City of Scappoose
Economic Opportunities Analysis

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Draft Report

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Executive Summary

This report presents an economic opportunities analysis (EOA) for Scappoose, consistent with the requirements of Statewide Planning Goal 9 and the Goal 9 Administrative Rule (OAR 660-009). Goal 9 describes the EOA as

> "an analysis of the community's economic patterns, potentialities, strengths, and deficiencies as they relate to state and national trends" and states that "a principal determinant in planning for major industrial and commercial developments should be the competitive advantage of the region within which the developments would be located."

The primary goals of the EOA are to (1) project the amount of land needed to accommodate the future employment growth within Scappoose between 2023 and 2043, (2) evaluate the existing employment land supply within the city to determine if it is adequate to meet that need, (3) help the City understand its economic opportunities in the context of Scappoose's comparative advantages and disadvantages, and (4) to fulfill state planning requirements for a twenty-year supply of employment land.

How much buildable employment land does Scappoose currently have?

Scappoose has 1,129 total acres in its commercial or industrial plan designations. Of these 1,129 acres, about 489 acres (43%) are unconstrained and buildable within its UGB. Of Scappoose's buildable acres, 412 (84%) are designated for airport employment, 39 (8%) are designated for commercial uses and 38 (8%) are designated for industrial uses.

How much growth is Scappoose planning for?

Goal 9 requires that cities provide for an adequate supply of commercial and industrial sites consistent with plan policies. To meet this requirement, Scappoose needs an estimate of the amount of commercial and industrial land that will be needed over the 2023 to 2043 planning period.

Scappoose's employment base is 3,657 employees in 2023. Scappoose is forecast to have 5,783 employees by 2043. This is an increase of 2,126 jobs over the planning period.

Most new employment will require commercial and industrial lands, accounting for nearly 95% of new employment growth (2,035 employees) over the 2023 and 2043 planning period. Scappoose will accommodate new government employees (91 of the 2,126 employees) in existing government buildings and areas designated for public use.

How much land will be required for employment?

The forecast for land needed to accommodate employment growth in Scappoose shows that the growth of 2,126 new employees will result in demand for about 192 gross acres of commercial and industrial employment lands.

Does Scappoose have enough land to accommodate employment growth?

Scappoose has sufficient land to accommodate demand for industrial employment in the Scappoose UGB, but it does not have sufficient land to accommodate demand for commercial employment.

Based on land demand, Scappoose is forecast to have a 301-gross-acre surplus of industrial land and a 21-gross-acre deficit of commercial land. While Scappoose has a substantial surplus of industrial land, the deficit of commercial land suggests that Scappoose will need to carefully consider actions to accommodate the deficit within the existing UGB.

What are Scappoose's growth opportunities?

Scappoose's primary competitive advantages are:

- The city's proximity to both outdoor recreation and urban amenities in Greater Portland makes Scappoose an attractive place to live and grow businesses.
- Scappoose has a substantial inventory of buildable industrial land and infrastructure to support employment growth, both for larger and smaller businesses.
- The presence of OMIC and PCC provides innovation support and workforce training opportunities, both of which may attract new businesses to locate in Scappoose.
- Scappoose's location along Highway 30 and proximity to the Portland region provide opportunities for relatively easy freight movement and allow businesses in Scappoose to attract workers from across the region.

These factors make Scappoose attractive to residents and businesses that want a high quality of life where they live and work.

The types of businesses that have potential for growth in Scappoose include (but are not limited to): manufacturers (especially those associated with OMIC or PCC), professional service companies, aviation-related industries, construction and other trade industries, service for residents (such as retail, restaurants, medical services, or childcare services), and services for visitors (such as hotels, restaurants, specialty retail, and experiences).

What are the conclusions of the EOA?

- **Scappoose is forecast for growth in both the commercial and industrial employment sectors.** Scappoose is planning for the growth of 2,126 new jobs in the city over the 2023 to 2043 period. About 973 of the jobs will be industrial, 961 of the jobs will be in office and commercial services, and 101 in retail. Growth of these jobs will result in demand for about 51 gross acres of commercial land and 141 gross acres of industrial land.
- **Scappoose has enough employment land to accommodate industrial growth.** Scappoose has enough land for industrial employment growth over the next 20 years, with a surplus of 301 acres. For its target industries, Scappoose will need industrial sites ranging from 5 to 25 acres for small and mid-sized manufacturing and other industrial businesses to 25 to 100-acre sites for large industrial businesses or new business parks.
- **Scappoose has a deficit of land for commercial development.** Scappoose has a deficit of about 21 gross acres of land for commercial office, services, and retail uses. This deficit can be accommodated through increases in land use efficiency within the existing UGB, expansion of the UGB for more commercial land, or both.
- **Scappoose wages are lower than the regional average.** Scappoose's average wage of $37,717 is lower than the average of $40,729 for Columbia County. Scappoose's potential growth industries generally have above average wages, except for certain types of services for residents and visitors, such as retail.
- **Scappoose will need to address key infrastructure needs in the city.** Scappoose will need to address water service deficiencies to support future employment growth. To meet upcoming demand, Scappoose has plans for three to four new wells to support future growth. The City of Scappoose is currently addressing wastewater system constraints and expects to be able to comfortably accommodate new employment once sewer updates are finalized.

What are the key recommendations?

Following are ECONorthwest's recommendations for actions for Scappoose based on the analysis and conclusions in this report.

- **Update the Economic Element of the Comprehensive Plan.** The Economy Element has not been updated in more than a decade and should be revisited given new conditions and competitive advantages.
- **Align the City's goals for economic development with planning for infrastructure development.** Aside from ensuring that there is sufficient land to support employment growth, one of the most important ways that the City can support economic development is through planning for and developing infrastructure (e.g., roads, water, sanitary sewer, and storm water systems). We recommend that the City align its goals for economic development with infrastructure development through updates to the City's Capital Improvements Plan.

Providing infrastructure to the large-lot industrial land near the Airport is necessary to allow employment growth to occur in the area. Without infrastructure, much of this land will remain undeveloped. Scappoose has made progress in ensuring infrastructure is available in this area but will likely need to work with developers and businesses to extend services as land is developed.

- **Monitor and replenish the supply of commercial and industrial land on a regular, periodic basis.** The buildable lands inventory identifies the existing development status of employment land in Scappoose. While Scappoose will not completely update the buildable lands inventory on an annual basis, City staff should still monitor the development status of these employment lands and replenish short-term supply when possible.
- **Work with partners to develop a broad economic development strategy for Scappoose.** The city may consider a broad strategy to support economic development that focuses on celebrating quality of place, expanding business development, and supporting upward economic mobility. Starting with the strong network of economic development partners and practitioners will leverage even greater success for Scappoose's employers, employees, and residents.

1. Introduction

The City of Scappoose last updated the Economic Element of its Comprehensive Plan in 2010, when it developed an economic opportunity analysis that resulted in the City expanding its urban growth boundary by 378 acres primarily for industrial land near the Scappoose Airport. Since the expansion became official in 2015, the City approved annexations for industrial land south and east of the airport as well as for development of the Oregon Manufacturing and Innovation Center (OMIC).

Development of OMIC was accompanied by development of the Portland Community College (PCC) Training Center, which offers manufacturing-related training programs. The combination of these programs is developing the next generation of skilled workers to support manufacturing jobs in Scappoose and across Oregon. OMIC is adding a second building, with a focus on manufacturing processes based on 3-D printing technologies. Scappoose has a wealth of developable land for industrial and related limited commercial uses near the Scappoose Airport and OMIC. The Scappoose Airport is well positioned to support manufacturing jobs with airport-related uses and hangar space.

Growth of the facilities and businesses at the Scappoose Airport will lead to growth in more industrial businesses at and near the Airport, as well as services for people who live, work, and visit Scappoose. Scappoose's proximity to the Portland region, location along Highway 30, and access to outdoor recreation make the community a desirable place to grow, expand, and locate new businesses.

This EOA is part of a broader project to adopt a 50-Year Plan which will help the City better understand how the community may grow, and how to accommodate that growth, over the next 50 years. This project provides the opportunity to re-examine Scappoose's employment land needs considering the continued changes in the national and regional economy since 2010, which have implications for economic growth in Scappoose. The 2023 EOA accounts for recent employment trends and changes in economic conditions.

This report presents an economic opportunities analysis (EOA) for the City of Scappoose, which will serve as the basis for revised Comprehensive Plan policies that capitalize on Scappoose's opportunities and help address current and future challenges. The EOA includes technical analysis to address a range of questions that Scappoose faces in managing its commercial and industrial land.

The EOA includes an employment forecast that describes how much growth Scappoose should plan for over the 2023 to 2043 period and identifies the amount and type of employment land necessary to accommodate growth in Scappoose over that period. The EOA also includes a forecast of commercial and industrial growth and land need for the 2043 to 2073 period, in support of the City establishing Urban Reserves to allow the City to plan for 50-years of growth.

The EOA also includes an inventory of commercial and industrial land within Scappoose's urban growth boundary (UGB) to provide information about the amount of land available to accommodate employment growth.

The EOA draws on information from numerous data sources, such as the Oregon Employment Department, Portland State University Population Forecasts, U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics, and the U.S. Census.

Framework for an Economic Opportunities Analysis

The content of this report is designed to meet the requirements of Oregon Statewide Planning Goal 9 and the administrative rule that implements Goal 9 (OAR 660-009). The analysis in this report is designed to conform to the requirements for an EOA in OAR 660-009 as amended.

1. *Economic Opportunities Analysis (OAR 660-009-0015)*. The Economic Opportunities Analysis (EOA) requires communities to identify the major categories of industrial or other employment uses that could reasonably be expected to locate or expand in the planning area based on information about national, state, regional, county, or local trends; identify the number of sites by type reasonably expected to be needed to accommodate projected employment growth based on the site characteristics typical of expected uses; include an inventory of vacant and developed lands within the planning area designated for industrial or other employment use; and estimate the types and amounts of industrial and other employment use likely to occur in the planning area. Local governments are also encouraged to assess community economic development potential through a visioning or some other public input–based process in conjunction with state agencies.
2. *Industrial and commercial development policies (OAR 660-009-0020)*. Cities are required to develop commercial and industrial development policies based on the EOA. Local comprehensive plans must state the overall objectives for economic development in the planning area and identify categories or particular types of industrial and other employment uses desired by the community. Local comprehensive plans must also include policies that commit the city or county to designate an adequate number of employment sites of suitable sizes, types, and locations. The plan must also include policies to provide necessary public facilities and transportation facilities for the planning area.
3. *Designation of lands for industrial and commercial uses (OAR 660-009-0025)*. Cities and counties must adopt measures to implement policies pursuant to OAR 660-009-0020. Appropriate implementation measures include amendments to plan and zone map designations, land use regulations, public facility plans, and transportation system plans. More specifically, plans must identify the approximate number, acreage, and characteristics of sites needed to accommodate industrial and other employment uses to implement plan policies and must designate serviceable land suitable to meet identified site needs.

Stakeholder Engagement Process

Development of the EOA was informed by feedback from a Stakeholder Advisory Committee (SAC), composed of city leaders, economic development practitioners, non-profit organizations, higher education and port leaders, and community members at large. The SAC met 12 times over the course of the entire 50-Year Plan project. Two of those meetings were dedicated to developing the EOA. During the first EOA meeting, the SAC discussed the buildable lands inventory, employment forecast, and competitive and comparative advantages. In the second meeting, the SAC discussed land sufficiency, site needs, and provided feedback on the overall EOA.

Public engagement occurred through the 50-Year Plan project, through the following:

- **Community Conversations.** These conversations were led by City staff and SAC members and were designed to engage community members in places where they already gather and feel comfortable. The discussions focused on what community members value about Scappoose today and what could make it a better place in the future.
- **Community Events.** The project team engaged the community during the following community events: Scappoose Farmers Market, the 2021 Annual Town Meeting, and the Scappoose Adventure Festival. These events provided community members an opportunity to engage and share visioning ideas with their neighbors face-to-face, as well as review and comment on the 50-year Plan Vision Statement.
- **Surveys.** An initial online survey was used to gather general interests and positions of the public throughout the Visioning and 50-Year Plan process. A second survey provided an opportunity to review the feedback received to date and vet the draft 50-year Plan Vision Statement.
- **Online Engagement.** Supported City staff in developing ongoing education and engagement materials to be offered online.

The 50-year planning process also included decision-maker work sessions to ensure that elected and appointed officials were engaged in the process and had an opportunity to provide input and direction.

Organization of This Report

This report is organized as follows:

- **Chapter 2. Factors Affecting Future Economic Growth** summarizes historic economic trends that affect current and future economic conditions in Scappoose, as well as Scappoose's competitive advantages for economic development.
- **Chapter 3. Employment Growth and Site Needs** presents a forecast for employment growth in Scappoose and describes potential growth industries and site needs for potential growth in industries.
- **Chapter 4. Buildable Lands Inventory** presents a summary of the inventory of employment lands.
- **Chapter 5. Land Sufficiency and Conclusions** compares the supply of and demand for buildable lands and presents key concluding recommendations for Scappoose.

This report also includes two appendices:

- **Appendix A. National, State, and Regional and Local Trends**
- **Appendix B. Buildable Lands Inventory Methodology**

2. Factors Affecting Future Economic Growth

Scappoose exists as part of the economy of the Portland Metro region, which includes Clackamas, Columbia, Multnomah, Washington, and Yamhill Counties in Oregon and Clark and Skamania Counties in Washington. Its proximity to Portland, the largest city in the region, provides opportunities for the city's residents and access to a larger labor pool for employers. Scappoose's economy consists of an industry mix of retail trade, government services, accommodation and food services, and manufacturing.

OMIC presents important opportunities for economic development in Scappoose. As OMIC grows and gains a national and international reputation and connections, businesses may choose to locate in Scappoose to take advantage of clustering benefits, knowledge spillover, and workforce training opportunities. As manufacturing businesses grow, commercial and retail service businesses will also likely grow.

This chapter describes the factors affecting economic growth in Scappoose within the context of national and regional economic trends. The analysis presents the City's competitive advantages for growing, attracting, and retaining businesses, which forms the basis for identifying potential growth industries in Scappoose.

Factors that Affect Economic Development[1]

The fundamental purpose of Goal 9 (the Statewide Planning Goal for Economic Development) is to ensure that local governments plan for economic development. Planning literature provides many definitions of economic development, both broad and narrow. Broadly,

> "Economic development is the process of improving a community's well-being through job creation, business growth, and income growth (factors that are typical and reasonable focus of economic development policy), as well as through improvements to the wider social and natural environment that strengthen the economy."[2]

That definition acknowledges that a community's well-being depends in part on narrower measures of economic well-being (e.g., jobs and income) and on other aspects of quality of life (e.g., the social and natural environment). In practice, cities and regions trying to prepare an economic development strategy typically use a narrower definition of economic development; they take it to mean business development, job growth, and job opportunity. The assumptions are that:

- Business and job growth are contributors to and consistent with economic development, increased income, and increased economic welfare. From the municipal point of view,

[1] The information in this section is based on previous Goal 9 studies conducted by ECONorthwest, as well as "An Economic Development Toolbox: Strategies and Methods" published by the American Planning Association.

[2] An Economic Development Toolbox: Strategies and Methods, Terry Moore, Stuart Meck, and James Ebenhoh, American Planning Association, Planning Advisory Service Report Number 541, October 2006.

investment and resulting increases in property tax are important outcomes of economic development.

- The evaluation of trade-offs and balancing of policies to decide whether such growth is likely to lead to overall gains in well-being (on average and across all citizens and businesses in a jurisdiction) is something that decision-makers do after an economic strategy has been presented to them for consideration.

That logic is consistent with the tenet of the Oregon land use planning program: all goals matter, no goal dominates, and the challenge is to find a balance of conservation and development that is acceptable to a local government and the State. Goal 9 does not dominate, but it legitimizes and requires that a local government focus on the narrower view of economic development regarding economic variables.

In that context, a major part of local economic development policy is about local support for business development and job growth; that growth comes from the creation of new firms, the expansion of existing firms, and the relocation or retention of existing firms. Specifically, new small businesses are accounting for a larger share of the job growth in the United States. This shift toward a focus on entrepreneurship, innovation, and small businesses presents additional options for local support for economic development beyond firm attraction and retention. Thus, two key questions for economic development policy are:

- What are the factors that influence business and job growth?
- What is the relative importance of each?

This document addresses these questions in depth.

What Factors Matter?

Why do firms locate where they do? There is no single answer—different firms choose their locations for different reasons. Key determinants of a location decision are a firm's factors of production. For example, a firm that spends a large portion of total costs on unskilled labor will be drawn to locations where labor is relatively inexpensive. A firm with large energy demands will give more weight to locations where energy is relatively inexpensive. In general, firms choose locations they believe will allow them to maximize net revenues: if demand for goods and services are held roughly constant, then revenue maximization is approximated by cost minimization.

The typical categories that economists use to describe a firm's production function are:

- **Labor.** Labor is often the most important factor of production. Other things equal, firms look at productivity—labor output per dollar. Productivity can decrease if certain types of labor are in short supply, which increases the costs by requiring either more pay to acquire the labor that is available, the recruiting of labor from other areas, or the use of less productive labor that is available locally.

- **Land.** Demand for land depends on the type of firm. Manufacturing firms need more space and tend to prefer suburban locations where land is relatively less expensive and less difficult to develop. Warehousing and distribution firms need to locate close to interstate highways.
- **Local infrastructure.** An important role of government is to increase economic capacity by improving quality and efficiency of infrastructure and facilities, such as roads, bridges, water and sewer systems, airport and cargo facilities, energy systems, and telecommunications.
- **Access to markets.** Though part of infrastructure, transportation merits special attention. Firms need to move their product (either goods or services) to the market, and they rely on access to different modes of transportation to do this.
- **Materials.** Firms producing goods, and even firms producing services, need various materials to develop products that they can sell. Some firms need natural resources (i.e., raw lumber) and others may need intermediate materials (i.e., dimensioned lumber).
- **Entrepreneurship**. This input to production may be thought of as good management, or more broadly as a spirit of innovation, optimism, and ambition that distinguishes one firm from another, even though most of their other factor inputs may be quite similar. Entrepreneurial activity, even when unsuccessful, can offer information about the local market that other entrepreneurs can use in starting a new firm. Entrepreneurs are typically willing to take on more risk in uncertain markets, and a strengthened entrepreneurial environment can help to reduce that risk and uncertainty.[3] Entrepreneurs also tend to have more mobility than larger firms and are more likely to locate in areas with a strong entrepreneurial environment.[4] To some degree, local governments can promote a high quality of life in an area to attract entrepreneurs, in addition to adopting regulations with minimal barriers—or at least, clear guidelines—for new small businesses.

The supply, cost, and quality of any of these factors depend on market factors: on conditions of supply and demand locally, nationally, and even globally. But they also depend on public policy. In general, public policy can affect these factors of production through:

- **Regulation.** Regulations protect the health and safety of a community and help maintain quality of life. Overly burdensome regulations, however, can be disincentives for businesses to locate in a community. Simplified bureaucracies and straightforward regulations can reduce the burden on businesses and help them react quickly in a competitive marketplace.
- **Taxes**. Firms tend to seek locations where they can optimize their after-tax profits. Tax rates are not a primary location factor—they typically matter only after businesses have

[3] Tessa Conroy and Stephan Weiler. "Local and Social: Entrepreneurs, Information Network Effects, and Economic Growth" (2017). https://redi.colostate.edu/wp-content/uploads/sites/50/2017/05/gender_gia_Jun2017-2.pdf

[4] Emil E. Malizia and Edward J. Feser. *Understanding Local Economic Development. (*1999).

made decisions based on labor, transportation, raw materials, and capital costs. The costs of these production factors are usually similar within a region. Therefore, differences in tax levels across communities within a region are more important in the location decision than differences in tax levels between regions.

- **Financial incentives**. Governments can offer firms incentives to encourage growth. In recent years in Oregon (especially the Portland region), incentives have been used more to attract businesses to consider locating in the Portland region, rather than substantially distinguishing among cities in the Portland region. For manufacturing industries with significant equipment costs, however, property or investment tax credit or abatement incentives can play a significant role in location decisions.

This discussion may make it appear that a location decision is based entirely on a straightforward accounting of costs, with the best location being the one with the lowest level of overall costs. Studies of economic development, however, have shown that location decisions depend on a variety of other factors that indirectly affect costs of production. These indirect factors include agglomerative economies (also known as industry clusters), quality of life, and innovative capacity.

- **Industry clusters**. Firms with similar business activities can realize operational savings when they congregate in a single location or region. Clustering can reduce costs by creating economies of scale for suppliers. For this reason, firms tend to locate in areas where there is already a presence of other firms engaged in similar or related activities.
- **Quality of life.** A community that features many quality amenities, such as access to recreational opportunities, culture, low crime, good schools, affordable housing, and a clean environment can attract people simply because it is a nice place to be. A region's quality of life can attract skilled workers, and if the amenities lure enough potential workers to the region, the excess labor supply pushes their wages down so that firms in the region can find skilled labor for a relatively low cost. The characteristics of local communities can affect the distribution of economic development within a region, with different communities appealing to different types of workers and business owners. Sometimes location decisions by business owners are based on an emotional or historical attachment to a place or set of amenities, without much regard for the cost of other factors of production.
- **Innovative capacity.** Increasing evidence suggests that a culture promoting innovation, creativity, flexibility, and adaptability is essential to keeping U.S. cities economically vital and internationally competitive. Innovation is particularly important in industries that require an educated workforce. High-tech companies need to have access to new ideas typically associated with a university or research institute. In addition to innovations in research and development within firms or research institutions, firms may also draw on the innovative capacity of entrepreneurs in an area. These entrepreneurs may be former employees of the larger firm or businesses that relocated to an area because of the proximity to an industry cluster. Strong networks and

communication between firms, research institutions, and entrepreneurs are key components to leveraging innovative capacity in an area.[5] Local governments are well-equipped to help foster these networks through supporting economic development tools such as small business assistance centers or incubation centers. Government can also be a key part of a community's innovative culture, through the provision of services and regulation of development and business activities that are responsive to the changing needs of business.

How Important Are These Factors?

To understand how changes in public policies affect local job growth, economists have attempted to identify the importance of firms with different locational factors. They have used statistical models, surveys, and case studies to examine detailed data on the key factors that influence the business location decision.

Economic theory says that firms locate where they can reduce the costs of their factors of production (assuming demand for products and any other factors are held constant). Firms locate in regions where they have access to inputs that meet their quality standards at a relatively low cost. Because firms are different, the relative importance of different factors of production varies both across industries and, even more importantly, across firms.

No empirical analysis can completely quantify firm location factors because numerous methodological problems make any analysis difficult. For example, some would argue simplistically that firms would prefer locating in a region with a low tax rate to reduce tax expenses. However, the real issue is the value provided by the community for the taxes collected. Because taxes fund public infrastructure that firms need, such as roads, water, and sewer systems, regions with low tax rates may end up with poor infrastructure, making it less attractive to firms. When competing jurisdictions have roughly comparable public services (type, cost, and quality) and quality of life, then tax rates (and tax breaks) can make a difference.

Further complicating any analysis is the fact that many researchers have used public expenditures as a proxy for infrastructure quality. But large expenditures on roads do not necessarily equal a quality road system. It is possible that the money has been spent ineffectively and the road system is in poor condition.

An important aspect of this discussion is that the business function at a location matters more than a firm's industry. A single company may have offices spread across cities, with headquarters located in a cosmopolitan metropolitan area, with the research and development divisions located near a concentration of universities, the back office in a suburban location, and manufacturing and distribution located in areas with cheap land and good interstate access.

Local governments can provide support for new and existing small businesses through policies and programs that support entrepreneurship and innovation. The National League of Cities

[5] Nancey Green Leigh and Edward Blakely. Planning Local Economic Development: Theory and Practice. 2013.

suggests strategies for local governments, including strong leadership from elected officials; better communication with entrepreneurs, especially regarding the regulatory environment for businesses in the community; and partnerships with colleges, universities, small business development centers, mentorship programs, community groups, businesses groups, and financial institutions.[6]

Local governments in Oregon also play a central role in the provision of buildable land through inclusion of lands in the urban growth boundary (UGB), as well as through the determination of plan designations, zoning, and the provision of public services. Typically, businesses need buildable land to locate or expand in a community. However, providing buildable land alone is not sufficient to guarantee economic development in a community—market conditions must create demand for this land, and local factors of production must be favorable for business activity. In the context of expected economic growth and the perception of a constrained land supply in Scappoose, the provision of buildable land has the potential to strongly influence the level and type of economic development in the city. The provision of buildable land is one of the most direct ways that Scappoose can affect the level and type of economic development in the community.

Summary of the Effect of National, State, and Regional Trends on Economic Development in Scappoose

This section presents a summary and the implications of national, state, and regional economic trends on economic growth in Scappoose, which are presented in Appendix A.

- **County and local employment growth.** Employment has increased in Columbia County since 2001, with a gain of about 1,825 employees between 2001 and 2019. The largest increases were in health care and social assistance, accommodation and food services, and professional and business services. Jobs in Scappoose accounted for about 19% of employment in Columbia County in 2019. Employment in Scappoose increased between 2008 and 2019 by about 499 employees (or 29%).
- **Increase in regional economic diversity.** While natural resource extraction-based industries remain an important part of the Northwest regional economy, opportunities for value-added industry development are increasing. As noted in the 2018-2023 NW Oregon Comprehensive Economic Development Strategy, "growth in renewable energy is fueling interest in logging waste for biofuel and use of cross-laminated lumber in construction is sparking interest in kiln-drying wood locally. Fisheries and seafood processing have modernized into high-tech manufacturing.[7]" The increases in regional economic development diversity provide opportunities for the development of new businesses in Scappoose in value-add industries.

[6] National League of Cities "Supporting Entrepreneurs and Small Businesses" (2012). https://www.nlc.org/supporting-entrepreneurs-and-small-business

[7] Northwest Region includes Clatsop, Columbia, Tillamook, and western Washington (west of Hillsboro) counties

- **Changes in manufacturing and concentration of manufacturing in Oregon.** Scappoose's location in the Portland Metro region, the presence of OMIC as a source of workforce training and industry innovation, existing manufacturing businesses, land available for industrial uses, and access to a skilled workforce present opportunities for growth in manufacturing businesses. In 2019, manufacturing accounted for about 12% of Scappoose's total covered employment[8] and had an average wage of $46,646, higher than the city's average wage of $37,717.

  While Columbia County experienced declines in manufacturing employment between 2008 and 2019, the manufacturing sector in Scappoose increased from 212 to 266 employees, an increase of 54 employees or 25%. OMIC located to Scappoose in 2017 and serves as a resource for workforce training and industry innovation. Its presence in Scappoose could make the City an attractive location for other manufacturing businesses looking to leverage its unique resources.

- **Increases in automation.** Businesses in both industrial and commercial industries will continue to respond to increases in automated processes, decreasing employment in some types of manufacturing processes, and slightly increasing need for workers with skills in computers and other high-tech sectors. While automation has been a factor in industrial sectors for decades (e.g., manufacturing), recent increases in automation have occurred for commercial industries, such as certain functions of retail or office jobs. Oregon's overall risk of automation is similar to that of the nation with lower and middle-wage jobs at higher risk of being automated. Jobs that are considered to be at lower risk include those that provide personal services or experiences, such as food service or hospitality. Higher-wage jobs that are also considered to be at a lower risk of automation include jobs that require social intelligence, perception, creativity, or fine motor skills.

  Most industrial sectors will continue to hire employees to complete certain tasks, though the types of skills required for these jobs may change as automation increases. Scappoose's access to a skilled workforce is an advantage for businesses in Scappoose, as long as the educational opportunities in the region continue to align with the needs for the skills in industries in Scappoose. OMIC and Portland Community College could be influential in ensuring a continuous flow of skilled manufacturing workers.

- **Importance of small businesses in Scappoose's economy.** The average business in Scappoose has 9 employees, slightly lower than the state average of 11 employees.[9] The creation of new businesses is vital to Oregon's (and Scappoose's) economy as their formations generate new jobs and advance innovations into markets. Scappoose's access to a relatively young workforce both within the City and from across the Portland metro region presents opportunities for small businesses to grow in the city.

[8] Covered employment refers to jobs that are eligible for unemployment insurance. Notably absent from covered employment are self-employed, many agricultural jobs, and corporate officers.

[9] 2019 QCEW data for the State of Oregon

- **Changes in the retail sector.** Over the past two decades, the trend toward supercenters and e-commerce has steadily increased. While the growth of shopping online, accelerated by the COVID-19 pandemic, is likely to persist, there will continue to be demand for the local purchase of retail goods. Consumers still prefer physical, brick-and-mortar stores for certain items, such as large furniture, home improvement goods, specialty goods, and some types of groceries. Furthermore, consumer preferences have shifted to spending at restaurants and experience-focused activities (e.g., entertainment or recreation). One emerging retail trend, the convergence of technology and shopping, creates new opportunities for retail businesses to differentiate themselves and engage customers digitally in physical retail locations. While retail businesses that compete with online retailers may become less common in Scappoose (and other cities), businesses providing experiences (including digital/physical shopping experiences) or goods that cannot be purchased online may grow and expand in Scappoose. This presents opportunities for Scappoose's retail industry to build on the city's high quality of life, providing experiences for residents and visitors.
- **Continued increase in demand for energy.** In 2022, energy prices, especially gasoline prices, increased sharply. Reasons for the increase include increased travel and international sanctions against Russia for the war in Ukraine, which resulted in less Russian fuel on the international market. Energy prices are forecasted to increase over the planning period, which, over the long-term, will likely affect the mode of commuting before affecting workers' willingness to commute. For example, commuters may choose to purchase a more energy-efficient car or carpool. Very large increases in energy prices may affect workers' willingness to commute to or from Scappoose, especially workers living or working the farthest from Scappoose or workers with lower-paying jobs. In addition, very large increases in energy prices may make shipping freight long distances less economically feasible, resulting in a slowdown or reversal of offshore manufacturing, especially of large, bulky goods.
- **A tight labor market and increasing labor costs.** In May 2022, the unemployment rate in Columbia County was 3.6%, similar to Oregon's rate of 3.5% and the national rate of 3.6%. After declining sharply during the COVID-19 pandemic, employment has mostly recovered with the national labor force participation rate slightly below pre-pandemic levels. Economic growth paired with a tight labor market pushed wages upwards with wages increasing nationally by 5.5% as of April 2022 year over year. For Scappoose, the tight labor market could make it difficult for businesses to attract talent, especially given the relatively lower wages offered in the City relative to the broader Portland region.
- **Household income and average wages.** Scappoose's median household income ($80,171) is higher than the county ($62,257) and the state ($62,818). The average annual wage at private businesses in Scappoose was about $37,717, which was lower than the Columbia County average in 2019 of $40,729 and the state average of $55,019.[10] While the household income would suggest that some households may have higher disposable

[10] Oregon Employment Department, Quarterly Census of Employment and Wages, 2019

incomes to spend on goods and services, the relatively lower wages could make it difficult to attract talent especially given the tight labor market.

- **Rising housing costs.** The rising cost of living, especially increases in housing costs, can impact local businesses' ability to attract and retain talent especially for low and middle wage jobs. As of June 2022, the median home sales price was $488,000 in Scappoose.[11] The median gross rent for the 2016-2020 period was $1,325.[12] Households would need to earn about $120,000 per year to afford the median sales price and $53,000 per year to afford the median rent. The average wage in Scappoose is $37,717 and the median household income is $80,171.

- **Availability of labor.** Availability of labor depends, in part, on population growth and in-migration. Scappoose's population increased by 3,040 people between 2000 and 2021 at an average annual growth rate of 2.3%. Scappoose is forecast to grow by 2,381 people between 2020 and 2040.[13]

  The labor force participation rate is another important consideration in the availability of labor. The labor force in any market consists of the adult population (16 and over) who are working or actively seeking work. The labor force includes both the employed and unemployed. According to the 2015–2019 American Community Survey, Scappoose had about 3,891 people in its labor force and Columbia County had 24,118. The labor force participation rate in Scappoose (69%) was higher than Columbia County (58%) and Oregon (62%). Nonparticipants in the labor force (31% of people not participating in Scappoose's labor force) include students 16 years and older, retirees, and unemployed people not actively seeking work. A higher concentration of older residents in an area or a mismatch of the types of jobs available in an area and the types of skills of the labor force can contribute to low labor force participation rates.

  Commuting is common for residents and workers in Scappoose. Nineteen percent of workers at businesses in Scappoose live in Scappoose. About 11% of workers live in St. Helens, 9% in Portland, and 3% in Hillsboro. Businesses in Scappoose draw employees from across Multnomah, Columbia, and Washington Counties. About 92% percent of residents of Scappoose commute to work across the region, including 34% who work at businesses in Portland, 9% who work in Hillsboro, and 5% who work in St Helens.

- **Education as a determinant of wages.** Scappoose's population has a larger share (27%) of residents with a bachelor's degree or higher compared to 18% in Columbia County, but a lower share compared to Oregon (34%). Businesses that need employees with a bachelor's degree or higher may meet some of their needs in the city but may also need to recruit employees from outside of the city and county. Scappoose's businesses are near students from colleges and universities across the Portland metro region.

[11] Redfin Monthly Housing Market Data accessed August 2022.

[12] U.S. Census Bureau, American Community Survey 2016–2020 5-Year Estimates, Table B25064.

[13] Portland State University, College of Urban & Public Affairs: Population Research Center, population forecast, 2020

- **Aging of the population and need for replacement workers.** While Scappoose has a smaller percentage of residents 60 years and older (21%) relative to Columbia County (27%) and Oregon (24%), Scappoose's population is growing older. Scappoose's median age, which was 35.7 in 2000, increased to 37.7 in the 2015–2019 period. By comparison, Columbia County's median age was 43.3, and Oregon's median age was 39.3 in the 2015–2019 period.

  Columbia County's population is expected to continue aging, with people 60 years and older increasing from 29% of the population in 2020 to 33% of the population in 2040, consistent with statewide trends.[14] As workers retire, businesses need to replace them with new workers. This need for replacement workers will continue to drive the need for workers. With a relatively younger workforce, Scappoose could be in a good position to replace retiring workers if workforce skills match job openings.

- **Increases in racial and ethnic diversity.** Overall, both the nation and Oregon are becoming more racially and ethnically diverse. Between 2000 and 2015–2019, the Hispanic and Latino population in Oregon increased from 8% to 13%, while it increased in Scappoose from 2% to 7%. The population of people of color has increased from 13% to 16% in Oregon since 2000 but stayed roughly the same in Scappoose at 6%.

- **Increase in work from home trends.** The pandemic facilitated a shift in many industries opening up opportunities for employees to work from home at levels never seen before. Due to the shift to working from home and concerns around the pandemic, many workers started moving away from urban centers in pursuit of more space. Work from home trends are likely to continue, full time for some workers or with options for a hybrid schedule for others. Scappoose's proximity to recreational amenities and the Portland Metro region could make it particularly attractive to people who work from home full time or have a hybrid work arrangement in the Portland Metro region that requires them to be in the office a few times a week.

- **High rates of inflation.** For the last several decades, inflation rates have generally stayed below 3% for the nation. Inflation started to increase in 2021 and accelerated in 2022, increasing to 9%, to their highest levels in about 40 years. Inflation increased most quickly in June 2022 for energy, motor vehicles, food, and household furnishings.[15] The average hourly earnings for nonfarm employees increased slightly through April 2022 but inflation-adjusted real average hourly earnings declined slightly due to continued inflation.[16] Continued high rates of inflation may slow economic growth, further erode purchasing power, discourage savings, and lead to a national recession. Consumers may

[14] Portland State University, College of Urban & Public Affairs: Population Research Center, Population Forecast, 2020.

[15] Bureau of Labor Statistics, U.S. Department of Labor, *The Economics Daily*, Consumer prices up 9.1 percent over the year ended June 2022, largest increase in 40 years at https://www.bls.gov/opub/ted/2022/consumer-prices-up-9-1-percent-over-the-year-ended-june-2022-largest-increase-in-40-years.htm (visited *July 25, 2022*).

[16] *New Inflationary Concerns: A US Macroeconomic Update*, IBISWorld, June 03, 2022. https://www.ibisworld.com/blog/new-inflationary-concerns-us-macroeconomic-update/1/1126/

start decreasing spending on non-essentials which could impact parts of Scappoose's retail and tourism economy. However, Scappoose's proximity to the Portland Metro region may mean that the City will get more regional tourists as people choose to vacation locally to avoid high transportation costs.

Employment Trends in Scappoose and Columbia County

The economy of the nation changed substantially between 2001 and 2022. These changes affected the composition of Oregon's economy, including Scappoose's economy. At the national level, the most striking change was the shift from manufacturing employment to service-sector employment. The most important shift in Oregon during this period has been the continued shift from a timber-based economy to a more diverse service-based economy. This section focuses on changes in the economy in Columbia County and Scappoose since 2001.

Employment Trends in Columbia County

Exhibit 1 shows covered employment[17] in Columbia County for 2001 and 2019. Employment increased by 1,825 jobs, or 18%, over this period. The sectors with the largest increases in number of employees were health care and social assistance (632 jobs), accommodation and food services (531 jobs), professional and business services (461 jobs), other services (270 jobs), and construction (221 jobs). The average annual wage for employment in Columbia County in 2019 was about $40,729.

Exhibit 1. Covered Employment by Industry, Columbia County, 2001–2019
Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2001–2019.

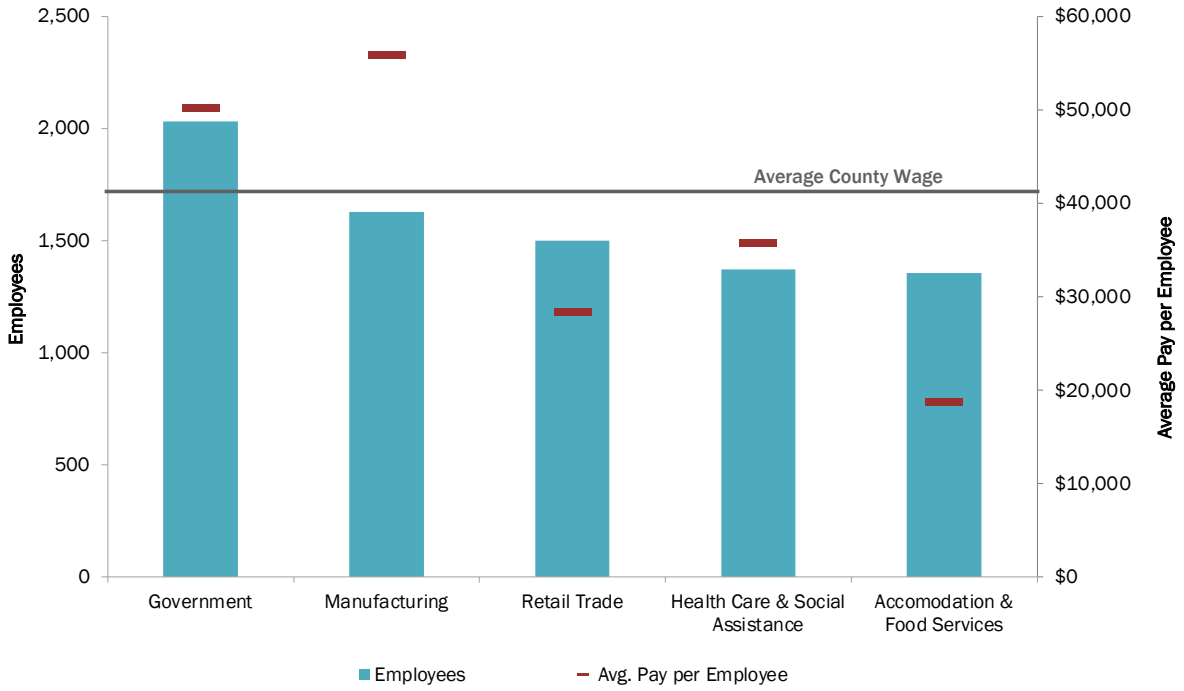
Sector	2001	2019	Change 2001 to 2019		
			Difference	Percent	AAGR
Natural Resources and Mining	576	389	- 187	-32%	-2.2%
Construction	444	665	221	50%	2.3%
Manufacturing	1,981	1,627	-354	-18%	-1.1%
Wholesale Trade	84	162	78	93%	3.7%
Retail trade	1,458	1,498	40	3%	0.2%
Transportation, Warehousing & Utilities	555	604	49	9%	0.5%
Information	84	52	-32	-38%	-2.6%
Financial Activities	343	395	52	15%	0.8%
Professional and Business Services	406	867	461	114%	4.3%
Educational Services	40	69	29	73%	3.1%
Health Care and Social Assistance	738	1,370	632	86%	3.5%
Arts, Entertainment, and Recreation	95	68	-27	-28%	-1.8%
Accommodation and Food Services	825	1,356	531	64%	2.8%
Other Services	350	620	270	77%	3.2%
Unclassified	6	4	n/a	n/a	n/a
Total All Government	1,968	2,031	63	3%	0.2%
Total	**9,953**	**11,778**	**1,825**	**18%**	**0.9%**

[17] **Covered** employment includes employees covered by unemployment insurance. Examples of workers not included in covered employment are sole proprietors, some types of contractors (often referred to as "1099 employees"), or some railroad workers. Covered employment data is from the Oregon Employment Department.

Exhibit 2 shows covered employment and average wage for industries in Columbia County with greater than 1,000 employees. Jobs in government accounted for approximately 17% of the county's total covered employment, followed by manufacturing (14%), retail trade (13%), health care and social assistance (12%), and accommodation and food services (12%). Of these sectors, manufacturing and government sectors pay above the average county wage ($55,898 and $50,210, respectively).

Exhibit 2. Covered Employment and Average Pay by Sector, Sectors with Greater than 1,000 Employees, Columbia County, 2019

Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2019.



While the COVID-19 pandemic caused high unemployment and pandemic related job losses in 2020, the economy rebounded in 2021 and into 2022 as vaccines became readily available and business restrictions lifted. Oregon experienced strong job gains in 2021 with employers adding 102,100 jobs over the year.[18] However, the job gains have been unevenly distributed throughout the economy. Some sectors such as construction, nondurable goods manufacturing, retail trade, and transportation and warehousing fully recovered from recession losses and reached new, record high employment levels at the end of 2021. Others including leisure and hospitality and private educational services remained below pre-COVID job levels. However, job growth is anticipated to be more balanced across industries moving forward.[19]

[18] Gail Krumenauer, "Job gains amid COVID waves: 2021 year in review." State of Oregon Employment Department. April 7, 2022.

[19] Josh Lehner, "Cyclical Labor Shortage is Gone, Structural Remains.", Oregon Office of Economic Analysis. May 4, 2022.

Employment in Scappoose

Between 2008 and 2019, employment in Scappoose increased by about 499 employees (29%), at about a 2.3% average annual growth rate. Employment in retail trade increased by about 142 employees (36%) and construction and agriculture increased by 118 employees (174%), while information employment decreased by about 30 employees (58%) and health care and social assistance decreased by 25 employees (17%) (Exhibit 3).

Exhibit 3. Change in Covered Employment, Scappoose UGB, 2008–2019
Source: Oregon Employment Department, Quarterly Census of Employment and Wages, 2008 and 2019.
Note: Sectors highlighted in blue have wages higher than the city average.
*Average Annual Growth Rate

Sector	Employees		Change in Employment		
	2008	2019	Number	Percent	AAGR
Construction & Agriculture	68	186	118	174%	9.6%
Manufacturing	212	266	54	25%	2.1%
Retail Trade	394	536	142	36%	2.8%
Transportation and Warehousing and Wholesale Trade	76	105	29	38%	3.0%
Information	52	22	(30)	-58%	-7.5%
Finance and Insurance	49	69	20	41%	3.2%
Real Estate and Rental and Leasing	17	26	9	53%	3.9%
Professional Services and Management of Companies	61	74	13	21%	1.8%
Admin. / Support and Waste Mgmt / Remediation Serv	22	36	14	64%	4.6%
Health Care and Social Assistance	150	125	(25)	-17%	-1.6%
Arts, Entertainment, and Recreation	12	25	13	108%	6.9%
Accommodation and Food Services	229	273	44	19%	1.6%
Other Services (except Public Administration)	97	131	34	35%	2.8%
Government	302	366	64	21%	1.8%
Total	**1,741**	**2,240**	**499**	**29%**	**2.3%**

Employment in Scappoose accounted for about 19% of all employment in Columbia County in 2019. Exhibit 4 shows a summary of covered employment data for the Scappoose UGB in 2019. The sectors with the greatest number of employees were retail trade (24% of Scappoose's total covered employment), government (16%), accommodation and food service (12%), and manufacturing (12%). The average size for a private business in Scappoose was 9 employees per business, slightly lower than the state average of 11 employees.

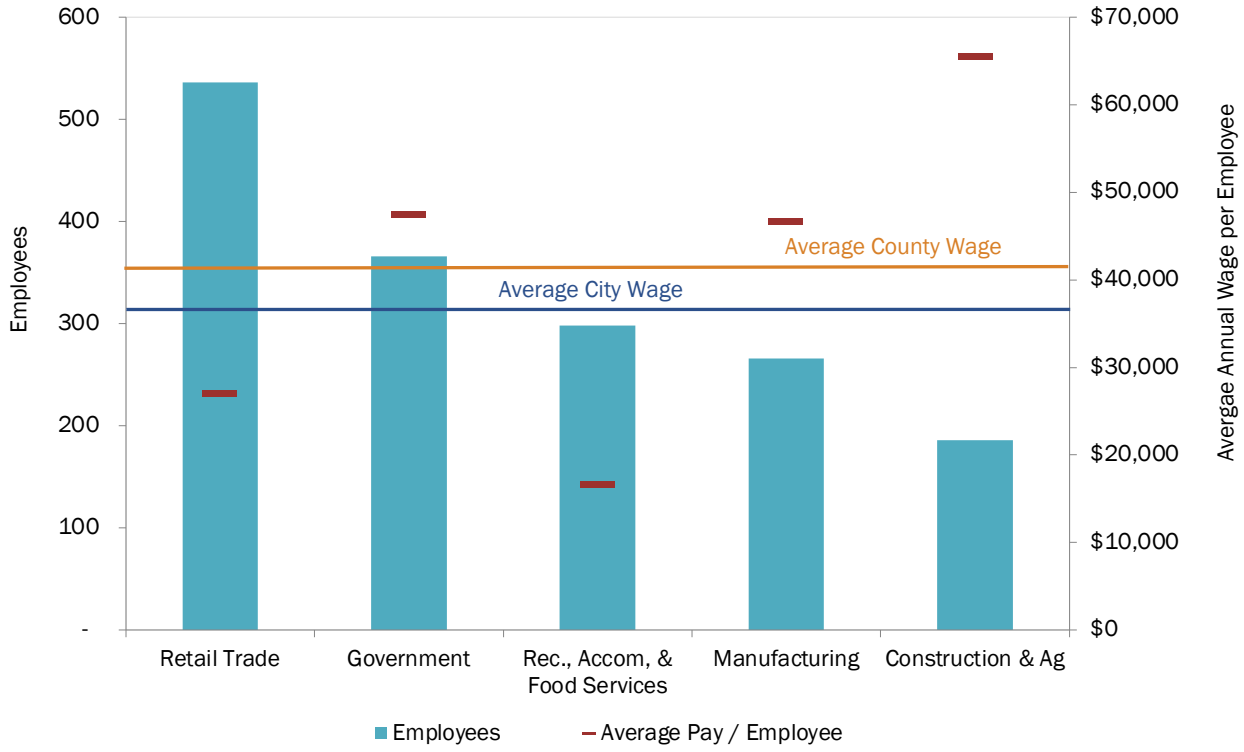
Exhibit 4. Covered Employment and Average Pay by Sector, Scappoose UGB, 2019[20]
Source: Oregon Employment Department, Quarterly Census of Employment and Wages, 2019.

Sector	Establishments	Employees	Average Pay per Employee
Construction & Agriculture	28	186	$65,575
Manufacturing	18	266	$46,646
Retail Trade	27	536	$27,011
Transportation and Warehousing and Wholesale Trade	12	105	$38,455
Information	5	22	$31,701
Finance and Insurance	16	69	$55,757
Real Estate and Rental and Leasing	14	26	$43,567
Professional Services and Management of Companies	22	74	$62,701
Admin. / Support and Waste Mgmt / Remediation Serv.	7	36	$17,040
Health Care and Social Assistance	19	125	$37,439
Arts, Entertainment, and Recreation	4	25	$5,766
Accommodation and Food Services	15	273	$17,645
Other Services (except Public Administration)	56	131	$26,121
Government	11	366	$47,464
Total	**254**	**2,240**	**$37,717**

[20] The following sectors were combined due to confidentiality of QCEW data: agriculture and construction; transportation, warehousing, and wholesale trade; professional services and management of companies; healthcare, social assistance and educational services.

Exhibit 5 shows the employment and average pay per employee for the five largest sectors in Scappoose. Average pay for all employees ($37,717) is shown as a blue line across the graph, and average pay for individual sectors as short red lines. Government, manufacturing, construction and agriculture, information, finance, real estate, transportation, warehousing, and wholesale trade, and professional service sectors had above-average wages. The lowest wages were in recreation, accommodation, and food service, other services, and retail trade.

Exhibit 5. Covered Employment and Average Pay, 5 Largest Sectors, Scappoose UGB, 2019
Source: Oregon Employment Department, Quarterly Census of Employment and Wages, 2019.



Though data are not readily available at the city level to inform the impacts of the COVID-19 pandemic, OED reports that Columbia County had higher rates of unemployment insurance claims as a share of labor force relative to all Oregon counties.[21] In May following the onset of the pandemic, around 1,960 continued unemployment insurance claims were made in Columbia County. Of these claims, 385 were in the accommodation and food service sector (20% of the county's total claims). Construction and health care and social assistance had the next largest shares at about 13% each of total county continued claims, followed by retail trade and manufacturing at 10% and 9%, respectively. As of July 2022, these continued insurance claims were down to 200 claims.

[21] Based on information from the Oregon Employment Department as of August 2022. https://www.qualityinfo.org/covid-19

Outlook for Growth in Columbia County

Exhibit 6 shows the Oregon Employment Department's forecast for employment growth by industry for Northwest Oregon (Benton, Clatsop, Columbia, Lincoln, and Tillamook Counties) over the 2020 to 2030 period. Employment in the region is forecasted to grow at an average annual growth rate of 1.5%.

The sectors that will lead employment in the region for the 10-year period are leisure and hospitality (adding 5,880 jobs); private education and health services (2,530); government, (1,890); trade, transportation, and utilities (1,800); and professional and business services (1,580). In sum, these sectors are expected to add 13,680 new jobs or about 84% of employment growth in the Northwest region. Columbia County accounts for about 11% of employment in these five counties, and Scappoose accounts for about 19% of the county's employment.

Exhibit 6. Regional Employment Projections, 2020–2030, Northwest Region (Benton, Clatsop, Columbia, Lincoln, Tillamook Counties)
Source: Oregon Employment Department. Employment Projections by Industry 2020-2030.

Industry	2020	2030	Change (2020 to 2030)		
			Number	Percent	AAGR
Total Private Payroll Employment	72,580	86,460	13,880	19%	1.8%
Natural Resources and Mining	3,450	3,570	120	3%	0.3%
Mining and Logging	910	870	(40)	-4%	-0.4%
Construction	4,050	4,620	570	14%	1.3%
Manufacturing	8,650	9,200	550	6%	0.6%
Durable Goods	4,380	4,640	260	6%	0.6%
Wood Product Manufacturing	980	910	(70)	-7%	-0.7%
Nondurable Goods	4,160	4,460	300	7%	0.7%
Trade, Transportation, and Utilities	14,570	16,370	1,800	12%	1.2%
Wholesale Trade	980	1,090	110	11%	1.1%
Retail Trade	11,670	13,130	1,460	13%	1.2%
Transportation, Warehousing, and Utilities	1,910	2,150	240	13%	1.2%
Information	910	990	80	9%	0.8%
Financial Activities	3,670	3,900	230	6%	0.6%
Professional and Business Services	7,080	8,660	1,580	22%	2.0%
Private Educational and Health Services	13,850	16,380	2,530	18%	1.7%
Hospitals	4,500	5,120	620	14%	1.3%
Leisure and Hospitality	13,300	19,180	5,880	44%	3.7%
Accommodation and Food Services	12,470	17,900	5,430	44%	3.7%
Other Services and Private Households	3,050	3,590	540	18%	1.6%
Government	24,110	26,000	1,890	8%	0.8%
Federal Government	1,270	1,270	0	0%	0.0%
State Government	1,350	1,450	100	7%	0.7%
Local Government	21,490	23,280	1,790	8%	0.8%
Self-Employment	5,900	6,330	430	7%	0.7%
Total employment	**102,590**	**118,790**	**16,200**	**16%**	**1.5%**

Scappoose's Competitive Advantage

Economic development opportunities in Scappoose will be affected by local conditions as well as the national and state economic conditions addressed above. Economic conditions in Scappoose relative to these conditions in other portions of the Portland Metro region form Scappoose's competitive advantage for economic development. Scappoose's competitive advantages have implications for the types of firms most likely to locate and expand in the area.

Scappoose's primary competitive advantages are the city's proximity to both outdoor recreation and urban amenities in Greater Portland, its infrastructure and industrial land to support employment growth, as well as training and innovation support with the presence of OMIC and PCC. These factors make Scappoose attractive to residents and businesses that want a high quality of life where they live and work.

The discussion earlier in this chapter provided information about Scappoose's existing base of businesses and access to labor, which are key to understanding Scappoose's competitive advantages. This section summarizes these and other local factors that form Scappoose's competitive advantage, with additional details in the sections following this summary.

Scappoose's advantages for economic development include:

- **Oregon Manufacturing Innovation Center R&D (OMIC) and Portland Community College (PCC).** OMIC is a collaboration of industry, higher education, and government working to address challenges in manufacturing that may be unsolvable when approached in isolation. OMIC engages in applied research such as concept design, prototyping, third-party unbiased product testing, and development of innovative manufacturing methods to apply on the manufacturing line. These collaborative efforts strengthen both Scappoose's and the entire state of Oregon's manufacturing sector while also attracting global partners to invest in the state and region.

  PCC's Training Center offers a variety of manufacturing-related training programs ranging from traditional career and technical education training to apprenticeship models combining on-the-job training with classroom lab instruction. With an emphasis on craftsmanship, professionalism, and placing graduates into high-demand manufacturing jobs, students can pursue both degree and non-degree courses.

  Together, OMIC and PCC are cultivating the next generation of talent to support manufacturing jobs by aligning academia, government, workforce development, and industry working together under the same initiative. PCC is the training arm supporting Research & Development efforts at OMIC. They are nimble, responsive, and proactive to business and industry demands to ensure their students training aligns with job skill demands.

Contrary to traditional manufacturing occupations, these programs and facilities will equip students of all ages with highly technical skills that are in increasing demand and will pay higher than average wages. In fact, average annual manufacturing wages in Scappoose are $46,646 which is above the county average of $37,717.

OMIC and PCC's partnership, combined with available industrial land, creates an ideal opportunity for developing manufacturing clusters in Scappoose.

- **Location**. Located about 20 miles northwest of Portland, Scappoose employers have access to labor in the broader Portland Metro region. Scappoose is located 40 minutes from Portland International Airport and 30 minutes from downtown Portland. Scappoose's location can be an advantage, especially for workers who prefer to live in or near Scappoose for its quality of life and access to outdoor recreational opportunities, but still want access to urban amenities.
- **Transportation.** Scappoose is located along Highway 30, which runs north from Portland through St. Helens to Rainer before heading west toward Astoria. Highway 30 connects Scappoose to the broader region and provides opportunities for freight movement. It intersects with I-5 as it runs through Portland. As a major interstate, I-5 is a preferred route for trucking and distribution between California and Washington, as it is relatively flat. In addition, Scappoose is 40 minutes from the Port of Portland freight facilities, allowing for international distribution of goods made in Scappoose.
- **Scappoose Airport.** The Scappoose Airport serves an important role in the Portland-Vancouver metropolitan area. It is one of five airports with at least 5,000 feet of runway length in the metro area, excluding Portland International Airport. One priority goal for the Scappoose Airport is to support economic growth[22] and will likely serve and support OMIC with its planned expansions. Personal hangars were at full lease capacity as of September 2022 with a lengthy wait list of interested lessees, indicating a shortage. Corporate hangars on the other hand, still had capacity indicating opportunity for expansion.
- **PNWR Railroad**. The Portland & Western Railroad, Inc. (PNWR) actively carry freight through Scappoose connecting the city with markets to the east and west, including Portland, Vancouver, and the Port of Portland. The Port of Columbia County is reliant on freight; therefore, the presence of an active railroad is a more efficient and sustainable alternative to additional trucks on Highway 30.
- **Business Support Services.** Columbia County Economic Team supports established companies pursuing expansion with a range of technical assistance, such as support with permitting. The newly formed Small Business Development Center (SBDC) is part of the Oregon SBDC network that connects local and younger businesses to statewide resources. They offer support to businesses interested in growing with business

[22] Scappoose Industrial Airpark Master Plan Update, March 2016.

advising, business plan development, access to capital, marketing plans, hiring, and other regulatory processes.

- **Labor market.** Scappoose's workforce is relatively younger, with a larger share of residents under 40 than in Columbia County. Scappoose's labor force participation rate (69%) is higher than the county average (58%) and the state average (62%). Scappoose's workforce is aging, and replacement workers will be needed as people retire, consistent with regional trends.

  Although the share of Scappoose's working-age population with a bachelor's degree or higher (27%) is higher relative to the county average (18%), it is lower than the state average of 34%. Employers have access to workers in various stages of their careers, including students attending colleges and universities within the Portland Metro region. The partnership between Portland Community College and OMIC offer unique opportunities to equip the workforce for manufacturing employment.

- **Buildable industrial land.** The Buildable Lands Inventory (BLI) in Chapter 4 shows that Scappoose has nearly 500 acres of unconstrained buildable industrial and commercial land in the urban growth boundary (UGB). The majority of Scappoose's buildable land is for industrial uses, mostly in areas around the Airport. Scappoose has industrial land in a variety of site sizes, ranging from sites smaller than an acre to five sites larger than 25 acres. This amount of buildable industrial land, including multiple sites larger than 25 acres, provides places to accommodate future manufacturing growth.

- **Business-friendly environment that supports small businesses.** Scappoose has comparatively lower property tax rates and has an urban renewal district with funds dedicated to supporting business expansion.

- **Tourism and access to outdoor recreation.** Scappoose attracts visitors for its access to outdoor amenities and recreation opportunities. The city has easy access to parks, hiking trails, bicycling, and boating recreation. Businesses and employees may be attracted to Scappoose because of the easy access to outdoor recreation.

- **Quality of life and community events.** Scappoose provides residents with small-town character, while providing easy access to Portland and outdoor recreation opportunities. The City's quality of life is enhanced by its schools, library, and a general feeling of safety. The City also hosts a variety of community events including an annual Adventure Festival that is aimed at bringing the community together through performances, outdoor-oriented activities, and refreshments, as well as farmer's markets, movies at the park, etc.

- **Stable cooperative city leadership.** Stakeholders and community members have expressed gratitude for city staff and leadership, particularly in terms of responsiveness and support of the business community. These qualities are not as common throughout the region and are therefore advantageous for Scappoose residents and employees.

- **Regional partnerships and cooperation.** The City of Scappoose engages with several economic development partners and organizations representing local, regional, and state agencies. The Columbia County Economic Team is a public-private organization serving economic interests across the county. They partner, coordinate, and align efforts with Greater Portland Inc, the Columbia Pacific Economic Development District, chambers of commerce, and statewide entities such as the Technology Association of Oregon and the Oregon Economic Development Association. The partners are part of a critical ecosystem advancing economic vitality, attracting new investment, and promoting family-wage jobs.

Scappoose's disadvantages for economic development include:

- **Traffic and congestion.** Highway 30 and the PNWR railroad cut through the center of Scappoose bifurcating the commercial and retail corridor leading to high automobile traffic and low pedestrian accessibility. Significant levels of congestion, particularly during peak commuting hours, place residents and employees at a disadvantage with respect to mobility and connectivity.

- **Housing affordability.** Scappoose's housing costs are comparable to other communities in Columbia County and lower than some communities in the parts of the Portland metro region. Scappoose's median home price has escalated over the last ten years increasing from $200,000 in June 2012 to nearly $488,000 in June 2022.[23] Meanwhile average wages in Columbia County declined 5% between 2000 and 2021 (when adjusted for inflation). According to Redfin, the median home sales price in Scappoose in June of 2022 was $488,000 which was higher than the median sales price of Columbia County ($465,000) but lower than the median sales price in the Portland metro region overall ($568,000). While comparatively more affordable than other areas of the region, the high price of homes may make it difficult for businesses to attract and retain workers, especially workers at lower income ranges. These high costs are not unique to Scappoose and are driven in part because housing production is not keeping pace with population growth.
- **Lack of commercial land and developed commercial spaces.** The BLI in Chapter 4 shows that Scappoose has nearly 40 acres of unconstrained buildable commercial land in the UGB. Most of Scappoose's commercial sites are smaller than two acres, with two commercial sites between 2 and 5 acres and three sites between 5 and 10 acres. Scappoose has a limited amount of commercial land, which may limit commercial development.

- **Need for more local services.** The City of Scappoose lacks a robust retail environment to serve residents and visitors. Limited retail options could be driving potential consumers

[23] Redfin, median sales price, 2012 through June 2022

to other nearby cities. This subsequent leakage is troubling to Scappoose because they are losing out on dollars that may otherwise circulate throughout their local economy.

- **Lack of sufficient trades people.** Scappoose, like many communities across the country, is challenged with a lack of sufficient skilled trades people, particularly when considering upcoming large development projects. OMIC and PCC are actively working with school districts to promote opportunities in their centers to attract more people into their programs and to develop stronger paths and pipelines for trades.

- **Shortage of childcare providers affordable to lower-income households.** Similar to many other communities throughout the Portland metro region and across the country, high-quality, affordable, and reliable childcare is difficult to find, particularly for lower-income households. Childcare challenges are connected to economic development challenges because if working parents cannot secure childcare, they may need to exit the workforce. Even if this departure is temporary, it has lasting impacts on the local workforce and on families' upward economic mobility.

- **Lack of local and regional public transportation.** While The Columbia County Rider NW Connector, an intercity bus service, runs through Scappoose with stops in Portland, Linnton, Warren, and St. Helens, it operates on a very limited basis Monday through Friday. Lack of public transportation can limit access to the full workforce in the metro region as well as limit the opportunities for residents and visitors. Alternative options for public transportation could also help lessen congestion on Highway 30.

Public Facilities and Services

Provision and costs of public facilities and services can impact a firm's decision regarding location within a region. One of the primary considerations about developing a site is whether it has infrastructure to or near the site, including water, wastewater, stormwater, and transportation. If infrastructure is not developed to or near the site, the consideration becomes whether infrastructure can be extended in a timely manner and at a financially feasible cost.

This section discusses Scappoose's large infrastructure systems, including the water system, wastewater system, and stormwater system. It answers the question of whether Scappoose has or is planning to have sufficient capacity to support the amount and types of development proposed in the EOA.

Water

Overall, Scappoose has enough water capacity to accommodate existing water needs for industrial and commercial uses but has limitations with the forecasted 2,100 new employees. The City's existing water supply sources are a combination of surface water supplies from South Fork Scappoose Creek, Lazy Creek, and Gourlay Creek, and four groundwater wells. However, the City is not able to reliably use its water rights because surface water is limited during the dry season. Groundwater wells are limited based on capacity and currently have

water right development limitations that restrict expanded use. To meet upcoming demand, Scappoose has plans for three to four new wells to support future growth.

Scappoose expects to have enough water to provide services for employment and population growth over the next 20-years. Companies with very high water needs may locate in Scappoose if they are willing to develop their own water source by constructing their own well.

Sanitary Sewer and Wastewater

The City of Scappoose is currently addressing system constraints with $25 million in phased work to upgrade and replace systems, as well as to create redundancy. Once complete, this state-of-the-art system will employ a method to treat sewage water and transform it into biosolids which can be used and sold as a fertilizer. Until recently, wastewater treatment utilities would merely treat sewage water and release it back into the environment without causing unnecessary harm; this system upgrade would go one step further by enhancing agricultural lands and other depleted environments. The upgraded system may also generate a new revenue stream for the city.

A Class A biosolids program would reduce the need to find new land application sites, coordinate and upkeep existing land application sites, and could potentially add a revenue stream into the plant.

Once the sewer updates are finalized, Scappoose can comfortably accommodate 2,100 new employees. Scappoose expects to be able to provide sewer services to the types of industries they are targeting for growth.

3. Employment Growth and Site Needs

Goal 9 requires cities to prepare an estimate of the amount of commercial and industrial land that will be needed over a 20-year planning period. The estimate of employment land need and site characteristics for Scappoose is based on expected employment growth and the types of firms that are likely to locate in Scappoose over the 20-year period. This chapter presents an employment forecast and analysis of potential growth industries that build from recent economic trends.

As a part of the process to establish urban reserves, this chapter also includes an estimate of the amount of commercial and industrial land that will be needed over a 50-year planning period. Urban reserves are intended to provide a 30- to 50-year area for long-term city growth and protect the urban reserve area from rural development that would make future city expansion more difficult.

Forecast of Employment Growth and Commercial and Industrial Land Demand

Demand for industrial and commercial land will be driven by the expansion and relocation of existing businesses and by the growth of new businesses in Scappoose. This employment land demand is driven by local growth independent of broader economic opportunities, including the growth of potential growth industries.

The employment projections in this section build off Scappoose's existing employment base, assuming future growth is similar to Columbia County's long-term historical employment growth rates. The employment forecast does not consider a major change in employment that could result from the location (or relocation) of one or more large employers in the community during the planning period. Such a major change in the community's employment would exceed the growth anticipated by the City's employment forecast and its implied land needs (for employment, but also for housing, parks, and other uses). Major economic events, such as the successful recruitment of a very large employer, are difficult to include in a study of this nature. The implications, however, are relatively predictable: more demand for land (of all types) and public services.

ECONorthwest has four steps to project demand for industrial and nonretail commercial land:

1. **Establish base employment for the projection.** We start with the estimate of covered employment in Scappoose presented in Exhibit 4. Covered employment does not include all workers, so we adjust covered employment to reflect total employment in the city.

2. **Project total employment.** The projection of total employment considers forecasts and factors that may affect employment growth in Scappoose over the 20-year planning period.
3. **Allocate employment.** This step involves allocating types of employment to different land use types.
4. **Estimate land demand.** This step estimates general employment land demand based on employment growth and assumptions about future employment densities.

This analysis applies methods established by administrative rule and input received from the Stakeholder Advisory Committee (SAC).

Employment Base for Projection

The purpose of the employment projection is to model future employment land need for general employment growth. The forecast of employment growth in Scappoose starts with a base of employment growth on which to build the forecast.

To develop the figures, ECONorthwest started with estimated covered employment in the Scappoose UGB from confidential Quarterly Census of Employment and Wages (QCEW) data provided by the Oregon Employment Department (see Exhibit 4). Based on this information, Scappoose had about 2,240 covered employees in 2019.

Covered employment, however, does not include all workers in an economy. Most notably, covered employment does not include sole proprietors. Analysis of data shows that *covered* employment reported by the Oregon Employment Department for Columbia County is only about 70% of *total* employment reported by the U.S. Department of Commerce.[24] We evaluated this ratio for each industrial sector for Columbia County and used the resulting ratios to determine the number of non-covered employees. This allowed us to determine the total employment in Scappoose. Exhibit 7 shows Scappoose had an estimated 3,337 *total* employees within its UGB in 2019.

Exhibit 7. Estimated Total Employment by Sector, Scappoose UGB, 2019
Source: 2019 covered employment from confidential Quarterly Census of Employment and Wage (QCEW) data provided by the Oregon Employment Department.

Sector	Covered Employment	Estimated Total Employment	Covered % of Total
Construction & Agriculture	186	285	65%
Manufacturing	266	301	88%
Retail Trade	536	752	71%
Transportation and Warehousing and Wholesale Trade	105	162	65%
Information	22	48	46%
Finance and Insurance	69	129	53%
Real Estate and Rental and Leasing	26	211	12%
Professional Services and Management of Companies	74	170	44%
Admin. / Support and Waste Mgmt / Remediation Serv.	36	60	60%
Health Care and Social Assistance	125	164	76%
Arts, Entertainment, and Recreation	25	123	20%
Accommodation and Food Services	273	300	91%
Other Services (except Public Administration)	131	240	55%
Government	366	392	93%
Total Non-Farm Employment	**2,240**	**3,337**	**67%**

[24] **Covered** employment includes employees covered by unemployment insurance. Examples of workers not included in covered employment are sole proprietors, some types of contractors (often referred to as "1099 employees"), or some railroad workers. Covered employment data is from the Oregon Employment Department.

Total employment includes all workers based on data from the U.S. Department of Commerce. Total employment includes all covered employees, plus sole proprietors and other noncovered workers.

Employment Projection

The employment forecast covers the 2023 to 2043 period and the 2043 to 2073 period, requiring an estimate of total employment for Scappoose in 2022. The base employment starts with the estimate of 3,337 total jobs in Scappoose in 2019, shown in Exhibit 7.

Scappoose does not have an existing employment forecast, and there is no required method for employment forecasting. OAR 660-024-0040(9)(a) sets out some optional "safe harbors" that allow a city to determine employment land need.

Exhibit 8 shows the forecast rate options for the 2023 to 2043 period, which include employment growing at the rate of either the PSU population growth rate (1.23%), the OED regional employment growth rate (1.48%), or the historic employment growth rate in Scappoose between 2008 and 2019 (2.32%). The PSU and OED growth rates are the safe harbor options in OAR 660-024-0040(9)(a)(A) and OAR 660-024-0040(9)(a)(B).

Exhibit 8. Forecast Rate Options for Employment Growth in Scappoose UGB, 2023–2043
Source: ECONorthwest

Year	Jobs grow at the rate of...		
	Forecast Population Growth for the City (2023-2043) (1.23%)	Employment Growth in the Region (2020-2030) (1.48%)	Historic Employment Growth in Scappoose (2008-2019) (2.32%)
2023	3,504	3,539	3,657
2043	4,471	4,745	5,783
Change 2023 to 2043			
Employees	967	1,206	2,126
Percent	28%	34%	58%
Avg. Annual Growth Rate (AAGR)	1.23%	1.48%	2.32%

Exhibit 9 shows employment growth in Scappoose between 2023 and 2043, based on the assumption that the city will grow at an average annual growth rate of 2.32%. The rationale for this assumption is that development related to OMIC is likely to support additional manufacturing development. Businesses associated with OMIC may choose to locate at the Airport, near OMIC. In addition, the PCC training programs will provide trained, skilled workers for manufacturing businesses, which may lead some businesses to locate in Scappoose. Growth of manufacturing and related businesses is likely to result in growth of service businesses, such as restaurants, personal services, and retail.

Exhibit 9 also shows employment growth in Scappoose between 2043 and 2073 based on PSU's population forecast of a 1.02% growth rate for this period. This slower rate of growth assumes that employment will grow at the same rate as the population. It reflects the uncertainty about how much employment growth Scappoose will have in the later part of the 50-year period.

Based on this forecast, Scappoose will have 5,783 employees within the UGB by 2043, which is an increase of 2,126 employees (58%) between 2023 and 2043. Scappoose will have 7,848 employees within the UGB by 2073, an increase of 2,065 employees between 2043 and 2073.

Exhibit 9. Employment Growth in Scappoose UGB, 2023–2043 and 2043-2073
Source: ECONorthwest

Year	Total Employment
2023	3,657
2043	5,783
2073	7,848
Change 2023 to 2043	
Employees	2,126
Percent	58%
AAGR	2.32%
Change 2043 to 2073	
Employees	2,065
Percent	36%
AAGR	1.02%

Allocate Employment to Different Land Use Types

The next step in forecasting employment is to allocate future employment to broad categories of land use. Firms wanting to expand or locate in Scappoose will look for a variety of site characteristics, depending on the industry and specific circumstances. We grouped employment into four broad categories of land use based on the North American Industrial Classification System (NAICS): industrial, retail commercial, office and commercial services, and government.[25]

Exhibit 10 is the expected share of employment by land use type in 2023 and the forecast of employment growth by land use type in 2043 in the Scappoose UGB. The results assume that the mix of employment will be different in 2043 than the current mix.

- Employment in industrial will increase from 22% of existing employment to 31% of new employment as a result of growth in OMIC and industries that locate in Scappoose associated with OMIC.
- Employment in retail commercial will decrease from 23% to 16%, consistent with national trends of declining local retail and growth in online shopping.
- Employment in office and commercial services will remain stable, growing from 43% of employment to 44% of employment by 2043.
- Employment in government will decrease from 12% to 9%, based on the assumption that school, county, and local government employment will grow slower than other types of employment, based on expectations for population growing slower than employment.

Exhibit 10. Forecast of Employment Growth by Land Use Type, Scappoose UGB, 2023–2043
Source: ECONorthwest
Note: The shaded percentages denote an assumption about the future change in the share of employment (as a percent of total) by land use type.

Land Use Type	2023		2043		Change
	Employment	% of Total	Employment	% of Total	2023 to 2043
Industrial	820	22%	1,793	31%	973
Retail Commercial	824	23%	925	16%	101
Office & Commercial Services	1,584	43%	2,545	44%	961
Government	429	12%	520	9%	91
Total	**3,657**	**100%**	**5,783**	**100%**	**2,126**

[25] Industrial employment includes construction and agriculture; manufacturing; transportation and warehousing; and wholesale trade. Retail commercial is retail trade. Office & commercial includes information; finance and insurance; real estate; professional services; management of companies; administrative support and waste management; educational services; health care and social assistance; recreation; accommodation and food service; other services. Government includes all employment at federal, state, local, and other governmental agencies.

The forecast for employment land needs over the 2043 to 2073 period uses the same assumptions about growth by land use type for the 2023-2043 forecast (Exhibit 11).

Exhibit 11. Forecast of employment Growth by Land Use Type, Scappoose UGB, 2043-2073
Source: ECONorthwest
Note: The shaded percentages denote an assumption about the future change in the share of employment (as a percent of total) by land use type.

Land Use Type	2043		2073		Change
	Employment	% of Total	Employment	% of Total	2023 to 2043
Industrial	1,793	31%	2,433	31%	640
Retail Commercial	925	16%	1,256	16%	331
Office & Commercial Services	2,545	44%	3,453	44%	908
Government	520	9%	706	9%	186
Total	**5,783**	**100%**	**7,848**	**100%**	**2,065**

Estimate of Demand for Commercial and Industrial Land

This section shows demand for vacant (including partially vacant) land in Scappoose over the 20-year period and the 50-year period. The assumptions used in this analysis are:

- **Employment density.** Employees per acre is a measure of employment density based on the ratio of the number of employees per acre of employment land that is developed for employment uses. Exhibit 12 and Exhibit 13 assumes the following numbers of net employees per acre: industrial will have an average of 8 employees per acre, retail commercial will have an average of 20 employees per acre, and office and commercial services will have an average of 25 employees per acre. These employment densities are consistent with Oregon cities similar in size to Scappoose. Some types of employment will have higher employment densities (e.g., a multistory office building), and some will have lower employment densities (e.g., a convenience store with a large parking lot).

- **Conversion from net-to-gross acres**. The data about employment density is in *net* acres, which does not include land for public right-of-way. Future land need for employment should include land in tax lots needed for employment plus land needed for public right-of-way. One way to estimate the amount of land needed for employment, including public right-of-way, is to convert from *net* to *gross* acres based on assumptions about the amount of land needed for public right-of-way.[26] A net-to-gross conversion is expressed as a percentage of gross acres that are in public right-of-way.

  Based on empirical evaluation of Scappoose's existing net-to-gross ratios in areas designated for and developed with industrial and commercial uses, ECONorthwest uses a net-to-gross conversion factor of 14% for industrial and 15% for commercial.

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

Using these assumptions, the forecasted growth of 2,126 new employees between 2023 and 2043 will result in the following demand for vacant (and partially vacant) employment land: 141 gross acres of industrial land, 6 acres of retail commercial land, and 45 gross acres of office commercial land.

Exhibit 12. Demand for Vacant Land to Accommodate Employment Growth, Scappoose UGB, 2023–2043
Source: ECONorthwest

Land Use Type	New Emp. on Vacant Land	Employees per Net Acre	Land Demand (Net Acres)	Land Demand (Gross Acres)
Industrial	973	8	122	141
Retail Commercial	101	20	5	6
Office & Commercial Services	961	25	38	45
Total	**2,035**	-	**165**	**192**

The forecasted growth of 2,065 new employees between 2043 and 2073 will result in the additional demand for vacant (and partially vacant) employment land: 93 gross acres of industrial land, 19 gross acres of retail commercial land, and 43 gross acres of office commercial land.

Exhibit 13. Demand for Vacant Land to Accommodate Employment Growth, Scappoose UGB, 2043–2073
Source: ECONorthwest

Land Use Type	New Emp. on Vacant Land	Employees per Net Acre	Land Demand (Net Acres)	Land Demand (Gross Acres)
Industrial	640	8	80	93
Retail Commercial	331	20	17	19
Office & Commercial Services	908	25	36	43
Total	**1,879**	-	**133**	**155**

Target Industries

The characteristics of Scappoose will affect the types of businesses most likely to locate in the city over the next 20-years. Attributes that may attract firms are Scappoose's access to industrial land, OMIC and existing manufacturing businesses, labor market, and quality of life.

Scappoose's existing businesses are concentrated in the industries defined in Exhibit 14. The industries in green highlight are industries with higher-than-average city wages. Industries with a high location quotient (i.e., highly specialized compared to national employment in the industry), high employment (i.e., have more than 50 employees in Scappoose), and higher than average city wages have the highest potential for growth. Scappoose also has opportunities for employment growth in industries without a concentration of employment or a high location quotient.

Exhibit 14. Concentration of Industries and Employment, Scappoose, 2019
Source: Oregon Employment Department, Quarterly Census of Employment and Wages, 2019.
Note: Green highlighting indicates higher than Scappoose's average wage.

	High Employment (50 employees or more)	Low Employment (at least 10 employees)
High Location Quotient	▪ Plastics and Rubber Products Manufacturing ▪ Transportation Equipment Manufacturing ▪ Miscellaneous Store Retailers	▪ Apparel manufacturing ▪ Leather and Allied Product Manufacturing ▪ Paper Manufacturing ▪ Nonmetallic Mineral Product Manufacturing ▪ Motor Vehicle and Parts Dealers ▪ Gasoline Stations ▪ Transit and Ground Passenger Transportation ▪ Couriers and messengers ▪ Motion Picture and Sound Recording Industries ▪ Repair and Maintenances ▪ Religious, Grantmaking, Civic, Professional, and Similar Organizations ▪ Private Households
Low Location Quotient	▪ Professional, Scientific, and Technical Services	▪ Construction of Buildings ▪ Heavy and Civil Engineering Construction ▪ Food Manufacturing ▪ Merchant Wholesalers, Durable Goods ▪ Building Material and Garden Equipment and Supplies Dealers ▪ Food and Beverage Stores ▪ Support Activities for Transportation ▪ Credit Intermediation and Related Activities ▪ Insurance Carriers and Related Activities ▪ Real Estate ▪ Management of Companies and Enterprises ▪ Administrative and Support Services ▪ Ambulatory Health Care Services ▪ Nursing and Residential Care Facilities ▪ Social Assistance ▪ Amusement, Gambling, and Recreation Industries ▪ Personal and Laundry Services

Potential Growth Industries

An analysis of growth industries in Scappoose should address two main questions: (1) Which industries are most likely to be attracted to Scappoose? and (2) Which industries best meet Scappoose's economic development goals? The selection of potential growth industries is based on Scappoose's goals for economic development, economic conditions in Scappoose and Columbia County, and the City's competitive advantages.

Given the current employment base, which is composed of small-sized businesses, it is reasonable to assume that much of the city's business growth will come from small-sized businesses. This growth will either come from businesses already in Scappoose or new businesses that start or relocate to Scappoose from within the Portland Metro region or from outside of the region.

The industries identified as having potential for growth over the 20-year planning period in Scappoose are:

- **Manufacturing.** As OMIC and the PCC Training Center continue to grow in influence and reputation, they are expected to attract additional manufacturing businesses and talent to the City, especially ones related to OMIC industries. As automation continues to shape manufacturing industries, Scappoose's target manufacturing industries will also evolve. The PCC training center has a particularly strong focus on mechatronics, welding, and machining which will continue to bolster manufacturing capabilities.
- **Professional, scientific, and technical services.** As the manufacturing sector grows there may be increased demand for professional services. OMIC is expected to generate demand for secondary and tertiary services supporting advanced and additive manufacturing over the next several years. Professional, scientific, and other technical services are positioned to expand given these conditions.
- **Aviation-related industries.** Given the presence of the Scappoose Airport and its goal of expanding aviation-related industries, as well as supporting economic development, aviation-related industries may be attracted to Scappoose. In fact, SICDRONE, a robotic aircraft systems manufacturer, announced its plan to lease a 6,000 square foot facility at the Scappoose Airport in July 2022. This facility will be dedicated to the design and advanced manufacturing of unmanned aircraft systems for military applications, commercial offshore wind farms, and first responder drone programs.
- **Trade industries.** Construction and other tradespeople are in demand in Scappoose and other growing communities. Large infrastructure projects throughout Columbia County, such as the NEXT Renewable Fuels, Inc. project[27], will continue to increase demand for skilled trades.

[27] https://nextrenewables.com/#about-the-next-project

- **Services for residents.** As Scappoose's population grows, demand for services for residents will grow. These services include retail, restaurants, medical services, childcare services, and other services. These types of services present opportunities for entrepreneurship and small business development in Scappoose.
- **Tourism.** Scappoose has access to parks and other outdoor recreational opportunities. Visitors that stop in Scappoose create demand for services such as hotels, restaurants, specialty retail, and experiences available in or near Scappoose.

Site Needs for Potential Growth Industries

OAR 660-009-0015(2) requires the EOA to "identify the number of sites by type reasonably expected to be needed to accommodate the expected [20-year] employment growth based on the site characteristics typical of expected uses." The Goal 9 rule does not specify how jurisdictions conduct and organize this analysis.

OAR 660-009-0015(2) does state that "industrial or other employment uses with compatible site characteristics may be grouped together into common site categories." The rule suggests, but does not require, that the City "examine existing firms in the planning area to identify the types of sites that may be needed." For example, site types can be described by (1) plan designation (e.g., heavy or light industrial), (2) general size categories that are defined locally (e.g., small, medium, or large sites), or (3) industry or use (e.g., manufacturing sites or distribution sites). For purposes of the EOA, Scappoose groups its future employment uses into categories based on their need for land with a particular plan designation (i.e., industrial, commercial) and by their need for sites of a particular size.

The potential growth industries described in the prior section are a mixture of business sizes, which will require a mixture of site sizes. Exhibit 15 shows the typical site needs for manufacturing businesses in Oregon.

Exhibit 15. Industrial Development Competitiveness Matrix, Business Oregon
Source: Business Oregon, Infrastructure Finance Authority, "Industrial Development Competitiveness Matrix."
Note: Items identified as "preferred" are those that increase the feasibility of the subject property and its future reuse. Items identified as "required" are factors seen as mandatory in most cases and have become industry standards.

Industry Sector	Site size (Acres)	Site Topography (Slope)	Trip Generation (ADT/Acre)	Site Access Max distance in miles to interstate or major arterial	Railroad or Port Access	Telecommunications (major communications dependency)
Regionally to Nationally Scaled Clean-Tech Manufacturer	5-100+	0-5%	40 - 60	10	Preferred	Required
Heavy Industrial/ Manufacturing	10-100+	0-5%	40 - 60	10	Preferred	Preferred
General Manufacturing	5-15+	0-5%	40 - 50	20	Preferred	Required
Food Processing	5-25+	0-5%	50 - 60	30	Preferred	Preferred
Regional (multistate) Distribution Center	20-100+	0-5%	40 - 80	5 Only Interstate highway or equivalent	Preferred	Preferred
Warehouse/Distribution (local)	10-25	0-5%	40 - 80	5 Only Interstate highway or equivalent	Preferred	Preferred
Call Center / Business Services	5-15	0 to 12%	170 - 180	Not applicable	Preferred	Required
Advanced Manufacturing & Assembly	5-25+	0-7%	40 - 60	15	Not Required	Required
Business Park and R&D Campus	20 - 100+	0-7%	60 to 150	N/A	Preferred	Required
UVA Manufacturing / Research	10-25+	0-7%	40 - 80	N/A	Not Required	Required
Data Center	10-25+	0-7%	20 - 30	30	Avoid / Not Required	Required
Rural Industrial	5-25+	0-5%	40 - 50	N/A	N/A	Preferred

For the most part, the size of sites needed by most potential growth industries will range from space in an existing building to flat sites of one acre or less to sites of 25 acres for manufacturing businesses. In a few instances, such as in industrial or business parks, sites larger than 25 acres (and up to 100 acres or larger) may be necessary to meet the needs of businesses or developments to support businesses. Manufacturing and other industrial businesses likely to locate in Scappoose will have a range of space needs:

- **Small-scale manufacturing space.** Businesses would locate in an industrial building with many other users. These businesses will need access to arterial roads and highways. There may be opportunities for a building with multiple small-scale manufacturers located in the building. OMIC is exploring a small business incubator and accelerator in the future, which could occupy a new building on their campus. The incubator itself may have small spaces for businesses but, as they grow larger, the businesses will need space to grow outside of the incubator.
- **Space in an existing building.** Most businesses that work with Business Oregon on site selection request space in existing buildings, either in vacant buildings or in buildings with other manufacturers.
- **Midsized manufacturing.** Some midsized manufacturers may prefer to locate in a building with one or two other businesses. Others may prefer to locate in newly developed buildings on sites from five to 15 acres. These businesses will need access to arterial roads and highways and may need greater access to water and wastewater.
- **Large manufacturing space.** Some larger manufacturers may prefer newly developed buildings on sites larger than 15 acres, often in purpose-build buildings. These businesses will need direct access to arterial roads and highways and may need greater access to water and wastewater.

Commercial businesses, including service and hospitality, require high-visibility locations near other businesses and neighborhoods, especially along Highway 30. Professional and commercial service businesses have a variety of space needs, ranging from:

- **Space in an existing building.** Businesses would be located as one of several or many firms within the building.
- **Space in a building dominated by one firm.** This could potentially be with manufacturing or other industrial space in the building.
- **Land for construction of a building designed for the firm.** However, in the case where the business needs to build a building, they are typically seeking existing space rather than land to build a new facility.

Some commercial businesses may locate in Scappoose's Airport Business Park, especially businesses serving nearby manufacturing firms. The Airport Business Park, however, is not where commercial businesses would locate if they were not providing services to nearby businesses around the Airport.

4. Buildable Lands Inventory

The buildable lands inventory is intended to identify commercial and industrial lands that are available for development for employment uses within the Scappoose UGB. The inventory is sometimes characterized as *supply* of land to accommodate anticipated employment growth. Population and employment growth drive *demand* for land. The amount of land needed depends on the type of development and other factors.

This chapter presents results of the commercial and industrial buildable lands inventory for the Scappoose UGB. The results are based on analyses of the City of Scappoose, Columbia County, and State of Oregon GIS data by ECONorthwest and reviewed by City staff. The remainder of this chapter summarizes key findings of the buildable lands inventory.

The general steps in the buildable lands inventory are:

1. Generate UGB "land base"
2. Classify lands by buildable area status
3. Identify constraints
4. Verify inventory results
5. Tabulate and map results

The next section provides a summary of the results of the commercial and industrial buildable lands inventory for the Scappoose UGB in both tabular and map formats. **Appendix B presents more details on the methodology for developing the inventory.**

Land Base

The land base for the Scappoose employment BLI includes all tax lots in the urban growth boundary (UGB) in plan designations that allow for employment. Exhibit 16 shows the land base by plan designation and zoning in the UGB.

Exhibit 16. Employment Land Base by Plan Designation, Scappoose UGB, 2022
Source: ECONorthwest analysis, City of Scappoose, Columbia County.
Note: The number of tax lots represented is greater than the actual total number of tax lots in the analysis due to split plan designations.

Plan Designation/Zone	Number of taxlots	Percent	Total taxlot acreage	Percent (total acreage)
Airport Employment	**40**	**13%**	**703**	**62%**
City Limits				
Light Industrial (LI)	3	1%	4	0%
Airport Business Park (ABP)	8	3%	75	7%
Airport Industrial Park (AIP)	2	1%	56	5%
East Airport Employment (EAE)	4	1%	269	24%
Public Use Airport (PUA)	15	5%	266	24%
UGB (County Zoning)				
Rural Residential 5 (RR-5)	8	3%	34	3%
Commercial	**219**	**68%**	**172**	**15%**
City Limits				
General Commerical (C)	93	29%	27	2%
Expanded Commercial (EC)	106	33%	93	8%
UGB (County Zoning)				
General Commercial (C-3)	1	0%	3	0%
C-3/RIPD	1	0%	2	0%
C3/RR-5	1	0%	6	1%
Highway Commercial (C-5)	1	0%	2	0%
Existing Commercial (EC)	1	0%	3	0%
Light Industrial (M-2)	1	0%	2	0%
Resource Industrial - Planned Development (RIPD)	4	1%	7	1%
Community Service - Institutional (CS-I)	1	0%	9	1%
Community Service - Utility (CS-U)	1	0%	1	0%
Rural Residential 5 (RR-5)	8	3%	17	2%
Industrial	**61**	**19%**	**253**	**22%**
City Limits				
Light Industrial (LI)	35	11%	82	7%
UGB (County Zoning)				
General Commercial (C-3)	3	1%	10	1%
Heavy Industrial (M-1)	8	3%	98	9%
Light Industrial (M-2)	8	3%	47	4%
Community Service - Utility (CS-U)	1	0%	2	0%
Rural Residential 5 (RR-5)	6	2%	15	1%
Total	**320**	**100%**	**1,129**	**100%**

Development Status

Exhibit 17 shows the total acres of residential tax lots classified by development status. We used a rule-based classification (described in Appendix B) to define an initial development status. We confirmed development status through a series of reviews by ECONorthwest and City staff, based on local knowledge and review of aerial maps.

Exhibit 17. Employment Acres by Classification and Plan Designation, Scappoose UGB, 2022
Source: ECONorthwest analysis, City of Scappoose, Columbia County.

Plan Designation/Zone	Total Acres	Committed Acres	Constrained Acres	Buildable Acres Unconstrained Vacant & Partially Vacant
Airport Employment	**703**	**231**	**60**	**412**
City Limits				
Light Industrial (LI)	4	1	-	3
Airport Business Park (ABP)	75	38	-	37
Airport Industrial Park (AIP)	56	7	0	49
East Airport Employment (EAE)	269	-	16	253
Public Use Airport (PUA)	266	180	43	42
UGB (County Zoning)				
Rural Residential 5 (RR-5)	34	5	1	28
Commercial	**172**	**122**	**11**	**39**
City Limits				
General Commerical (C)	27	24	2	0
Expanded Commercial (EC)	93	73	0	20
UGB (County Zoning)				
General Commercial (C-3)	3	3	-	0
C-3/RIPD	2	1	-	1
C3/RR-5	6	3	2	1
Highway Commercial (C-5)	2	1	-	2
Existing Commercial (EC)	3	2	1	-
Light Industrial (M-2)	2	0	2	-
Resource Industrial - Planned Development (RIPD)	7	5	1	1
Community Service - Institutional (CS-I)	9	3	0	6
Community Service - Utility (CS-U)	1	0	1	-
Rural Residential 5 (RR-5)	17	8	3	7
Industrial	**253**	**42**	**173**	**38**
City Limits				
Light Industrial (LI)	82	23	39	20
UGB (County Zoning)				
General Commercial (C-3)	10	4	2	4
Heavy Industrial (M-1)	98	8	89	1
Light Industrial (M-2)	47	6	29	12
Community Service - Utility (CS-U)	2	0	2	-
Rural Residential 5 (RR-5)	15	1	13	1
Total	**1,129**	**395**	**245**	**489**

Development Constraints

The buildable lands inventory identifies the following conditions as constraints that prohibit development: FEMA Regulatory Floodway and 100-Year Floodplains, landslide susceptibility, slopes greater than 15%, wetlands (locally significant and delineated), a 50-foot buffer on perennial streams, and the City's Runway Protection Zone (RPZ). Exhibit 18 shows these constraints.

Exhibit 19 shows development status with constraints applied, resulting in buildable acres. Vacant or partially vacant land with these constraints is considered unavailable for development and removed from the inventory of buildable land.

Note that partially vacant land in the map in Exhibit 19 shows the entire tax lot as being partially vacant, without distinguishing the part of the tax lot that is not available for development. The buildable lands inventory database accounts for the portion of the tax lot that is developed (and considered unavailable for future development) and the portion of the tax lot that is vacant is shown in Exhibit 19.

Exhibit 18. Development Constraints, Scappoose UGB, 2022
Source: ECONorthwest analysis, City of Scappoose, Columbia County.

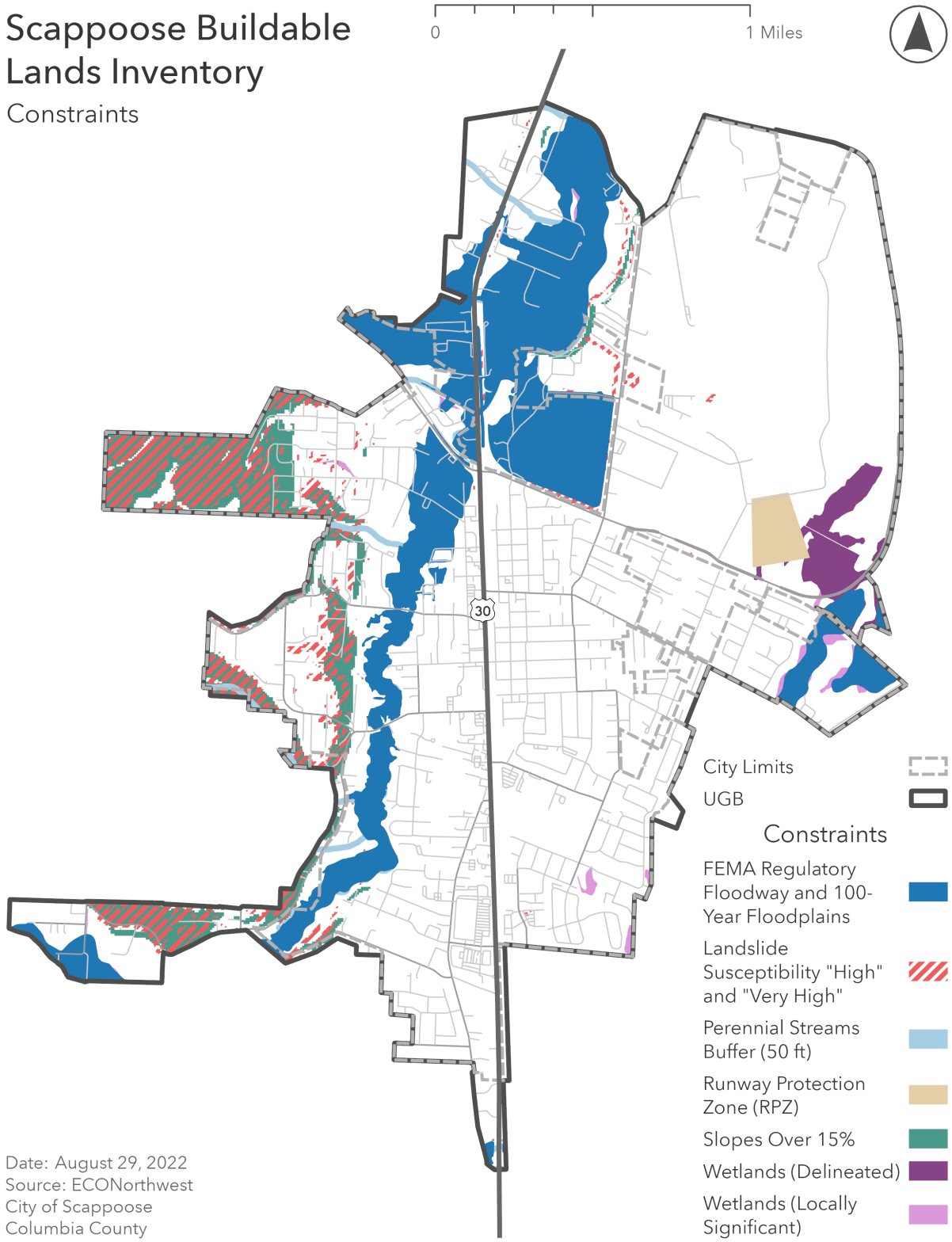
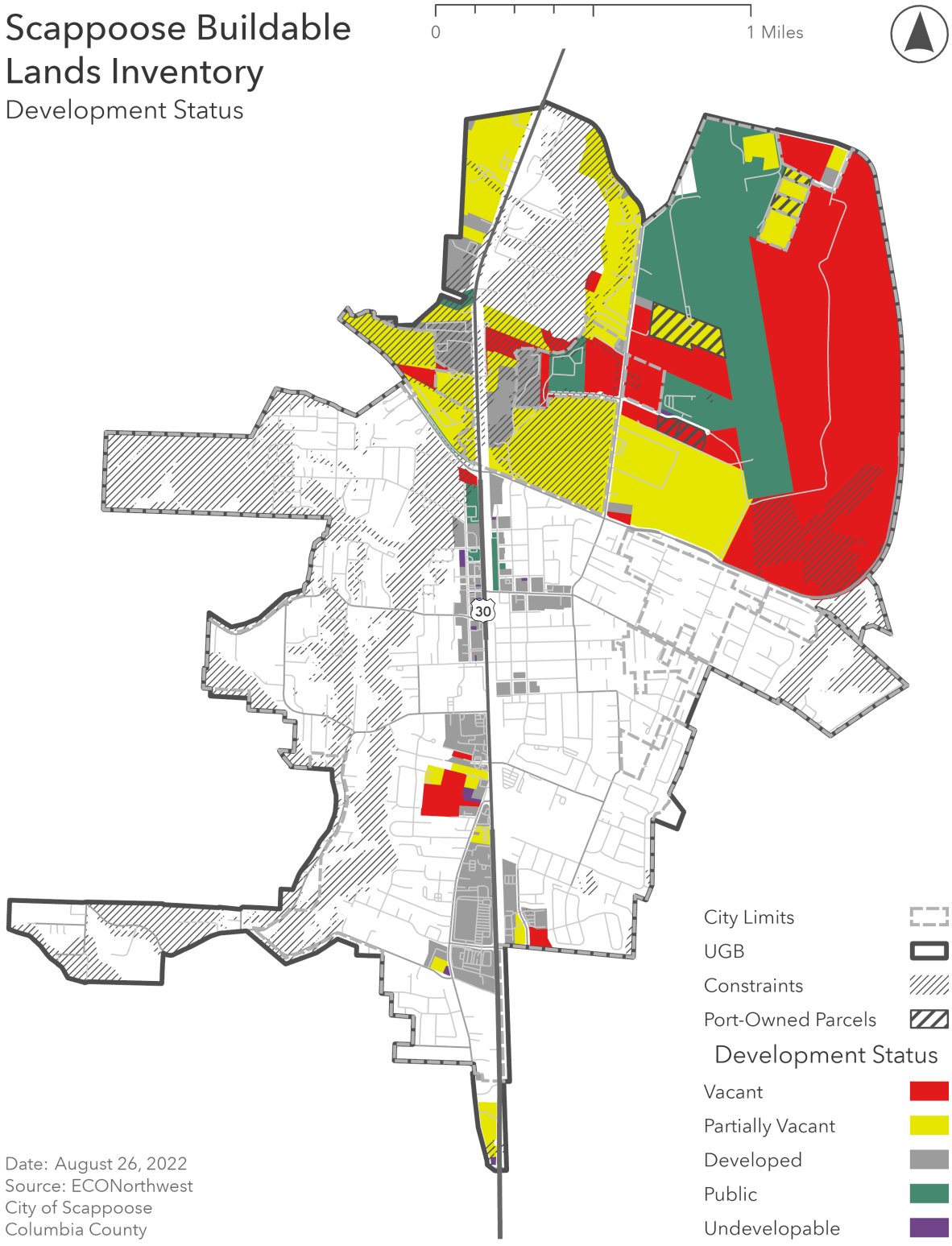


Exhibit 19. Development Status with Constraints, Scappoose UGB, 2022
Source: ECONorthwest analysis, City of Scappoose, Columbia County.



Vacant Unconstrained Buildable Land

The next step in the commercial and industrial buildable lands inventory was to net out portions of vacant tax lots that are unsuitable for development. Areas unsuitable for development fall into two categories: (1) developed areas of partially vacant tax lots, and (2) areas with physical constraints (areas with wetlands, floodways, riparian setback areas, and steep slopes).

Exhibit 20 shows unconstrained buildable acres for vacant and partially vacant land by plan designation. Exhibit 21 shows Scappoose's buildable vacant and partially vacant residential land by plan designation while Exhibit 22 shows the same land by zone.

These exhibits show land by plan designation to indicate the future expected usage of the land, regardless of current zoning. They also show zoning to differentiate among the types of land in the Airport Employment Zone, which includes the Airport Business Park, Airport Industrial Park, and East Airport Employment. Different types of uses are allowed based on these zoning overlays on Airport Employment land.

Some of the zoning of land within the UGB but outside the city limits is not consistent with the Comprehensive Plan Designation. For example, 28 acres of Rural Residential 5 land is within the Airport Employment Designation. When this land annexes into Scappoose, the zoning will be changed to be consistent with uses allowed in the Airport Employment Designation.

The Airport Employment Designation: Base Zone and Overlays

The Public Use Airport (PUA) base zone allows a variety of aviation related uses including manufacturing, assembly, processing, packaging, testing, treatment, repair or distribution of aircraft or related components for sale to the public.*

The purpose of the Airport Employment Overlay Zones is to encourage employment opportunities described in the 2011 Scappoose Economic Opportunity Analysis while supporting the continued operation and vitality of the Scappoose Industrial Airpark. Allowed uses by overlay zone are briefly described below.

- **The Airport Industrial Park (AIP)** overlay zone allows industrial uses targeted in the 2011 EOA
- **The Airport Business Park (ABP)** overlay zone allows a mix of targeted light industrial, commercial service and office, and supporting lodging and restaurant uses targeted in the 2011 EOA.
- **The East Airport Employment (EAE)** overlay zone protects large industrial and institutional sites identified in the 2011 EOA.

*Details about the PUA base zone can be found in Chapter 17.69 of the City Municipal Code

**Details on the Airport Employment Overlay Zones can be found in Chapter 17.74 of the City Municipal Code

Exhibit 20. Buildable Acres in Vacant/Partially Vacant Tax Lots by Plan Designations, Scappoose UGB, 2022

Source: ECONorthwest analysis, City of Scappoose, Columbia County.

Plan Designation/Zone	Total Buildable Acres	Buildable Acres on Vacant Lots	Buildable Acres on Partially Vacant Lots
Airport Employment	**412**	**335**	**77**
City Limits			
Light Industrial (LI)	3	3	-
Airport Business Park (ABP)	37	23	15
Airport Industrial Park (AIP)	49	-	49
East Airport Employment (EAE)	253	253	-
Public Use Airport (PUA)	42	37	6
UGB (County Zoning)			
Rural Residential 5 (RR-5)	28	20	8
Commercial	**39**	**14**	**24**
City Limits			
General Commerical (C)	0	0	-
Expanded Commercial (EC)	20	14	6
UGB (County Zoning)			
General Commercial (C-3)	0	-	0
C-3/RIPD	1	-	1
C3/RR-5	1	-	1
Highway Commercial (C-5)	2	-	2
Resource Industrial - Planned Development (RIPD)	1	-	1
Community Service - Institutional (CS-I)	6	-	6
Rural Residential 5 (RR-5)	7	-	7
Industrial	**38**	**15**	**23**
City Limits			
Light Industrial (LI)	20	14	6
UGB (County Zoning)			
General Commercial (C-3)	4	-	4
Heavy Industrial (M-1)	1	-	1
Light Industrial (M-2)	12	-	12
Rural Residential 5 (RR-5)	1	1	-
Total	**489**	**364**	**125**

Exhibit 21. Buildable Employment Land by Plan Designation with Development Constraints, Scappoose UGB, 2022
Source: ECONorthwest analysis, City of Scappoose, Columbia County.

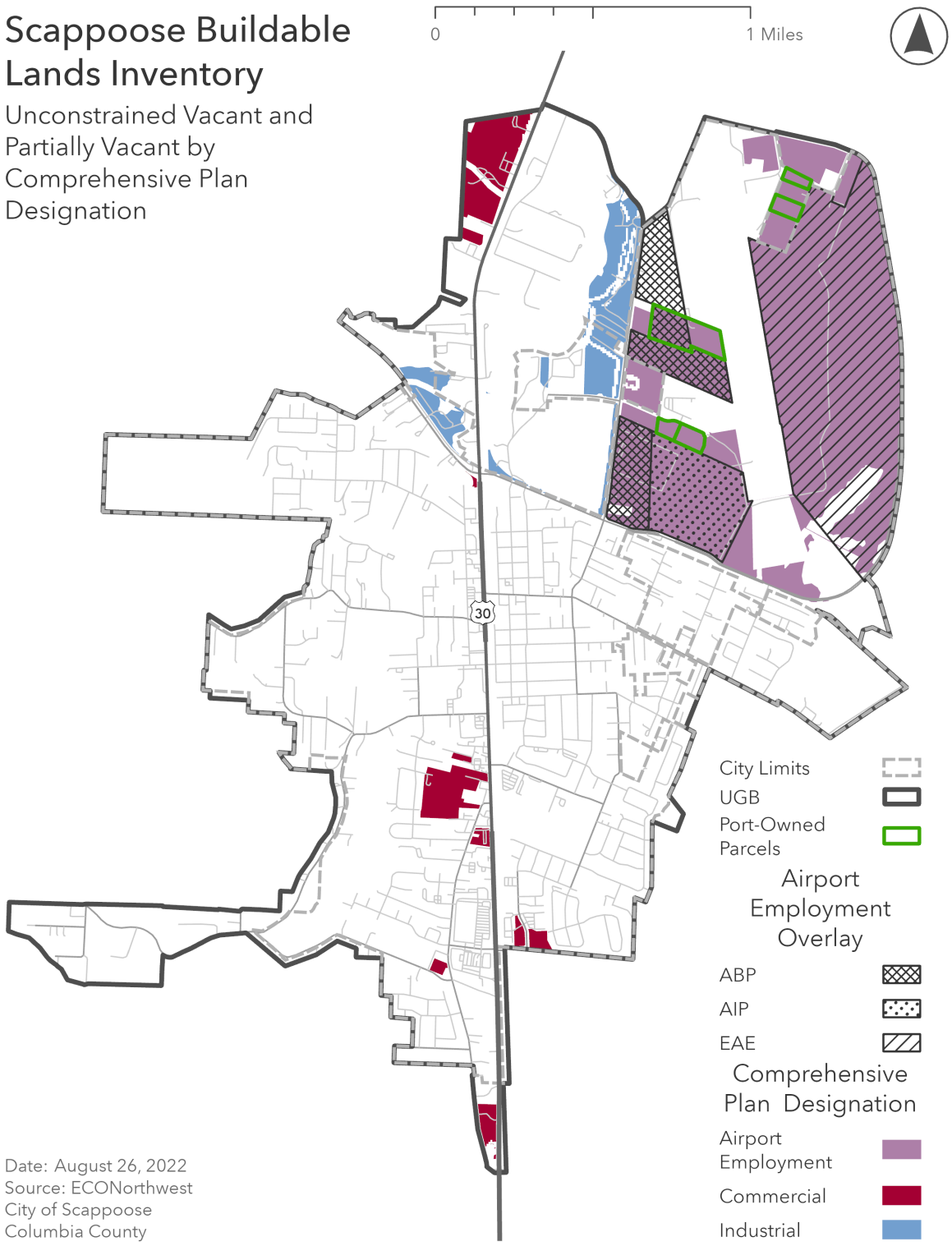


Exhibit 22. Buildable Employment Land by Zone with Development Constraints, Scappoose UGB, 2022

Source: ECONorthwest analysis, City of Scappoose, Columbia County.

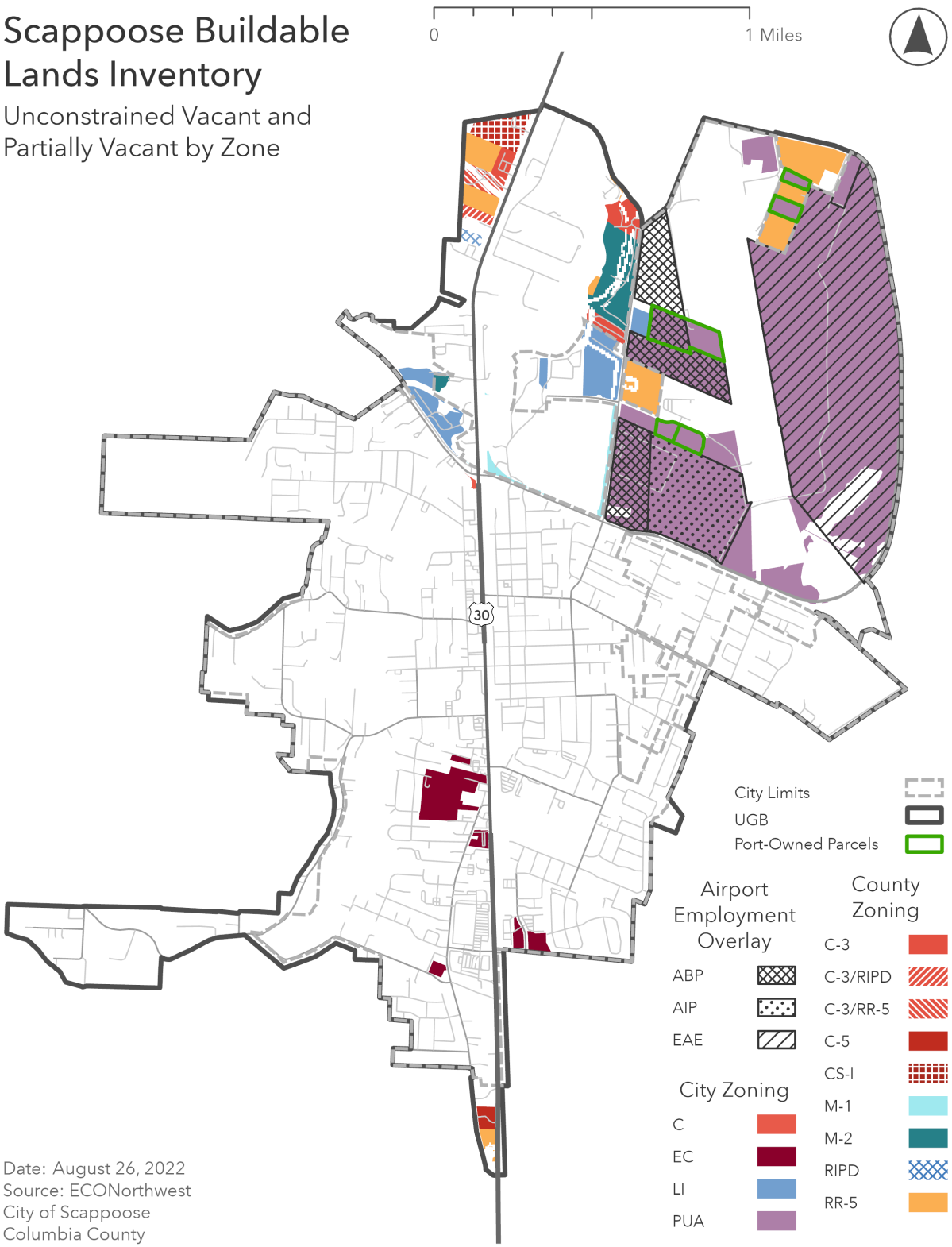


Exhibit 23 shows the size of lots by plan designations for buildable employment land. Scappoose has 18 lots that are smaller than 0.5 acres (with 2 acres of land); 30 lots between 0.5 and 2 acres (25 acres of land); 16 lots between 2 and 5 acres in size (49 acres of land); 8 lots between 5 and 10 acres in size (53 acres of land); 4 lots between 10 and 25 acres in size (65 acres of land); 3 lots between 25 and 50 acres in size (94 acres of land), and 2 lots over 50 acres in size (190 acres of land).

Exhibit 23. Tax lot Size by Plan Designation, Buildable Acres, Scappoose UGB, 2022
Source: ECONorthwest analysis, City of Scappoose, Columbia County.

Plan Designation/Zone	Buildable Site Size								
	0 - 0.5 Acres	0.5 - 1 Acres	1 - 2 Acres	2 - 5 Acres	5 - 10 Acres	10 - 25 Acres	25 - 50 Acres	50+ Acres	Total
Airport Employment	-	-	**12**	**27**	**24**	**65**	**94**	**190**	**412**
City	-	-	10	21	15	55	94	190	384
UGB	-	-	1	7	9	11	-	-	28
Commercial	**1**	**3**	**11**	**6**	**17**	**-**	**-**	**-**	**39**
City	1	2	4	3	11	-	-	-	20
UGB	0	1	7	3	6	-	-	-	19
Industrial	**1**	**6**	**3**	**15**	**12**	**-**	**-**	**-**	**38**
City	1	2	1	11	5	-	-	-	20
UGB	0	4	2	5	7	-	-	-	18
Acreage Subtotal	**2**	**9**	**26**	**49**	**53**	**65**	**94**	**190**	**489**
Airport Employment	**2**	**-**	**8**	**9**	**3**	**4**	**3**	**2**	**31**
City	2	-	7	6	2	3	3	2	25
UGB	-	-	1	3	1	1	-	-	6
Commercial	**3**	**5**	**8**	**2**	**3**	**-**	**-**	**-**	**21**
City	2	3	3	1	2	-	-	-	11
UGB	1	2	5	1	1	-	-	-	10
Industrial	**13**	**7**	**2**	**5**	**2**	**-**	**-**	**-**	**29**
City	4	2	1	4	1	-	-	-	12
UGB	9	5	1	1	1	-	-	-	17
Lot Subtotal	**18**	**12**	**18**	**16**	**8**	**4**	**3**	**2**	**81**

Land at the Airport

The Scappoose Airport is owned and operated by the Port of Columbia County and is located within city limits and urban growth boundary of the City of Scappoose. Zoning for designation for Scappoose Airport property is AI-Airport Industrial. Airports are permitted in this zone, as are aircraft repair and manufacturing uses. Airport-related guest services, such as motels, restaurants, and rental car facilities, are considered conditional uses. Additional conditional uses include manufacturing when products require air-shipment and manufacturing of equipment that supports aircraft manufacturing, such as navigation instruments.

Five tax lots covering 25.3 acres, including 16.8 acres of buildable land, are in the Airport Employment Designation and are owned by the Port of Columbia County. These lots are available for lease and cannot be purchased. Applications for land use or building permits in this zone must comply with noise levels at or below 45 Ldn, lighting must not project onto runways or taxiways, building materials may not produce glare, industrial emissions may not

generate smoke, dust, or steam that could obscure visibility, and communications facilities may not interfere with navigational signals or radio communications. Buildings are subject to the Aircraft Landing Field Overlay Zone and must meet or exceed Federal Aviation Administration Regulations Part 77 height guidelines within airport-vicinity airspace.

5. Land Sufficiency and Conclusions

This chapter presents conclusions about Scappoose's employment land sufficiency for the 2023–2043 period, as well as recommendations for the City to consider for meeting its economic growth needs throughout the planning period.

Land Sufficiency

Exhibit 24 shows commercial and industrial land sufficiency within the Scappoose UGB for the 2023 to 2043 period. It shows:

- **Vacant unconstrained land within the UGB**. This land is identified and discussed in detail in the Vacant Unconstrained Buildable Land section of this report. Utilizing data from that section, Exhibit 24 shows that Scappoose has 443 gross acres of industrial land and 31 gross acres of commercial land.
- **Demand for commercial and industrial land.** The Estimate of Demand for Commercial and Industrial Land section of this report describes the methodology used to identify demand. Based on assumptions described in that section, Scappoose will need a total of 141 gross acres for industrial uses and 51 gross acres for commercial uses over the 2023-2043 period (Exhibit 24).
- **Land Sufficiency.** When subtracting the demand for land from the supply of vacant unconstrained land, Exhibit 24 shows that Scappoose has:
  - A 301-acre surplus of industrial land
  - A 21-acre deficit of commercial land.

Exhibit 24. Comparison of the Capacity of Unconstrained Vacant Land with Employment Land Demand by Land Use Type, Scappoose UGB, 2023–2043
Source: ECONorthwest
*The HNA assumes that 40% of employment land is available for housing only. This assumes that 60% is available for commercial
**Assumes that 80% of ABP is for industrial, 20% for commercial

General Plan Designation	Land Supply *(Suitable Gross Acres)*	Land Demand *(Gross Acres)*	Land Sufficiency *(Surplus, Gross Acres)*
Industrial	443	141	301
Airport Business Park **	30		
Airport Industrial Park	49		
East Airport Employment	253		
PUA	42		
Other Industrial at Airport an	68		
Commercial * **	31	51	(21)

The target industries identified are a combination of manufacturing and industrial businesses, professional services, trade industries, and retail and commercial services for residents and visitors. The site needs generally show that these businesses in Scappoose will need sites that range from space in an existing building to flat sites of one acre or less to sites of 25 acres for manufacturing businesses. In a few instances, such as in industrial or business parks, sites larger than 25 acres (and up to 100 acres or larger) may be necessary (see Site Needs for Potential Growth Industries).

Exhibit 23 shows that Scappoose has 12 sites (118 acres) of sites from 5 to 25 acres. Seven of these sites or in the Airport Employment designation, 3 sites are designated commercial, and 2 sites are designated industrial. Scappoose has 3 sites (94 acres) that are between 20 and 50 acres in size, all within the Airport Employment designation. Scappoose has two sites (190 acres) in sites larger than 50 acres, all of which are designated Airport Employment.
Some businesses will need sites smaller than 5 acres for development. Scappoose has 64 sites smaller than 5 acres (86 acres). In addition, development of sites larger than 5 acres is likely to result in parcelization of some sites into smaller sites. Scappoose has a limited number of commercial sites smaller than 5 acres. Some commercial businesses may locate in Scappoose's Airport Business Park, especially businesses serving nearby manufacturing firms. However, the Airport Business Park is not where commercial businesses would locate if they were not providing services to nearby businesses around the Airport.

Based on this information and the analysis in Exhibit 24, we conclude that Scappoose has enough land within the UGB to accommodate expected industrial growth but does not have enough land to accommodate expected commercial growth.

Land Sufficiency for 2043 to 2073

Building off the land sufficiency conclusions determined in Exhibit 24, Scappoose would have about 301 undeveloped acres of industrial land and an existing deficit of about 21 acres of commercial land for employment in 2043. Exhibit 25 shows that Scappoose:

- **Surplus of industrial land.** Scappoose will need an additional 93 acres of land for industrial land, leaving a surplus of more than 200 acres. This analysis does not account for potential for large industrial employers to locate in Scappoose that need larger amounts of land or for faster than average industrial employment growth.

- **Deficit of commercial land**. Scappoose will need an additional 62 acres of land to accommodate commercial employment by 2073 resulting in a total commercial land deficit of 83 acres.

Exhibit 25. Comparison of the Capacity of Unconstrained Vacant Land with Employment Land Demand by Land Use Type, Scappoose UGB, 2043-2073
Source: ECONorthwest

General Plan Designation	Land Supply in 2043 *(Suitable Gross Acres)*	Land Demand *(Gross Acres)*	Land Sufficiency *(Surplus/Deficit, Gross Acres)*
Industrial	301	93	208
Commercial	(21)	62	(83)

Conclusions

The conclusions about commercial and industrial land sufficiency are:

- **Scappoose is forecast for growth in both the commercial and industrial employment sectors.** Scappoose is planning for growth of 2,125 new jobs in the city over the 2023 to 2043 period. About 973 of the jobs will be industrial, 961 of the jobs will be in office and commercial services, and 101 in retail. Growth of these jobs will result in demand for about 51 gross acres of commercial land and 141 gross acres of industrial land.
- **Scappoose has enough industrial employment land to accommodate industrial growth.** Exhibit 24 shows that Scappoose has enough land for industrial employment growth over the next 20 years, with a surplus of 301 acres. For its target industries, Scappoose will have need for industrial sites ranging from 5 to 25 acres for small and mid-sized manufacturing and other industrial businesses to 25 to 100-acre sites for large industrial businesses or new business parks.

  The forecast of industrial growth for 2043 to 2073 shows that Scappoose will still have a surplus of industrial land, if industrial employment grows at the pace of population growth. It is possible that industrial employment will grow faster or that large employers will locate in Scappoose that need larger sites. These are exogenous events that cannot be reasonably accounted for in the forecast of growth.
- **Scappoose has a deficit of land for commercial development.** Scappoose has a deficit of about 21 gross acres of land for commercial office, services, and retail uses. This deficit may be accommodated through increases in land use efficiency within the existing UGB, expansion of the UGB for more commercial land, or both.

  The forecast of commercial employment growth for 2043 to 2073 shows an additional 62-acre commercial land deficit.
- **Scappoose wages are lower than the regional average.** Scappoose's average wage of $37,717 is lower than the average of $40,729 for Columbia County. Scappoose's potential growth industries generally have above-average wages, except for certain types of services for residents and visitors, such as retail.
- **Scappoose will need to address key infrastructure needs in the city.** Scappoose will need to address water service deficiencies to support future employment growth. To meet upcoming demand, Scappoose has plans for three to four new wells to support future growth. The City of Scappoose is currently addressing wastewater system constraints and expects to be able to comfortably accommodate new employment once sewer updates are finalized.

Recommended Actions

Following are ECONorthwest's recommendations for actions for Scappoose based on the analysis and conclusions in this report.

- **Update the Economic Element of the Comprehensive Plan.** The Economy Element has not been updated in more than a decade.
- **Align the City's goals for economic development with planning for infrastructure development.** Aside from ensuring that there is sufficient land to support employment growth, one of the most important ways that the City can support economic development is through planning for and developing infrastructure (e.g., roads, water, sanitary sewer, and storm water systems). We recommend that the City continue to align its goals for economic development with infrastructure development through updates to the City's Capital Improvements Plan.

  Providing infrastructure to the large-lot industrial land near the Airport is necessary to allow employment growth to occur in the area. Without infrastructure, much of this land will remain undeveloped. Scappoose has made progress in ensuring infrastructure is available in this area but will likely need to work with developers and businesses to extend services as land is developed.
- **Monitor and replenish the supply of commercial and industrial land on a regular, periodic basis.** The buildable lands inventory identifies the existing development status of employment land in Scappoose. While Scappoose will not completely update the buildable lands inventory on an annual basis, City staff should still monitor the development status of these employment lands and replenish short-term supply when possible.
- **Work with partners to develop a broad economic development strategy for Scappoose.** An economic development strategy results in a process and a document to guide economic growth and development within the community. This is an opportunity for the city and its economic development partners to build capacity and leverage strengths and other planning efforts. Given the findings from the EOA, ECONorthwest recommends considering the following policies when creating an economic development strategy:
  - **Celebrate quality of place** by enhancing and promoting the brand of Scappoose, by supporting new community events, and by partnering on infrastructure development
  - **Expand business development** efforts by continuing to prioritize a business-friendly environment, by strategically engaging with OMIC and PCC, and by developing an entrepreneurial ecosystem.

- **Support upward economic mobility** for all residents by prioritizing opportunities for family-wage earning jobs and by expanding economic opportunities for individuals of all ages.

Appendix A. National, State, and Regional and Local Trends

The economic trends discussed in this appendix are based on long-term trends that are generally expected to continue at national, state, and regional scales. During the development of this document, the effects of the global COVID-19 pandemic continued to evolve, as the worst of the effects of the pandemic on the labor force resolved.

National Trends

Economic development in Scappoose over the next 20 years will occur in the context of long-run national trends. The most important of these trends are as follows:

- **Economic growth was interrupted by the effects of the COVID-19 pandemic but is expected to continue from 2022 through 2031.** The Congressional Budget Office (CBO) estimates that by mid-2022 real GDP growth and employment growth will surpass pre-pandemic levels. While the CBO states the economy is stronger than previously forecasted, goods supply and services trail demand and is contributing to inflationary pressures.
- **As the U.S. economy recovers from the COVID-19 pandemic, inflation has increased significantly.** In March 2022, the personal consumption expenditures (PCE) price index increased 6.6% year-over-year[28]. Excluding food and energy, which are more volatile, the PCE price index rose 5.2%. The average hourly earnings for nonfarm employees increased slightly through April 2022 but inflation-adjusted real average hourly earnings declined slightly due to continued inflation.[29]

  The exact drivers of the rise in inflation are the subject of ongoing debate. Supply chain disruptions triggered by the pandemic have dramatically increased shipping rates, which in turn has led to higher prices for goods and services[30]. Exacerbating this trend is pent-up demand among households, many of which received three direct assistance payments from the federal government in 2020 and 2021. Lastly, the expansion in the money supply generated by the Federal Reserve's monetary policy has also been cited as

[28] U.S. Department of Commerce, Bureau of Economic Analysis. Personal Consumption Expenditures Price Index. March 2022.

[29] *New Inflationary Concerns: A US Macroeconomic Update*, IBISWorld, June 03, 2022. https://www.ibisworld.com/blog/new-inflationary-concerns-us-macroeconomic-update/1/1126/

[30] Martin, F. M. (October 2021). What Are the Risks for Future Inflation? Federal Reserve Bank of St. Louis, *On The Economy Blog*.

a contributor to inflation[31]. The Federal Open Market Committee increased lending rates several times in 2022 and expects to continue to raise rates again in 2022.

- **After declining sharply during the COVID-19 pandemic, employment has mostly recovered, and employers now face a tight labor market**. As of April 2022, the unemployment rate was 3.6%, which is about the same as pre-pandemic levels in February 2020.[32] Despite the addition of over 500,000 jobs each month during the first quarter of 2022[33], the labor force participation rate remains slightly below pre-pandemic levels[34], suggesting there are those who do not yet feel the need to or have the ability to return to work. In April 2022, wages increased year-over-year by 5.5%[35], faster growth than in recent pre-pandemic years but a smaller rise than the increase in inflation over the same period.
- **The aging of the baby boomer generation accompanied by increases in life expectancy.** Over the forecast period, the interest rate on 10-year Treasury notes is projected to rise gradually, reaching 3.2% in 2031.[36] As the baby boomer generation continues to retire, the number of Social Security recipients is expected to increase from almost 65 million in 2020 to over 88 million in 2045, a 36% increase. But due to lower birth-rate replacement generations, the number of covered workers is only expected to increase 10% over the same period, from over 178 million to almost 197 million in 2045. In 2020, there are 36 Social Security beneficiaries per 100 covered workers, but by 2045, there will be 45 beneficiaries per 100 covered workers. This will increase the percent of the federal budget dedicated to Social Security and Medicare.[37]
- **Baby boomers are retiring sooner as a result of the COVID-19 pandemic.** In the third quarter of 2021, about half of U.S. adults age 55 and older had retired, up from 48% in the third quarter of 2019.[38] This trend can be seen in Oregon, where the annual number of retirements among workers age 60 and older increased dramatically in 2020 and 2021.[39] However, there is evidence to suggest that these retirements are temporary and that

[31] Martin, F.M. (April 2022). 2021: The Year of High Inflation. Federal Reserve Bank of St. Louis, *On The Economy Blog*.

[32] Bureau of Labor Statistics. (2022). *The Employment Situation – April 2022*. https://www.bls.gov/news.release/pdf/empsit.pdf

[33] White House Council of Economic Advisers. (2022). *The Employment Situation in April*. https://www.whitehouse.gov/cea/written-materials/2022/05/06/the-employment-situation-in-april-2/

[34] Bureau of Labor Statistics. (2022). *The Employment Situation – April 2022.* https://www.bls.gov/news.release/pdf/empsit.pdf

[35] Bureau of Labor Statistics. (2022). *The Employment Situation – April 2022.* https://www.bls.gov/news.release/pdf/empsit.pdf

[36] Congressional Budget Office. *An Update to the Budget and Economic Outlook: 2021 to 2031, July 2021.* https://www.cbo.gov/publication/57339

[37] The Board of Trustees, Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, 2021 https://www.ssa.gov/OACT/TR/2021/tr2021.pdf

[38] Pew Research Center. *Amid the pandemic, a rising share of older U.S. adults are now retired. November 2021.*

[39] Oregon Office of Economic Analysis. (2021). *Older Workers and Retirements*.

some of these workers will return to the labor force as the economy recovers from the impacts of the pandemic, consistent with pre-pandemic trends.[40]

- **Need for replacement workers.** The need for workers to replace retiring baby boomers will outpace job growth. Between 2018 and 2028, the Bureau of Labor Statistics (BLS) estimates that total employment in the United States will grow by about 8.4 million jobs. Over this same period, BLS forecasts an annual average of 19.7 million occupational openings, indicating that the number of job openings per year exceeds expected employment growth. About 78% of annual job openings are in occupations that do not require postsecondary education.[41]
- **The importance of education as a determinant of wages and household income.** According to BLS, most of the fastest-growing occupations will require an academic degree, and on average, they will yield higher incomes than occupations that do not require a degree. The fastest-growing occupations requiring an academic degree will be nurse practitioners, agents and business managers, occupational therapy assistants, statisticians, physical therapist assistants, and information security analysts.[42] Of the top 10 fastest-growing occupations, the top three do not require an academic degree – from 2020 to 2030, the fastest-growing occupations are motion picture projectionists, wind turbine service technicians, ushers and lobby attendants, nurse practitioners, and solar photovoltaic installers.

  However, because 2020 serves as the base year for these projections, many occupations are expected to experience cyclical recoveries in the first few years of the decade as they return to their long-term growth patterns. For example, motion picture projectionists are concentrated in an industry that experienced significant yet temporary employment losses in 2020. To account for this, the BLS has also listed the fastest-growing occupations from 2020-2030 that do not include occupations with above-average cyclical recovery. These occupations include wind turbine service technicians, nurse practitioners, solar photovoltaic installers, statisticians, physical therapist assistants, and information security analysts. However, the two nondegree-requiring occupations – wind turbine service technicians and home health and personal care aids – had lower median annual wages in 2020 than the degree-requiring occupations.

  Three sectors are projected to decline from 2020 to 2030.[43] These include the federal government, retail trade, and utilities. The BLS estimates that retail trade will decrease by 586,800 positions, possibly due to the rise of e-commerce. Conversely, this shift in

[40] Pew Research Center. (2021). *Amid the pandemic, a rising share of older U.S. adults are now retired*.

[41] Bureau of Labor Statistics. (2019). *Occupational Employment Projections 2018-2028*. https://www.bls.gov/news.release/pdf/ecopro.pdf .

[42] Bureau of Labor Statistics. (2021). Occupational *Employment Projections to 2020-2030* https://www.bls.gov/news.release/pdf/ecopro.pdf.

[43] Bureau of Labor Statistics. (2021). Occupational *Employment Projections to 2020-2030* https://www.bls.gov/news.release/pdf/ecopro.pdf

shopper preference is increasing occupations in transportation and warehousing. Retail positions typically have lower pay than occupations requiring an academic degree. The national median income for people over the age of 25 in 2019 was about $48,464. Workers without a high school diploma earned $19,708 less than the median income, while those with a high school diploma earned $10,504 less than the median income. Workers with some college earned $6,760 less than median income, and workers with a bachelor's degree earned $13,832 more than median. Workers in Oregon experience the same patterns as the nation but pay is generally lower in Oregon than the national average.

- **Increases in labor productivity.** Productivity, as measured by output per hour of labor input, increased in most sectors between 2000 and 2010, peaking in 2007. However, productivity increases were interrupted by the recession. After productivity decreased from 2007 to 2009, many industries saw large productivity increases from 2009 to 2010. Industries with the fastest productivity growth were information technology–related industries. These include wireless telecommunications carriers, computer and peripheral equipment manufacturing, electronics and appliance stores, and commercial equipment manufacturing wholesalers.[44]

  Since 2010, labor productivity has increased across a handful of large sectors but has also decreased in others. In wholesale trade, productivity—measured in output per hour—increased by 19% from 2009 to 2017. Retail trade gained even more productivity over this period at 25%. Food services, however, have remained stagnant since 2009, fluctuating over the nine-year period and shrinking by 0.01% over this time frame. Additionally, the Bureau of Labor Statistics reports multifactor productivity in manufacturing has been slowing down 0.3% per year over the 2004 to 2016 period. Much of this, they note, is due to a slowdown in semiconductors, other electrical component manufacturing, and computer and peripheral equipment manufacturing.[45]

- **The importance of entrepreneurship and growth in small businesses.** According to the 2021 Small Business Profile from the U.S. Small Business Office of Advocacy, small businesses account for over 99 percent of total businesses in the United States, and their employees account for nearly 47% of American workers.[46] Women and People of Color make up 43% and 19%, respectively, of small business owners.[47] The National League of Cities suggests ways that local governments can attract entrepreneurs and increase the number of small businesses, including strong leadership from elected officials; better

[44] Brill, M.R., & Rowe, S.T. (March 2013). Industry Labor Productivity Trends from 2000 to 2010. Bureau of Labor Statistics, *Spotlight on Statistics.*

[45] Brill, M., Chanksy, B., & Kim, J. (July 2018). Multifactor productivity slowdown in US manufacturing. *Monthly Labor Review*, U.S. Bureau of Labor Statistics. https://www.bls.gov/opub/mlr/2018/article/multifactor-productivity-slowdown-in-us-manufacturing.htm.

[46] Small businesses are defined by the US Small Business Office of Advocacy as having between zero and 500 employees.

[47] U.S. Small Business Office of Advocacy. (2021). 2021 Small Business Profile. https://cdn.advocacy.sba.gov/wp-content/uploads/2021/08/30143723/Small-Business-Economic-Profile-US.pdf

communication with entrepreneurs, especially regarding the regulatory environment for businesses in the community; and partnerships with colleges, universities, small business development centers, mentorship programs, community groups, businesses groups, and financial institutions.[48]

Increases in automation across sectors. Automation is a long-running trend in employment, with increases in automation (and corresponding increases in productivity) over the last century and longer. The pace of automation is increasing, and the types of jobs likely to be automated over the next 20 years (or longer) are broadening. Lower-paying jobs are more likely to be automated, with the potential for automation of more than 80% of jobs paying less than $20 per hour over the next 20 years. About 30% of jobs paying $20 to $40 per hour, and 4% of jobs paying $40 or more per hour, are at risk of being automated over the next 20 years.[49]

Low to middle-skilled jobs that require interpersonal interaction, flexibility, adaptability, and problem-solving will likely persist into the future, as will occupations in technologically lagging sectors (e.g., production of restaurant meals, cleaning services, hair care, security/protective services, and personal fitness).[50] This includes occupations such as (1) recreational therapists, (2) first-line supervisors of mechanics, installers, and repairers, (3) emergency management directors, (4) mental health and substance abuse social workers, (5) audiologists, (6) occupational therapists, (7) orthotists and prosthetists, (8) health-care social workers, (9) oral and maxillofacial surgeons, and (10) first-line supervisors of firefighting and prevention workers.

Occupations in the service and agricultural or manufacturing industry are most at-risk of automation because of the manual-task nature of the work.[51,52,53] This includes occupations such as (1) telemarketers, (2) title examiners, abstractors, and searchers, (3) hand sewers, (4) mathematical technicians, (5) insurance underwriters, (6) watch repairers, (7) cargo and freight agents, (8) tax preparers, (9) photographic process workers and processing machine operators, and (10) accounts clerks.[54]

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[48] National League of Cities. (2012). Supporting Entrepreneurs and Small Businesses. https://www.nlc.org/supporting-entrepreneurs-and-small-business

[49] Executive Office of the President. (2016). Artificial Intelligence, Automation, and the Economy.

[50] Autor, D.H. (2015). Why Are There Still So Many Jobs? The History and Future of Workplace Automation. *Journal of Economic Perspectives, 29*(3), 3–30.

[51] Frey, C.B, & Osborne, M.A. (2013). The Future of Employment: How Susceptible Are Jobs to Computerisation? Oxford Martin School, University of Oxford.

[52] Otekhile, C.A., & Zeleny, M. (2016). Self Service Technologies: A Cause of Unemployment. *International Journal of Entrepreneurial Knowledge, 4*(1). DOI: 10.1515/ijek-2016-0005.

[53] PwC. (n.d.). Will robots really steal our jobs? An international analysis of the potential long-term impact of automation. 2019 https://www.pwc.com/hu/hu/kiadvanyok/assets/pdf/impact_of_automation_on_jobs.pdf.

[54] Frey, C.B., & Osborne, M.A. (2013). The Future of Employment: How Susceptible Are Jobs to Computerisation? Oxford Martin School, University of Oxford.

- **Continued transformation of retail.** In the last two decades, retail sales by e-commerce and warehouse clubs/supercenters (a lower-cost model to the traditional department store) have increased steadily, pulling the industry in two different directions. On one hand, the trend toward warehouse/supercenters is increasing the average scale of retail operations, increasing market concentrations, reducing business dynamism, and shifting retail activity toward more populated areas. On the other hand, the trend toward e-commerce generates "smaller [retailers], less market concentration, more geographical dispersion, and higher productivity."[55] Since 2012, e-commerce sales grew from 5% of total retail sales to 14.5% (Q4 2021). Total e-commerce sales for 2021 were about $870.8 billion, an increase of 14.2% from 2020.[56]

  Ultimately, the growth in online shopping and the increasing dominance of large supercenters has made it difficult for small and medium-sized retail firms (offering a narrower selection of goods) to compete. Declining net profits and increased competitive pressures have led many well-known retailers (e.g., J.C. Penney, Macy's, Sears) to declare bankruptcy or scale back their operations.

  In the future, the importance of e-commerce will likely continue to grow, and despite the highly publicized closures of brick-and-mortar stores, physical retail is likely to remain an important part of the retail sector. In fact, retail sales at brick-and-mortar stores accounted for 85.5% of all retail sales in the Q4 of 2021.[57]

  Modern consumers are increasingly price sensitive, less brand loyal, and (since the advent of internet) able to substitute between retailers easily. To compete, retailers must be nimble, adept in recognizing the changing needs of their consumers, and quick to differentiate themselves from their competitors.

- **Opportunities for local retail and service.** The types of retail and related services that remain will likely be sales of goods that people prefer to purchase in person or that are difficult to ship and return (e.g., large furniture), specialty goods, groceries and personal goods that may be needed immediately, restaurants, and experiences (e.g., entertainment or social experiences). According to the Urban Land Institute, in the post-disruption era of retail, new trends in this sector are beginning to emerge. These changes include the convergence of technology and shopping, as businesses focus on brand awareness and customer engagement via digital channels in the physical retail space.[58]

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[55] Ali Hortaçsu and Chad Syverson. (2015). The Ongoing Evolution of US Retail: A Format Tug-of-War. *Journal of Economic Perspectives, 29*(4), 89–112, p. 109.

[56] U.S. Census Bureau, Monthly Retail Trade, Latest Quarterly E-Commerce Report. Retrieved from: https://www.census.gov/retail/mrts/www/data/pdf/ec_current.pdf

[57] U.S. Census Bureau, Monthly Retail Trade, Latest Quarterly E-Commerce Report. Retrieved from: https://www.census.gov/retail/mrts/www/data/pdf/ec_current.pdf .

[58] Diane Hoskins. "Three Trends Shaping Retail's Great Transformation." *Urban Land Institute*, September 3, 2019. https://urbanland.uli.org/economy-markets-trends/three-trends-shaping-retails-great-transformation/

- **The importance of high-quality natural resources.** The relationship between natural resources and local economies has changed as the economy has shifted away from resource extraction. High-quality natural resources continue to be important in some states, especially in the western United States. Increases in the population and in household incomes, plus changes in tastes and preferences, have dramatically increased demands for outdoor recreation, scenic vistas, clean water, and other resource-related amenities. Such amenities contribute to a region's quality of life and play an important role in attracting both households and firms.[59]
- **Continued increase in demand for energy.** Energy prices were unusually high in early 2022. Total energy consumption will increase because the rising population and economic growth will outpace efficiency gains in energy consumption. Energy consumption is expected to grow primarily from industrial and, to a lesser extent, commercial users. Residential and transportation consumption are forecasted to remain flat through about 2040 and possibly growth slightly through 2050. Electric vehicles are expected to continue to gain market share, but gasoline powered vehicles are expected to continue to account for a substantial amount of vehicle sales through 2050. The share of electric vehicles is expected to grow from less than 3% in 2021 to 13% in 2050. Energy consumption by type of fuel is expected to change over the planning period. By 2050, the United States will continue to shift from crude oil toward natural gas and renewables. [60]
- **High rates of inflation.** For the last several decades, inflation rates have generally stayed below 3% for the nation. Inflation started to increase in 2021 and accelerated in 2022, increasing to 9.06% in June 2022, to their highest levels in about 40 years. Inflation increased most quickly in June 2022 for energy, motor vehicles, food, and household furnishings.[61] Continued high rates of inflation may slow economic growth, further erode purchasing power, discourage savings, and lead to a national recession.
- **Impact of rising energy prices on commuting patterns.** As energy prices increase over the planning period, energy consumption for transportation will decrease. These increasing energy prices may decrease willingness to commute long distances, though with expected increases in fuel economy, it could be that people commute farther while consuming less energy.[62] Moreover, lower-income households tend to have fewer

[59] For a more thorough discussion of relevant research, *see,* for example, Power, T.M. and R.N. Barrett. 2001. *Post-Cowboy Economics: Pay and Prosperity in the New American West*. Island Press, and Kim, K.-K., D.W. Marcouiller, and S.C. Deller. 2005. "Natural Amenities and Rural Development: Understanding Spatial and Distributional Attributes." *Growth and Change* 36 (2): 273-297.

[60] Energy Information Administration, 2019, Annual Energy Outlook 2019 with Projections to 2050, U.S. Department of Energy, January 2019. https://www.eia.gov/outlooks/aeo/pdf/aeo2019.pdf. Note, the cited growth rates are shown in the interactive tables and can be viewed here: https://www.eia.gov/outlooks/aeo/data/browser/.

[61] Bureau of Labor Statistics, U.S. Department of Labor, *The Economics Daily*, Consumer prices up 9.1 percent over the year ended June 2022, largest increase in 40 years at https://www.bls.gov/opub/ted/2022/consumer-prices-up-9-1-percent-over-the-year-ended-june-2022-largest-increase-in-40-years.htm (visited *July 25, 2022*).

[62] Energy Information Administration, 2019, *Annual Energy Outlook 2019 with Projections to 2050*, U.S. Department of Energy, January 2019.

options for commuting and are more likely to have jobs that require them to commute. Over 2019 to 2035, the U.S. Energy Information Administration estimates in its forecast that the decline in transportation energy consumption as a result of increasing fuel economy more than offsets the total growth in vehicle miles traveled (VMT). VMT for passenger vehicles is forecasted to increase through 2050.

- **Potential impacts of global climate change.** The consensus among the scientific community that global climate change is occurring expounds important ecological, social, and economic consequences over the next decades and beyond.[63] Extensive research shows that Oregon and other western states have already experienced noticeable changes in climate and that more change will occur in the future.[64]

  In the Pacific Northwest, climate change is likely to (1) increase average annual temperatures, (2) increase the number and duration of heat waves, (3) increase the amount of precipitation falling as rain during the year, (4) increase the intensity of rainfall events, (5) increase sea level, (6) increase wildfire frequency, and (7) increase forest vulnerability to tree disease.[65] These changes are also likely to reduce winter snowpack and shift the timing of spring runoff earlier in the year.[66]

  The Oregon Climate Change Research Institute (OCCRI) evaluated potential scenarios for "Climate Change Influence on Natural Hazards in Oregon Counties" in 2018. OCCRI specifically focused on Counties in the Gorge and Eastern Oregon and evaluated the potential increased or decreased risk for natural hazards such as heat waves, cold waves, heavy rains, river flooding, drought, wildfire, poor air quality, windstorms, dust storms, increased invasive species, and loss of wetland ecosystems. Across the eight counties evaluated, the hazards most likely to increase with the effects of climate change are heat waves, heavy rains, river flooding, wildfires, increased invasive species, and loss of wetland ecosystems.[67]

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[63] U.S. Global Change Research Program. *National Climate Assessment*. 2018. https://nca2018.globalchange.gov/

[64] Oregon Global Warming Commission. *2020 Biennial Report to the Legislature.* 2020. https://www.keeporegoncool.org/reports/

[65] U.S. Global Change Research Program. *National Climate Assessment*. "Chapter 24: Northwest." 2018. https://nca2018.globalchange.gov/chapter/24/

[66] Mote, P., Salathe, E., Duliere, V., & Jump, E. (2008). *Scenarios of Future Climate for the Pacific Northwest.* Climate Impacts Group, University of Washington. March. http://cses.washington.edu/db/pdf/moteetal2008scenarios628.pdf; Littell, J.S., McGuire Elsner, M., Whitely Binder, L.C., and Snover, A.K. (eds). (2009). "The Washington Climate Change Impacts Assessment: Evaluating Washington's Future in a Changing Climate - Executive Summary." *In The Washington Climate Change Impacts Assessment: Evaluating Washington's Future in a Changing Climate*, Climate Impacts Group, University of Washington. www.cses.washington.edu/db/pdf/wacciaexecsummary638.pdf; Madsen, T., & Figdor, E. (2007). *When it Rains, it Pours: Global Warming and the Rising Frequency of Extreme Precipitation in the United States.* Environment America Research & Policy Center and Frontier Group.; Mote, P.W. (2006). Climate-driven variability and trends in mountain snowpack in western North America. *Journal of Climate, 19*(23), 6209-6220.

[67] Mote, P.W., Abatzoglou, J., Dello, K.D., Hegewisch, K., & Rupp, D.E. (2019). Fourth Oregon Climate Assessment Report. Oregon Climate Change Research Institute. occri.net/ocar4; Oregon Climate Change Research Institute.

These anticipated changes point toward some of the ways that climate change is likely to impact ecological systems and the goods and services they provide. There is considerable uncertainty about how long it would take for some of the impacts to materialize and the magnitude of the associated economic consequences. Assuming climate change proceeds as today's models predict, the Pacific Northwest will experience potential economic impacts:[68]

- *Potential impact on agriculture and forestry.* Climate change may impact Oregon's agriculture through changes in growing season, temperature ranges, and water availability.[69] Climate change may impact Oregon's forestry through an increase in wildfires, a decrease in the rate of tree growth, a change in the mix of tree species, and increases in diseases and pests that damage trees.[70]
- *Potential impact on tourism and recreation.* Impacts on tourism and recreation may range from (1) decreases in snow-based recreation if snowpack in the Cascades decreases, (2) negative impacts to tourism along the Oregon Coast as a result of damage and beach erosion from rising sea levels,[71] (3) negative impacts on availability of summer river recreation (e.g., river rafting or sports fishing) as a result of lower summer river flows, and (4) negative impacts on the availability of water for domestic and business uses.

Short-term national trends will also affect economic growth in the region, but these trends are difficult to predict. At times, these trends may run counter to the long-term trends described above. The most prevalent example is the recession and subsequent recovery triggered by the global COVID-19 pandemic. While the unemployment rate rose quickly to a high of 14.7% in April 2020, it has since gradually declined to 3.6% as of March 2022, close to the pre-pandemic (February 2020) rate[72]. However, employment in some industries that were most severely impacted by the pandemic, such as leisure and hospitality, have not yet fully returned to pre-pandemic levels. Nonetheless, this report takes a long-run perspective on economic conditions

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Climate Change Influence on Natural Hazards in Eight Oregon Counties. August 2018. https://www.oregon.gov/lcd/CL/Documents/OCCRI_PDM16_AllCountyOverview2018.pdf

[68] The issue of global climate change is complex and there is a substantial amount of uncertainty about climate change. This discussion is not intended to describe all potential impacts of climate change but to present a few ways that climate change may impact the economy of cities in Oregon and the Pacific Northwest.

[69] Resource Innovations & Institute for a Sustainable Environment. (2005). The Economic Impacts of Climate Change in Oregon: A Preliminary Assessment. https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/2299/Consensus_report.pdf?sequence=1

[70] Climate Leadership Initiative & Institute for Sustainable Environment. (2007). Economic Impacts of Climate Change on Forest Resources in Oregon: A Preliminary Analysis.

[71] Resource Innovations & Institute for a Sustainable Environment. (2005). The Economic Impacts of Climate Change in Oregon: A Preliminary Assessment. https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/2299/Consensus_report.pdf?sequence=1

[72] The Employment Situation – March 2022. News Release, Bureau of Labor Statistics. Retrieved from: https://www.bls.gov/news.release/pdf/empsit.pdf.

(as the Goal 9 requirements intend) and does not attempt to predict the impacts of short-run macroeconomic trends on employment of economic activity.

State Trends

Short-Term Trends

According to the Oregon Office of Economic Analysis (OEA), Oregon's economy is following the trends affecting the national economy: fast growth (with continued recovery from the COVID-19 pandemic recession), high demand for labor, and high inflation. The biggest economic challenges are supply chain issues, resulting from strong consumer demand and problems that started with the COVID-19 pandemic. [73]

The biggest risk to the economic outlook is persistently high inflation. In early 2021, higher inflation was tied to reopening the economy and semiconductor shortages in the automobile industry. Over the last year, pressure from inflation has broadened and are more persistent than originally expected. In addition, the tight labor market is putting upward pressure on wages, with the average wage in Oregon up 17% since March 2020. Businesses are passing most of the cost increases (from increases in costs for goods and labor) onto consumers, who are showing a willingness to pay higher prices. As a result, business incomes remain high.[74]

The Orgon economy has added back most of the jobs lost during the COVID-19 pandemic, with an expectation that the remaining lost jobs will be regained by Fall 2022. The labor market remains tight for several reasons, including workers who have not returned to the workforce because they are caring for sick family members or for childcare challenges and employees who are quitting jobs at record rates.[75]

The outlook for growth is a continuation of growth of the entire economy, with faster growth of selected sectors. Leisure and hospitality are still 12% below pre-pandemic employment and expected to have strong growth through 2023. Professional and business services, health care, transportation, and warehousing are also expected to have strong growth through 2023. Demand for housing will drive growth in the construction industry. Growth in high-tech manufacturing will continue, supported by demand for automobiles, computers, and other electronics. However, growth in high-tech has not translated into more employment because of

[73] Office of Economic Analysis. (2022). Oregon Economic and Revenue Forecast, March 2022. Vol. XLII, No. 1. https://www.oregon.gov/das/OEA/Documents/forecast0322.pdf

[74] Office of Economic Analysis. (2022). Oregon Economic and Revenue Forecast, March 2022. Vol. XLII, No. 1. https://www.oregon.gov/das/OEA/Documents/forecast0322.pdf

[75] Office of Economic Analysis. (2022). Oregon Economic and Revenue Forecast, March 2022. Vol. XLII, No. 1. https://www.oregon.gov/das/OEA/Documents/forecast0322.pdf

increases in productivity. And the industry is set to grow nationally, with some investments in Oregon but with investments in other states as well.[76]

Oregon has underbuilt about 111,000 housing units in recent decades, which contributes to the high demand for housing and low vacancy rates.[77] Housing starts in 2019 reached approximately 20,700 units, 18,000 in 2020, and 21,300 in 2021, an increase of 17.5%. In the years following the recession, they anticipate a partial recovery of housing starts, with a slight contraction in 2022 (0.6% decrease), with growth increasing again in 2023 (2.2 % increase) and 2024 (3.5% increase).[78]

Oregon's economic health is dependent on the export market, which are also affected by the COVID-19 pandemic. The value of Oregon exports in 2020 was $24.977 billion. In 2020, the countries that Oregon exported the most to were China (38% of total Oregon exports), Canada (11%), Vietnam (6%), South Korea (6%), Japan (6%), and Malaysia (6%).[79] Any strains on the relationship between the United States and China could impact Oregon's economy. Additionally, China's public debt burden poses a threat not only to the state and region but also to the global economy.[80]

Long-Term Trends

State, regional, and local trends will also affect economic development in Scappoose over the next 20 years. The most important of these trends includes continued in-migration from other states, distribution of population and employment across the state, and change in the types of industries in Oregon.

- **Continued in-migration from other states.** Oregon will continue to experience in-migration (more people moving *to* Oregon than *from* Oregon) from other states, especially California and Washington. From 2010-2020, Oregon's population increased by 406,491, 77% of which was from people moving into Oregon (net migration)[81]. The average annual increase in population from net migration over the same period was about 31,412. During the early to mid-1990s, Oregon's net migration was highest,

[76] Office of Economic Analysis. (2022). Oregon Economic and Revenue Forecast, March 2022. Vol. XLII, No. 1. https://www.oregon.gov/das/OEA/Documents/forecast0322.pdf

[77] Office of Economic Analysis. (2022). Oregon Economic and Revenue Forecast, March 2022. Vol. XLII, No. 1. https://www.oregon.gov/das/OEA/Documents/forecast0322.pdf

[78] Office of Economic Analysis. (2021). Oregon Economic and Revenue Forecast, December 2021. Vol. XLI, No. 4, p. 32.

[79] United States Census Bureau. State Exports from Oregon, 2017-2020. https://www.census.gov/foreign-trade/statistics/state/data/or.html .

[80] Office of Economic Analysis. Oregon Economic and Revenue Forecast, December 2019. Vol. XXXIX, No. 4, p. 14. https://www.oregon.gov/das/OEA/Documents/forecast1219.pdf.

[81] Oregon Office of Economic Analysis, Oregon Economic and Revenue Forecast, March 2022. Vol. XLII, No. 1, p. 58.

reaching over 60,000 in 1991, with another smaller peak of almost 42,100 in 2006. In 2020, net migration reached just over 26,028 persons. [82]

- **Increasing ethnic diversity.** Oregon's population has continued to get more ethnically and racially diverse, with the Latino population growing from 12% of the population in 2010 to 13% of the population in 2015–2019.[83] The population of people of color grew from 13.3% of the population to 16% of the population over the same period. The share of the Hispanic/Latino population increased in Scappoose since 2000 as well.
- **Forecast of job growth.** Total nonfarm employment is forecasted to increase by 10% from 1.82 million in 2020 to just over 2 million in 2025. The OEA forecasts total private nonfarm employment to increase 11% from 1.54 million in 2020 to 1.71 million in 2025.[84]
- **Manufacturing is an important part of Oregon's economy.** The manufacturing sector has long been a crucial component of Oregon's economy. Since 2010, employment in manufacturing has grown 12% compared to the nation's 7%[85]. However, as a result of the COVID-19 pandemic, employment in the sector has declined by 8% compared with a 4% decline across the nation.[86]

  Manufacturing remains an important piece of Oregon's economy and the sector is evolving. Only a few decades ago, Oregon's manufacturing economy was dependent on forestry and wood products. But between 1990 and 2018, annual average employment in wood product manufacturing dropped by 22,600 jobs or 46%.[87]

  Growth in Oregon's electronic component manufacturing, however, has filled the gap left by the decline in wood manufacturing. In 2018, there were a total of 37,900 jobs in Oregon's electronic component manufacturing (i.e., manufacturing of computer chips, computers and related equipment, and communications equipment), making it Oregon's largest manufacturing industry. Employment in this industry is over six times more concentrated in Oregon than it is nationally and is driving much of the growth in Oregon manufacturing.[88]

  Continued growth, spurred by electronic component manufacturing, is expected in the future for Oregon's manufacturing sector. Although Oregon's economy is shifting, the state's roots in forestry and wood product manufacturing remain important, particularly

[82] Oregon Office of Economic Analysis, Oregon Economic and Revenue Forecast, March 2022. Vol. XLII, No. 1, p. 58.

[83] U.S. Census Bureau, American Community Survey 2019 5-year estimates, Tables B02001 and B03002, 2010 Decennial Census P003001 and P005001.

[84] Oregon Office of Economic Analysis, Oregon Economic and Revenue Forecast, March 2022. Vol. XLII, No. 1, p. 35.

[85] Oregon Employment Department (2021). Made in Oregon: A Profile of the State's Manufacturing Sector. https://www.qualityinfo.org/-/made-in-oregon-a-profile-of-the-state-s-manufacturing-sector

[86] Oregon Employment Department (2021). Made in Oregon: A Profile of the State's Manufacturing Sector. https://www.qualityinfo.org/-/made-in-oregon-a-profile-of-the-state-s-manufacturing-sector.

[87] Oregon Employment Department (2021). Made in Oregon: A Profile of the State's Manufacturing Sector. https://www.qualityinfo.org/-/made-in-oregon-a-profile-of-the-state-s-manufacturing-sector.

[88] Oregon Employment Department (2021). Made in Oregon: A Profile of the State's Manufacturing Sector. https://www.qualityinfo.org/-/made-in-oregon-a-profile-of-the-state-s-manufacturing-sector.

for rural areas. Douglas County, for example, had 8.3% of its total employment and 10.7% of its total payroll in wood product manufacturing in 2018.[89]

- **Advancements in technology and increases in automation of jobs.**[90] In decades past, automation was focused on manufacturing. In the coming decades, jobs at risk for automation will tend to be those without "computerization bottlenecks" or jobs that do not require social intelligence, perception, creativity, or fine motor skills. Jobs in industries lacking customer service components, such as those in transportation and material moving, are also at greater risk. Most researchers agree that "less-educated workers in low-skill, lower-wage jobs featuring routine tasks are those most likely to be displaced by automation."[91] Oregon's overall risk of automation is similar to the nation's, with lower and middle-wage jobs at higher risk.
- In 2017, 144,200 jobs in Oregon were found to be at risk of automation and 93% of jobs in food preparation and serving were found to be at risk.[92] However, automation risk does not imply automation certainty. For example, consumer preferences for personalized and genuine experiences/interactions will likely slow job automation, particularly in the food services and hospitality sectors. In addition, there is a notable difference between task automation and full automation of jobs. One research study speculates that only 5% of jobs are fully automated, and that the "activities most susceptible to automation involve physical activities in highly structured and predictable environments, as well as the collection and processing of data."[93]
- **Income and wages continue to increase.** Despite Oregon's income and wages falling below the average among states, Oregon's wages are at their highest point relative to other states since the recession in the early 1980s, mainly due to the wage growth over the last two to three years. In 2019, the average annual wage in Oregon was $55,023, and the median household income was $67,058 (compared to national average wages of $59,209 in 2019 and national household income of $65,712).[94] Total personal income (all classes of income, minus Social Security contributions) in Oregon is expected to increase

[89] Oregon Employment Department (2021). Made in Oregon: A Profile of the State's Manufacturing Sector. https://www.qualityinfo.org/-/made-in-oregon-a-profile-of-the-state-s-manufacturing-sector.

[90] Portland Business Alliance. (2017). Automation and the Future of Work. https://portlandalliance.com/assets/pdfs/2017-VOJ-Automation-summary.pdf

[91] Marcus Casey and Sarah Nzau. (2019). Searching for clarity: How much will automation impact the middle class? Brookings.

[92] Portland Business Alliance. (2017). Automation and the Future of Work. https://portlandalliance.com/assets/pdfs/2017-VOJ-Automation-summary.pdf

[93] McKinsey & Company. (2017). A Future that Works: Automation, Employment, and Productivity.

[94] Average annual wages are for "total, all industries," which includes private and public employers. Oregon Quarterly Census of Employment and Wages, 2019. Retrieved from: https://www.qualityinfo.org; Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2019; Total, U.S. Census American Community Survey 1-Year Estimates, 2019, Table B19013.

by 78%, from $221.2 billion in 2019 to $395.4 billion in 2030 (in nominal dollars).[95] Per capita income is expected to increase by 64% over the same time period, from $52,500 in 2019 to $86,200 in 2030 (in nominal dollars).[96]

- **Small businesses continue to account for a large share of employment in Oregon**. Between 1994 and 2018, employment in Oregon small businesses grew by 30% - exceeding the national average growth rate.[97]

  In 2018 small businesses (those with 100 or fewer employees) accounted for 95% of all businesses and 40% of all private-sector employment in Oregon. Said differently, most businesses in Oregon are small (in fact, 76% of all businesses have fewer than 10 employees), but the largest share of Oregon's employees work for large businesses (those with more than 100 employees).[98] The average annualized payroll per employee for small businesses was $43,949 in 2019, which is considerably less than that for large businesses ($64,335) and the statewide average for all businesses ($53,253).[99]

  Younger workers are important for the continued growth of small businesses across the nation. More than one-third of millennials (those born between 1980 and 1999) are self-employed, with approximately one-half to two-thirds interested in becoming an entrepreneur. According to the Kauffman Indicators of Entrepreneurship, in 2020, about 78.09% of start-ups nationwide were still active after one year.[100] On average, start-ups nationwide created approximately 5.03 jobs in their first year (when normalized by population).[101] In Oregon, just 77.57% survive the first year and just 4.85 jobs were created on average.[102] It is typically the case that start-ups are important for job creation

[95] Oregon Office of Economic Analysis. Oregon Economic and Revenue Forecast, March 2022. Vol. XLII, No. 1, page 37.

[96] Oregon Office of Economic Analysis. Oregon Economic and Revenue Forecast, March 2022. Vol. XLII, No. 1, page 37.

[97] U.S. Small Business Office of Advocacy. (2021). 2021 Small Business Profile. https://cdn.advocacy.sba.gov/wp-content/uploads/2021/08/30143123/Small-Business-Economic-Profile-OR.pdf

[98] U.S Census Bureau, 2019 Statistics of U.S. Businesses, Annual Data, Enterprise Employment Size, U.S and States. https://www.census.gov/data/tables/2019/econ/susb/2019-susb-annual.html.

[99] U.S Census Bureau, 2019 Statistics of U.S. Businesses, Annual Data, Enterprise Employment Size, U.S and States. https://www.census.gov/data/tables/2019/econ/susb/2019-susb-annual.html..

[100] Kauffman Foundation. *Kauffman Indicators of Entrepreneurship*. Indicators: Startup Early Job Creation and Startup Early Survival Rate. Information retrieved on January 26, 2022. https://indicators.kauffman.org/indicator/startup-early-survival-rate.

[101] Kauffman Foundation. *Kauffman Indicators of Entrepreneurship*. Indicators: Startup Early Job Creation and Startup Early Survival Rate. Information retrieved on January 26, 2022. https://indicators.kauffman.org/indicator/startup-early-survival-rate.

[102] Kauffman Foundation. *Kauffman Indicators of Entrepreneurship*. State Profiles: Oregon Early-Stage Entrepreneurship. https://indicators.kauffman.org/state/oregon.

on a longer-time horizon, well beyond their first year, as "fewer than half of all start-ups in America are still in business after five years."[103]

- **Entrepreneurship in Oregon.** The creation of new businesses is vital to Oregon's economy as their formations generate new jobs and advance new ideas and innovations into markets. They also can produce more efficient products and services to better serve local communities. According to the Kauffman Early-Stage Entrepreneurship (KESE) Index, Oregon ranked 25th in the country in 2020 for its Early-Stage Entrepreneurship activity, a measurement comprised of four statistics: rate of new entrepreneurs, opportunity share of new entrepreneurs, start-up density, and start-up early survival rate.[104] This ranking is higher than its 2017 rank of 30. Oregon's rate of new entrepreneurs (the percent of adults that became an entrepreneur in a given month) was in steady decline post-recession, but since 2012, has gradually declined until 2019 when it dropped to 0.26%. In 2020, the rate increased to 2020, to 0.29%, still well below Oregon's prerecession peak of 0.43% in 2000.

  Moreover, in January 2021, the Oregon Office of Economic Analysis reported new business applications in Oregon were increasing since shelter in place orders were lifted.[105] However, since then, in December 2021, new business filings have slowed while active business licenses maintain some growth.[106] Though this measurement of economic activity does not constitute a full understanding of how well entrepreneurship is performing, it does provide an encouraging signal.

Regional and Local Trends

Throughout this section and the report, Scappoose is compared to Columbia County and the State of Oregon. These comparisons are to provide context for changes in Scappoose's socioeconomic characteristics.

Availability of Labor

The availability of trained workers in Scappoose will impact the development of its economy over the planning period. A skilled and educated populace can attract well-paying businesses and employers and spur the benefits that follow from a growing economy. Key trends that will affect the workforce in Scappoose over the next 20 years include its growth in its overall population, growth in the senior population, and commuting trends.

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[103] Nish Acharya. "Small Business Are Having A Bigger Impact on Job Creation Than Large Corporations." Forbes, May 5, 2019. https://www.forbes.com/sites/nishacharya/2019/05/05/who-is-creating-jobs-in-america/#5c74c156597d.

[104] Kauffman Foundation. *Kauffman Indicators of Entrepreneurship*. Early-Stage Entrepreneurship. The Kauffman Index, Oregon. https://indicators.kauffman.org/.

[105] Josh Lehner. "So Far Fewer Business Closures than Expected." Oregon Office of Economic Analysis, March 2, 2021. https://oregoneconomicanalysis.com/2021/03/02/so-far-fewer-business-closures-than-expected/

[106] Oregon Secretary of State. (February 2022). *Oregon Business Statistics. https://sos.oregon.gov/business/Documents/business-reports-current/0222.pdf*

Population Change

Population growth in Oregon tends to follow economic cycles. Oregon's population grew from 3.4 million people in 2000 to 4.3 million people in 2021, an increase of almost 850,000 people or 1.1% each year.

Between 2000 and 2021, Scappoose's population increased by 3,040 residents at an average annual rate of 2.3%, exceeding both Columbia County and Oregon's growth rates during the same time (0.9% and 1.1%, respectively).

Exhibit 26. Population Growth, Scappoose, Columbia County, and Oregon, 2000–2021

				Change, 2000 - 2021		
Geography	2000	2010	2021	Number	Percent	AAGR
Scappoose	4,976	6,680	8,016	3,040	61%	2.3%
Columbia County	43,560	48,620	53,014	9,454	22%	0.9%
Oregon	3,421,399	3,831,074	4,266,560	845,161	25%	1.1%

Source: U.S. Census Bureau, 2000 and 2010. Portland State University Population Estimates, 2021.

Population Forecast

The population forecasts in Exhibit 27 are based on PSU's population forecast for the 2023 to 2073 period.[107] Between 2023 and 2043 Scappoose is expected to increase at an average annual growth rate of 1.23%. Growth is expected to slow between 2043 and 2073 to an annual average growth rate of 1.02%. Overall, between 2023 and 2073, Scappoose is projected to add nearly 6,500 residents.

Scappoose's population within its UGB is projected to grow by about 2,451 people between 2023 and 2043, at an average annual growth rate of 1.23%.

Between 2043 and 2073, Scappoose's population is projected to grow by an additional 4,045 residents, at an annual average growth rate of 1.02%.

Exhibit 27. Forecast of Population Growth, Scappoose UGB, 2023 to 2073

Source: ECONorthwest based on US Decennial Census 2000, and Portland State University, Population Research Center 2021.

8,878 Residents in 2023	11,329 Residents in 2043	2,451 New Residents 2023 to 2043	28% increase 1.23% AAGR
11,329 Residents in 2043	15,374 Residents in 2073	4,045 New Residents 2043 to 2073	36% increase 1.02% AAGR

[107] This project used the interpolation template as published by the Oregon Population Forecast Program which allows jurisdictions to interpolate published population counts between two years. It also allowed Scappoose to adjust the results of the last population forecast to harmonize with the 2020 Census population, resulting in an increased starting population in 2020.

Age Distribution

By 2060, the population of people 65 years and older in the United States is projected to nearly double from 52 million in 2018 to 95 million.[108] The economic effects of this demographic change include a slowing of the growth of the labor force, the need for workers to replace retirees, the aging of the workforce for seniors that continue working after age 65, an increase in the demand for health-care services, and an increase in the percent of the federal budget dedicated to Social Security and Medicare.[109]

Exhibit 28 through Exhibit 31 show the following trends:

- Scappoose has a younger population than Columbia County and the state overall. During the 2015–2019 period, only 21% of Scappoose's residents were 60 years and older (Exhibit 30). However, the increase in median age between 2000 and 2015–2019 coupled with the larger increases in the share of population over age 45 suggests that Scappoose is attracting people in their later adult lives.
- Columbia County's population is expected to continue aging, with people 60 years and older increasing from 29% of the population in 2020 to 33% in 2040. This is consistent with statewide trends. Columbia County may continue to attract those in their late adult years (i.e., 60 years and older) over the planning period. While the share of retirees in these respective areas may increase over the next 20 years, the share of youth (i.e., under 20 years old) or people in their early adult lives (i.e., 20 to 39 years old) is likely to decrease. As the working population continues to exit the labor force later in life, those approaching retirement provide a valuable source of skilled labor and experience to younger generations entering the workforce.

[108] Mather, M., Scommegna, P., & Kilduff, L. (2019). Fact Sheet: Aging in the United States. https://www.prb.org/aging-unitedstates-fact-sheet/

[109] The Board of Trustees, Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, 2017, The 2017 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, July 13, 2017. The Budget and Economic Outlook: Fiscal Years 2018 to 2028, April 2018.

Scappoose's median age increased between 2000 and 2015-2019 but remains less than both the county and state.

Scappoose's increase in median age of 2 years is less than Columbia County's change of 5.6 years and Oregon's change of 3 years.

Exhibit 28. Median Age, Scappoose, Columbia County, and Oregon, 2000 to 2015–2019

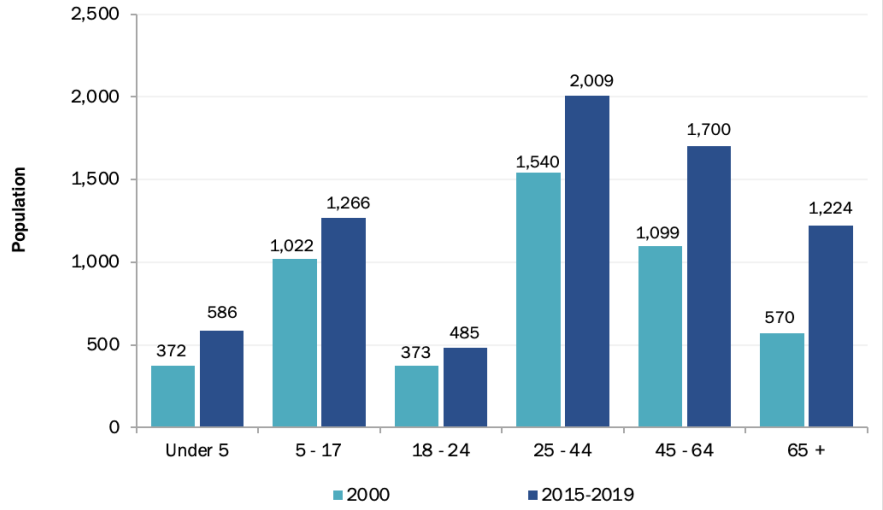
Source: U.S. Census Bureau, 2000 Decennial Census, Table P013; American Community Survey 2015–2019 5-Year Estimates, Table B01002.

2000	35.7 Scappoose	37.7 Columbia County	36.3 Oregon
2015-19	37.7 Scappoose	43.3 Columbia County	39.3 Oregon

Over 2000 to 2015–2019, Scappoose's largest population increases were for those aged 25 and older.

Exhibit 29. Scappoose Population Change by Age Group, 2000 to 2015–2019

Source: U.S. Census Bureau, 2000 Summary File; American Community Survey 2015–2019 5-Year Estimates, Table B01001.



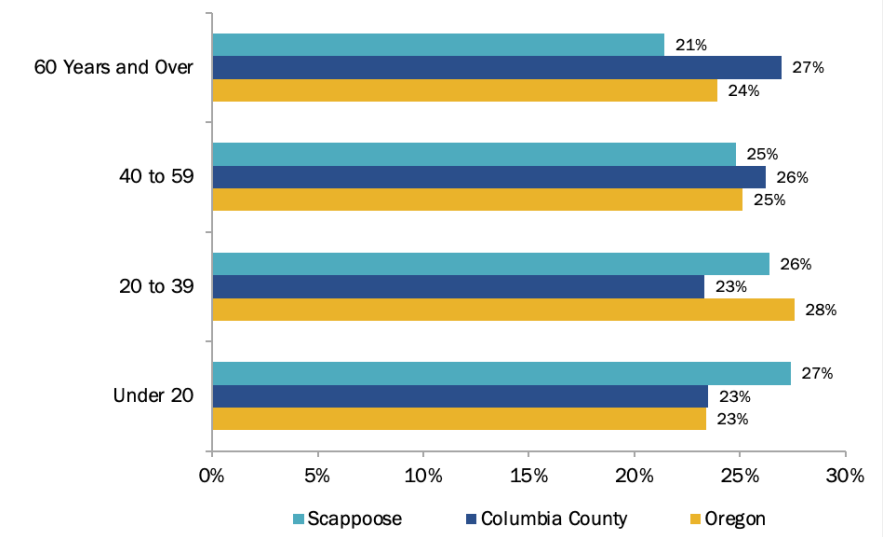
During the 2015–2019 period, 21% of Scappoose's residents were over 60 years of age.

The proportion of Scappoose's younger residents was higher than that of both the state and Columbia County.

Conversely, the proportion of Scappoose residents 60 years of age and over was lower relative to Columbia County and Oregon.

Exhibit 30. Population Distribution by Age, Scappoose, Columbia County, and Oregon, 2015–2019

Source: U.S. Census Bureau, American Community Survey, 2015–2019 5-Year Estimates, Table B01001.

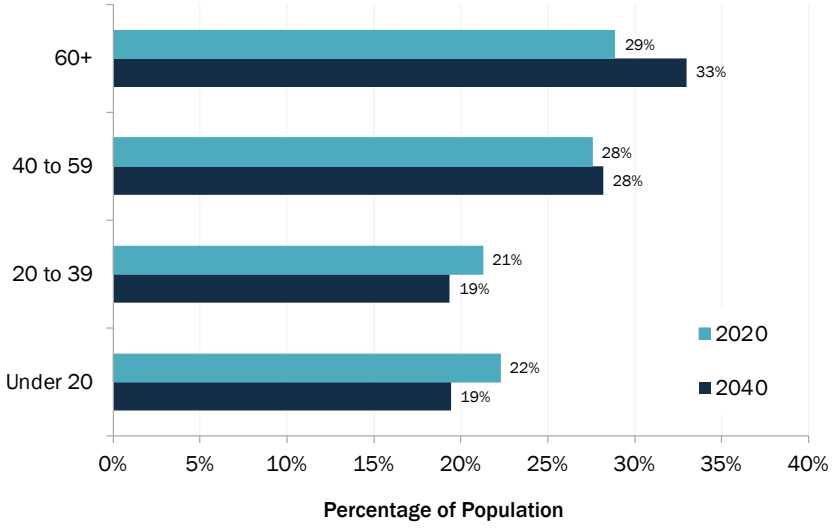


By 2040, Columbia County will have a larger share of residents 60 years and older than it does today.

The share of residents 60 years and older will account for 33% of Columbia County's population, compared to 29% in 2020.

Exhibit 31. Population Growth by Age Group, Columbia County, 2020–2040

Source: Portland State University, College of Urban & Public Affairs: Population Research Center, Population Forecast, 2020.



Race and Ethnicity

Scappoose, like Oregon overall, is becoming more ethnically diverse. The share of the population that was Hispanic or Latino in Scappoose increased from 2% to 7% between 2000 and 2015–2019. However, unlike Oregon, the share of the population of people of color remained roughly the same at 6%. Scappoose is less ethnically diverse than the state and providing culturally specific services to Spanish-speaking community members can help improve their participation in the workforce and economy.

The population of people of color is defined as the share of the population that identifies as another race other than "white alone" according to Census definitions. The small population in Scappoose results in small sample sizes, and thus the margin of error is considerable for the estimate of these populations.

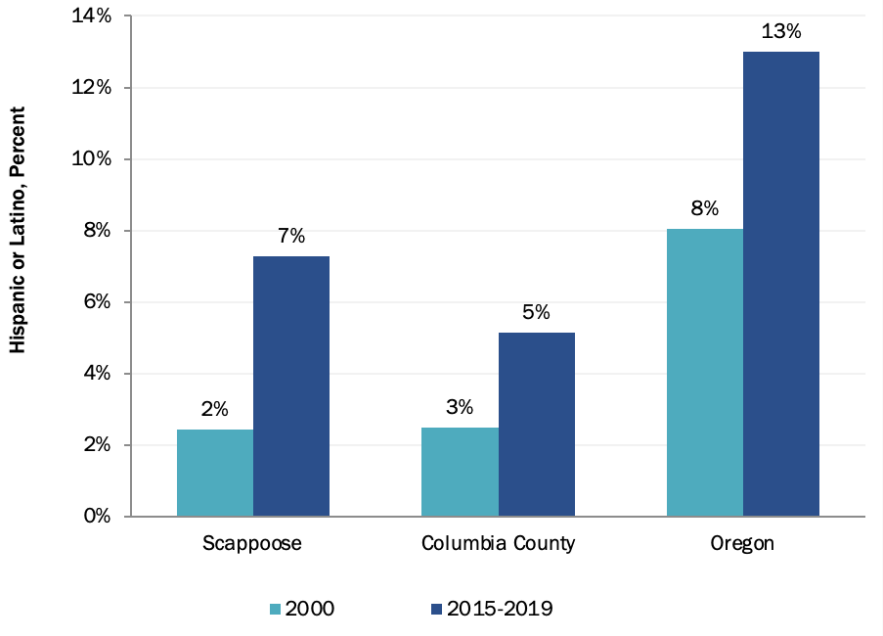
Exhibit 32 and Exhibit 33 show the change in the share of Hispanic and Latino and people of color populations in Scappoose, compared to Columbia County and Oregon, between 2000 and 2015–2019. The groups with the largest share of the population of people of color in 2015–2019 include those that identify as two or more races or Asian alone each representing 2% of Scappoose's total population.

Scappoose's Hispanic/ Latino population increased between 2000 and 2015–2019 from 2% to 7%.

Scappoose is less ethnically diverse than the state, but more so than Columbia County.

Exhibit 32. Hispanic or Latino Population as a Percentage of the Total Population, Scappoose, Columbia County, and Oregon, 2000, 2015–2019

Source: U.S. Census Bureau, 2000 Decennial Census, Table P008; 2015–2019 American Community Survey, 2014–2018 5-Year Estimates, Table B03002.



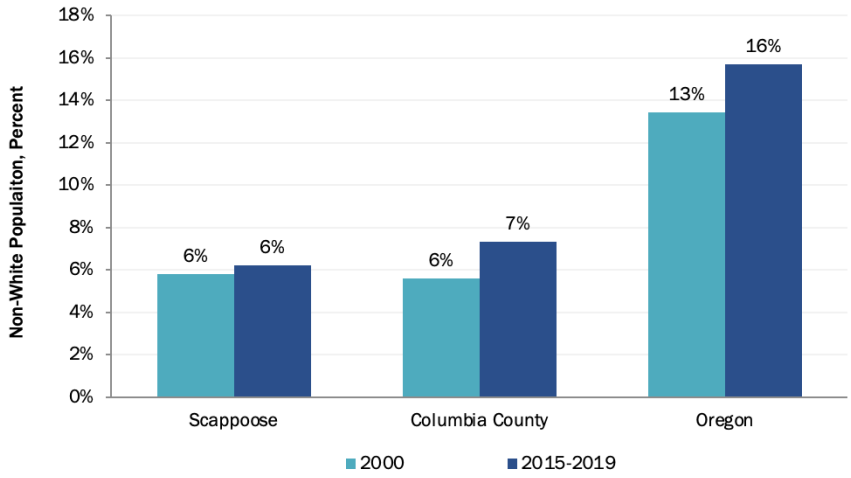
The share of people of color in Scappoose stayed roughly the same between 2000 and 2015–2019.

Scappoose and Columbia County are less racially diverse than the state. In 2015–2019, the share of people of color in Scappoose and Columbia County was 6% and 7%, respectively, compared to 16% statewide.

During this same period, the groups with the largest share of people of color were two or more races or Asian alone, each representing 2% of Scappoose's residents.

Exhibit 33. Population of People of Color as a Percentage of the Total Population, Scappoose, Columbia County, and Oregon, 2000, 2015–2019

Source: U.S. Census Bureau, 2000 Decennial Census Table P007; 2015–2019 American Community Survey, 2014–2018 5-Year Estimates, Table B02001.



Income

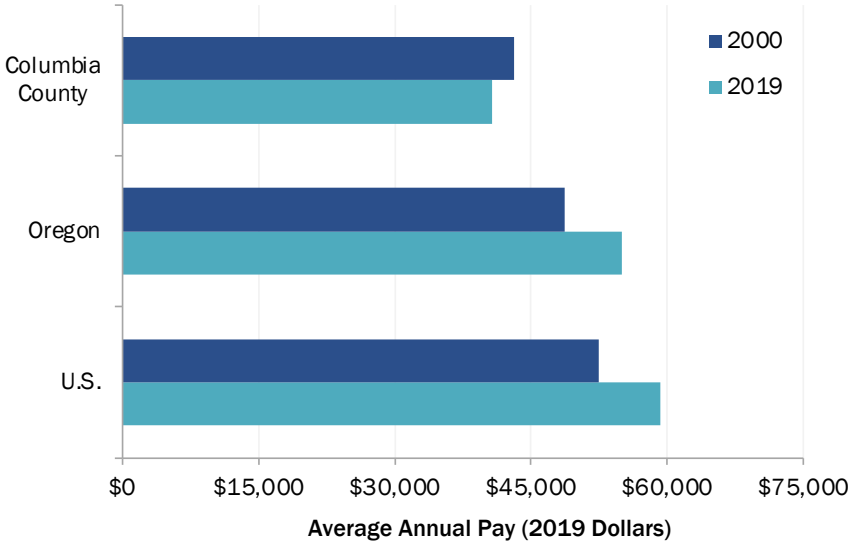
Income and wages affect business decisions for locating in a city. Areas with higher wages may be less attractive for industries that rely on low-wage workers. Scappoose's median household income ($80,171) was above the county median ($62,257). In 2019, average wages at private businesses in Scappoose ($37,717) were below the county average ($40,729).

Between 2000 and 2019, Columbia County's average wages decreased, while average wages at the state and national level increased. When adjusted for inflation, average annual wages decreased by 5% in Columbia County and increased by 13% for both the state and the nation.

From 2000 to 2019, average annual wages decreased in Columbia County, while rising in Oregon and the nation.

In 2019, average annual wages were $40,729 in Columbia County, $55,019 in Oregon, and $59,209 across the nation.

Exhibit 34. Average Annual Wage, Covered Employment, Columbia County, Oregon, and the U.S., 2000 to 2019, Inflation-Adjusted 2019 Dollars
Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages; State of Oregon Employment Department, Employment and Wages by Industry (QCEW).



Over the 2015–2019 period, the median household income in Scappoose was 22% above Columbia County and Oregon's median household income.

Exhibit 35. Median Household Income (MHI),[110] 2015–2019
Source: U.S. Census Bureau, American Community Survey 2015–2019 5-Year Estimates, Table B19013.

$80,171	$62,257	$62,818
Scappoose	Columbia County	Oregon

[110] The Census calculated household income based on the income of all individuals 15 years old and over in the household, whether they are related or not.

Scappoose's median family income during the 2015–2019 period, similar to median household income, was above the median family income of both Columbia County and Oregon by 23% and 25%, respectively.

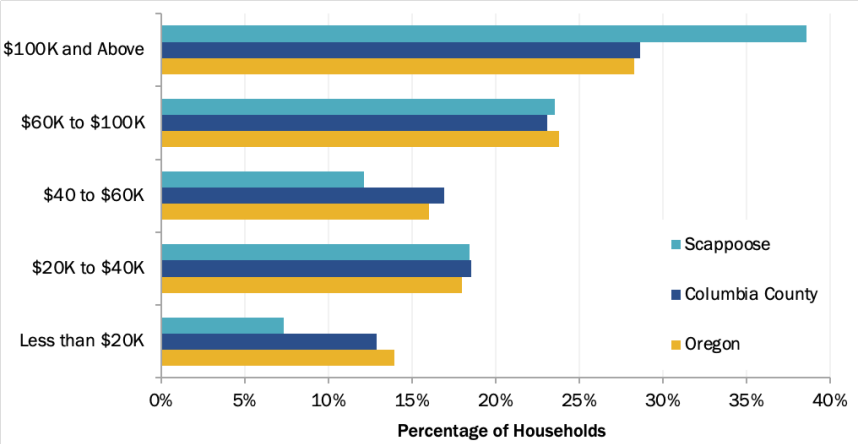
Exhibit 36. Median Family Income,[111] 2015–2019
Source: U.S. Census Bureau, American Community Survey 2015–2019 5-Year Estimates, Table B19113.

$96,136	$78,223	$76,946
Scappoose	Columbia County	Oregon

During the 2015–2019 period, 7% of Scappoose's households earned less than $20,000 annually, compared to 13% of Columbia County and 14% of Oregon households.

Over the same period, 39% of Scappoose households earned over $100,000, a proportion much higher than both Columbia County residents (29%) and residents statewide (28%).

Exhibit 37. Household Income by Income Group, Scappoose, Columbia County, and Oregon, 2015–2019, Inflation-Adjusted 2019 Dollars
Source: U.S. Census Bureau, American Community Survey 2015–2019 5-Year Estimates, Table B19001.



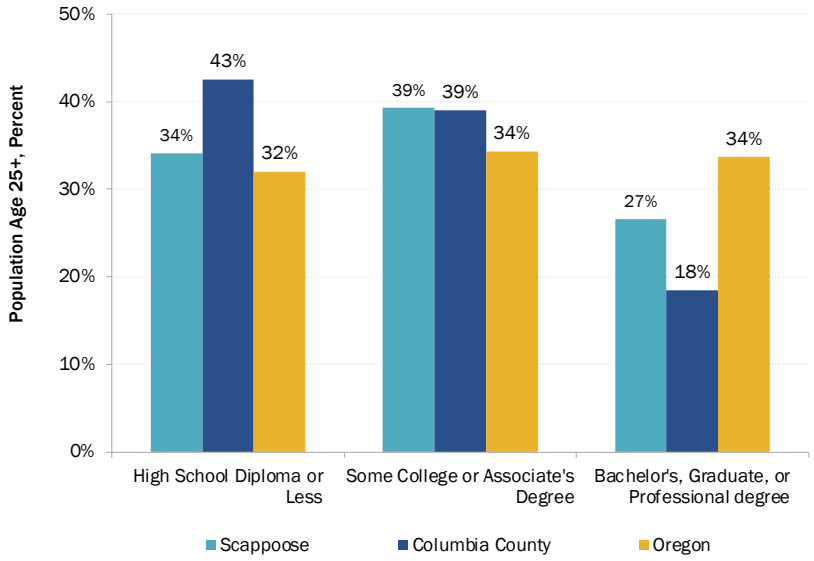
[111] The Census calculated family income based on the income of the head of household, as identified in the response to the Census forms, and income of all individuals 15 years old and over in the household who are related to the head of household by birth, marriage, or adoption.

Educational Attainment

The availability of trained, educated workers affects the quality of labor in a community. Educational attainment is an important labor force factor because firms need to be able to find educated workers.

A larger share of Scappoose residents have a bachelor's, graduate, or professional degree than Columbia County but a lower share than the state.

Exhibit 38. Educational Attainment for the Population 25 Years and Over, Scappoose, Columbia County, and Oregon, 2015–2019
Source: U.S. Census Bureau, American Community Survey 2015–2019 5-Year Estimates, Table B15003.



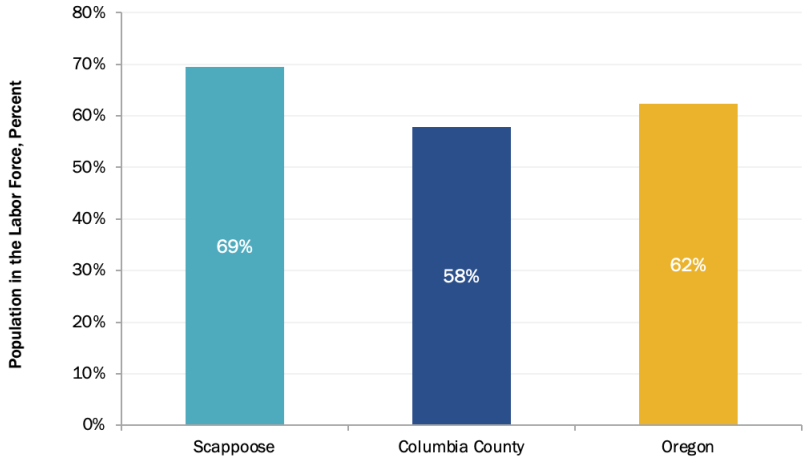
Labor Force Participation and Unemployment

The current labor force participation rate is an important consideration in the availability of labor. The labor force in any market consists of the adult population (16 and over) who are working or actively seeking work. The labor force includes both the employed and unemployed. Children, retirees, students, and people who are not actively seeking work are not considered part of the labor force. According to the 2015–2019 American Community Survey, Columbia County had 24,118 people in its labor force during that period and Scappoose had 3,891 people in its labor force.

In 2019, the Oregon Office of Economic Analysis reported that the most common reason for difficulty in filling jobs included a lack of applications (29% of employers' difficulties), unfavorable working conditions (23%), a lack of qualified candidates (16%), a lack of soft skills (8%), a lack of work experience (7%), and low wages (7%).[112] These statistics indicate a mismatch between the types of jobs that employers are demanding and the skills that potential employees can provide.

Scappoose has a higher labor force participation rate relative to both Columbia County and Oregon.

Exhibit 39. Labor Force Participation Rate, Scappoose, Columbia County, and Oregon, 2015–2019
Source: U.S. Census Bureau, American Community Survey 2015–2019 5-Year Estimates, Table B23001.



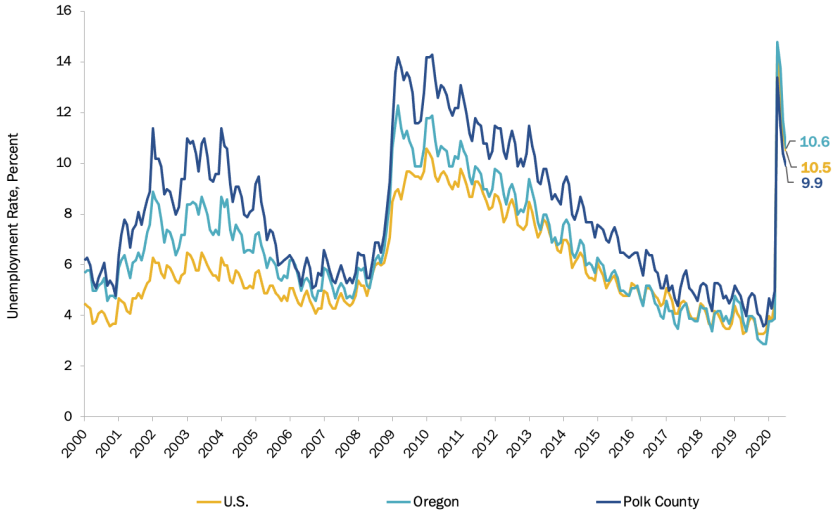
[112] Oregon's Current Workforce Gaps: Hiring Challenges for Unfilled Job Vacancies, May 2019. Employer-Provided Reasons for Difficulty Filling Vacancies in Oregon, 2018. p. 20. https://www.qualityinfo.org/documents/10182/13336/Oregon%27s+Current+Workforce+Gaps.

The unemployment rates in Scappoose, Columbia County, Oregon, and the nation have declined since the Great Recession. However, following the pandemic, unemployment rates for the month of May 2020 exceeded the peak rate experienced during the Great Recession.

The unemployment rate for December 2021 in Columbia County (4.1%) was slightly higher than that of the state (3.6%) and nation (3.7%).

Exhibit 40. Unemployment Rate, Columbia County, Oregon, and the U.S., 2000–December 2021

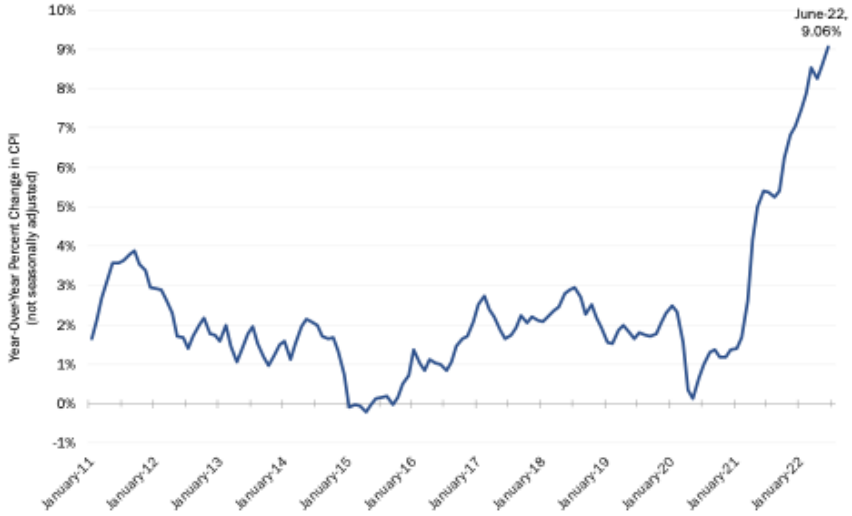
Source: Bureau of Labor Statistics, Local Area Unemployment Statistics, and Labor Force Statistics. Not seasonally adjusted.



The annual inflation rate in the U.S. declined steadily following the Great Recession until 2015. From 2016-2018, inflation increased steadily to nearly 2.5% before declining in 2019 and 2020. In 2021, inflation increased to 9.1% in June 2022.

Exhibit 41. Annual Inflation Rate, All Urban Consumers, City Average, U.S., 2010-2021

Source: Bureau of Labor Statistics, Consumer Price Index. Not seasonally adjusted.



Commuting Patterns

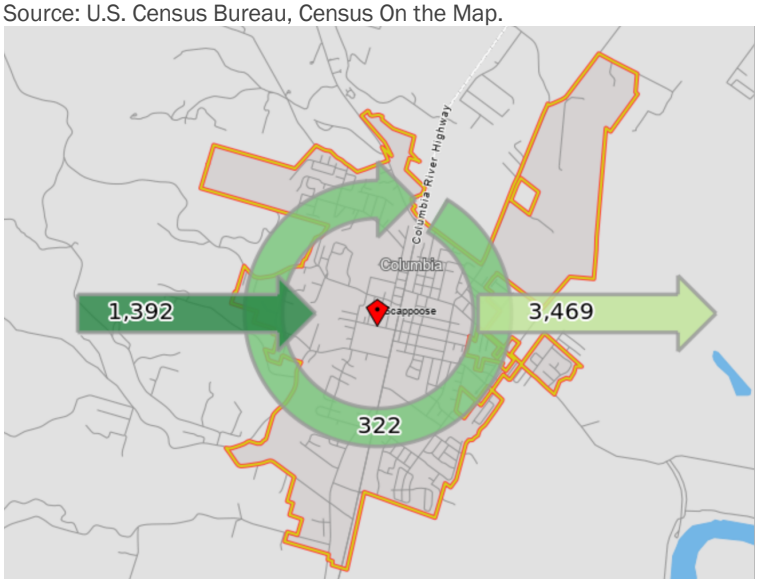
Commuting plays an important role in Scappoose's economy because employers in the area can access workers from cities across Columbia County and the Portland region.

Exhibit 43 demonstrates that 19% of people who work in Scappoose live there, while 11% commute from St. Helens and 9% from Portland. Further, Exhibit 44 shows that 34% of people who live in Scappoose commute to Portland while 9% commute to Hillsboro and 8% remain in Scappoose.

Scappoose is part of an interconnected regional economy.

Fewer people both live and work in Scappoose than commute into or out of the city for work. This is similar to the commuting patterns of Columbia County workers, in that most Scappoose residents commute outside of the county for work.

Exhibit 42. Commuting Flows, Scappoose, 2019
Source: U.S. Census Bureau, Census On the Map.



About 19% of all people who are employed at businesses in Scappoose also live in Scappoose.

Exhibit 43. Places Where Scappoose Workers Lived,[113] 2019
Source: U.S. Census Bureau, Census On the Map.

19%	11%	9%	3%
Scappoose	St. Helens	Portland	Hillsboro

[113] In 2019, 1,714 people worked at businesses in Scappoose, with 19% (322) of workers both living and working in Scappoose.

About 8% of residents who live in Scappoose also work in Scappoose.

34% of Scappoose residents commute to Portland for work.

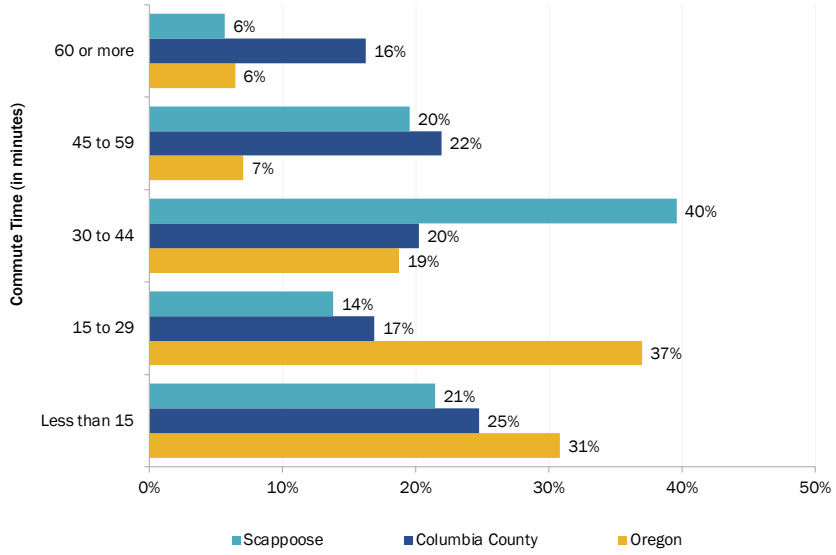
Exhibit 44. Places Scappoose Residents Were Employed,[114] 2019
Source: U.S. Census Bureau, Census On the Map.

34%	9%	8%	5%
Portland	Hillsboro	Scappoose	St. Helens

During the 2015–2019 period, about 21% of Scappoose residents had a commute of less than 15 minutes, compared to 25% of Columbia County's residents and 31% of Oregon residents.

Most Scappoose residents (79%) have a commute time of over 15 minutes. This is consistent with Columbia County, where 75% of residents have a commute time of this length.

Exhibit 45. Commute Time by Place of Residence, Scappoose, Columbia County, and Oregon, 2015–2019
Source: U.S. Census Bureau, American Community Survey 2015–2019 5-Year Estimates, Table B08303.



[114] In 2019, 3,791 residents in Scappoose worked, with 8% of residents (322) both living and working in Scappoose.

Tourism in Portland Region and Columbia County

Dean Runyan Associates provides state, region, and county statistics on travel. The following information is from Dean Runyan Associates' TravelStats dashboard created for Travel Oregon. This section includes information on Columbia County and the Portland region, which is comprised of West Clackamas, Columbia, West Multnomah, and Washington Counties.[115]

Broadly, travelers to Columbia County accounted for 201,100 overnight trips in 2021, or 2.8% of all Portland region overnight travel that year. Columbia County received $39.2 million from direct travel spending in 2021 with the largest spending categories in food service, food stores, and retail sales.

Columbia County's direct travel spending increased by 16% from 2010 to 2021.

The Portland Region's direct travel spending increased by 3% over the same period.

Exhibit 46. Direct Travel Spending ($ millions), 2010 and 2021
Source: Dean Runyan Associates, Oregon Travel Impacts, 2010 and 2021

2010	$3,639.0 Portland Region	$33.7 Columbia County
2021	$3,764.7 Portland Region	$39.2 Columbia County

The area of largest visitor spending for purchased commodities in 2021 in Columbia County was food service.

Exhibit 47. Largest Visitor Spending Categories ($ millions), Columbia County, 2021
Source: Dean Runyan Associates, Oregon Travel Impacts

$11.0 Food Service	$6.2 Food Stores	$5.4 Retail Sales

The industry with the most employment generated by travel spending in Columbia County in 2021 was the accommodations and food services industry.

Exhibit 48. Largest Industry Employment Generated by Travel Spending, Columbia County, 2021
Source: Dean Runyan Associates, Oregon Travel Impacts.

416.5 jobs Accommodations & Food Services	148.3 jobs Arts, Entertainment, and Recreation	77.2 jobs Retail

The number of overnight visitors to Columbia County decreased from 206,638 in 2010 to 201,086 in 2021, a decrease of 2.7%. The average per-person overnight spending in 2021 was $65.15.

[115] Travel Oregon. "Oregon Travel Impacts dashboard" Dean Runyan Associates. Retrieved June 19, 2022 from https://www.travelstats.com/impacts/oregon

Appendix B. Buildable Lands Inventory

The buildable lands inventory is intended to identify commercial and industrial lands that are available for development for employment uses within the Scappoose UGB. The inventory is sometimes characterized as *supply* of land to accommodate anticipated employment growth. Population and employment growth drive *demand* for land. The amount of land needed depends on the type of development and other factors.

This appendix presents methods and definitions used to develop the commercial and industrial buildable lands inventory for the Scappoose UGB. The results (shown in Chapter 4) are based on analyses of the City of Scappoose, Columbia County, and State of Oregon GIS data by ECONorthwest and reviewed by City staff. The remainder of this appendix summarizes key findings of the buildable lands inventory.

Methods and Definitions

The BLI for Scappoose includes all land that allows commercial and industrial uses within the UGB. From a practical perspective, land was included in the BLI if it met all the following criteria: 1) it is inside the Scappoose UGB, 2) it is inside a tax lot (as defined by Columbia County), and 3) if its current zoning/comprehensive plan designation allows employment uses. Note that tax lots do not generally include road or railroad rights-of-way or water. The inventory then builds from the tax lot–level database to estimate buildable land by plan designation.

Inventory Steps

The steps in the BLI are:

1. Generate UGB "land base"
2. Classify lands by buildable area status
3. Identify constraints
4. Verify inventory results
5. Tabulate and map results

Step 1: Generate UGB "Land Base"

The commercial and industrial inventory used all the tax lots in the Scappoose UGB with the appropriate comprehensive plan designations: commercial, industrial, and airport employment. For the purposes of the tables and maps, these comprehensive plan designations were then broken down further by zone. These zones are as follows:

City of Scappoose:

- General Commercial (C)
- Expanded Commercial (EC)
- Light Industrial (LI)
- PUA
- Public Use Airport (PUA)
  - Airport Business Park Overlay (ABP)
  - Airport Industrial Park Overlay (AIP)
  - East Airport Employment Overlay (EAE)
  - Public Use Airport (PUA)

Columbia County:

- General Commercial (C-3)
- C-3/RIPD
- C-3/RR-5
- Community Service – Institutional (CS-I)
- Community Service – Utility (CS-U)
- Existing Commercial (EC)
- Heavy Industrial (M-1)
- Light Industrial (M-2)
- Resource Industrial – Planned Development (RIPD)
- Rural Residential (RR-5)

One aspect deserves further calling out—that of the Public Use Airport zone. While technically this zone is all one zone, that of the PUA zone, for this BLI we have split the area out further by hardcoding the different sections of the Airport Employment Overlay onto each parcel. In some cases, this resulted in split lots, which were manually split and then re-calculated within the BLI models.

Exhibit 49 shows a map of the specific designations that were used in the BLI and Exhibit 50 shows a map of the same areas by zone.

Exhibit 49. Comprehensive Plan Designations Included in the Commercial and Industrial BLI, Scappoose UGB, 2022
Source: ECONorthwest analysis, City of Scappoose, Columbia County.

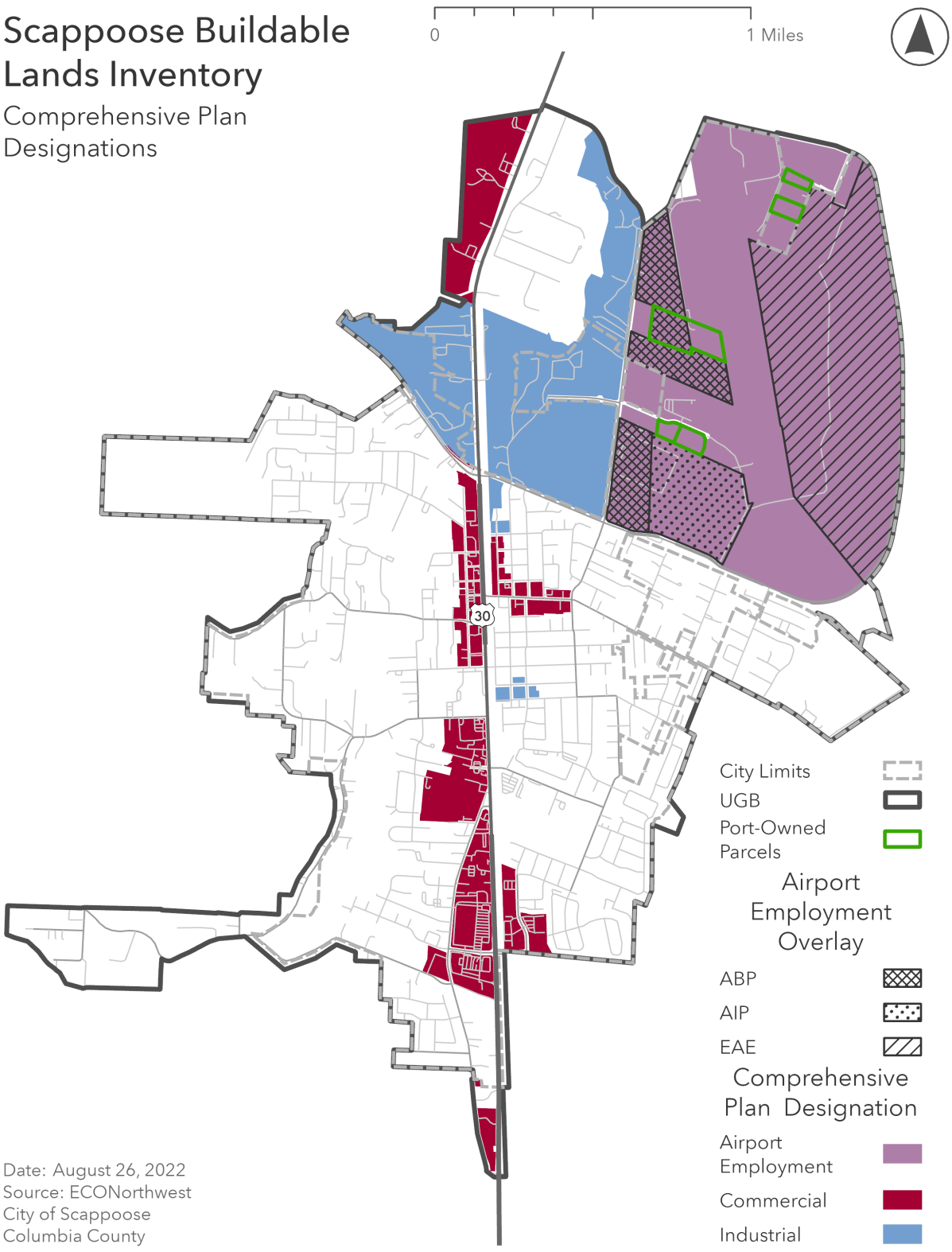
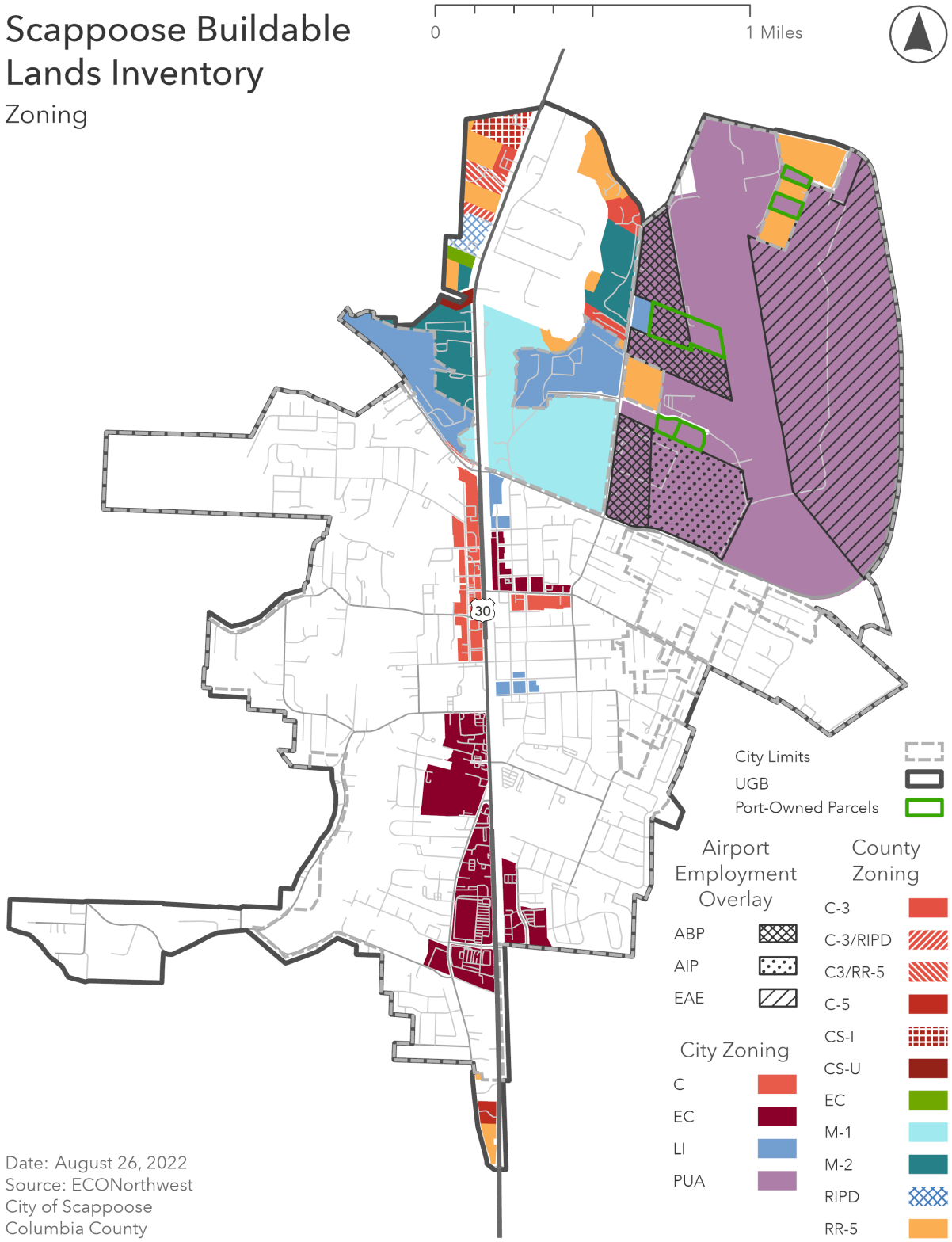


Exhibit 50. Zones Included in the Commercial and Industrial BLI, Scappoose UGB, 2022
Source: ECONorthwest analysis, City of Scappoose, Columbia County.



Step 2: Classify Lands

In this step, ECONorthwest classified each tax lot with an employment plan designation (based on definition above) into one of five mutually exclusive categories based on buildable area status:

- Vacant land
- Partially Vacant land
- Developed land
- Public land
- Undevelopable land

ECONorthwest identified buildable land and classified buildable area status using a rule-based methodology. The rules are described below in Exhibit 51.

Exhibit 51. Rules for Buildable Area Status Classification

Development Status	Definition	Statutory Authority
Vacant Land	A tax lot: (a) Equal to or larger than one-half acre not currently containing permanent buildings or improvements; or (b) Equal to or larger than five acres where less than one-half acre is occupied by permanent buildings or improvements. For criteria (a) above, lands with improvement values of $0 are considered vacant.	OAR 660-009-005(14)
Partially Vacant Land	Partially vacant tax lots are those between one and five acres occupied by a use that could still be further developed based on the zoning. This determination was based on a visual assessment and City staff verification.	No statutory definition
Developed Land	OAR 660-009-005(1) defines developed land as "Non-vacant land that is likely to be redeveloped during the planning period." Lands not classified as vacant, partially vacant, undevelopable, or public or exempt are considered developed.	OAR 660-009-005(1)

Development Status	Definition	Statutory Authority
Public Land	Lands in public or semipublic ownership are considered unavailable for commercial or industrial development. This includes lands in Federal, State, County, or City ownership as well as lands owned by churches and other semi-public organizations. Public lands will be identified using the Columbia County Assessment property tax exemption codes.	No statutory definition
Undevelopable	Vacant tax lots less than one-half acre in size are considered undevelopable.	No statutory definition

One exception to these development status definitions that occurred in this BLI is the removal of City staff-identified parcels owned by the Ports of St. Helens and Columbia (separate parcels) from "Public" status to "Vacant" or "Partially Vacant" status.

Step 3: Identify Constraints

As shown in Exhibit 52, the BLI included development constraints consistent with guidance in OAR 660-009-0005(2).

Exhibit 52. Constraints to Be Included in BLI

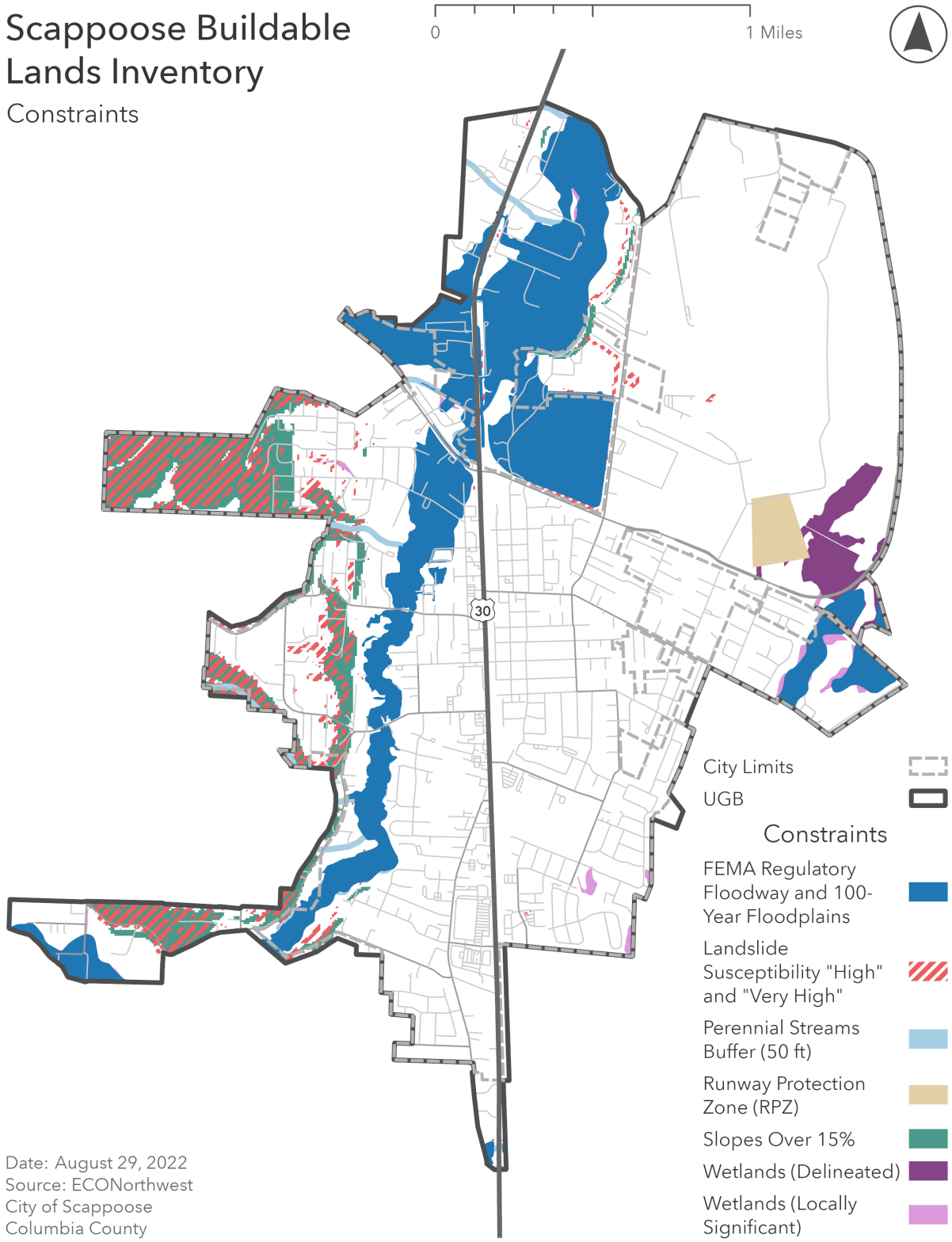
Constraint	Statutory Authority	Threshold	Source
Goal 5 Natural Resource Constraints			
Wetlands	OAR 660-009-0005(2)	Lands within Locally Significant Wetlands	Oregon Department of State Lands
Wetlands – Delineated	OAR 660-009-0005(2)	Lands within City staff-identified wetland area	City of Scappoose
50-foot Buffer on Perennial Streams	OAR 660-009-0005(2)	Lands within the 50-foot Buffer	City of Scappoose
Natural Hazard Constraints			
Regulatory Floodway	OAR 660-009-0005(2)	Lands within FEMA FIRM identified floodway	FEMA via National Map
100-Year Floodplain	OAR 660-009-0005(2)	Lands within FEMA FIRM 100-year floodplain	FEMA via National Map
Steep Slopes	OAR 660-009-0005(2)	Slopes greater than 15%	Oregon Department of Geology and Mining Industries
Landslide Susceptibility	OAR 660-009-0005(2)	High or Very High Landslide Susceptibility	Oregon Department of Geology and Mining Industries
Runway Protection Zone (RPZ)	OAR 660-009-0005(2)	Lands within the RPZ	City of Scappoose

One slight modification to these constraints came in the form of the removal of a small part of the FEMA 100-Year Floodplains, due to Letters of Map Revision documents that removed floodplains from parcels north of Charles T. Parker Way and west of West Lane Rd.

These areas were evaluated as prohibitive constraints (unbuildable). All constraints were merged into a single constraint file, which was then used to identify the area of each tax lot that is constrained. These areas were deducted from lands that are identified as vacant or partially vacant.

Exhibit 53 shows these individual constraints on a map:

Exhibit 53. Development Constraints, Scappoose UGB, 2022
Source: ECONorthwest analysis, City of Scappoose, Columbia County.



Step 4: Verify Inventory Results

ECONorthwest used a multistep verification process. The first verification step involved a "visual assessment" of land classifications using GIS and recent aerial photos. The visual assessment involves reviewing classifications overlaid on recent aerial photographs to verify uses on the ground. ECONorthwest reviewed all tax lots included in the inventory using the visual assessment methodology. The second round of verification involved City staff verifying the visual assessment output. ECONorthwest amended the BLI based on City staff review and a discussion of staff's comments. The final verification is reviewed by stakeholders, most especially by members of the Technical Advisory Committee.

Step 5: Tabulate and Map Results

The results of the commercial BLI are presented in tabular and map format in the remainder of this appendix. This includes a zoning/comprehensive plan map, the land base by classification, vacant and partially vacant lands by plan designation, and vacant and partially vacant lands by plan designation with constraints showing.

Exhibit 54 shows the resulting unconstrained buildable land by comprehensive plan designation, while Exhibit 55 shows the same land by zone.

Exhibit 54. Buildable Employment Land by Plan Designation with Development Constraints, Scappoose UGB, 2022
Source: ECONorthwest analysis, City of Scappoose, Columbia County.

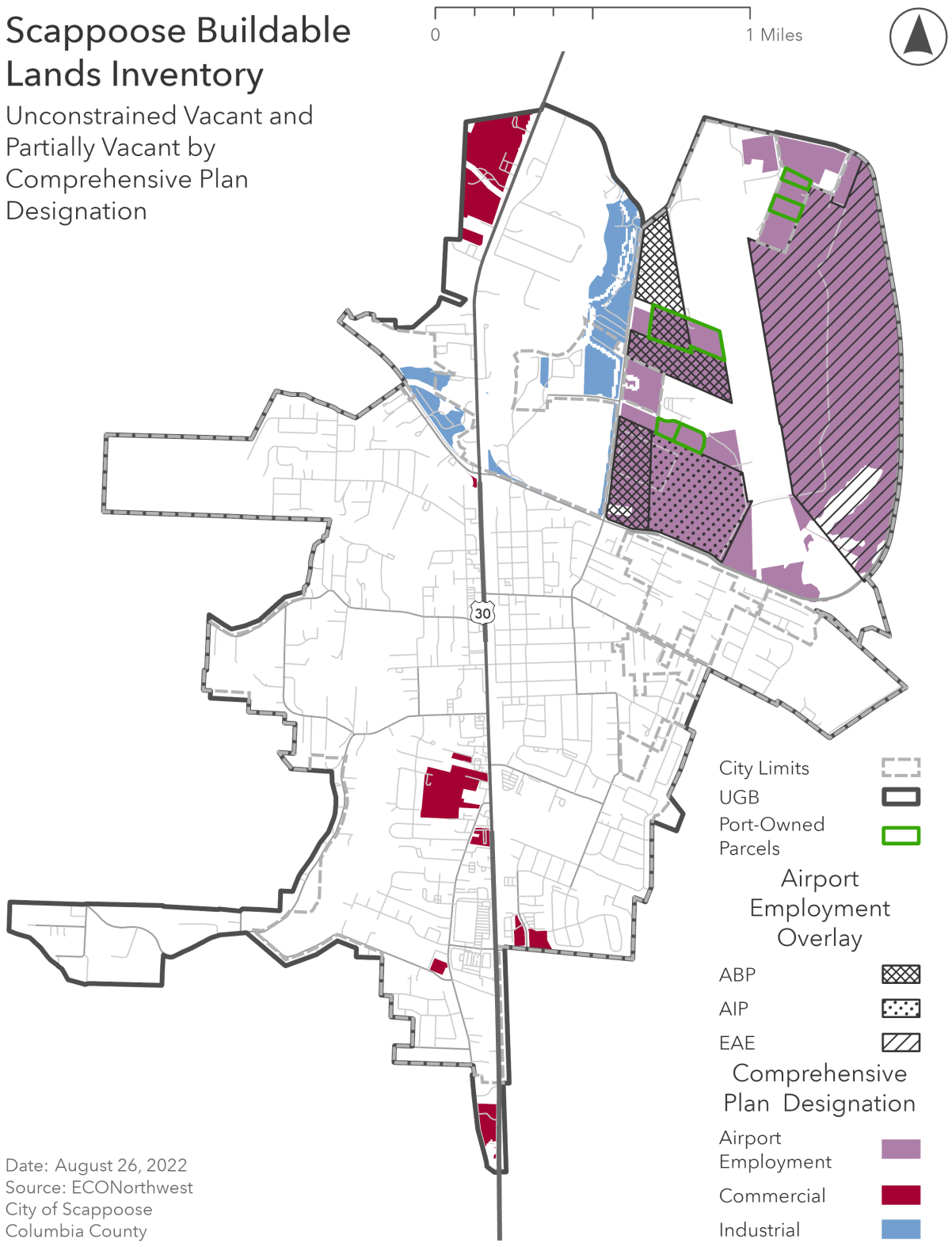


Exhibit 55. Buildable Employment Land by Zone with Development Constraints, Scappoose UGB, 2022
Source: ECONorthwest analysis, City of Scappoose, Columbia County.