance and Insurance	25	2	2	0	0	0	0	0	29
Real Estate and Rental	73	1	1	2	0	0	0	0	77
Professional, Scientific, and Technical Services	1	0	0	0	0	0	0	0	1
Management of Companies and Enterprises	26	5	3	4	1	0	0	0	39
Administrative and Waste Management	11	0	3	4	4	1	0	0	23
Educational services	84	5	12	3	1	1	0	0	106
Health care and social assistance	11	2	3	0	1	0	0	0	17
Arts, Entertainment, and Recreation	16	12	16	12	2	0	0	0	58
Accommodation and Food Services	62	12	3	4	0	0	0	0	81
Other services	0	0	1	0	0	1	0	0	2
Government	520	75	66	46	18	10	1	0	736
TOTAL	1,040	150	132	92	36	20	2	0	1,442



SOURCE: State of Oregon QCEW Data

The high proportion of employment in relatively small firms in Sherwood implies a demand for multi-tenant development, as these firms will be more likely to lease rather than own space. As a result, while the profile

of tenants may be weighted towards smaller firms, these will likely be agglomerated into larger multi-tenant developments. The City of Sherwood has also shown an ability to compete for larger tenants.

ADDITIONAL CONSIDERATIONS IN LAND DEMAND

Beyond the consideration of gross acreage, there is a significantly broader range of site characteristics that industries would require to accommodate future growth. We summarize some key findings here:

- Industrial buildings are generally more susceptible to slope constraints due to larger building footprints. For a site to be competitive for most industrial uses, a 5% slope is the maximum for development sites. Office and commercial uses are generally smaller and more vertical, allowing for slopes up to 15%.
- Most industries require some direct access to a major transportation route, particularly manufacturing and distribution industries that move goods throughout the region and beyond. 10 to 20 miles to a major interstate is generally acceptable for most manufacturing activities, but distribution activities require 5 miles or less and generally prefer a direct interstate linkage. Visibility and access are important to most commercial activities and site location with both attributes from a major commercial arterial is commonly required.
- Access and capacity for water, power, gas, and sewer infrastructure is more important to industrial than commercial operations. Water/sewer lines of up to 10" are commonly required for large manufacturers. Appendix A details utility infrastructure requirements by typology.
- Fiber telecommunications networks are likely to be increasingly required in site selection criteria for many commercial office and manufacturing industries. Medical, high-tech, creative office, research & development, and most professional service industries will prefer or require strong fiber access in the coming business cycles.

V. BUILDABLE LANDS INVENTORY

INTRODUCTION

The buildable lands inventory (BLI) is intended to identify commercial and industrial lands that are available for development for employment uses within the Sherwood City Limits, Tonquin Employment Area, and Brookman Addition. The inventory is sometimes characterized as a *supply* of land to accommodate anticipated employment growth. The amount of land needed depends on the type of development and other factors.

This chapter provides a summary of the commercial and industrial BLI for the Sherwood City Limits, Tonquin Employment Area, and Brookman Addition, as well as an analysis of the short-term supply of land. City of Sherwood staff developed the 2023 BLI using the 2021 BLI as a starting point. The 2021 BLI was updated to reflect current development conditions and correct available land supply data at a site specific level. The analysis complies with statewide planning Goal 9 policies that govern planning for employment uses.

METHODOLOGY

The 2021 BLI was updated at a site-specific level to reflect changes in development status and correct erroneous outcomes created by the previous modeling. Table 5.1 summarizes the changes made to the 2021 BLI. A full description of the 2021 methodology and changes made is provided in Appendix A. The results show a reduction of approximately 41-acres in unconstrained buildable land, primarily within the industrial land base. The changes reflect ongoing development in the City and manual overrides made to the previous modelling outcomes.

TABLE 5.1: SUMMARY OF CHANGES TO 2021 BLI

Tax Lot	2021 Development Status	Updated Development Status	Change in Unconstrained Buildable Acreage
2S128C000700	Vacant	Exempt	(3.85)
2S128C000501	Potentially Redevelopable	Developed	(15.82)
2S128C000200	Potentially Redevelopable	Potentially Redevelopable	(9.45)
2S128BA00101	Vacant	Exempt	(0.50)
2S129A001800	Vacant	Developed	(0.92)
2S129D000150	Potentially Redevelopable	Potentially Redevelopable	(9.41)
2S129DC00800	Vacant	Potentially Redevelopable	(1.11)
		Total	(41.06)

DEVELOPMENT CONSTRAINTS

No changes were made to the development constraints between the 2021 and 2023 BLI. The physical constraints used include areas subject to landslides, areas with slopes greater than 15%,² lands within the 100-year flood plain, Metro’s Title 3 land (including Water Resource Conservation Areas), lands within Metro’s Title 13 Habitat Conservation Areas (Class I and II, A and B), Wetlands, and public facilities.

2023 LAND BASE

Table 5.2 shows commercial and industrial land in Sherwood by classification (development status). The results show that Sherwood has 956 total acres in commercial and industrial plan designations. Of the 956 acres in the UGB, about 520 acres (54%) are in classifications with no development capacity, 233 acres (24%) are constrained, and only 208 acres (22%) are buildable land with development capacity.

TABLE 5.2: EMPLOYMENT ACRES BY CLASSIFICATION AND PLAN DESIGNATION

Plan Designation	Tax Lots	Total Acres	No Development Capacity	Constrained Acres	Unconstrained Buildable Acres
General Commercial	31	62	38	10	14
Neighborhood Commercial	2	1	1	0	0
Office Commercial	11	16	6	5	6
Retail Commercial	90	92	79	12	7
Commercial Total	134	171	124	26	26
General Industrial	66	238	184	19	35
Light Industrial	49	240	144	72	24
Employment Industrial	10	175	56	82	36
Industrial Total	125	653	384	174	95
Tonquin - Future Development	15	108	9	28	70
Brookman - Future Development	4	25	3	4	18
Future Development Total	19	133	12	33	88
Total	278	956	520	233	208

Source: MetroRLIS, 2018 BLI, EcoNorthwest and City of Sherwood Analysis

Note: The numbers on this table may not add up exactly because of rounding.

² Metro’s calculation of constrained area for employment land includes slopes greater than 25%. Lands for commercial and industrial uses are typically developed on slopes no greater than 15%, so we used an “erase” function in GIS to determine any constrained areas that were not included in Metro’s calculation of constrained area. These additional constraints were subtracted from the “net_emp_strike_price” value for tax lots designated as “potentially redevelopable,” and included in the total constraints layer and subtracted from the total area for tax lots designated as “vacant.”

**MAP 5.3: EMPLOYMENT LAND BY CLASSIFICATION WITH DEVELOPMENT CONSTRAINTS
SHERWOOD CITY LIMITS, TONQUIN, AND BROOKMAN**

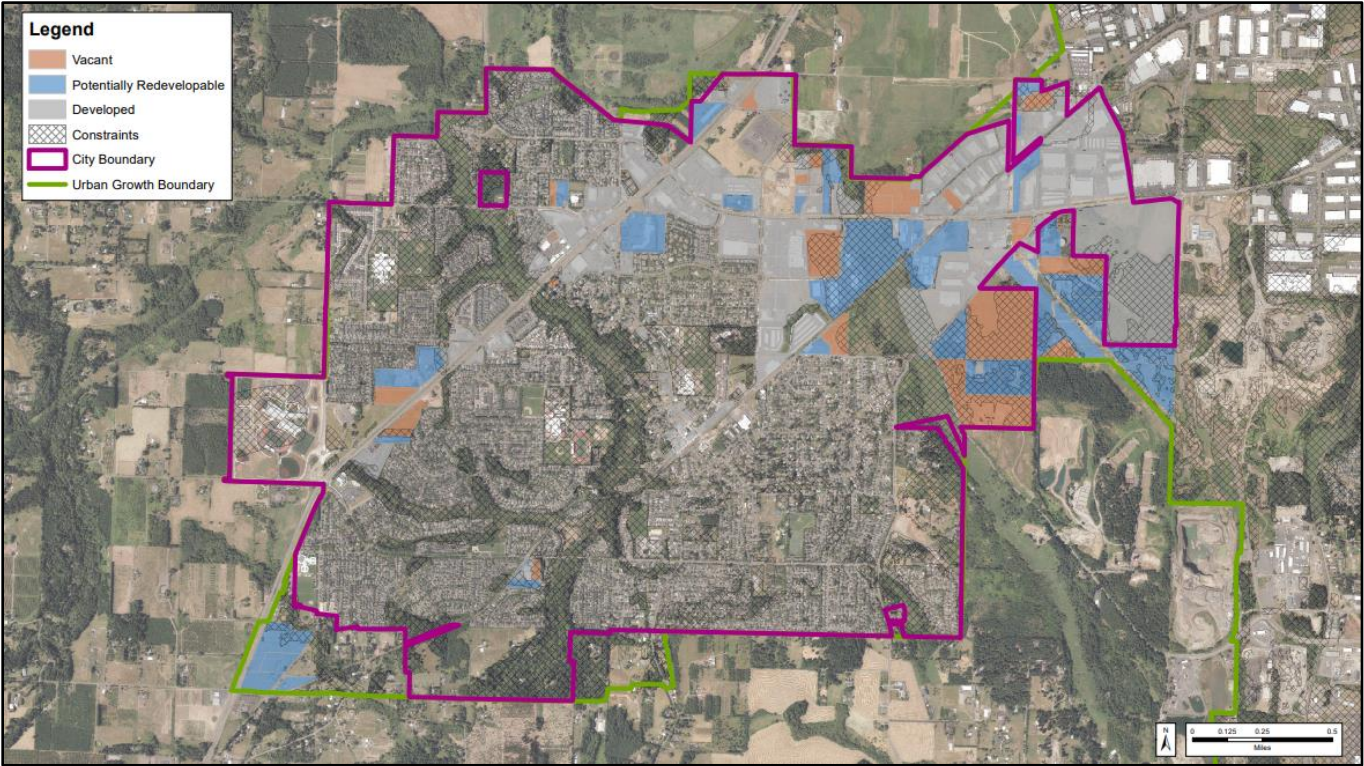


Table 5.4 shows the size of lots by plan designations for buildable employment land. Sherwood has 25 lots that are smaller than 2 acres (with 24 acres of land), 36 lots between 2 and 10 acres (184 acres of land), and 0 lots between 10 and 50 acres in size. The lack of buildable lots over 10-acres is notable, especially for the City’s industrial land that supports high tech manufacturing and traded sector jobs.

TABLE 5.4: LOT SIZE BY PLAN DESIGNATION, BUILDABLE ACRES
SHERWOOD CITY LIMITS, TONQUIN, AND BROOKMAN

Plan Designation	<1	1 - 1.99	2 - 4.99	5 - 9.99	10 - 49.99
ACRES					
General Commercial	1.21	0.00	7.11	5.43	0.00
Neighborhood Commercial	0.00	0.00	0.00	0.00	0.00
Office Commercial	1.77	1.32	2.53	0.00	0.00
Retail Commercial	0.34	3.17	3.00	0.00	0.00
General Industrial	0.00	3.10	18.38	13.37	0.00
Light Industrial	2.90	5.60	15.01	0.00	0.00
Employment Industrial	0.92	1.82	2.66	30.73	0.00
Future - Tonquin	0.60	1.25	9.57	58.44	0.00
Future - Brookman	0.00	0.00	10.85	7.18	0.00
Acres Total	7.74	16.26	69.11	115.15	0.00
TAX LOTS					
General Commercial	2	0	2	1	0
Neighborhood Commercial	0	0	0	0	0
Office Commercial	2	1	1	0	0
Retail Commercial	2	2	0	0	0
General Industrial	0	2	6	2	0
Light Industrial	5	4	5	0	0
Employment Industrial	1	1	1	4	0
Future - Tonquin	2	1	2	8	0
Future - Brookman	0	0	3	1	0
Taxlot Total	14	11	20	16	0

Source: MetroRLIS, 2018 BLI, EcoNorthwest and City of Sherwood Analysis

SHORT-TERM LAND SUPPLY

This section evaluates the short-term supply of employment land in Sherwood. Short-term land supply is governed Goal 9 Administrative Rule (OAR 660-009). The policy background for determining short-term supply is provided in Appendix A.

ANALYSIS OF SHORT-TERM SUPPLY OF LAND

The results of the 2023 buildable lands supply were used to identify commercial and industrial land that meets the definition of short-term supply. The City's approach was to:

- Assume that lands considered redevelopable in the Metro BLI should be considered serviceable, and therefore in the short-term supply.
- Examine whether buildable land within the city limits is serviceable, and therefore in the short-term supply.
- Assume that unannexed land in Brookman and Tonquin areas is not in the short-term supply.

The City did not consider lands outside of the city limits, such as land in the Tonquin Employment Area or Brookman Addition in this analysis because development of these lands may take longer than one year from submission of a building permit. Sherwood does not have any certified industrial sites, so the City does not need to meet the requirements of OAR 660-009-0025(3)(c).

The results show that Sherwood has 24 acres of commercial land (on 134 tax lots) in the short-term supply of land and 94 acres of industrial land (on 125 tax lots) in the short-term supply of land. Table 5.5 shows the short-term supply of commercial and industrial land by plan designation.

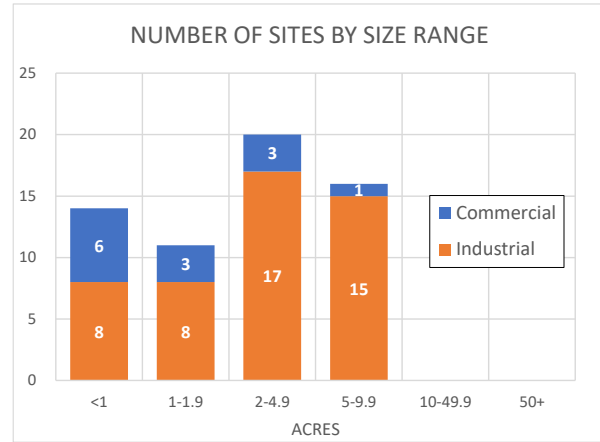
TABLE 5.5: SHORT-TERM SUPPLY OF COMMERCIAL AND INDUSTRIAL LAND, SHERWOOD CITY LIMITS

Plan Designation	Taxlots	Buildable Acres
General Commercial	31	12.55
Neighborhood Commercial	2	0
Office Commercial	11	5.62
Retail Commercial	90	6.5
Commercial Total	134	24.67
General Industrial	66	34.89
Light Industrial	49	23.54
Employment Industrial	10	36.13
Industrial Total	125	94.56

Source: MetroRLIS, 2018 BLI, EcoNorthwest and City of Sherwood Analysis

VI. RECONCILING FORECASTED NEED WITH CAPACITY

As outlined in the Buildable Lands Inventory (BLI), the City of Sherwood has a limited inventory of available sites to accommodate employment uses. An estimated inventory of 208 net acres of net developable land is available. Roughly 13% of this land is in Commercial zones, while the remainder has Industrial zoning. Available site sizes are generally quite small, with no developable taxlots identified greater than ten acres within the study area. There is likely some ability to assemble larger sites in the area.



Comparing this inventory to the 20-year forecast of employment land need generated earlier in this analysis indicates that the City of Sherwood’s UGB does not have adequate land capacity to accommodate its forecasted needs over this horizon. The overall projected demand for employment land in aggregate exceeds the estimated developable inventory by 275 acres. There is a significant deficit for both industrial and commercial uses.

A summary of the net developable acres and projected demand is presented below.

FIGURE 6.1: RECONCILIATION OF BLI CAPACITY AND PROJECTED DEMAND, CITY OF SHERWOOD UGB, 20-YEAR

EMPLOYMENT ZONING DESIGNATION	NET DEVELOPABLE ACRES/BLI	PROJECTED 20 YR. DEMAND	AGGREGATE SURPLUS/ (DEFICIT)
COMMERCIAL (RETAIL AND OFFICE)	27.0	63.0	(36.0)
General Commercial	14.0		
Neighborhood Commercial	0.0		
Office Commercial	6.0		
Retail Commercial	7.0		
INDUSTRIAL (INDUSTRIAL AND OFFICE)	184.0	422.5	(238.5)
General Industrial	35.0		
Light Industrial	24.0		
Employment Industrial	36.0		
Tonquin - Future Development	71.0		
Brookman - Future Development	18.0		
TOTAL	208.0	485.5	(277.5)

It is important to recognize that the shortage of needed sites would be expected to significantly exceed the aggregate net need. The profile of demand is highly unlikely to match the inventory of sites. This is particularly true for larger users that may have specific site requirements.

The forecast of need did not include any consideration of the regional efforts to recruit new chip manufacturing to the area. This type of exogenous demand source is difficult for forecast, but if Sherwood desires to be part of this effort it will likely require site availability with specific characteristics.

When a similar analysis is done for the short term demand and capacity, it identifies a shortage of 28.3 acres of buildable land zoned for industrial uses.

FIGURE 6.2: RECONCILIATION OF BLI CAPACITY AND PROJECTED DEMAND, CITY OF SHERWOOD UGB, 5-YEAR

EMPLOYMENT ZONING DESIGNATION	NET DEVELOPABLE ACRES/BLI	PROJECTED 5 YR. DEMAND	AGGREGATE SURPLUS/ (DEFICIT)
COMMERCIAL (RETAIL AND OFFICE)	24.7	20.3	4.4
General Commercial	12.6		
Neighborhood Commercial	0.0		
Office Commercial	5.6		
Retail Commercial	6.5		
INDUSTRIAL (INDUSTRIAL AND OFFICE)	94.6	122.8	(28.3)
General Industrial	34.9		
Light Industrial	23.5		
Employment Industrial	36.1		
Tonquin - Future Development	0.0		
Brookman - Future Development	0.0		
TOTAL	119.2	143.1	(23.9)

SITE NEEDS

As noted previously, the aggregate need for employment land inherently understates the actual need, as the profile of demand for sites will almost always vary from the characteristics of the available inventory. The Technical Advisory Group (TAG) advising this project has consistently noted the need for larger and flatter sites in the City’s inventory. As noted earlier in this chapter, the inventory includes no sites over ten acres. In addition, many of the new sites have significant topographical challenges which may reduce effective development yields.

The forecasts also do not include the potential impact from any exogenous, such as those being targeted by the Oregon Semiconductor Competitiveness Task Force. The task force identified a current need for 2 sites of 500+ acres, 4 sites of 50 to 100 acres, and eight sites of 15 to 35 acres in order for the region to be competitive in this industry. Based on observed patterns Washington County would represent the most likely location for a new employer of this type, with associated site needs expected to be met by multiple jurisdictions. Accommodating some of this demand would be consistent with Sherwood’s target to attract advanced manufacturing in addition to its goal to bring high wage jobs to the area. The current inventory does not provide any sites consistent with the identified regional needs. If the City is interested in pursuing this prospective opportunity it will need to add appropriate sites, with that demand additive to the underlying demand in the forecasts.

VII. ECONOMIC DEVELOPMENT STRATEGIES

This section discusses a range of strategies and/or action items that the city may consider that are consistent with the findings of this report. Adoption of this report does not imply official commitment to any of these steps although some of these strategies may be incorporated in Comprehensive Plan policies in some form.

ECONOMIC DEVELOPMENT GOALS		
<p>Goal 1 Accelerate the growth of local businesses and attract new businesses that balance the City’s tax base, provide stable, high-wage jobs, and capitalize on Sherwood’s location and enhance the high quality of life.</p>		
<p>Goal 2 Prioritize and promote economic development to balance the City’s tax base by maintaining a supply of land to target growth industries and accelerate Sherwood’s desired economic growth.</p>		
Comprehensive Plan Policies:	Actions:	Notes:
2.1 2.5	1. Identify all existing and potential new industrial and commercial sites	The City should develop a sites inventory that can be periodically updated which describes all of the industrial/commercial sites and includes available information about each site. This would include sites in the City, UGB and in the adjacent Urban Reserve suitable for current and future employment, including site acreage, broker contacts, landowners, etc.
1.3 2.1 2.4 2.5	2. Monitor and maintain a short-term and total supply of industrial/commercial land so that Sherwood can be ready to respond in a timely manner to market opportunities	<ul style="list-style-type: none"> ▪ The City should create a system to actively monitor the industrial and commercial land development through permits and as well as land consumption (development of vacant and re-developable lands) so as to maintain/replenish an adequate short-term/2-to-5-year supply of shovel-ready sites and plan for the incremental development of a 20-year supply of industrial and commercial lands. ▪ As land supply deficits are identified, work early-on with Metro to identify opportunities for expansion of the UGB into Urban Reserve areas appropriate for employment uses through the Title 11 concept planning process. ▪ Continue to assess permitted uses on industrial and commercial lands with the goal of attracting new businesses that help the City to achieve its twin goals of employment and municipal revenue growth.
1.1 2.3	3. Identify market needs and provide sites of adequate sizes to meet market demands	Work with area brokers/developers to actively identify the market needs for a range of site sizes and building types and sizes for a variety of industrial, commercial, office and retail employment uses in the various categories of Targeted Industries as shown in the current EOA.

<p>1.1-1.2 1.4-1.5 2.1 2.3-2.6</p>	<p>4. Conduct outreach to property owners/developers</p>	<ul style="list-style-type: none"> ▪ Work proactively with landowners, developers, and commercial brokers to encourage support for the creation of new industrial and commercial sites at suitable locations and for private land consolidation to create sites that are large enough to meet the market needs of the City’s growing Targeted Industries. ▪ Encourage property owners to work with the City on master planning so as to create larger sites.
<p>1.1 2.1 2.2 2.3 2.5</p>	<p>5. Update Economic Opportunity Analysis periodically</p>	<p>The EOA should be updated periodically to reflect the new industrial/commercial development that has been occurring in Sherwood, including evaluating and tracking Sherwood’s Target Industries, buildable lands inventory, employment growth, improvements to infrastructure, changes in the market trends, and site readiness.</p>
<p>1.1-1.7 2.1-2.5</p>	<p>6. Complete development of Tonquin Employment Area (TEA)</p>	<p>Work in partnership with landowners and developers and other public and private stakeholders to facilitate the completion of the development of the TEA, including but not limited to the Sherwood Commerce Center, Oregon Street Business Park, and Tonquin/Kerr Industrial Park. Actively recruit developers and companies to Oregon Street and Dahlke Lane in the TEA. Take the lead in pursuing annexation of the remaining developable industrial sites – particularly in the Dahlke Lane Corridor and along the northern portions of Oregon Street in the TEA – which are currently in the UGB.</p>
<p>1.1 1.2 1.3 1.4 1.5 1.6 1.7 2.1 2.2 2.3 2.4 2.5</p>	<p>7. Work with property owners and developers to actively pursue development of the Sherwood West Technology Innovation Park Site in the northern portion of Sherwood West and the 99W Employment Lands in Sherwood West</p>	<p>Focus staff and consultant resources on the timely planning and development of the Sherwood West Technology Innovation Park and the planned Employment Lands along the 99W Corridor in Sherwood West. This includes the proposed Wine Country Gateway Hospitality District. Once the Sherwood West Concept Plan has been adopted, the City will need to prepare the Sherwood West Infrastructure/Implementation Plan, submit an application to Metro in 2024 for the expansion of the UGB, update the Comprehensive Plan and prepare the development code provisions related to the employment sites in Sherwood West. Simultaneous with this process, the city needs to work actively to market and recruit developer/investor/company interest in these sites.</p>
<p>1.1-1.7 2.1-2.6</p>	<p>8. Pursue development of Brookman Employment Land along Highway 99W</p>	<p>Work with property owners, brokers, and developers to facilitate private land consolidation and the development of the Brookman Employment Area located in the Sherwood UGB. Review zoning classifications within the Brookman Employment Area with a focus on market opportunities.</p>

<p>1.1-1.7 2.1-2.6</p>	<p>9. Evaluate opportunities early-on to pursue development of other existing and new industrial and commercial areas that can help Sherwood to meet its economic development goals.</p>	<ul style="list-style-type: none"> ▪ Work with property owners and developers to: ▪ Encourage the private assembly and development/re-development of infill areas along 99W and Tualatin Sherwood Road Corridors that are already in the city limits for new industrial and commercial development so as to efficiently utilize existing infrastructure investments. ▪ Identify other sites that are in the adjacent Urban Reserve which could have the potential for new industrial/commercial development and pursue developer interest in preparing Concept Plans for such areas as the Tonquin Employment Area-South and Sherwood North. Work closely with Metro to pursue such opportunities in a timely manner.
<p>1.1-1.2 1.4-1.7 2.1 2.4 2.7-2.8</p>	<p>10. Review opportunities for providing more flexibility in the City’s development code to support the growth of Targeted Industries while maintaining a high standard of development.</p>	<ul style="list-style-type: none"> ▪ Work with stakeholders to conduct a code audit to identify barriers to Target Industries in order to implement the City’s economic development initiatives, including industrial, retail, office, restaurant, hospitality and other uses. ▪ Work with Metro as appropriate to create greater flexibility in requirements relating to the City development code.
<p>1.1-1.7 2.1-2.5</p>	<p>11. Ensure that the City’s annexation policies are supportive of the City’s economic development goals.</p>	<p>Review the City’s annexation policies to continue to provide for an efficient annexation process which can foster new economic opportunities and facilitate Sherwood’s economic vitality.</p>
<p>1.1-1.8 2.1-2.6 2.8</p>	<p>12. Continue to coordinate capital improvement planning to ensure adequate infrastructure needed to support industrial and commercial development.</p>	<ul style="list-style-type: none"> ▪ Advocate for regional support from ODOT, CWS, Metro, and Washington County for the development and improvement of transportation and other infrastructure needed to serve employment areas. ▪ When reviewing/approving CIP projects, consider prioritizing projects that facilitate economic growth, including projects that will provide a strong rate-of-return in terms of new City revenue generation.
<p>1.1-1.7 2.1-2.6</p>	<p>13. Complete timely construction of Ice Age Drive and other infrastructure needed to open up and develop the remainder of the Tonquin Employment Area</p>	<p>Utilize Sherwood URA and other Federal, State, Metro and County funding sources to complete Ice Age Drive and other necessary infrastructure needed for the build-out of the Tonquin Employment Area. Coordinate infrastructure planning with the City’s stakeholders such as property owners, developers, Washington County and Tualatin/Wilsonville, as appropriate.</p>

1.1 1.2 1.3 1.4 1.5 1.6 1.7 2.1 2.2 2.3 2.5	14. Prepare Sherwood West Infrastructure/Implementation Plan. Implement that plan in a timely manner.	Pursue a Metro grant to prepare the Infrastructure/Implementation Plan for Sherwood West. Identify the needed infrastructure, phasing and financing plan/tools to develop new employment lands in Sherwood West. Work closely with public and private partners such as PGE, Northwest Natural, CWS and developers to plan for the development of the necessary water, wastewater, storm drainage, electric, and natural gas service. Work proactively with CWS to complete the construction of the Brookman Sewer in an expedited manner and other CWS facilities needed to develop the Sherwood West Technology Innovation Park. Determine the other types of infrastructure needed by innovative companies to consider locating in the Sherwood West Technology Innovation Park.
1.1-1.9 2.1-2.6 2.8	15. Expand Sherwood Broadband to new planned industrial and commercial areas	Work closely with Sherwood Broadband to expand the necessary fiber services to new employment areas both within the City/UGB and adjacent Urban Reserve areas, including Sherwood West.
1.1-1.7 1.9 2.6-2.8	16. Continue to conduct outreach to existing industrial, office and commercial businesses in Sherwood	Conduct regular outreach to existing businesses (both small and large) in Sherwood through the City’s ongoing Business Retention and Expansion (BRE) program so as to identify issues and barriers to business growth and expansion through meetings with companies and other means. Conduct periodic site visits to existing businesses.
1.1-1.2 1.4-1.8	17. Conduct educational seminars for existing and new small businesses	Continue to work with the Sherwood Area Chamber of Commerce and other public/private partners to conduct regular business educational programs for existing smaller Sherwood businesses to help them to grow and expand in the community.
1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8	18. Provide business assistance services/technical support to existing and new businesses	Based on the identified needs of individual businesses, Economic Development should continue to serve as business facilitator to assist existing and new businesses to obtain City and other agency permits. Continue to serve as an advocate and connector for Sherwood businesses to support their needs for space, financing, workforce, and other needs from other partners such as Business Oregon, the Small Business Development Center/PCC, the Business Recovery Center, banks, realtors/property owners and other business support organizations. Identify and help connect Sherwood businesses to regional technical assistance, microloan, other credit sources, and workforce that can support their growth.
1.1-1.8 2.6-2.8	19. Review City Codes and policies to facilitate the growth of existing and new businesses in Sherwood	Based on input from existing businesses in Sherwood, consider modifications to City code provisions and policies to minimize barriers to growth while maintaining a high quality of life in Sherwood. Review proposed new City fees, land use ordinances and other policies with a lens on economic development impacts, the City’s competitiveness, and other City goals.

<p>1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.9 2.6 2.7 2.8 2.9</p>	<p>20. Support the growth of flexible spaces, facilities and services needed to foster the growth of new small entrepreneurial businesses</p>	<ul style="list-style-type: none"> ▪ Consider opportunities to create business incubators, innovation centers, maker spaces, coworking facilities, commercial kitchens and other flexible small spaces that can spur on the growth of new entrepreneurial businesses of all types in Sherwood. ▪ Continue to actively participate as a Core Partner in the creation of Greater Portland Innovation Hub to increase recognition of Sherwood’s focus on entrepreneurial development and to better connect with the region’s diverse entrepreneurial ecosystem. ▪ Connect entrepreneurs to training, angel capital and other services needed to help them grow in Sherwood. ▪ Work with local partners to foster the growth of a startup community in Sherwood through “meetups”/events. ▪ As additional smaller commercial flex space becomes available in Sherwood, facilitate the growth of existing home-based businesses and other prospective Sherwood entrepreneurs into such space. ▪ Continue to consider opportunities to market Sherwood as a potential site for the commercialization of new technologies being conducted at research universities such as OHSU, OSU, etc.
<p>1.1-1.7</p>	<p>21. Support and engage regional, statewide, and other partners to promote the growth of new Targeted Industries in Sherwood</p>	<p>Coordinate business attraction efforts with local and regional organizations such as Business Oregon, Greater Portland Inc, Westside Economic Alliance, and other regional marketing groups. Actively advocate with these organizations to get Sherwood recognized as a location for such businesses.</p>
<p>1.1 1.2 1.3 1.4 1.5 1.6 1.7</p>	<p>22. Participate in business networking events conducted by Target Industry Trade Associations</p>	<ul style="list-style-type: none"> ▪ Attend regional networking events conducted by various Trade Associations such as NAIOP, CREW, SIOR, CCIM, Technology Association of Oregon, Oregon Biosciences Association, Pacific Northwest Defense Coalition, Oregon Manufacturing Council, Oregon Manufacturing Extension Partnership, etc. ▪ Attend Portland/Seattle area industry trade shows to market Sherwood to Target Industries

<p>1.1 1.2 1.3 1.4 1.5 1.6 1.7</p>	<p>23. Conduct outreach with commercial brokers/developers to recruit new businesses to Sherwood</p>	<ul style="list-style-type: none"> ▪ Identify and work with industrial/commercial brokers, developers and national site selectors and other business “multipliers” (such as CPA’s, architects, banks, engineers, construction companies, etc.) to facilitate the growth of targeted larger traded-sector businesses. ▪ Make presentations on Sherwood to provide updates on Sherwood. ▪ Prepare outreach marketing materials and conduct webinars and events that will introduce Sherwood to domestic and international audiences. ▪ Reach out to industrial brokers in the Bay Area and other markets to introduce Sherwood as a location for traded-sector companies. ▪ Continue to conduct international business outreach on behalf of Sherwood by participating as a member of the Greater Portland Inc Global Committee, contacting foreign consulates/commercial officers in San Francisco and the US Commercial Service/US Dept of Commerce.
<p>1.1-1.2 1.3-1.5 1.7</p>	<p>24. Review/respond to Requests for Information (RFI’s) for new business recruitment opportunities</p>	<p>Regularly review new RFI’s from Business Oregon & Greater Portland Inc. for new business recruitment projects and work with Sherwood industrial park developers to respond to those RFI’s when the City has sites that potentially meet company requirements.</p>
<p>1.1-1.8 2.1-2.6 2.8</p>	<p>25. Conduct developer/broker/company familiarization (“fam”) tours of Sherwood</p>	<p>Continue to conduct “red carpet” tours of Sherwood industrial and commercial sites to interested companies and to industrial and commercial developers/brokers to familiarize prospects with business growth opportunities in Sherwood. Conduct tours to other public agency stakeholders such as Metro, Greater Portland Inc, and Business Oregon to keep them aware of needs and opportunities in Sherwood.</p>
<p>1.1-1.2 1.4-1.8 2.1-2.2 2.4 2.6</p>	<p>26. Update website, social media, and other media to promote Sherwood</p>	<ul style="list-style-type: none"> ▪ Work to update the Sherwood economic development website as part of any citywide effort to modernize the website. ▪ Maintain a social media presence and prepare press releases to announce key city economic development achievements. ▪ Create a quarterly economic development newsletter focused on business recruitment.

1.1 1.2 1.4 1.5 1.6 1.7 1.8 1.9	27. Connect local industry to K-12, PCC, PSU and other education and training courses to grow the next generation of the workforce	<ul style="list-style-type: none"> ▪ Continue to work in partnership with the Sherwood School District (SSD) to support the growth of local Career Technical Education (CTE) and STEM programs. ▪ Help match employers to the SSD CTE and STEM programs. Increase the linkage between industry and other higher educational facilities such as PCC, PSU, and Oregon Tech to grow and retain talent in the community. The emphasis should be on encouraging local industry involvement with these educational institutions so that career training will stay up-to-speed on evolving industry norms and technologies. ▪ Explore other opportunities to involve the Sherwood School District in the planning of the Sherwood West Technology Innovation Center and on other potential partnership opportunities that will facilitate the growth of tech companies in Sherwood.
1.1-1.2 1.4-1.7 1.9	28. Work to connect Sherwood businesses and job seekers with the resources available to grow their workforce	<ul style="list-style-type: none"> ▪ Continue to connect Sherwood companies with such organizations as WorkSource Metro Portland and Work Systems so that they can recruit new talent to their companies. ▪ Conduct periodic job fairs in Sherwood.
1.1 1.2 1.5 1.6 1.8 2.6 2.8	29. Create and grow spaces and events that enhance the quality of life and the small-town character and amenities of Old Town as the city's unique arts, cultural and dining-entertainment place.	<ul style="list-style-type: none"> ▪ Recognizing the arts and culture are important for economic development, work in support of public/private/non-profit partners to promote and facilitate the growth of Old Town cultural and arts activities, historical attractions, and Old Town events, including the Robin Hood Festival, Cruisin' Sherwood, Art Walks, Holiday Festival, Wine Festival, and activities at the Sherwood Center for the Arts. ▪ Work with partners to encourage public arts in accordance with the Public Art Master Plan. ▪ Work with brokers, property owners and Sherwood Main Street to actively recruit underrepresented retail and restaurant businesses in Old Town as space becomes available. ▪ Pursue public and private infill development opportunities in Old Town. ▪ Work with utility and other partners to encourage the upgrading of Old Town infrastructure.
1.1-1.2 1.4-1.8 2.6 2.8	30. Create opportunities for Sherwood to serve as the "Gateway to the Wine Country"	<ul style="list-style-type: none"> ▪ Pursue the creation of the Hospitality District in Sherwood West on 99W, north of Chapman. Initiate contacts with property owners, stakeholders in the Oregon Wine Country and others to create a plan and zoning for the development of Sherwood's Wine Country Hospitality Zone. ▪ Prepare and periodically update the City-funded Hotel Feasibility studies and utilize study results to actively recruit hotel and unique food and beverage businesses in Sherwood.
1.1-1.2 1.4-1.8 2.6 2.8	31. Consider opportunities for the growth of sporting and other entertainment venues/events/facilities as an economic generator for Sherwood	<ul style="list-style-type: none"> ▪ Work with existing entertainment destinations in Sherwood such as Langer's and the Sherwood Ice Arena to encourage their growth. ▪ Identify other opportunities for the growth of additional/new entertainment facilities that can support the City's economic development goals.

1.8	32. Leverage the presence of the Tualatin River National Wildlife Refuge to increase awareness of visitor attractions in Sherwood	Conduct outreach to the Refuge.
1.8	33. Continue to work proactively to support the development of additional parks, trails, and greenways to enhance the quality of life and connectivity of Sherwood which is critical to local economic development	Support the many partners who are working to develop such linkages.

APPENDIX A – BLI METHODOLOGY

2023 BLI METHODOLOGY

The City of Sherwood staff developed the 2023 BLI using the 2021 BLI as a starting point. The 2021 BLI was updated to reflect current development conditions and correct available land supply at a site-specific level. No changes were made to the underlying 2021 BLI methodology or constrained land inputs. The changes made to the 2021 BLI are provided in the section below, followed by the full data and methodology from the 2021 BLI completed by EcoNorthwest. Final 2023 BLI tables are only provided in the full report.

MANUAL OVERRIDES MADE TO 2021 BLI:

- Tax Lot 2S128C000700 (City URA-owned Property) – the City purchased this property in 2022 for future public facilities including a new intersection at Oregon St. and SW Ice Age Dr. The development status was changed from vacant to exempt. Net loss of 3.85 unconstrained buildable acres.
- Tax Lot 2S128C000501 (Allied Systems Property) – the development status of the property was changed from Potentially Redevelopable to Developed. The status was changed because a majority of the site is being used with limited available capacity, including areas of the site that are not covered by buildings. In addition, a large portion of the site is within the Rock Creek corridor and is constrained. Net loss of 15.82 unconstrained buildable acres.
- Tax Lot 2S128C000200 (Cascade Columbia Distribution Property) – the amount of buildable acres on the property was reduced from 13.95 buildable acres to 4.5 buildable acres. The 2021 BLI appears to have taken into account site areas not covered by buildings and constrained land as an indicator that the site may be redevelopable in the next 20 years. Based on the condition of buildings and property owner plans for expansion, the development is likely to remain and continue to remain with incremental improvements and expansions rather than full redevelopment. The City recently issued land use approval for an expansion on an undeveloped portion of the site. The amount of redevelopable property was reduced to the vacant portion of the site along Tualatin-Sherwood Rd. Net loss of 9.45 unconstrained buildable acres.
- Tax Lot 2S129BA00101 (Sherwood HQ Property) – the property appears to be a remnant piece of land used for utilities or other non-buildable area. The width of the lot is 50 ft., which does not support industrial development (GI zoning). Status changed from vacant to exempt. Net loss of 0.50 unconstrained buildable acres.
- Tax Lot 2S129A001800 (Local Plumbing Property) – the tax lot was developed since the 2021 update. Status changed from vacant to developed. Net loss of 0.92 unconstrained buildable acres.
- Tax Lot 2S129D000150 (Sherwood Industrial Park Property) – the amount of buildable acres on the property was changed from 12.16 buildable acres to 2.75 buildable acres. The 2021 BLI appears to have taken into account site areas not covered by buildings and constrained land as an indicator that the site may be redevelopable in the next 20 years. Based on the condition of buildings and property owner plans for expansion, the development is likely to remain and continue to remain with incremental improvements and expansions rather than full redevelopment. The City has received a land use application for new development on an undeveloped portion of the site. The amount of redevelopable property was reduced to the

vacant portion of the site along Tualatin-Sherwood Rd. Net loss of 9.41 unconstrained buildable acres.

- Tax Lot 2S129DC00800 (Zenport Property) – a portion of the tax lot was developed since the 2021 update. Status changed from vacant to potentially redevelopable with the vacant portion counted towards the land base (1.65-acres). Net loss of 1.11 unconstrained buildable acres

2021 BLI METHODOLOGY AND DATA

The general structure of the 2021 buildable land (supply) analysis is based on the methods used for Metro’s buildable lands inventory included with the 2018 Urban Growth Report, Appendix 2.³ The City’s consultant used GIS data with the Metro BLI as a starting point for determining buildable employment land in Sherwood. The buildable lands inventory uses methods and definitions that are consistent with OAR 660-009 and OAR 660-024. The steps in the inventory were:

- Generate employment “land base.” This involved “clipping” the tax lots in the Sherwood City Limits, Tonquin Employment Area, and Brookman Annexation Area that were designated as employment lands in the Metro BLI⁴ and intersecting them with the comprehensive plan layer. The GIS function was followed by a quality assurance step to review the output and validate that the resulting dataset accurately represents all lands designated for employment use in the Sherwood City Limits, Tonquin Employment Area, and Brookman Annexation Area.
- Classify lands. Each tax lot was classified into one of the following categories, using Metro’s classification system as a starting point and reviewed by City staff:
 - Vacant land
 - Potentially redevelopable land⁵
 - Developed or exempt land
- Identify constraints. The City identifies areas in steep slopes (over 15%), landslide hazard areas, wetlands, public facilities, floodways, Title 3 stream and floodplain protection areas, and Title 13 riparian corridors and upland habitats. These areas are deducted from lands that were identified as vacant or potentially redevelopable. To estimate the constrained area within each tax lot, all constraints listed above were merged into a single constraint file, which was overlaid on tax lots.⁶
- Evaluate redevelopment potential. According to statewide planning rules, redevelopable land is land on which development has already occurred, but on which, due to present or expected

³ Appendix 2 Buildable Lands Inventory, 2018 Urban Growth Report (Discussion draft). Metro. June 2018.
https://www.oregonmetro.gov/sites/default/files/2018/07/03/UGR_Appendix2_Buildable_Lands_Inventory.pdf

⁴ Metro defined employment land by zone as “ZONE_GEN in ('COM','IND','MUR').”

⁵ Metro used a “strike-price method” to determine redevelopment potential for each tax lot. A full description of the method is available in the 2018 Urban Growth Report:
https://www.oregonmetro.gov/sites/default/files/2018/07/03/UGR_Appendix2_Buildable_Lands_Inventory.pdf.

⁶ Net buildable acreage for taxlots designated as “potentially redevelopable” was determined using the “net_emp_strike_price” field from the Metro 2018 BLI. This field already factors in constrained area, thus ECONorthwest did not deduct constrained area from this number. For taxlots designated as “vacant,” we calculated the constrained area of the taxlot and subtracted the constrained area from the total taxlot area.

market forces, there is potential that existing development will be converted to more intensive uses during the planning period. Lands determined to be redevelopable have been categorized as “potentially redevelopable” for the purpose of this analysis.⁵

- Tabulation and mapping. The results are presented in tabular and map formats with accompanying narratives. The maps include lands by classification and maps of vacant and partially vacant lands with constraints.

DEFINITIONS

Metro developed the buildable lands inventory with a tax lot database from RLIS. The tax lot database is current as of March 2018. The inventory builds from the database to estimate buildable land by plan designation. A key step in the buildable lands inventory was to classify each tax lot into a set of mutually exclusive categories. Metro classified all tax lots in Sherwood into one of the following categories:

- *Vacant land.*⁷ Any tax lot that is “fully vacant (Metro aerial photo)”; or “with less than 2,000 sq. ft. developed AND developed part is under 10% of entire tax lot”; or that is “95% or more ‘vacant’ from the GIS vacant land inventory.”
- *Potentially redevelopable land.*⁸ For tax lots that were not classified vacant or exempt, Metro included all other employment land tax lots in the strike-price model. Tax lots with a value greater than zero in the “net_emp_acres_strike_price” field in the Metro BLI GIS layer were considered to have redevelopment potential. The value in that field for each tax lot is the number of acres that are potentially redevelopable, not including constrained acres. Tax lots with a “net_emp_acres_strike_price” value of zero were considered developed.
- *Developed land.*⁹ Tax lots with a “net_emp_acres_strike_price” value of zero were considered developed.
- *Exempt land.*¹⁰ Land that is classified as either, “tax exempt with property codes for city, state, federal and Native American designations; schools; churches and social organizations; private streets; rail properties; tax lots under 1,000 sq. ft. (0.023 gross acres); parks, open spaces and where possible private residential common areas.” Metro used GIS data and Assessor’s data to determine the status of exempt land. ECONorthwest included all tax lots classified as exempt land in the developed land tabular and mapping information, but these tax lots can still be distinguished in the GIS data layer.

⁷ Appendix 2 Buildable Lands Inventory, 2018 Urban Growth Report (Discussion draft). Metro. June 2018. p. 20.
https://www.oregonmetro.gov/sites/default/files/2018/07/03/UGR_Appendix2_Buildable_Lands_Inventory.pdf.

⁸ Appendix 2 Buildable Lands Inventory, 2018 Urban Growth Report (Discussion draft). Metro. June 2018.
https://www.oregonmetro.gov/sites/default/files/2018/07/03/UGR_Appendix2_Buildable_Lands_Inventory.pdf

⁹ Appendix 2 Buildable Lands Inventory, 2018 Urban Growth Report (Discussion draft). Metro. June 2018.
https://www.oregonmetro.gov/sites/default/files/2018/07/03/UGR_Appendix2_Buildable_Lands_Inventory.pdf

¹⁰ Appendix 2 Buildable Lands Inventory, 2018 Urban Growth Report (Discussion draft). Metro. June 2018. pp. 20-21.
https://www.oregonmetro.gov/sites/default/files/2018/07/03/UGR_Appendix2_Buildable_Lands_Inventory.pdf.

ECONorthwest initially classified land using Metro’s categories and generated maps for City staff to review. City staff had previously reviewed Metro’s analysis for Sherwood, but there were a few updates to tax lots that had redeveloped since that review. ECONorthwest adjusted the classification accordingly and noted manual changes in the GIS data layer.

DEVELOPMENT CONSTRAINTS

The physical constraints used in the Sherwood buildable lands inventory include: areas subject to landslides, areas with slopes greater than 15%,¹¹ lands within the 100-year flood plain, Metro’s Title 3 land (including Water Resource Conservation Areas), lands within Metro’s Title 13 Habitat Conservation Areas (Class I and II, A and B), Wetlands, and public facilities.

LAND BASE

Table 1 summarizes all land included in the employment land base (e.g., lands with plan designations that allow employment). ECONorthwest used this land base in the buildable lands analysis for Sherwood. The land base includes traditional employment designations with Sherwood’s city limits—Commercial and Industrial—along with land designated for future development in the Tonquin Employment Area and Brookman Annexation Area as of May 2018. According to Metro RLIS data, within Sherwood’s city limits there are about 171 acres in 134 tax lots with a commercial plan designation, and about 478 acres in 115 tax lots with an industrial plan designation. The Tonquin Employment Area is located on the eastern edge of Sherwood’s city limits and is in the Metro UGB. It has about 282 acres in 25 tax lots. The Brookman Annexation Area, also within the Metro UGB, is located southwest of Sherwood’s city limits. It has about 25 acres designated for employment land in 4 tax lots.

TABLE 1. ACRES IN SHERWOOD CITY LIMIT, TONQUIN, AND BROOKMAN, 2018¹²

Plan Designation/Area	Tax Lots	Total Acres
Commercial	134	171
Industrial	115	478
Tonquin	25	282
Brookman	4	25
Total	278	956

Source: Metro RLIS, 2018 BLI, & ECONorthwest analysis.

¹¹ Metro’s calculation of constrained area for employment land includes slopes greater than 25%. Lands for commercial and industrial uses are typically developed on slopes no greater than 15%, so we used an “erase” function in GIS to determine any constrained areas that were not included in Metro’s calculation of constrained area. These additional constraints were subtracted from the “net_emp_strike_price” value for tax lots designated as “potentially redevelopable,” and included in the total constraints layer and subtracted from the total area for tax lots designated as “vacant.”

¹² The original land base included 277 tax lots. The final version includes 278 tax lots, because City staff requested to split a tax lot in the Tonquin Employment Area into two tax lots. One tax lot is the planned water treatment plant, which was considered developed in the BLI, and the other remained designated as “vacant.” In addition, the “Langer Farms site” was originally included in the BLI with the northern portion of the site as potentially redevelopable and counted in the unconstrained buildable acreage. In the current version, the entire tax lot was classified as vacant after discussion with City staff about the development of the Fun Center and retail/commercial shopping plaza on the remainder of the site.

The next step in the inventory was to classify lands into mutually exclusive categories that relate to their development status. The categories include:

- Vacant land
- Potentially redevelopable land
- Developed land
- Exception land

ECONorthwest used the rules described in the prior section to perform a preliminary classification, based on Metro’s previous analysis. The next step was to show the results in a map form for City staff to review and suggest changes. ECONorthwest completed the manual classification changes, as noted in the GIS data layer.

Table 2 shows commercial and industrial land in Sherwood by classification (development status). The results show that Sherwood has 956 total acres in commercial and industrial plan designations. Of the 956 acres in the UGB, about 474 acres (50%) are in classifications with no development capacity, 233 acres (24%) are constrained, and 249 acres (26%) are buildable land with development capacity.

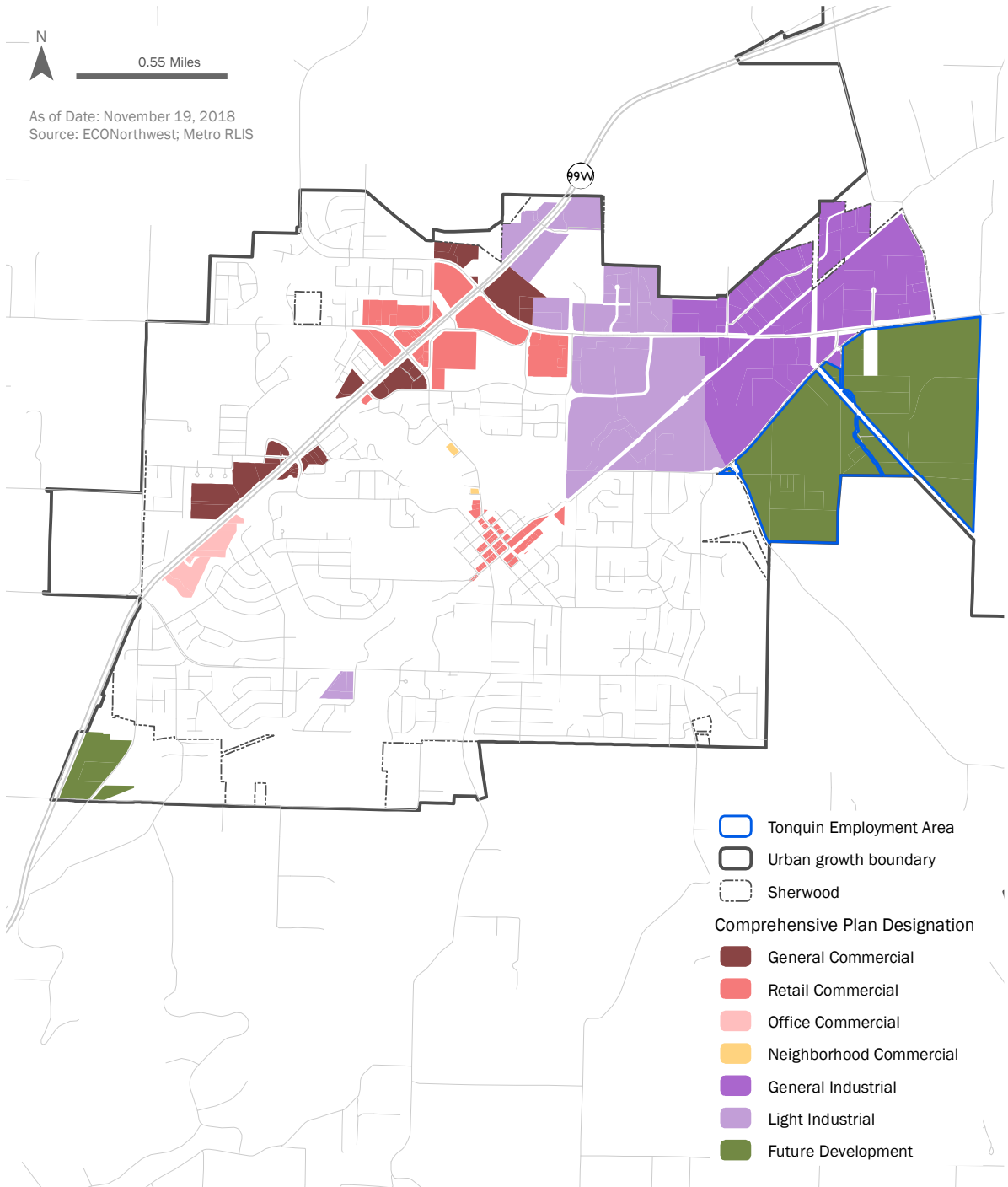
**TABLE 2. EMPLOYMENT ACRES BY CLASSIFICATION AND PLAN DESIGNATION
SHERWOOD CITY LIMITS, TONQUIN, AND BROOKMAN ANNEXATION AREA, 2021**

Plan Designation	Tax Lots	Total Acres	Total Unconstrained Buildable Acres		
			Acres with No Development Capacity	Constrained Acres	Total Unconstrained Buildable Acres
Commercial	134	171	119	27	25
General Commercial	31	62	38	10	14
Neighborhood Commercial	2	1	1	0	0
Office Commercial	11	16	6	5	5
Retail Commercial	90	92	74	12	6
Industrial	115	478	290	91	97
General Industrial	66	238	158	19	61
Light Industrial	49	240	132	72	36
Tonquin	25	282	62	111	110
Future Development	25	282	62	111	110
Brookman	4	25	3	4	18
Future Development	4	25	3	4	18
Total	278	956	474	233	249
Percent of Total		100%	50%	24%	26%

Source: Metro RLIS, 2018 BLI, & ECONorthwest analysis.

Map 1 shows commercial and industrial land in Sherwood by plan designation.

MAP 1. MAP OF EMPLOYMENT LAND BY CLASSIFICATION, SHERWOOD CITY LIMITS, TONQUIN, AND BROOKMAN, 2018



VACANT BUILDABLE LAND

The next step in the commercial and industrial buildable land inventory was to net out portions of vacant tax lots that are unsuitable for development. Areas unsuitable for development fall into three categories: (1) developed areas of partially vacant tax lots, (2) areas with service constraints (5 tax lots within the UGB east of I-5 have no access to infrastructure such as water and sewer), (3) areas with physical constraints (areas with wetlands, floodways, riparian setback areas and steep slopes).

Table 3 shows unconstrained buildable acres for vacant and potentially redevelopable land by plan designation. The results show that Sherwood has about 249 net buildable acres in commercial and industrial plan designations. Of this, 10% (25 acres) is in the commercial designations, 39% (97 acres) is in industrial designations, and 51% (127 acres) is designated as future development in the Tonquin Employment Area and Brookman Annexation Area.

TABLE 3. EMPLOYMENT LAND WITH UNCONSTRAINED DEVELOPMENT CAPACITY (VACANT, POTENTIALLY REDEVELOPABLE) BY PLAN DESIGNATION, SHERWOOD CITY LIMITS, TONQUIN, AND BROOKMAN, 2021

Plan Designation	Unconstrained Vacant Acres	Unconstrained Potentially Redevelopable Acres	Total Unconstrained Buildable Acres
Commercial	11	14	25
General Commercial	5	8	13
Office Commercial	4	1	5
Retail Commercial	2	5	7
Industrial	31	66	97
General Industrial	17	44	61
Light Industrial	14	22	36
Tonquin	23	86	109
Future Development	23	86	109
Brookman	0	18	18
Future Development	0	18	18
Total	65	184	249
Percent of Total	26%	74%	100%

Source: Metro RLIS, 2021 BLI, & ECONorthwest analysis.

Map 2 shows commercial and industrial land in Sherwood by development status with development constraints.

MAP 2. MAP OF EMPLOYMENT LAND BY CLASSIFICATION WITH DEVELOPMENT CONSTRAINTS, SHERWOOD CITY LIMITS, TONQUIN, AND BROOKMAN, 2021

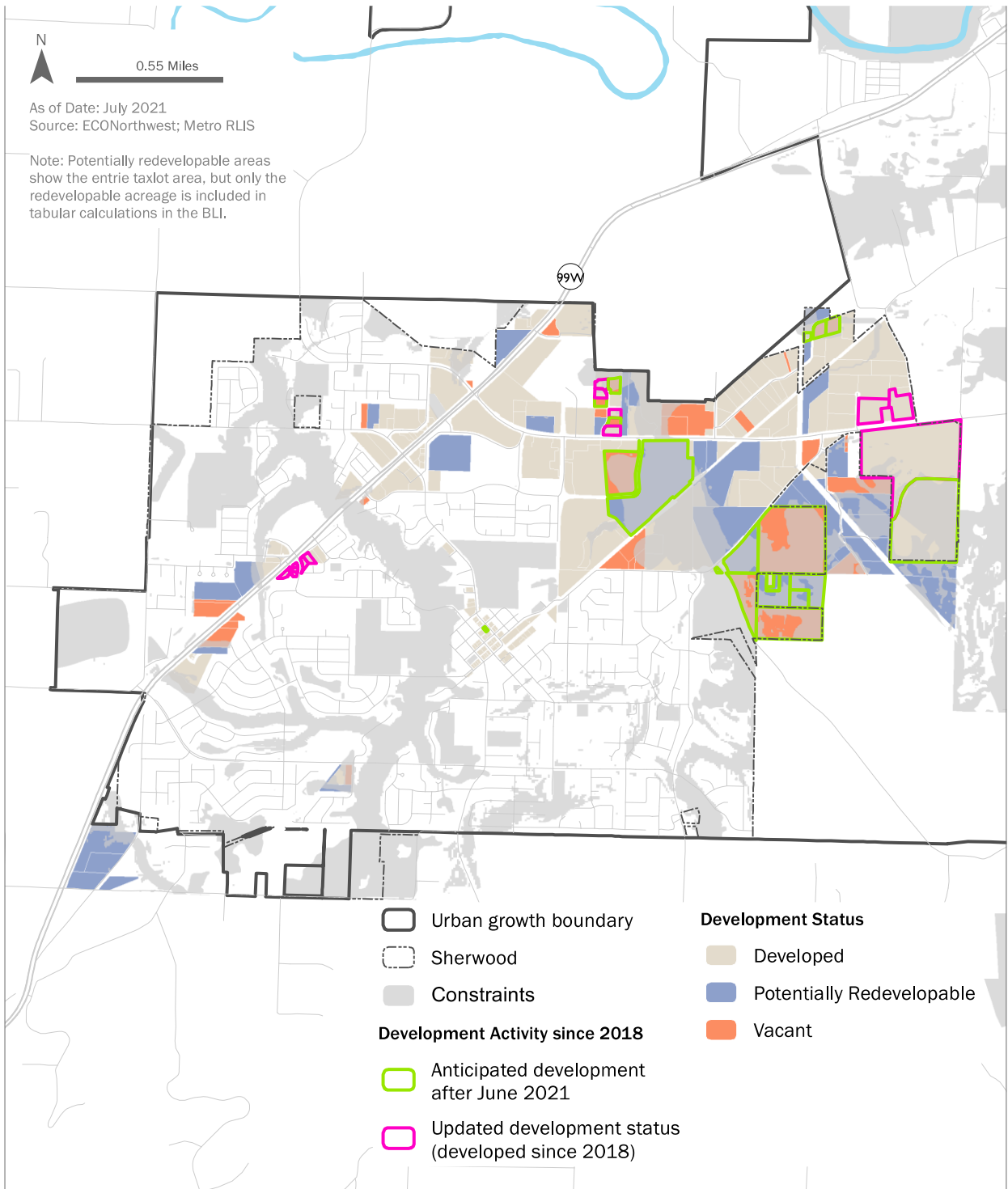


Table 4 shows the size of lots by plan designations for buildable employment land. Sherwood has 30 lots that are smaller than 2 acres (with 25 acres of land). Sherwood has 37 lots between 2 and 10 acres (183 acres of land) and 3 lots between 10 and 50 acres in size (42 acres of land).

**TABLE 4. LOT SIZE BY PLAN DESIGNATION, BUILDABLE ACRES
SHERWOOD CITY LIMITS, TONQUIN, AND BROOKMAN, 2021**

Plan Designation	Buildable Acres in Tax Lot				
	<1	1 - 1.99	2 - 4.99	5 - 9.99	10 - 49.99
Acres					
Commercial	3	4	13	5	0
General Commercial	1	0	7	5	0
Neighborhood Commercial	0	0	0	0	0
Office Commercial	2	1	3	0	0
Retail Commercial	0	3	3	0	0
Industrial	6	7	29	13	42
General Industrial	1	3	14	13	30
Light Industrial	5	4	15	0	12
Tonquin	2	3	16	89	0
Future Development	2	3	16	89	0
Brookman	0	0	11	7	0
Future Development	0	0	11	7	0
Subtotal	11	14	69	114	42
Taxlots					
Commercial	6	3	4	1	0
General Commercial	2	0	2	1	0
Neighborhood Commercial	0	0	0	0	0
Office Commercial	2	1	1	0	0
Retail Commercial	2	2	1	0	0
Industrial	11	5	10	2	3
General Industrial	3	2	5	2	2
Light Industrial	8	3	5	0	1
Tonquin	3	2	4	12	0
Future Development	3	2	4	12	0
Brookman	0	0	3	1	0
Future Development	0	0	3	1	0
Subtotal	20	10	21	16	3

Source: Metro RLIS, 2021 BLI, & ECONorthwest analysis.

The data in Table 4 show that Sherwood has no commercial sites larger than 10 acres within the city limits. Sherwood does, however, have industrial sites larger than 10 acres (a total of 42 acres). In addition, the Tonquin Employment Area has 12 sites between 5 and 10 acres and no sites larger than 10 acres. The Brookman Annexation Area has 3 sites between 2 and 5 acres and 1 site between 5 and 10 acres.

SHORT TERM LAND SUPPLY

POLICY CONTEXT

The Goal 9 Administrative Rule (OAR 660-009) includes provisions that require certain cities to ensure an adequate short-term supply of industrial and other employment lands. OAR 660-009-005(10) defines short term supply as follows:

“...means suitable land that is ready for construction within one year of an application for a building permit or request for service extension. Engineering feasibility is sufficient to qualify land for the short-term supply of land. Funding availability is not required.

“Competitive Short-term Supply” means the short-term supply of land provides a range of site sizes and locations to accommodate the market needs of a variety of industrial and other employment uses.”

The Goal 9 rule also requires cities in a Metropolitan Planning Organization (MPO, which includes Sherwood) to make a commitment to provide a competitive short-term supply of land and establish targets for the short-term supply of land. Specifically, OAR 660-009-0020(1)(b) states:

“Cities and counties within a Metropolitan Planning Organization must adopt a policy stating that a competitive short-term supply of land as a community economic development objective for the industrial and other employment uses selected through the economic opportunities analysis pursuant to OAR 660-009-0015.”

The rule goes on to clarify short-term land supply targets for cities in an MPO (OAR 660-009-0025):

(3) Short-Term Supply of Land. Plans for cities and counties within a Metropolitan Planning Organization or cities and counties that adopt policies relating to the short-term supply of land must designate suitable land to respond to economic development opportunities as they arise. Cities and counties may maintain the short-term supply of land according to the strategies adopted pursuant to OAR 660-009-0020(2).

(a) Except as provided for in subsections (b) and (c), cities and counties subject to this section must provide at least 25% of the total land supply within the urban growth boundary designated for industrial and other employment uses as short-term supply.

(b) Affected cities and counties that are unable to achieve the target in subsection (a) above may set an alternative target based on their economic opportunities analysis.

(c) A planning area with 10 percent or more of the total land supply enrolled in Oregon's industrial site certification program pursuant to ORS 284.565 satisfies the requirements of this section.

In summary, the rule requires Sherwood to assess the short-term supply of employment land based on the criteria that land can be ready for construction within one year. The determination is based on “engineering feasibility.”