

All-In Warrenton

DISCUSSION DRAFT Economic Opportunities Analysis

CONTENTS

Background and Purpose	2
About Warrenton	2
Summary of Findings	4
Existing Plans and Policies	4
Warrenton Comprehensive Plan	4
Warrenton Urban Renewal District	5
Clatsop County Comprehensive Plan	6
Economic Trends	7
The Global Economy	7
National and Regional Trends	8
Local Economic Trends	12
Local Employment Forecast	16
Supply and Demand of Employment Land	22
Land Supply Methods and Analysis	22
Employment Zones	24
Inventorying Buildable Employment Lands	26
Deductions from Buildable Employment Lands	28
Land Demand Methods and Analysis	34
Supply and Demand Findings	37
Community Economic Development Potential	39

BACKGROUND AND PURPOSE

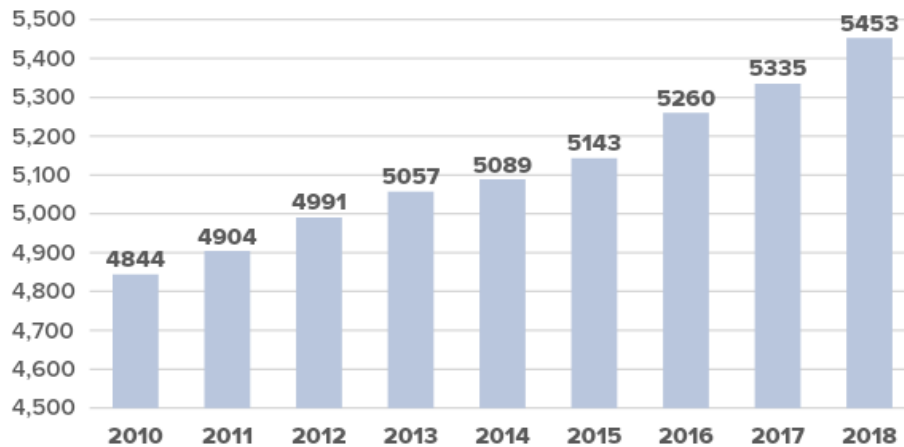
This Economic Opportunities Analysis (EOA) for the City of Warrenton evaluates global, national and regional economic trends to inform a forecast-based estimate of the demand for developable and redevelopable employment land. This estimate of demand is compared with an estimate of the supply based on the City of Warrenton's inventory of parcels. In synthesizing economic trends and reconciling the supply and demand of employment land, this document helps to prepare Warrenton to seize critical economic development opportunities as they arise in the future.

About Warrenton

Warrenton is a town of about 5,400 people (**Exhibit 1**) in northwest Oregon, situated at the confluence of the Skipanon and Columbia Rivers, near where the Columbia enters the Pacific Ocean. U.S. Highway 101 runs through Warrenton and connects it, across Youngs Bay, to Astoria (population: 10,000). The area boasts historic resources, such as Fort Stevens State Park and the Lewis and Clark National Historical Park, as well as natural amenities, including vast ocean beaches, that draw tourists to the region.

Warrenton's population has been growing steadily, along with Clatsop County's population as a whole.

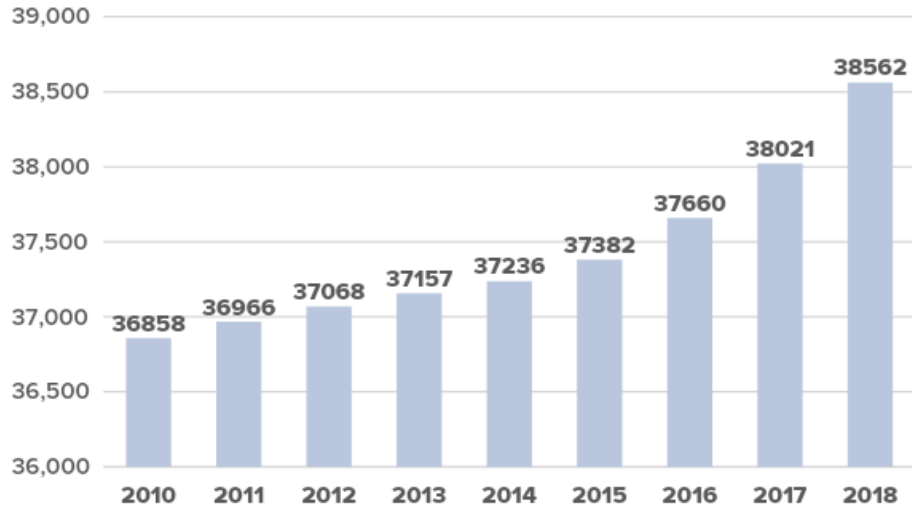
Exhibit 1. Population, City of Warrenton, 2010-2018



Source: US Census Bureau, 2020

The town has grown slightly every decade since 1970, and its average annual growth rate since 2010 (1.49%) is higher than Clatsop County's average annual growth rate (.57%) over that period.

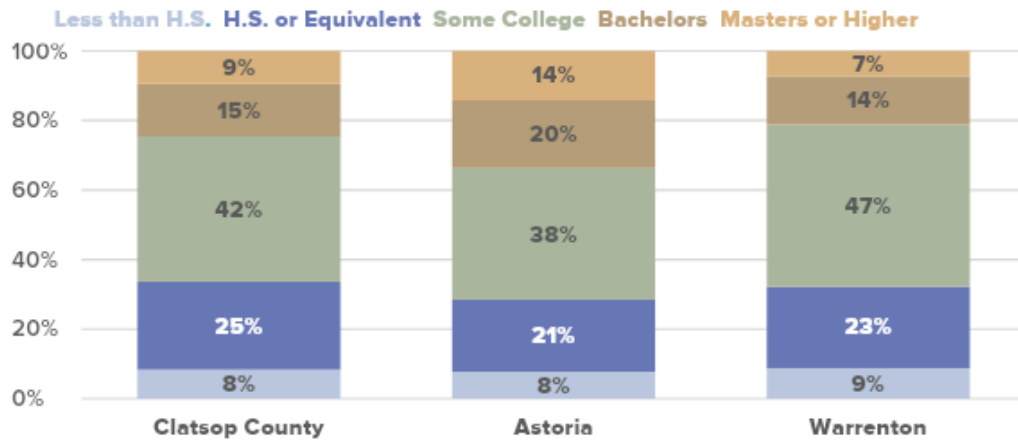
Exhibit 2. Population, Clatsop County, 2010-2018



Source: US Census Bureau, 2020

A larger portion of Warrenton’s residents have taken some college courses than in Clatsop County or Astoria. However, Warrenton has a lower percentage of residents with a bachelors or higher than the County and Astoria. Though Warrenton lags behind Astoria in the portion of residents with higher levels of educational attainment, this may not be a critical economic development constraint given that Warrenton employers can easily access labor in either city.

Exhibit 3. Educational Attainment, Cities of Astoria and Warrenton and Clatsop County, 2018



Source: US Census Bureau, 2020

Warrenton has generated momentum in economic development through recent efforts by groups like the Warrenton Urban Renewal Authority, Spruce Up Warrenton, and City staff. The City now seeks a strategic assessment of new economic

opportunities and an action plan for economic development. This document meets the State of Oregon's requirements in Statewide Planning Goal 9, while also informing this broader strategic planning effort.

Summary of Findings

The following are key findings from the analysis.

Warrenton is a small, growing community that has grown, and is expected to continue growing, faster than the broader Clatsop County and Northwest Oregon rates.

Retail is the largest industry sector in Warrenton and is expected to grow faster than most industry sectors based on projected population growth (which drives consumer spending and retail demand). Warrenton's Urban Renewable District covers its downtown area and its Urban Renewal Agency is active in business and economic development.

Extractive and resource-related industries, including forestry, commercial fishing, seafood processing and boat building, are legacy industries that, while not expected to grow rapidly, are culturally significant for Warrenton and the region and may offer opportunities for innovation.

Warrenton's supply of land is heavily impacted by wetlands, making development challenging in certain locations due to additional costs associated with mitigation and the complexity of the regulatory arena. Nonetheless, the available land to meet the needs of growing employment is sufficient; the City has significantly more industrial, commercial and mixed-use land than is likely to be needed based on forecasted employment growth.

Existing Plans and Policies

Warrenton Comprehensive Plan

Goal 9 of the Warrenton Comprehensive Plan pertains to Warrenton's economy. The stated goal is "to diversify and improve the economy and of the state and Clatsop County." To fulfill this goal, the Plan emphasizes the following:

Forest Products. The Plan Emphasizes coordination toward continued forestation, reforestation and forest management. There is an extensive focus on small woodlot owners and identified roles for local, regional, state and federal actors.

Marine Resources. The Plan identifies the maritime sector as broadly significant, with a focus on commercial fishing, expansion of fisheries, and on-shore facilities like cold storage, land and moorage, and boat building.

Travel Industry. The Plan recognizes the importance of tourism for the local economy and intends to concentrate tourism-related development in the existing Urban Growth

Boundary (UGB). It emphasizes the need to improve seasonal balance and develop new, indoor offseason activities and to provide technical assistance to small businesses in the travel and hospitality sector.

Human and Community Resources. The Plan contains a variety of policies and potential actions related to coordination amongst regional stakeholders and potential partners. These include workforce development partnerships with Clatsop Community College (CCC) and coordination for industrial development with the Port of Astoria.

Warrenton Urban Renewal District

Warrenton has an urban renewal district that encompasses 875 acres in downtown Warrenton. The district is managed by the Warrenton Urban Renewal Agency (WURA), which was created in 2007 with a mission to revitalize downtown. In 2019, the City approved a new urban renewal plan and increased WURA's maximum indebtedness from \$1.7M to \$4.8M. Also in 2019, the WURA revamped an existing façade improvement program, resulting in four façade improvement grants given to downtown businesses. Other initiatives potentially within the purview of the WURA include:

- Downtown branding and marketing
- Gateway improvements
- Physical upkeep and street and building improvements
- Property acquisition for redevelopment
- Signage and wayfinding
- Planning and coordination

To the extent that downtown Warrenton is and will continue to be an economic anchor for the town, the WURA will be a critical economic development partner.



*Above: a building renovation in downtown Warrenton, funded in part by funds from the WURA.
Source: City of Warrenton*

Clatsop County Comprehensive Plan

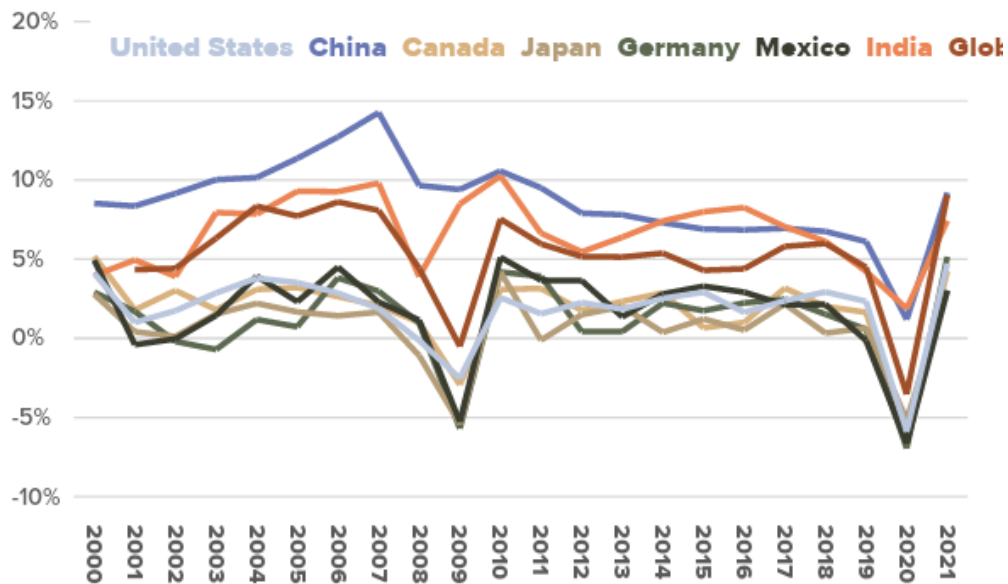
The Clatsop County Comprehensive Plan guides growth and development in the unincorporated areas of Clatsop County. Goal 9 of the Comprehensive Plan pertains to the economy, but the goal has not been updated since the Plan was adopted in the early 1980s. A full update of the Plan is currently underway.

ECONOMIC TRENDS

The Global Economy

Global gross domestic product (GDP) growth held steady around 5% per year following the Great Recession before contracting by 3.5% in 2020 (**Exhibit 4**). The International Monetary Fund (IMF) projects global GDP will bounce back with 9% growth in 2021. This level of economic growth is partially dependent on the course of the COVID-19 pandemic and government policies aimed at controlling it, making predictions difficult. In general, countries that were poorer per capita grew faster than the U.S. and most other Organization for Economic Co-operation and Development (OECD) economies. The United States' GDP grew slower than the global rate at 2.3% annually from 2010 to 2019 before contracting an expected 5.9% this year. China and India averaged 7.7% and 7% growth, respectively, over that span, and did not enter recession in 2020.

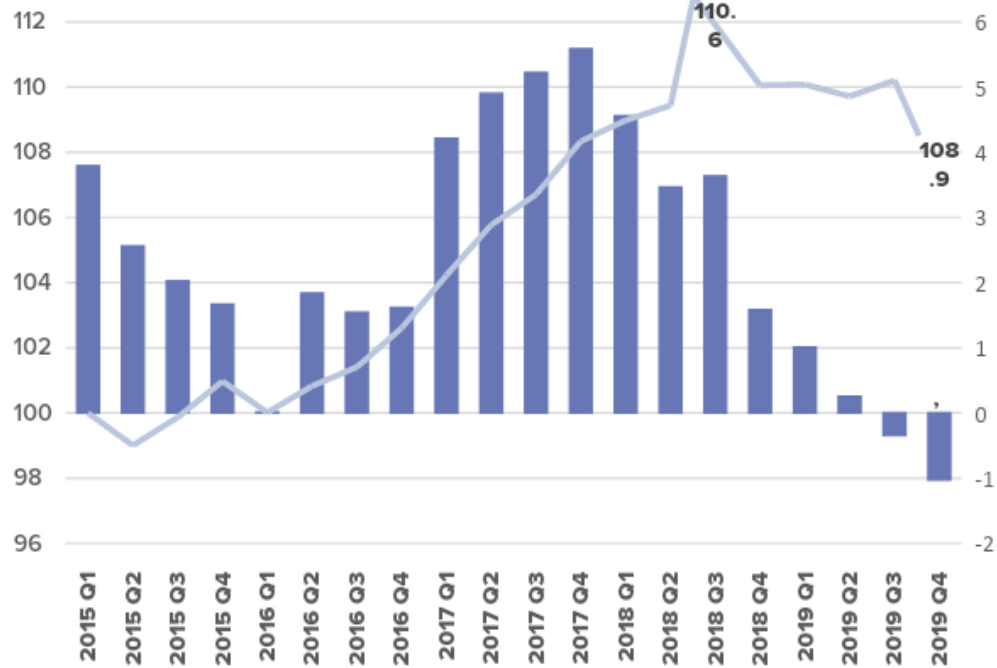
Exhibit 4. GDP Growth, Select Large Economies



Source: International Monetary Fund, 2020

Global trade growth has fallen since the end of 2017. **Exhibit 5** shows that growth turned negative midway through 2019. This contraction preceded the pandemic's onset, and negative growth has likely continued in 2020 given the pandemic's impact.

Exhibit 5. Global Merchandise Trade Volume

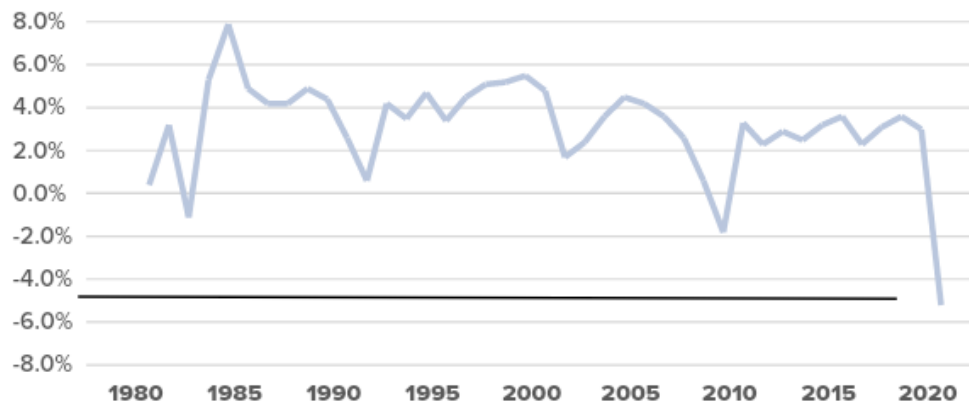


Source: World Trade Organization, 2020

National and Regional Trends

The United States’ economy’s long run of consistent growth has been significantly disrupted by the impacts of COVID-19. Growth has turned sharply negative. **Exhibit 6** shows the IMF has projected a 5.9% drop in U.S. GDP in 2020, which would represent the largest contraction since the Great Depression. The IMF predicts some recovery in 2021 with 4.7% growth, but the exogenous nature of the recession makes the pace of recovery difficult to predict.

Exhibit 6. Gross Domestic Product Growth, United States, 1980-2020



Source: International Monetary Fund, 2020

The pandemic-induced recession has also caused a sharp rise in unemployment this year. Furthermore, varying shutdown and opening strategies around the country as well as other pandemic response policies have caused unemployment to become extremely erratic in 2020. The U.S. unemployment rate spiked from a 50 year low of 3.5% at the year's outset to 14.7% in April (**Exhibit 7**), and the rate has since fallen to 6.9% as of October. The pace of both job loss and re-hiring is unprecedented in the postwar era, and the timetable for a return to full employment is difficult to predict.

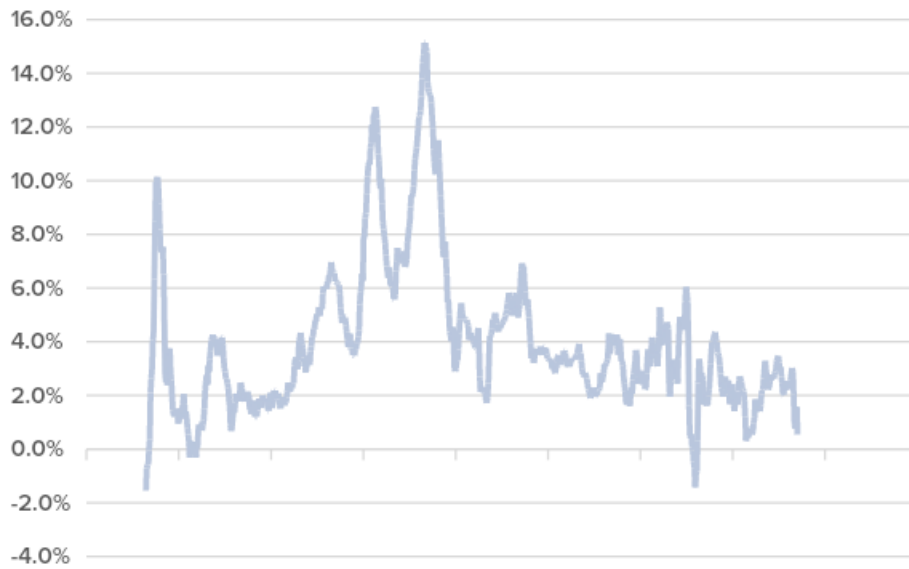
Exhibit 7. Unemployment Rate, United States, 1950-2020



Source: Federal Reserve Economic Data (FRED), 2020

Exhibit 8 shows that inflation has fallen below 2% and is currently near zero despite the Federal Reserve maintaining interest rates at .25%, near its historic low.

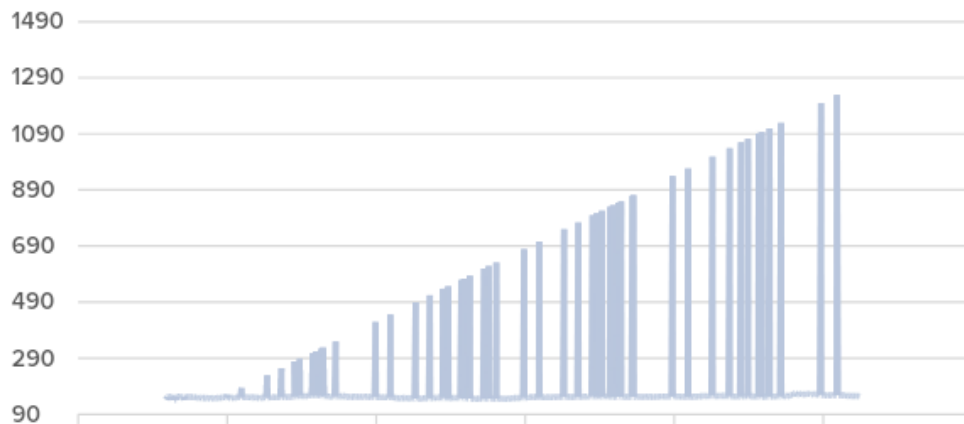
Exhibit 8. Inflation Rate, United States, 1950-2020



Source: Federal Reserve Economic Data (FRED), 2020

Through the recession, the U.S. Dollar has largely maintained its strength against a basket of major currencies. This is in large part due to the Dollar's status as a reserve currency. The 2020 spike seen in **Exhibit 9** shows that investors have invested in U.S. Treasury securities as a safe haven during the recession, keeping the currency strong.

Exhibit 9. US Dollar Strength Index, 2016-2020



Source: Federal Reserve Economic Data (FRED), 2020

Overall trade volumes are down since the pandemic began, with exports of goods and services having fallen by 33% from their 2019 peak to their April low and imports down 24% over the same span. **Exhibit 10** shows that like unemployment, trade

volume has partially reverted to pre-pandemic levels since their April floor. Exports and Imports are still 21% and 12% below their 2019 peaks, respectively.

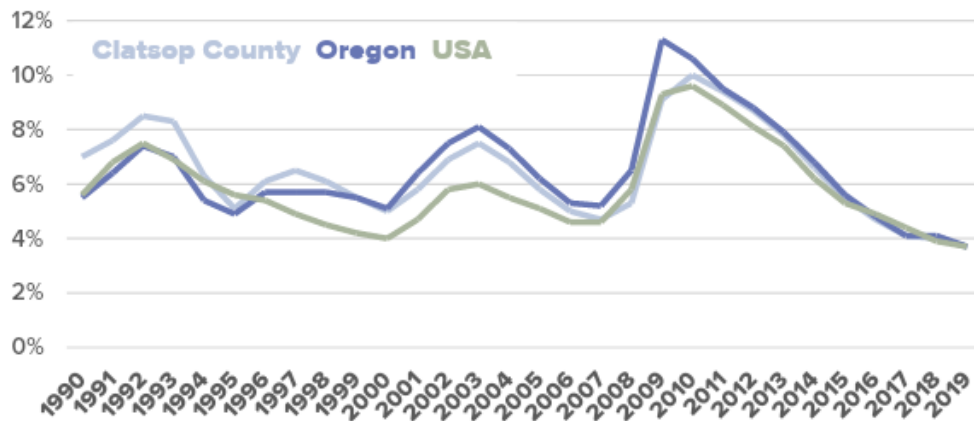
Exhibit 10. Trade Volume, United States, 2019-2020



Source: Bureau of Economic Analysis, 2020

Exhibit 11 shows that the national unemployment rate was consistently lower than in Clatsop County and Oregon as a whole from the mid-1990s until the Great Recession, when Clatsop started to track very closely to the national rate. The Oregon unemployment rate spiked above the national and Clatsop County rates in 2009, and then all three unemployment rates declined steadily through the 2010s and converged at about 4% in 2019. Rates have increased since then, but annual 2020 data is not yet available.

Exhibit 11. Clatsop, Oregon, and National Unemployment Rate, 1990-2019



Source: Bureau of Labor Statistics, 2020

State, regional, and local unemployment rates have risen in 2020 because of the COVID-19 pandemic and the multiple measures taken against it at the state and county

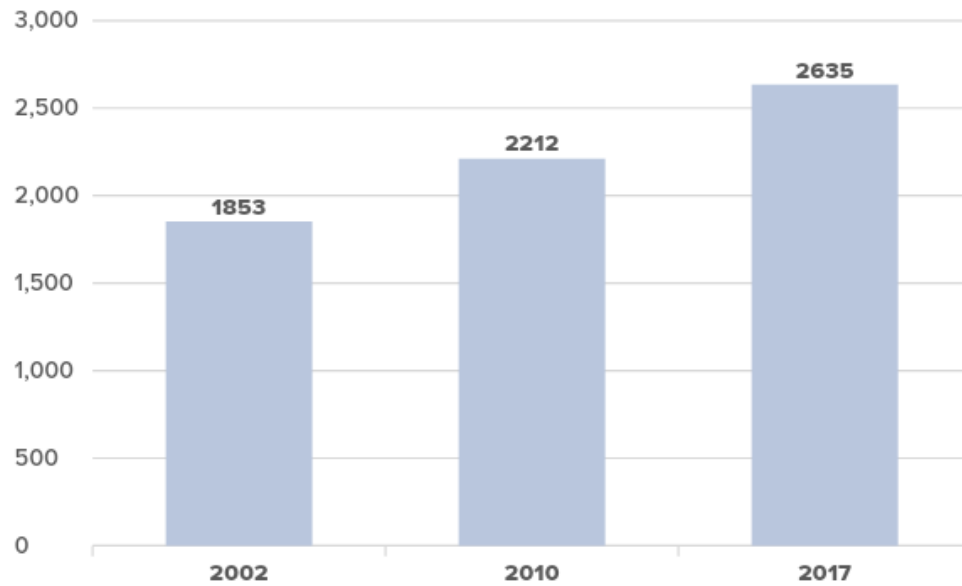
levels. On March 23, Governor Kate Brown declared a statewide stay at home order, which Clatsop County remained under until entering Phase 1 reopening on May 15th. Phase 1 allowed for restaurants and bars, barber shops, salons, spas, tattoo parlors, and gyms to reopen provided mask wearing and social distancing were enforced. Clatsop County entered Phase 2 reopening on June 6th, which allowed for sports facilities, theaters, and churches to reopen and removed the remote office work requirement. Phase 2 also allowed hotels, campgrounds, and short-term vacation rentals to reopen at 60% capacity. It permitted gatherings of up to 50 people indoors and 100 people outdoors. Travel Astoria created a page on its website with a video promoting area outdoor attractions and instructions on businesses' operating status and what to expect through the summer. Travel Astoria still sought visitors but also tried to educate people coming to the County on local safety rules. They also reported that all lodging in Astoria and Warrenton was operating at 100% capacity as of July 23rd.

After a spring and summer of relatively low case numbers, cases began rising in late October and November. Oregon entered a "Two-Week Statewide Freeze" on November 18th. This limits social gatherings to six people and caps faith-based organization gatherings at 25 people indoors and 50 people outdoors. It requires offices to close, restaurants to operate take-out and delivery only, and limits grocery stores and retail to 75% capacity. Gyms, indoor recreational facilities, zoos, venues that host events, and other similar businesses have been forced to close. Further restrictions are possible in the coming weeks and months.

Local Economic Trends

Employment has been steadily increasing in Warrenton, and the City added nearly as many jobs (423) as it added residents (609) between 2010 and 2017. Job growth from 2010 to 2017 also outpaced job growth in the previous eight years (total new jobs) while nearly equaling it in percentage terms (**Exhibit 12**).

Exhibit 12. Total Employment, City of Warrenton, 2002-2017



Source: LEHD OnTheMap, 2017 (accessed 2020)

The City's top industries are Retail and Manufacturing. Accommodation and Food Services and Educational Services are also major drivers of employment, as shown in **Exhibit 13**. Educational Services and Retail have grown rapidly, with the two sectors combined accounting for about 64% of the decade's new jobs.

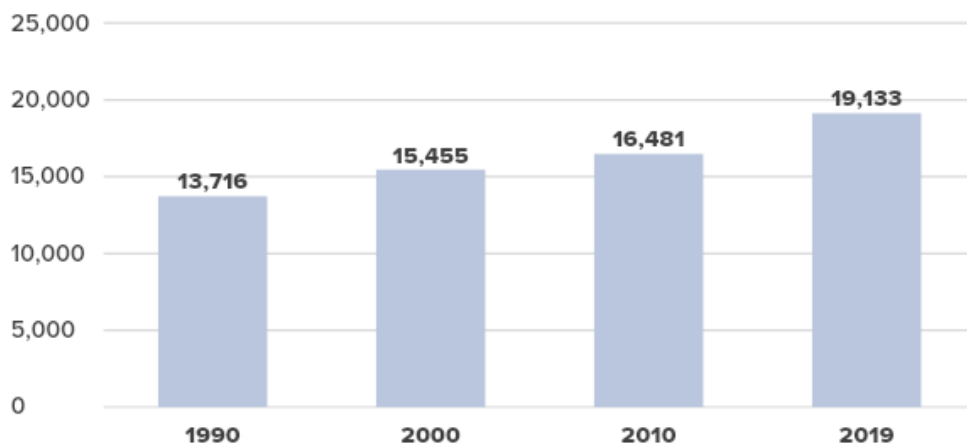
Exhibit 13. Employment by Industry, City of Warrenton, 2002-2017



Source: LEHD OnTheMap, 2020

Clatsop County’s job base has also grown steadily over time, but Warrenton’s employment growth has outpaced Clatsop County’s in the past decade.

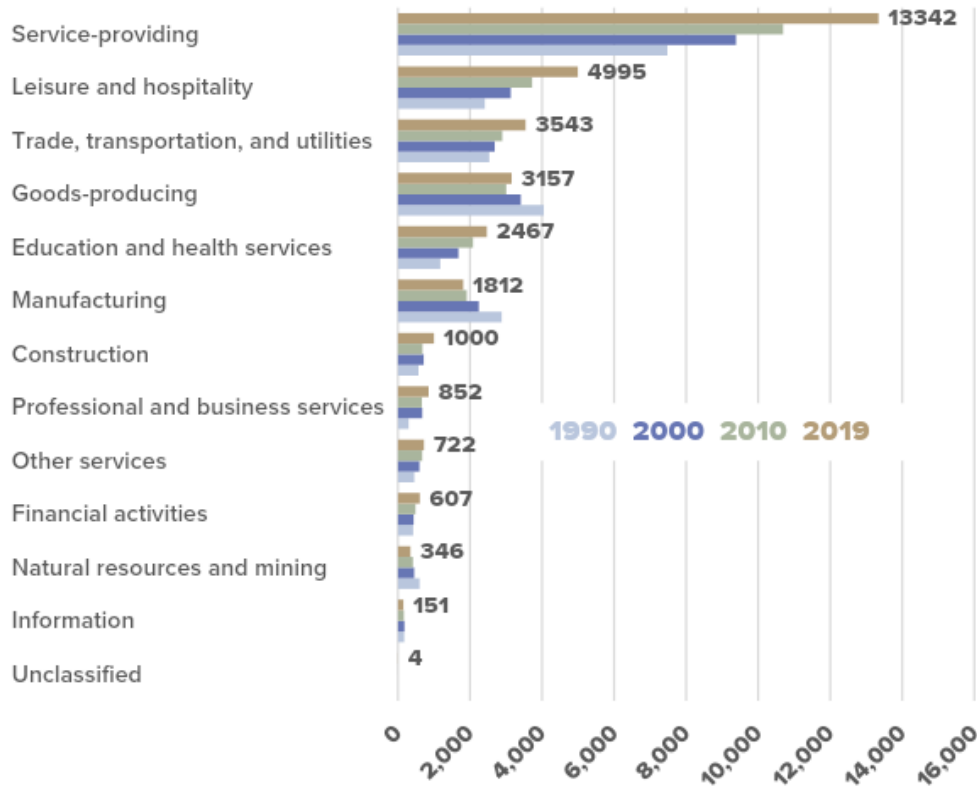
Exhibit 14. Total Employment, Clatsop County, 1990-2019



Source: Bureau of Labor Statistics, 2020

Employment growth in Clatsop County bears some significant differences with Warrenton. As seen in **Exhibit 15**, Services and Leisure and Hospitality are the two largest growth-drivers. Conversely, employment in Goods-Producing, Manufacturing and Natural Resources-related sectors have been steadily declining since 1990.

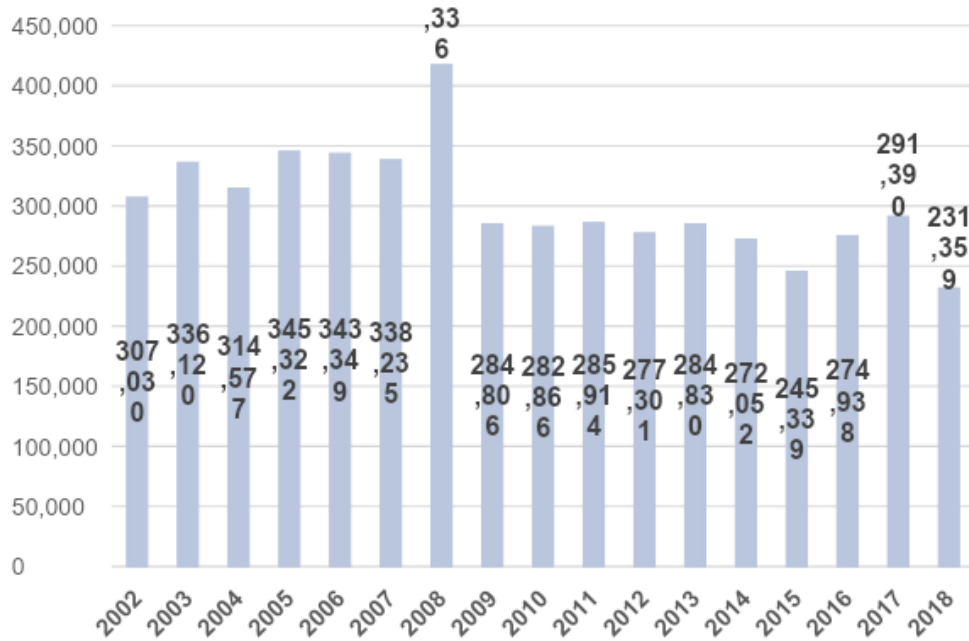
Exhibit 15. Private Employment by Sector, Clatsop County, 1990-2019



Source: Bureau of Labor Statistics, 2020

Resource-related industries, including in forestry and commercial fishing, have traditionally been important industry sectors for northwest Oregon. The Clatsop County timber harvest has been slowly declining since its peak of 417,336 thousand board feet in 2008 as seen in **Exhibit 16**. The latest reported harvest was 231,359. The harvest will likely decline to some extent in 2020 due to the COVID-19 pandemic, but timber may have been less impacted than other industries due to the relative persistence of construction activity through the year.

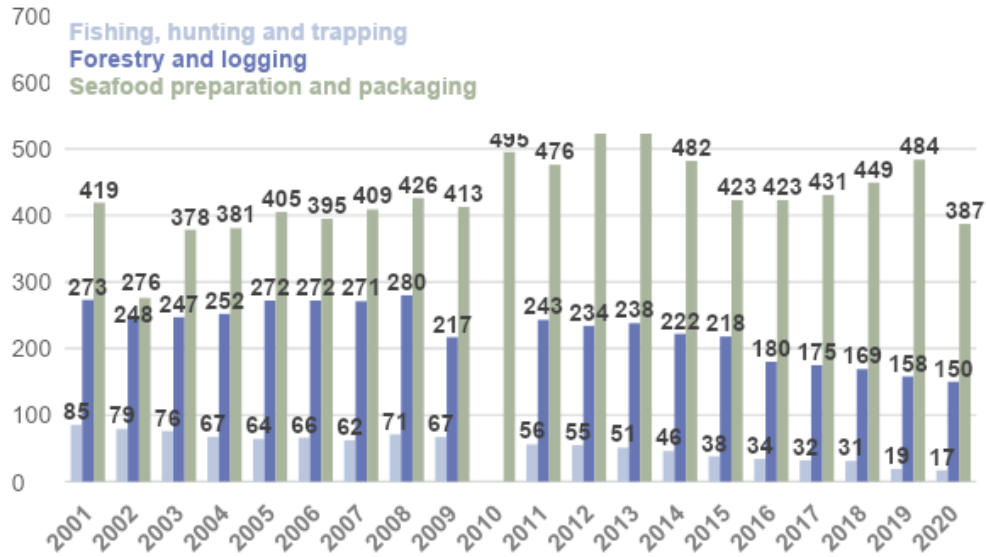
Exhibit 16. Timber Harvest, Clatsop County, 2002-2018



Source: University of Montana, 2020

Employment levels in Oregon’s resource related industries appear to be diverging, with **Exhibit 17** showing seafood preparation oscillating but generally higher in the past decade than the 2000s while forestry and logging and fishing, hunting and trapping both declining steadily. Overall resource related employment has fallen nearly 25% from 877 in 2013 to 661 in 2019. Only 554 jobs were recorded in 2020, but it should be noted that the data only covers the first two quarters of 2020 and is in the midst of the pandemic.

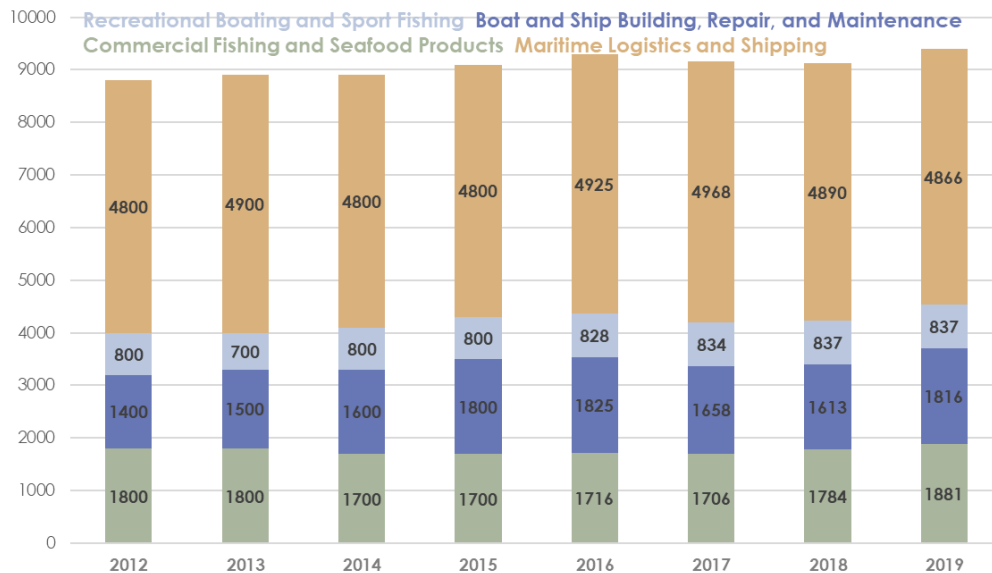
Exhibit 17. Historical Employment in Resource Related Industries, Oregon, 2001-2020



Source: Bureau of Labor Statistics, 2020

Maritime related employment has been slowly growing since 2012. All four major sub-industries grew slightly, with boat and ship building, repair, and maintenance growing the fastest at 30% over the 8-year period as seen in **Exhibit 18**. The industry overall grew from 8,800 to 9,400 jobs or 7%.

Exhibit 18. Maritime Related Employment by Sector, 2015-2019



Source: Bureau of Labor Statistics, 2020

Local Employment Forecast

A local employment forecast is a required component of an Economic Opportunities Analysis. This section summarizes the forecast methodology and outputs.

Methodology

Employment forecasts for Warrenton through 2040 involved a multistage approach, leveraging updated baseline employment data by industry, population projections, and forecasts for the broader Northwest Oregon region. The latest data by industry for Warrenton, Oregon is for 2017 and published by the U.S. Census Bureau's *Longitudinal Employer-Household Dynamics (LEHD)* data series, available through the Census Bureau's OnTheMap webtool. These employment figures by industry were estimated for 2019 by applying the Clatsop County countywide covered employment growth rates from 2017 to 2019 by matching industry available through the *Quarterly Census of Employment and Wages (QCEW)* series, published by the U.S. Bureau of Labor Statistics.

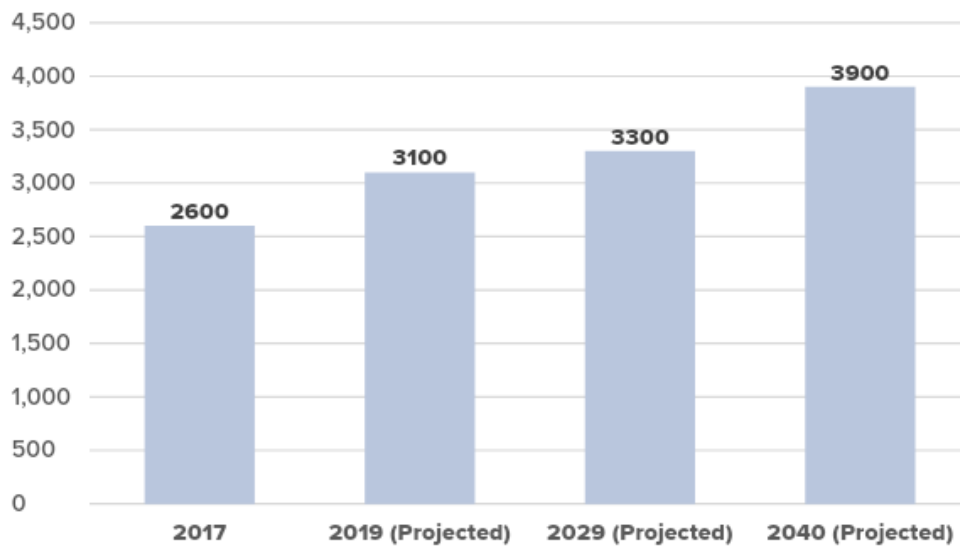
Forecast growth rates through 2029 were determined from existing employment forecasts by matching each industry to the same or nearest industry in the baseline. These growth rates came from two sources: 1) State of Oregon Employment Department's *Northwest Oregon Industry Employment Projections 2019-2029*; and 2) population projections for Warrenton included in the most recent Warrenton comprehensive plan, for 2027. Regional employment growth rates were applied to the non-consumer-based industries, such manufacturing, the belief being that industry growth among these industries in Warrenton should not meaningfully diverge from industry growth rates in the region overall. For so-called "non-basic" industries, i.e., industries that depend on local consumer spending, instead the imputed Warrenton population growth rate was applied. This was based on the assumption that, because these industries—such as retail—rely on household spending, they should grow at or near the same rate as population. The imputed compound annual growth rate for the Warrenton population was then applied for two more years to arrive at 2029 employment estimates for these industries.

Further projections through 2040 were based on the same growth rates extended from 2029 to 2040. These estimates thus represent a scenario whereby growth does not change between the first and second decade into the future.

Forecast Details

Warrenton has seen steady job growth from a low base over time, and **Exhibit 16** points toward this trend continuing over the long term. It should be noted that COVID-19 related economic impacts are ongoing and difficult to fully assess as they occur. Whatever the full extent of the damage, the region's economy will eventually return to growth, and pre-COVID trends may reassert themselves.

Exhibit 16. Warrenton Projected Employment Through 2040



Source: LEHD OnTheMap, 2020; Oregon Employment Department, 2020; Community Attributes, Inc., 2020

Warrenton’s location near Astoria and recent planning initiatives such as at Chelsea Gardens are likely to affect how the community grows going forward. With Astoria becoming supply-limited, second home buyers from outside the region may increasingly look to Warrenton.¹ They could become a significant demand driver for local businesses, but housing prices could rise faster than wages if large numbers of second home buyers begin looking to Warrenton. The Chelsea Gardens neighborhood’s use of varying housing typologies and sizes in a relatively dense, mixed use setting may allow housing that meets the price requirements of both second home and local buyers.² It will likely also support retail growth downtown and in the neighborhood itself.

Warrenton’s population growth will likely support concomitant growth in retail, and **Exhibit 17** demonstrates how that reality should allow retail to outperform its projected regional growth rate. Warrenton’s other industries are more dependent on regional conditions than local ones, and so they will probably grow similarly to the rest of northwest Oregon. This may cause retail trade to expand its position as the City’s leading employer by 2040.

¹ The Daily Astorian, “Population Growth Slows with Economy: Jobs, Housing Costs are Factors.” December 24, 2019. [Population growth slows with economy: Jobs, Housing Costs are Factors](#)

² The Daily Astorian, “Warrenton Approves Chelsea Gardens Neighborhood: Project Rebranded from Spur 104.” February 12, 2020. [Warrenton Approves Chelsea Gardens Neighborhood: Project Rebranded from Spur 104](#)

Exhibit 17. Projected Periodic and Cumulative Employment Growth by Industry Sector, City of Warrenton, 2019-2040

Industry Sector	2017	2019	2029	2040	CAGR, '19-'29	CAGR, '29-'40	Net New Jobs '19-'40
Accommodation and Food Services	284	294	318	345	0.8%	0.8%	51
Administration & Support, Waste Management...	132	137	140	143	0.2%	0.2%	6
Agriculture, Forestry, Fishing and Hunting	4	4	4	5	0.4%	0.4%	0
Arts, Entertainment, and Recreation	21	22	26	32	1.8%	1.8%	10
Construction	140	145	164	187	1.2%	1.2%	42
Educational Services	274	284	310	342	0.9%	0.9%	58
Finance and Insurance	33	34	36	38	0.5%	0.5%	4
Health Care and Social Assistance	155	161	176	193	0.9%	0.9%	33
Information	14	15	15	15	0.0%	0.0%	0
Management of Companies and Enterprises	0	0	0	0	0.0%	0.0%	0
Manufacturing	495	513	521	530	0.2%	0.2%	17
Mining, Quarrying, and Oil and Gas Extraction	0	0	0	0	0.0%	0.0%	0
Other Services (excluding Public Administration)	117	121	125	129	0.3%	0.3%	8
Professional, Scientific, and Technical Services	56	58	64	72	1.0%	1.0%	14
Public Administration	94	97	102	107	0.4%	0.4%	10
Real Estate and Rental and Leasing	18	19	21	23	1.0%	1.0%	4
Retail Trade	1,035	1,073	1,283	1,561	1.8%	1.8%	488
Transportation and Warehousing	87	90	92	94	0.2%	0.2%	4
Utilities	4	4	4	4	0.2%	0.2%	0
Wholesale Trade	22	23	23	24	0.3%	0.3%	1
Total	2,990	3,100	3,420	3,840	1.0%	1.1%	740

Source: LEHD OnTheMap, 2020; Oregon Employment Department, 2020; Community Attributes Inc., 2020

Key Trends and Forecasts Findings

The data points to several trends going forward, but it is important to first note that the COVID-19 pandemic will likely have significant impacts in the short and perhaps medium term. Some of Warrenton's top industries like Retail, Accommodation and Food Services, and Educational Services have been significantly impacted nationally by shutdowns and lost business. While Oregon has weathered the pandemic better than many states, those industries are still likely to contract this year, and it will take some time for them to recover.

Beyond the pandemic, the regional economy is projected to grow, but at a modest rate, while Warrenton's population is projected to grow at a steady clip. This divergence between local population growth and regional economic performance means that local industries that are population dependent, such as Retail, are likely to outperform industries tied more closely to the regional economy, such as manufacturing. Retail is therefore likely to extend its lead in jobs significantly and possibly become the predominant source of local employment.

Even though retail is likely to add more jobs than other sectors, current major jobs providers like manufacturing and construction are expected to remain viable and grow slowly. Warrenton's economy should continue to see some diversity in its job base going forward.

SUPPLY AND DEMAND OF EMPLOYMENT LAND

Employment lands in Warrenton consist of parcels located within six different commercial, industrial and mixed-use zoning categories, and impacted by various constraints such as wetlands, flood zones, and steep slopes. This section of the report surveys these lands to quantify the supply of vacant, partially vacant, and redevelopable parcels (or portions of parcels) that could reasonably accommodate future economic and spatial growth in the City of Warrenton for the 20-year planning time horizon and attempts to quantify the impact of various constraints.

Land Supply Methods and Analysis

Any analysis of buildable lands requires an estimate of the supply of land to meet expected growth. This EOA focuses only on employment lands, and therefore provides an estimate of the supply of land available to house employment-generating uses. To prepare this estimate, CAI assessed the City of Warrenton's zoning code to identify the subset of zones that allow for commercial and industrial enterprises and other employment-generating uses. Of the City's 16 zoning categories (**Exhibits 18 and 19**), six were selected based on their allowable uses and other factors as those that could accommodate "employment" uses. Non-employment zones, such as residential or conservation and habitat zones, were excluded. This selection process is summarized in **Exhibit 18**.

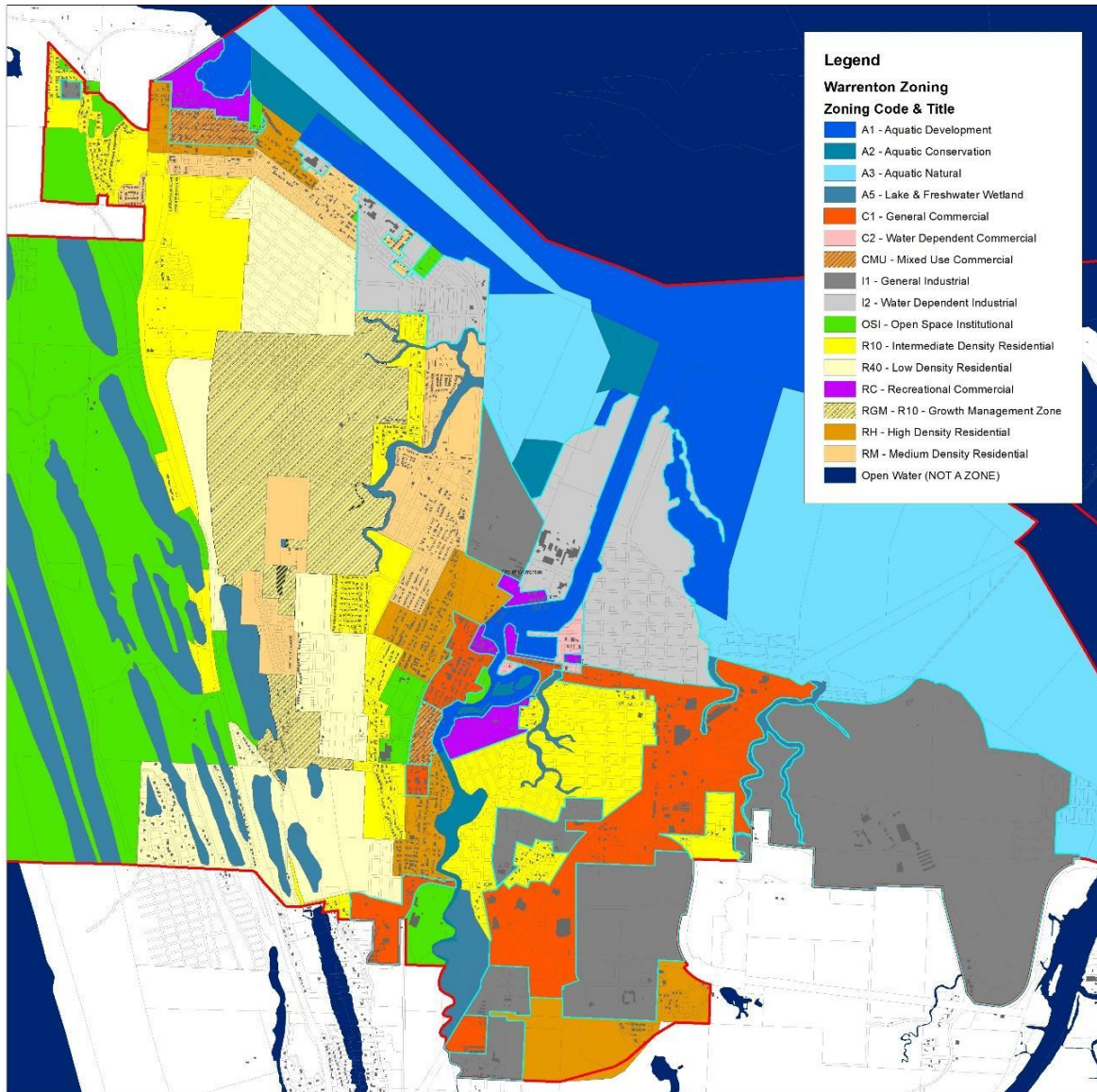
Exhibit 18. Warrenton Employment Zone Selection, 2020

Zone Code	Zoning Category	Acres
A1	A1 - Aquatic Development	987.2
A2	A2 - Aquatic Conservation	160.6
A3	A3 - Aquatic Natural	1,725.6
A5	A5 - Lake & Freshwater Wetland	1,031.6
C1	C1 - General Commercial	552.2
C2	C2 - Water Dependent Commercial	20.6
CMU	CMU - Mixed Use Commercial	55.4
I1	I1 - General Industrial	1,275.1
I2	I2 - Water Dependent Industrial	570.2
OSI	OSI - Open Space Institutional	1,746.3
R10	R10 - Intermediate Density Residential	960.8
R40	R40 - Low Density Residential	709.5
RC	RC - Recreational Commercial	102.2
RGM	RGM - R10 - Growth Management Zone	614.9
RH	RH - High Density Residential	376.8
RM	RM - Medium Density Residential	417.5



Type	Selected "Employment" Zones	Zoned Acres
Mixed Use Zones	CMU - Mixed Use Commercial	55.4
Commercial Zones	C1 - General Commercial	552.2
	C2 - Water Dependent Commercial	20.6
	RC - Recreational Commercial	102.2
Industrial Zones	I1 - General Industrial	1,275.1
	I2 - Water Dependent Industrial	570.2
		2,575.6

Exhibit 19. Map of City of Warrenton Zoning Districts, 2020



Source: Clatsop County, 2020; Community Attributes, Inc., 2020

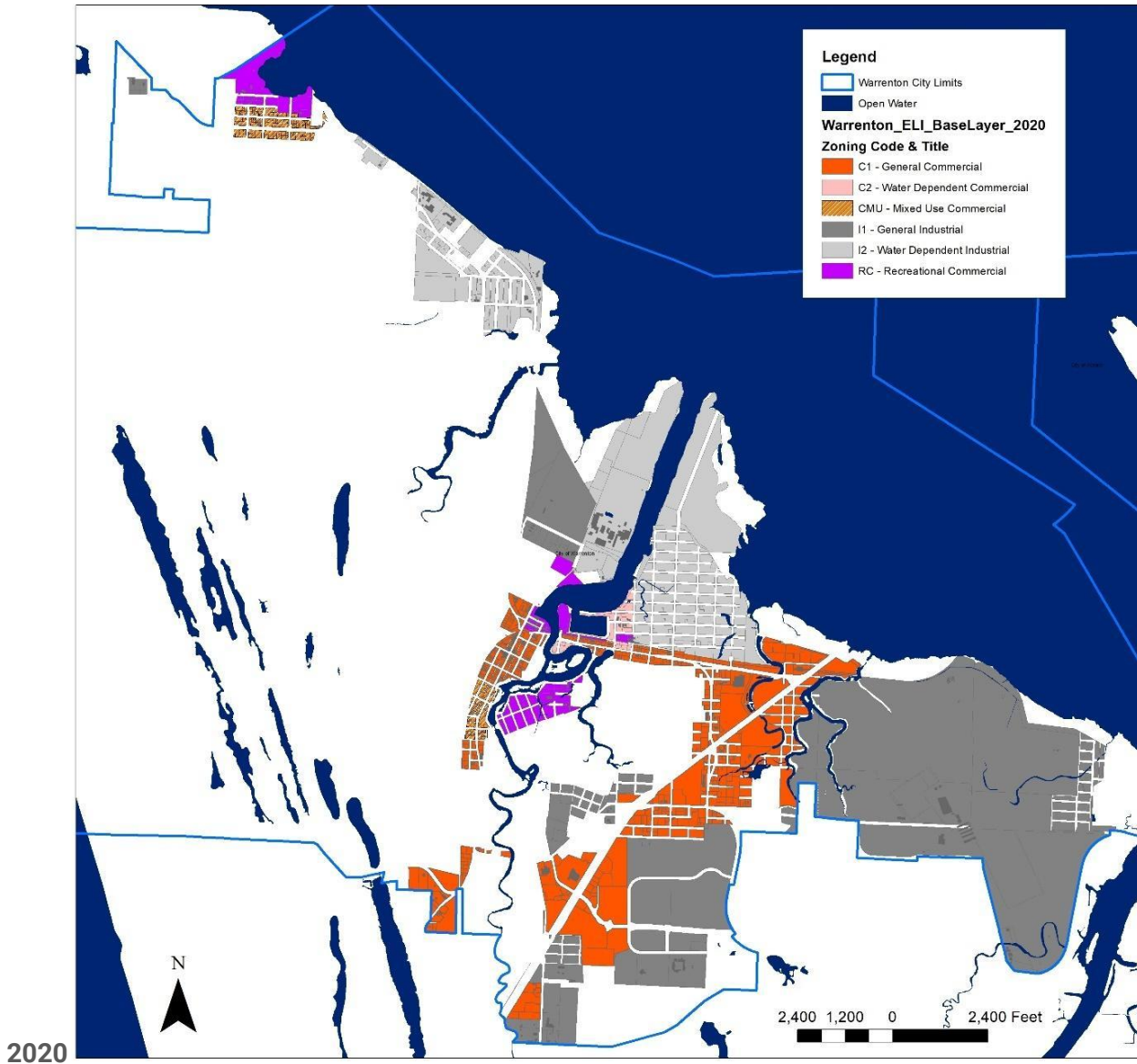
Employment Zones

The six selected “employment” zones include the: General Commercial, Water Dependent Commercial, and Recreational Commercial zones; the General Industrial and Water Dependent Industrial zones; and the Mixed-Use Commercial Zone.

Industrial employment lands are located predominantly along the Columbia riverfront, and along the southern border of the City; while commercial and mixed-use commercial zones are found in central Warrenton along the Skipanon River waterway, and in Hammond. The map and table in **Exhibits 20 and 21**,

respectively, illustrate and summarize all parcels comprising these employment lands, including both built and unbuilt or potentially redevelopable parcels.

Exhibit 20. Map of All (Built and Unbuilt) Employment Land Parcels by Zone, City of Warrenton,



Source: Clatsop County, 2020; Community Attributes, Inc., 2020

Exhibit 21. Summary of All Employment Land Parcels by Zone, City of Warrenton, 2020

Warrenton Zoning Category	Square Feet	Acres	Number of Parcels / Portions
I1 - General Industrial	51,439,015	1,180.9	180
I2 - Water Dependent Industrial	19,891,931	456.7	217
C1 - General Commercial	18,155,211	416.8	671
RC - Recreational Commercial	4,406,478	101.2	110
CMU - Mixed Use Commercial	1,485,464	34.1	211
C2 - Water Dependent Commercial	581,907	13.4	44
All Employment Zones	95,960,005	2,202.9	1,433

Source: Clatsop County, 2020; Community Attributes, Inc., 2020

Gross Buildable Land Supply

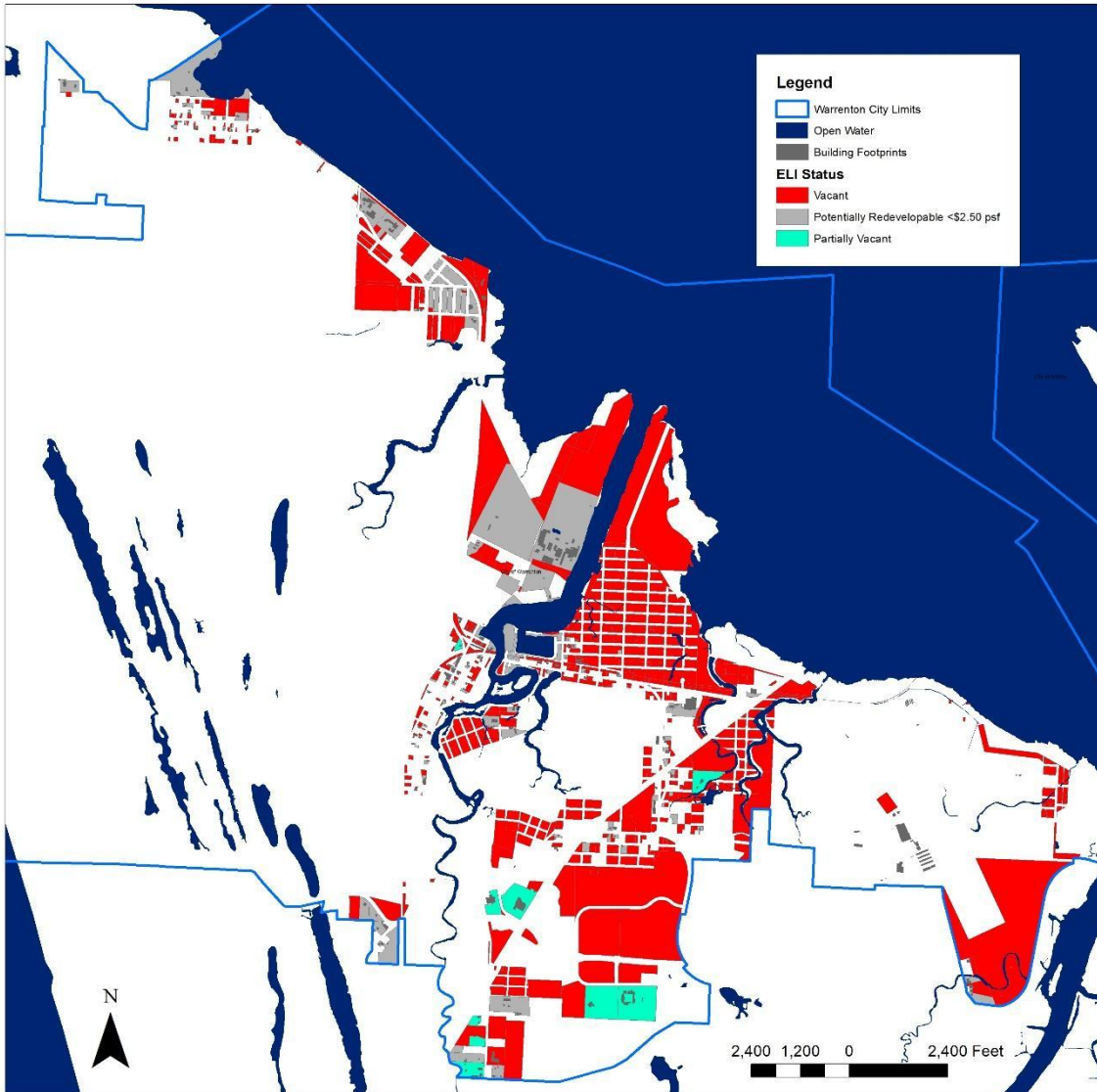
Of the employment lands identified in **Exhibit 20**, many parcels have already been developed, or are otherwise encumbered by critical areas, such that they cannot support additional employment. Other parcels are either vacant, partially vacant, or potentially redevelopable.

Using parcel-based data from the Clatsop County Assessor, CAI identified these vacant, partially vacant, and redevelopable employment lands from the six zones selected for the employment land inventory. The different categories were defined as such:

- **Vacant** lands are completely or almost completely unbuilt. Vacant lands were defined as parcels with very little or no improvement value per the Clatsop County assessor and are identified within the data by selecting parcels with \$.001 or less Real Market Improvement Value per square foot of land.
- **Partially Vacant** lands are identified on parcels that, while built, still contain significant unbuilt portions of land that could be further developed or subdivided and developed. These were manually identified parcels using a current building footprints layer, and checking against satellite imagery.
- **Potentially Redevelopable** lands are defined as parcels with limited improvements in terms of building value per square foot of land and are identified within the data by selecting parcels with \$.001 to \$2.50 Real Market Improvement Value per square foot of land.

Rights-of-way, parks, condominiums, and parcel remnants were removed the employment lands inventory, as were lands comprising the active use areas of the Astoria Regional Airport. The parcels resulting from this tiering and analysis are summarized and mapped in **Exhibits 22 and 23**.

Exhibit 22. Buildable Employment Lands Inventory by Type, City of Warrenton, 2020



Source: Clatsop County, 2020; Community Attributes, Inc., 2021

Exhibit 23 Buildable Employment Lands Inventory by Zoning Category, City of Warrenton, 2020

Source: Clatsop County, 2020; Community Attributes, Inc., 2021



The resulting parcels, in aggregate, were additionally segmented by size to further characterize the supply of buildable employment lands in Warrenton. **Exhibit 24** illustrates the total number of vacant, partially vacant, and potentially redevelopable parcels segmented by size and current City of Warrenton zoning designation. Most of the City’s medium-large and large buildable employment land sites are found in the industrial zones. While sub-one-acre sites can be found in every commercial and industrial zone in the City, and 1-5 acre sites can be found in all zones but CMU, Warrenton has only 11 large (20 acre +) sites and these are located in the I1, I2, and RC zones.

Exhibit 24 Buildable Employment Lands by Parcel Size, City of Warrenton, 2020

	Parcel Size				Total
	<1 Acre	1-5 Acres	5-20 Acres	>20 Acres	
C1 - General Commercial	310	40	12		362
C2 - Water Dependent	26	5			31
CMU - Mixed Use Commercial	63				63
I1 - General Industrial	68	36	15	6	125
I2 - Water Dependent Industrial	93	72	12	3	180
RC - Recreational Commercial	58	18	1	2	79
Total	618	171	40	11	840

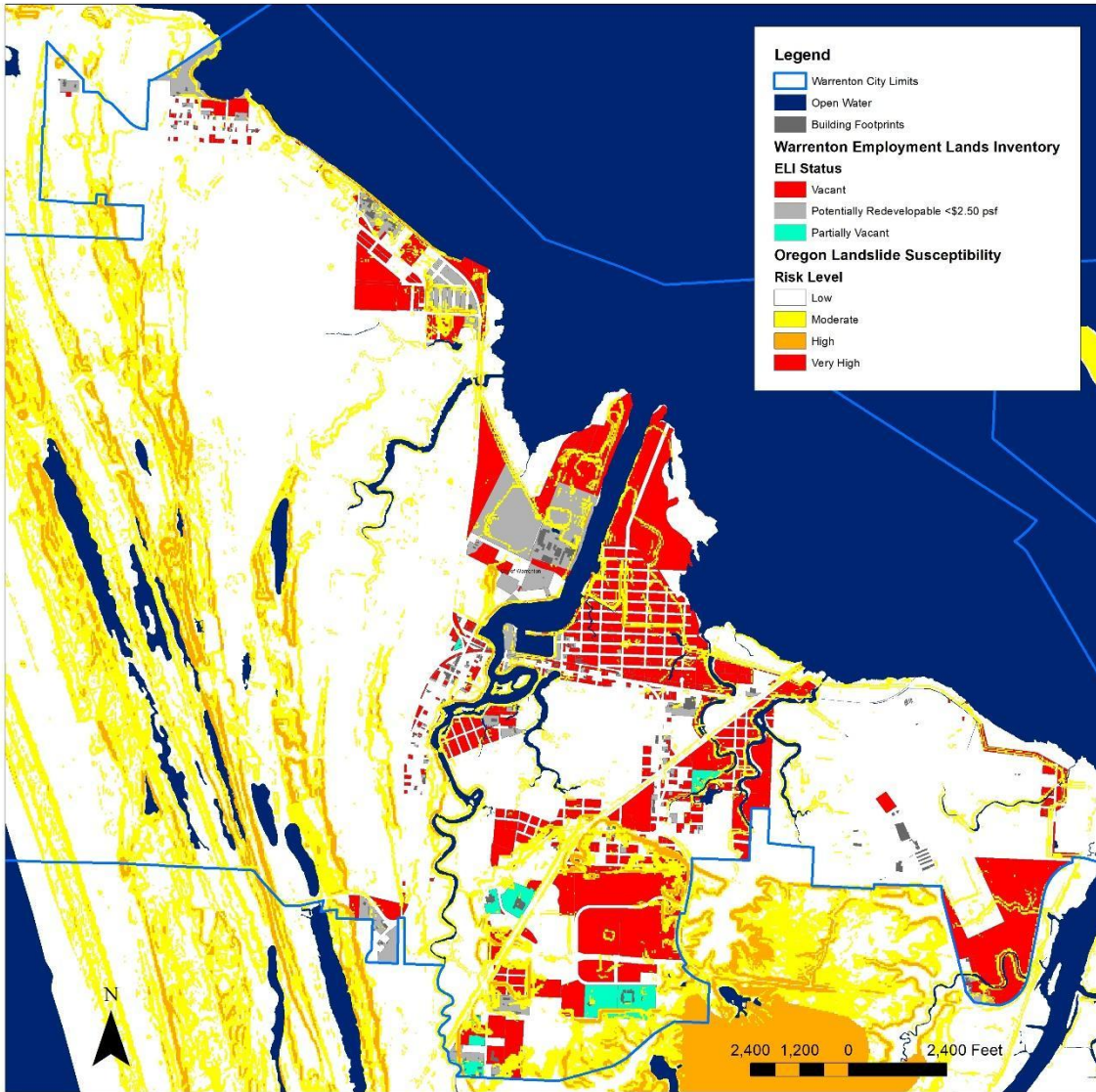
Source: Clatsop County, 2020; Community Attributes, Inc., 2021

Deductions from Buildable Employment Lands

Using geographic information systems (GIS) a calculated “gross supply” figure (in terms of number of parcels, and parcel acres) of Vacant, Partially Vacant, and Potentially Redevelopable employment lands was converted to a “net supply” figure by deducting all or portions of land area that may not be buildable.

Deductions were made for critical areas including wetlands, steep slopes, and landslide prone areas. As it happened, the City of Warrenton contained no significant steep slope or landslide susceptibility encumbrances of the inventoried buildable employment lands (**Exhibit 25**), so only wetland deductions were made.

Exhibit 25. Buildable Employment Lands Inventory and Landslide Susceptibility, City of Warrenton, 2020



Source: Clatsop County, 2020; Community Attributes, Inc., 2020

In the City of Warrenton, inventoried wetlands are categorized as either locally significant, or non-locally significant wetlands. While for the most part new development is not permitted on locally significant wetlands (exceptions are possible with a City of Warrenton Hardship Variance (see Section 16.156.080)), development is permitted, with conditions, on non-locally significant wetlands. To develop such areas, the following are required:

1. A State of Oregon Wetland Removal-Fill Authorization.
2. Written verification from the Warrenton Community Development Director, or designee, that the affected wetland area is classified as “non-significant”

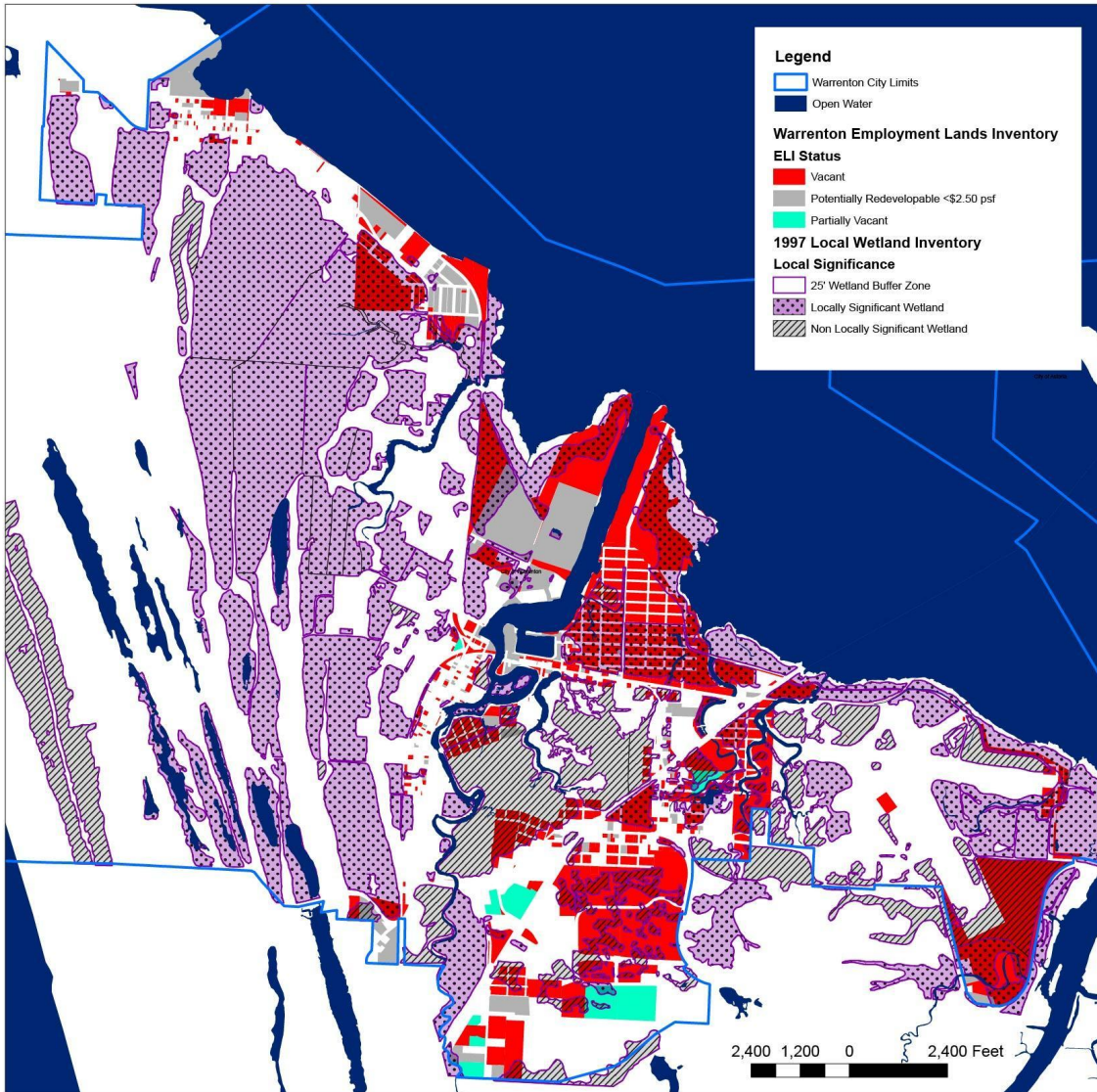
per the City of Warrenton Locally Significant Wetland Map dated October 17, 1997.

In addition, development within a 25' buffer around any wetland is also subject to:

1. A delineation of the wetland boundary, approved by the Oregon Division of State Lands.
2. A to-scale drawing that clearly delineates the wetland boundary, the proposed setback to the wetland area (if any), and existing trees and vegetation in the mapped wetland area.

For the purposes of this analysis, the additional expense imposed on a developer due to the encumbrances on development within non-locally significant wetlands was approximated by applying a 25% reduction to gross buildable parcel area lying within them, as calculated using GIS-based spatial analysis. Wetland buffers, developable with a wetland delineation only, were not reduced. **Exhibit 26** illustrates where the buildable employment lands overlap with wetlands and wetland buffers.

Exhibit 26. Buildable Employment Lands Inventory and Wetland Status, City of Warrenton, 2020



Source: Clatsop County, 2020; Community Attributes, Inc., 2020

Once all applicable wetlands-related deductions were made, an additional deduction of 17.5% (in line with County averages of 15%-20%) of the remaining parcel area was applied to account for the development of future public facilities and rights-of-way that would be required for new development.

Net Land Supply by Zone

After deductions, a net land supply is expressed in acres and represents an estimate of the amount of land within each set of zones that can accommodate additional employment through new, greenfield development or redevelopment of lower-intensity or lower-value uses. A summary of net land supply for each zone,

including an overview of the deductions applied to gross land supply to arrive at the final figure, is provided in **Exhibit 27**.

Exhibit 27. Gross & Net Buildable Employment Lands by Employment Zone, City of Warrenton,

1 Zoning Category			Tier 1	Tier 2	Tier 3	Total
			Vacant	Partially	Potentially	Vacant + Partially
			Lands***	Vacant	Redevelopable	Vacant + Potentially
				Lands***	Lands***	Redevelopable Lands
CMU - Mixed Use Commercial						
Total Zone Area (Acres)	55.39	Total Parcel Area (Acres)	6.89	0.00	2.45	9.34
Rights-of-Way / Parks /						
Condos / Slivers (Acres)**	21.29	a. Portion in Locally-Significant Wetlands****	2.09	0.00	0.00	2.09
Total Parcel Area, Exclusive of R.O.W.,	34.10	b. Portion in Non Locally-Significant Wetlands	0.00	0.00	0.00	0.00
Parks, Condos, Slivers (Acres)		c. Portion in Wetland Buffer Areas (25' around all wetlands)	0.23	0.00	0.00	0.23
		d. Portion Unencumbered / No Wetland or Buffer	4.57	0.00	2.45	7.02
		e. Portion in Steep Slopes and Slide Areas	0.00	0.00	0.00	0.00
		Total Gross Developable Area (d. + (b.-25%) + c.)	4.80	0.00	2.45	7.25
		Less Future Public Facilities & Infrastructure Set-Aside (17.5%)	0.84	0.00	0.43	1.27
		Total Net Buildable Parcel Area (Acres)	3.96	0.00	2.02	5.98
		Percent of Total Net Parcel Area in Zone (Acres)	12%	0%	6%	18%
		Number of Net Buildable Parcels (or portions if split-zoned)	47	0	16	63
2 Zoning Category						
			Tier 1	Tier 2	Tier 3	Total
			Vacant	Partially	Potentially	Vacant + Partially
			Lands***	Vacant	Redevelopable	Vacant + Potentially
				Lands***	Lands***	Redevelopable Lands
C1 - General Commercial						
Total Zone Area (Acres)	552.16	Total Parcel Area (Acres)	202.48	20.01	29.98	252.48
Rights-of-Way / Parks /						
Condos / Slivers (Acres)**	135.37	a. Portion in Locally-Significant Wetlands****	63.74	0.47	0.36	64.57
Total Parcel Area, Exclusive of R.O.W.,	416.79	b. Portion in Non Locally-Significant Wetlands	22.30	2.57	3.50	28.37
Parks, Condos, Slivers (Acres)		c. Portion in Wetland Buffer Areas (25' around all wetlands)	13.06	0.51	0.10	13.67
		d. Portion Unencumbered / No Wetland or Buffer	103.38	16.46	26.02	145.87
		e. Portion in Steep Slopes and Slide Areas	0.00	0.00	0.00	0.00
		Total Gross Developable Area (d. + (b.-25%) + c.)	133.17	18.90	28.75	180.81
		Less Future Public Facilities & Infrastructure Set-Aside (17.5%)	23.30	3.31	5.03	31.64
		Total Net Buildable Parcel Area (Acres)	109.86	15.59	23.72	149.17
		Percent of Total Net Parcel Area in Zone (Acres)	26%	4%	6%	36%
		Number of Net Buildable Parcels (or portions if split-zoned)	309	6	47	362
3 Zoning Category						
			Tier 1	Tier 2	Tier 3	Total
			Vacant	Partially	Potentially	Vacant + Partially
			Lands***	Vacant	Redevelopable	Vacant + Potentially
				Lands***	Lands***	Redevelopable Lands
C2 - Water Dependent Commercial						
Total Zone Area (Acres)	20.56	Total Parcel Area (Acres)	8.71	0.00	3.99	12.70
Rights-of-Way / Parks /						
Condos / Slivers (Acres)**	7.20	a. Portion in Locally-Significant Wetlands****	2.70	0.00	0.00	2.70
Total Parcel Area, Exclusive of R.O.W.,	13.36	b. Portion in Non Locally-Significant Wetlands	0.00	0.00	0.00	0.00
Parks, Condos, Slivers (Acres)		c. Portion in Wetland Buffer Areas (25' around all wetlands)	0.50	0.00	0.01	0.51
		d. Portion Unencumbered / No Wetland or Buffer	5.51	0.00	3.98	9.49
		e. Portion in Steep Slopes and Slide Areas	0.00	0.00	0.00	0.00
		Total Gross Developable Area (d. + (b.-25%) + c.)	6.01	0.00	3.99	10.00
		Less Future Public Facilities & Infrastructure Set-Aside (17.5%)	1.05	0.00	0.70	1.75
		Total Net Buildable Parcel Area (Acres)	4.96	0.00	3.30	8.25
		Percent of Total Net Parcel Area in Zone (Acres)	37%	0%	25%	62%
		Number of Net Buildable Parcels (or portions if split-zoned)	24	0	7	31

2020

4 Zoning Category

RC - Recreational Commercial

		Tier 1	Tier 2	Tier 3	Total
		Vacant Lands***	Partially Vacant Lands***	Potentially Redevelopable Lands***	Vacant + Partially Vacant + Potentially Redevelopable Lands
Total Zone Area (Acres)	102.24	Total Parcel Area (Acres)	33.40	0.00	62.52
Rights-of-Way / Parks / Condos / Slivers (Acres)**	1.08	a. Portion in Locally-Significant Wetlands****	1.12	0.00	2.50
Total Parcel Area, Exclusive of R.O.W., Parks, Condos, Slivers (Acres)	101.16	b. Portion in Non Locally-Significant Wetlands	16.56	0.00	5.20
		c. Portion in Wetland Buffer Areas (25' around all wetlands)	1.65	0.00	1.06
		d. Portion Unencumbered / No Wetland or Buffer	14.07	0.00	53.76
		e. Portion in Steep Slopes and Slide Areas	0.00	0.00	0.00
		Total Gross Developable Area (d. + (b.-25%) + c.)	28.14	0.00	58.72
		Less Future Public Facilities & Infrastructure Set-Aside (17.5%)	4.93	0.00	10.28
		Total Net Buildable Parcel Area (Acres)	23.22	0.00	48.45
		Percent of Total Net Parcel Area in Zone (Acres)	23%	0%	48%
		Number of Net Buildable Parcels (or portions if split-zoned)	64	0	15
				11%	79

5 Zoning Category

I1 - General Industrial

		Tier 1	Tier 2	Tier 3	Total
		Vacant Lands***	Partially Vacant Lands***	Potentially Redevelopable Lands***	Vacant + Partially Vacant + Potentially Redevelopable Lands
Total Zone Area (Acres)(See NOTE)	683.05	Total Parcel Area (Acres)	432.02	34.37	76.53
Rights-of-Way / Parks / Condos / Slivers (Acres)**	94.17	a. Portion in Locally-Significant Wetlands****	89.74	2.25	21.26
Total Parcel Area, Exclusive of R.O.W., Parks, Condos, Slivers (Acres)	588.88	b. Portion in Non Locally-Significant Wetlands	154.82	1.15	18.84
		c. Portion in Wetland Buffer Areas (25' around all wetlands)	47.17	1.15	3.37
		d. Portion Unencumbered / No Wetland or Buffer	140.29	29.82	33.06
		e. Portion in Steep Slopes and Slide Areas	0.00	0.00	0.00
		Total Gross Developable Area (d. + (b.-25%) + c.)	303.57	31.83	50.56
		Less Future Public Facilities & Infrastructure Set-Aside (17.5%)	53.13	5.57	8.85
		Total Net Buildable Parcel Area (Acres)	250.45	26.26	41.71
		Percent of Total Net Parcel Area in Zone (Acres)	43%	4%	7%
		Number of Net Buildable Parcels (or portions if split-zoned)	111	3	11

NOTE: The area zoned General Industrial comprising the Astoria Regional Airport has been removed from this figure.

6 Zoning Category

I2 - Water Dependent Industrial

		Tier 1	Tier 2	Tier 3	Total
		Vacant Lands***	Partially Vacant Lands***	Potentially Redevelopable Lands***	Vacant + Partially Vacant + Potentially Redevelopable Lands
Total Zone Area (Acres)	570.21	Total Parcel Area (Acres)	355.54	0.00	90.99
Rights-of-Way / Parks / Condos / Slivers (Acres)**	113.55	a. Portion in Locally-Significant Wetlands****	185.25	0.00	1.90
Total Parcel Area, Exclusive of R.O.W., Parks, Condos, Slivers (Acres)	456.66	b. Portion in Non Locally-Significant Wetlands	3.39	0.00	0.00
		c. Portion in Wetland Buffer Areas (25' around all wetlands)	11.27	0.00	1.37
		d. Portion Unencumbered / No Wetland or Buffer	155.63	0.00	87.72
		e. Portion in Steep Slopes and Slide Areas	0.00	0.00	0.00
		Total Gross Developable Area (d. + (b.-25%) + c.)	169.44	0.00	89.09
		Less Future Public Facilities & Infrastructure Set-Aside (17.5%)	29.65	0.00	15.59
		Total Net Buildable Parcel Area (Acres)	139.79	0.00	73.50
		Percent of Total Net Parcel Area in Zone (Acres)	31%	0%	16%
		Number of Net Buildable Parcels (or portions if split-zoned)	167	0	13

**Total Parcel Area Exclusive of R.O.W,
Parks, Condos, Slivers & Airport (Acres)** **1,610.94**

Total Net Supply **766.77**
Total Net Supply as Percentage of Total Parcel Area **48%**

* See Methodology for Collapsed Zone definitions.
 ** Rights-of-Way include roads, highways, etc. as delineated in the source data.
 *** See Methodology for definitions of "Vacant", "Partially Vacant", and "Potentially Redevelopable" lands.
 **** Not Developable. See Methodology for detailed explanation of Critical Deductions.

Source: Clatsop County, 2020; Community Attributes, Inc., 2020

Land Demand Methods and Analysis

Translating a growth forecast into demand for employment land requires an understanding of how much square footage can be built on any given parcel and an understanding of how many square feet are required to house each employee. These variables are expressed below in a series of equations, each of which is explained to clarify the process of calculating demand for employment land.

$$(new\ employment\ by\ zone) \times (square\ feet\ per\ employee) = (built\ square\ feet\ demanded\ by\ zone)$$

New employment is given in the forecast. **Exhibit 28** illustrates the allocation of new jobs from each industry sector to an aggregate zone category used in the land supply analysis. Because mixed-use zones are designed to capture a broad array of uses, and because the City does not have a significant amount of developable mixed-use-zoned land, it is assumed that the majority of all jobs will be accommodated on either commercial or industrial lands.

Exhibit 28. Allocation of Forecasted Jobs to Zone Categories

Industry Sector	2019	2040	Net New Jobs '19-'40	Zone Category
Accommodation and Food Services	294	345	51	Commercial
Administration & Support, Waste Management...	137	143	6	Commercial
Agriculture, Forestry, Fishing and Hunting	4	5	0	Industrial
Arts, Entertainment, and Recreation	22	32	10	Commercial
Construction	145	187	42	Industrial
Educational Services	284	342	58	Commercial
Finance and Insurance	34	38	4	Commercial
Health Care and Social Assistance	161	193	33	Commercial
Information	15	15	0	Commercial
Management of Companies and Enterprises	0	0	0	Commercial
Manufacturing	513	530	17	Industrial
Mining, Quarrying, and Oil and Gas Extraction	0	0	0	Industrial
Other Services (excluding Public Administration)	121	129	8	Commercial
Professional, Scientific, and Technical Services	58	72	14	Commercial
Public Administration	97	107	10	Commercial
Real Estate and Rental and Leasing	19	23	4	Commercial
Retail Trade	1,073	1,561	488	Commercial
Transportation and Warehousing	90	94	4	Industrial
Utilities	4	4	0	Industrial
Wholesale Trade	23	24	1	Commercial
Total	3,100	3,840	740	

Source: U.S. Census Bureau's Longitudinal Employer-Household Dynamics (LEHD), 2020; Community Attributes, Inc., 2020

The number of built square feet per employee varies greatly across industry sectors and geographies. For example, office uses in major metropolitan areas are seeing

reductions in the number of square feet needed per employee due to changes in office design and employee preference; an assumption for the square footage needed per office employee in downtown Portland may range from 200-300 square feet, while smaller or rural communities, where high-rise, technology-centered offices and tenants are less common, may require a higher and more traditional number of square feet. Other commercial uses, such as retail, generally require a more moderate 500-700 square feet per employee, while some industries, like wholesale trade, may need more than 1,000 square feet per employee. Because of this broad range, and because Warrenton's employment forecast shows significant increases in retail jobs, the assumption used in this study is 500 square feet per employee as an average across all commercial uses.

Multiplying new employment in each industry by the square footage required to house an average employee across the industries in each zone category yields the number of building square feet needed to accommodate the forecasted employment growth.

$$(built\ square\ feet\ demanded\ by\ zone) / (FAR) = (land\ square\ feet\ demanded\ by\ zone)$$

To obtain an estimate of how much square footage can be built on any given parcel, a representative floor-to-area ratio (FAR) is applied to each zone category. FAR is the ratio of total built square footage to total land square footage, and is expressed as a decimal. For the purposes of this analysis, broadly representative assumptions are used for FAR, informed by a literature review and past buildable lands experience. This study estimates commercial FAR at .25, with a lower FAR for industrial development, and a higher FAR for mixed-use (which, if present, may be more likely to feature two- or three-story buildings as a means to integrate the different uses).

Dividing the built square feet demanded by the FAR yields the number of land square feet needed to accommodate the forecasted employment growth.

$$(land\ square\ feet\ demanded\ by\ zone) / 43,560 = (acres\ demanded\ by\ zone)$$

There are 43,560 square feet in each acre. Dividing the land square feet demanded by zone by 43,560 converts the land demand estimate into acres needed to accommodate the forecasted employment growth in each zone category. **Exhibit 29** provides a summary of land demand, based on forecasted employment growth, by the general commercial and industrial zone categories used in the land supply analysis.

Exhibit 29. Employment Land Demand Summary

Zone Category	Net New Jobs '19-'40	Assumed SF per Job	Assumed FAR	Land Demand (acres)
Commercial	686	500	0.25	31.5
Industrial	63	1,500	0.15	14.5
Mixed-Use	0	500	0.35	0

Source: U.S. Census Bureau's Longitudinal Employer-Household Dynamics (LEHD), 2020; Community Attributes, Inc., 2020

Reconciling Land Supply With Demand

In total, the foregoing analyses indicates indicate a supply of **767 acres** of vacant, partially vacant, or redevelopable employment land spread across 840 parcels in Warrenton to accommodate future employment growth for the 20-year planning time horizon. This represents about 48% of the total current land area in Warrenton's six employment-supporting zones.

The total projected demand for all types of employment land for the same period totals only **46 acres**. These analyses indicate that the City of Warrenton has more than enough land – a total surplus of **649 acres** – to meet its forecast growth and would have enough even if growth were to significantly outpace current forecasts. **Exhibit 30** compares this demand with supply by commercial and industrial zone categories, indicating the surpluses for each.

Exhibit 30. Comparison of Employment Land Demand with Supply

Zone Category	Net New Jobs '19-'40	Assumed SF per Job	Assumed FAR	Land Demand (acres)	Land Supply (acres)	Surplus (Shortage)
Commercial	686	500	0.25	31.5	157.4	125.9
Industrial	63	1,500	0.15	14.5	531.7	517.2
Mixed-Use	0	500	0.35	0	6.0	6.0

Source: U.S. Census Bureau's Longitudinal Employer-Household Dynamics (LEHD), 2020; Community Attributes, Inc., 2020

While it would appear that Warrenton has more than sufficient supply in terms of raw land acreage to accommodate forecasted growth, wetlands and infrastructure provision represent significant challenges to real-world development of these lands. Given the additional regulatory complexity around development in non-significant wetland areas and wetland buffers (including oversight by multiple federal and state agencies such as the Army Corps of Engineers and the Oregon Department of State Lands (DSL)), the City of Warrenton would do well to consider specific policies or regulatory changes in the future to address these constraints and other barriers to development.

Site Size Considerations

In addition to wetlands, infrastructure and other constraints, site size and configuration are also important factors to consider when assessing the suitability of Warrenton’s employment land supply for projected demand for the 20-year planning period.

In order to model the segmentation of demand for Warrenton’s employment land by site size, a job density figure was first calculated for each zone category (commercial and industrial) based on existing employment and developed parcel statistics for Warrenton as of 2019 (**Exhibit 31**).

Exhibit 31. Job Density by Zone Category, City of Warrenton, 2019

Zone Category	Total Jobs (2019)	Total Developed Parcel Area per Category, 2019 (Ac)*	2019 Job Density (Jobs per Developed Acre)
Commercial (& CMU)	8,275	195.0	42.4
Industrial	94	56.1	1.7

** Total developed parcel area is exclusive of rights-of-way, parks, condominiums, and parcel remnants.*

Source: U.S. Census Bureau’s Longitudinal Employer-Household Dynamics (LEHD), 2020; Clatsop County Assessor, 2019; Community Attributes, Inc., 2020

In **Exhibit 32**, this job density figure by category was combined with a measure of the average size of developed sites by zone to estimate the number of new sites needed at that average size for each zone. Forecast employment was apportioned by zone based on land supply available for each. As an example, the average size of developed sites in Warrenton’s C1 General Commercial Zone was .61 acres in 2019. To accommodate a growth of 554 jobs in that zone at an average commercial job density of 42.4 jobs per acre, Warrenton would need around 21 sites of that size.

Exhibit 32. Existing Average Site Size & Projected New Sites Needed

Existing Zone	Average Size of Developed Sites (Ac)	Net Employment Land Supply (%)*	New Employment by Zone*	2019 Job Density (Jobs per Developed Ac)	Number of New Sites Needed
Commercial					
C1 - General Commercial	0.61	63%	554	42.4	21
C2 - Water Dependent Commercial	0.22	4%	31		3
CMU - Mixed Use Commercial	0.18	3%	22		3
RC - Recreational Commercial	0.51	30%	266		12
Industrial					
I1 - General Industrial	0.77	60%	2	1.7	2
I2 - Water Dependent Industrial	1.66	40%	2		1

* Percent figure refers to percent of total commercial or industrial net employment land inventory acreage for each zone. See Exhibit 27.

** Apportioned by zone according to proportions of net employment land inventory supply available to accommodate remaining growth for the period 2019-2040.

Source: U.S. Census Bureau’s Longitudinal Employer-Household Dynamics (LEHD), 2020; Clatsop County Assessor, 2019; Community Attributes, Inc., 2020

The average size of developed sites ranges from .18 acres for the CMU Commercial Mixed-Use zone up to .61 for the General Commercial zone, and from .77 acres for I1 General Industrial sites up to 1.66 acres for I2 Water Dependent sites. In total, the exercise estimates a demand of almost 40 parcels under one acre in size for Warrenton’s commercial zones, compared with a supply of almost 457 (see **Exhibit 24** in the Land Supply section) commercially-zoned parcels of that size. For industrial lands, two three-quarter acre sites and one 1.66 acre site could be easily accommodated given the supply of 68 and 72 sites of those sizes in Warrenton’s land supply, respectively (**Exhibit 24**).

Average parcel sizes are, of course, based on a range of developed parcel sizes and this too can be illustrative in considering the size of sites likely to be needed for future growth. **Exhibit 33** illustrates demand by a range of sizes based on the actual distribution (histogram) of currently developed site sizes. For commercially-zoned (including CMU) lands in Warrenton in 2019, developed site sizes ranged from .04 to 17.3 acres. For industrially-zoned lands, developed site sizes ranged from .03 to 4.7 acres. If the aggregate demand of 39 commercial sites and 3 industrial sites were mapped to the current distribution of site sizes, the results would approximate those in **Exhibit 33** – again with a significant surplus of each site size in supply.

Exhibit 33. Land Demand by Current Developed Site Distribution, City of Warrenton, 2019

Zone Category	Range of Site Sizes				Total
	<1 Acre	1-5 Acres	5-20 Acres	>20 Acres	
Commercial Demand	36	2	1	0	39
Commercial Supply	457	63	13	2	535
Surplus (Shortage)	421	61	12	2	496
Industrial Demand	2	1	0	0	3
Industrial Supply	161	108	27	9	305
Surplus (Shortage)	159	107	27	9	302

Source: U.S. Census Bureau’s Longitudinal Employer-Household Dynamics (LEHD), 2020; Clatsop County Assessor, 2019; Community Attributes, Inc., 2020

Commercial Zones Discussion

Demand for commercial land is forecast to total 31.5 acres through 2040. That is a small percentage of all vacant and redevelopable commercial land in Warrenton and

suggests that Warrenton has more than 204 acres of surplus potentially buildable commercial land available (plus some mixed-use land that could accommodate commercial uses) should commercial employment increase faster than the forecast suggests. One consideration is the availability of water-dependent commercial land; if a significant portion of the commercial demand requires water access, then it may exceed the number of water-dependent acres available, even if there are other non-water-dependent commercial lands available.

- **Commercial Mixed-Use Zone** includes about 55 acres of parcel area. Of that sum, 21 acres are excluded from gross land supply due to rights of way, parks and other parcel limitations, resulting in 34 acres of total parcel area. After deductions for critical areas and future public facilities (described in Methods section, above), a net supply of 63 parcels totaling approximately 6 acres is buildable – either vacant, partially vacant, or potentially redevelopable.
- **General Commercial Zone** includes about 552 acres of parcel area. Of that sum, 135 acres are excluded from gross land supply due to rights of way, parks and other parcel limitations, resulting in 417 acres of total parcel area. After deductions for critical areas and future public facilities (described in Methods section, above), a net supply of 362 parcels totaling approximately 149 acres is buildable – either vacant, partially vacant, or potentially redevelopable.
- **Water Dependent Commercial Zone** includes about 21 acres of parcel area. Of that sum, 7 acres are excluded from gross land supply due to rights of way, parks and other parcel limitations, resulting in 13 acres of total parcel area. After deductions for critical areas and future public facilities (described in Methods section, above), a net supply of 31 parcels totaling approximately 8.25 acres is buildable – either vacant, partially vacant, or potentially redevelopable.
- **Recreational Commercial Zone** includes about 102 acres of parcel area. Of that sum, 1 acre is excluded from gross land supply due to rights of way, parks and other parcel limitations, resulting in 101 acres of total parcel area. After deductions for critical areas and future public facilities (described in Methods section, above), a net supply of 79 parcels totaling approximately 72 acres is buildable – either vacant, partially vacant, or potentially redevelopable.

Industrial Zones Discussion

Demand for industrial land is anticipated to total 14.5 acres through 2040. That is a small percentage of all vacant and redevelopable industrial land in Warrenton and suggests that Warrenton has more than 532 acres of surplus potentially buildable industrial land available should industrial employment increase faster than the forecast suggests. As with the commercial categories, a consideration is the availability of water-dependent industrial land; if a significant portion of the industrial demand requires water access, then it may exceed the number of water-dependent acres available, even if there are other non-water-dependent industrial lands available.

- **General Industrial Zone** includes about 1683 acres of parcel area. Of that sum, 94 acres are excluded from gross land supply due to rights of way, parks and other parcel limitations, resulting in 589 acres of total parcel area (the presently active Astoria Regional Airport parcels were also removed from this analysis). After deductions for critical areas and future public facilities (described in Methods section, above), a net supply of 125 parcels totaling approximately 318 acres is buildable – either vacant, partially vacant, or potentially redevelopable.
- **Water Dependent Industrial Zone** includes about 570 acres of parcel area. Of that sum, 114 acres are excluded from gross land supply due to rights of way, parks and other parcel limitations, resulting in 456 acres of total parcel area. After deductions for critical areas and future public facilities (described in Methods section, above), a net supply of 180 parcels totaling approximately 213 acres is buildable – either vacant, partially vacant, or potentially redevelopable.

Land Supply and Demand Summary

Warrenton’s available lands span a range of site sizes. For commercial uses, most of the employment forecasted is in retail or accommodation and food services. Warrenton has expressed a desire to focus growth in these sectors on smaller-footprint, non-big box retail in downtown. To that end, there are no fewer than 19 parcels of less than one acre and zoned for commercial use in downtown Warrenton alone. Larger retail development can be accommodated as well, as Warrenton has several contiguous redevelopable commercial parcels of three to five acres, which could be assembled for larger projects. Only 14.5 acres of commercial land are projected to be needed to meet demand, and Warrenton has multiple industrial sites of less than five acres, five to 10 acres, and more than 10 acres, many of which are contiguous and could be assembled to accommodate larger projects.

COMMUNITY ECONOMIC DEVELOPMENT POTENTIAL

Initial stakeholder engagement – including advisory committee meetings, stakeholder interviews, and four industry focus group meetings – conducted in the first months of 2021 generated a broad array of insights and ideas around the direction and types of economic growth that may be possible for the City of Warrenton.

The following major themes derive from a synthesis of the foregoing data-driven analysis of economic opportunities, as well as from these rich discussions with area stakeholders, residents, officials, and businesses.

Infrastructure is both a challenge and an opportunity.

Water, water, everywhere. Parts of Warrenton are undevelopable or present challenges due to the extensive presence of wetlands and flood zones and related cost burdens associated with mitigation and / or new infrastructure provision. At the same time, wetlands confer incalculable benefits to the city and its economy via the provision of valuable ecosystem services and as eco-tourism and recreation assets. In addition, proximity to maritime industry infrastructure, access to supplies of pristine freshwater, and related economic assets and anchors in the shipping, fishing, tourism and other industries represent tremendous, underutilized potential for sustainable economic growth in legacy and emerging industries.

Creative solutions to revenue can drive unique growth.

Tax revenues for the City of Warrenton are not sustainable. Significant growth may be difficult to achieve through new development alone. Warrenton cannot build its way out of a fiscally constrained tax structure (1.6 tax rate) However, creative development solutions such as licensing, payment in lieu of taxes, and public-private partnerships could yield both new sources of revenue, as well as result in unique, creative economic assets to further differentiate the City's offerings from those of its neighbors in Clatsop County.

Development should provide for visitors while remaining focused on residents.

We heard time and again that while tourism, hospitality, and entertainment are key and valued pieces of the local economy and represent important avenues of growth, it is imperative that economic development in Warrenton also remain focused on local residents and businesses and what they value most about their communities. This may also include a shift away from big-box retail growth in favor of opportunities in other industries with broader benefits to local residents.

Local workforce development and retention is key.

Local industries, including commercial fishing and processing, logging and timber, retail, and tourism / hospitality all speak of the need to better transition and retain increasingly skilled workers from local educational institutions into needed roles in their sectors – and to find ways to retain them. Strengthening partnerships among Career Technical Education programs and Clatsop Community College is a key opportunity for the region to be economically competitive.

Apart from strengthening the linkages between schools or training and industry, housing is a key part of the puzzle for greater Warrenton.

Local natural resources provide quality of life *and* economic sustenance.

While half of Warrenton’s economy is still “fish and trees,” these same resources are also at the source of the region’s tremendous and unique quality of life. As such, they must be both closely managed for sustainability, and effectively leveraged to attract and retain new and expanded economic opportunities in the form of skilled workers, residents, new companies, entrepreneurs, and private investment.