

DATE: March 16, 2018  
TO: Members of the Project Steering Committee, Cascade Locks Airport Project  
FROM: Terry Moore and Matt Craigie  
SUBJECT: **Cascade Locks Economic Development Conditions Report**

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## Summary

The demographic profile of Cascade Locks shows a community that is growing and aging at the same time. Most households are comparatively small, and incomes are less than in other parts of the county and state. The local population is projected to continue to grow in the coming decades.

The local economy is concentrated in tourism-focused industries (accommodation and food service) and also manufacturing. Few Cascade Locks residents work within the city; the majority of Cascade Locks residents leave the community for work, presumably headed to the Portland region to the west, or Hood River to the east. The local unemployment level is much higher than unemployment levels in Hood River County and Oregon.

The local real estate market has seen a mixed level of activity in recent years. Residential development activity has increased, with 2016 seeing a record number of residential housing permits. Residential development rates suggest that there is an increased demand for housing within the community. Given the rapidly climbing housing costs in Portland and Hood River, Cascade Locks is likely an attractive and affordable location for households able to commute longer distances to work.

The commercial real estate market has been less active, but activity has reportedly increased in recent months.

In the aggregate, available land for development is sufficient to accommodate the community's growth that is projected for the next 20 years. However, much of the development-ready land is dispersed across the community, and other developable land is not appropriately zoned, or cannot be easily unlocked for development because of issues of access, infrastructure challenges, etc. Turning these properties into productive land uses—new homes or businesses—could prove to be a challenge.

Combined, these trends illustrate a small city that is greatly influenced by the broader region and that is experiencing increased growth. Community economic challenges may arise as a result of a continuation of accelerated demand for housing and from an imbalance between jobs and population.

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# 1 Context

## 1.1 Background and Purpose

The State of Oregon owns a 37-acre property in Cascade Locks that is the home to the Cascade Locks State Airport (CZK). CZK serves as an emergency airport for small planes flying through the Columbia River gorge area between Oregon and Washington. The landing strip is available to small planes during inclement weather, which can arrive quickly and unpredictably in the Gorge. Otherwise, the airport has few take-offs and landings, no commercial usage, and no services for aviators.

The City of Cascade Locks is a small but growing community in a scenic location that is within commuting distance on Interstate 84 of the Portland-Vancouver metropolitan area. Its ability to grow, however, will become increasingly constrained by the finite supply of buildable land: it is bounded by the Columbia River to the north and the Mt. Hood National Forest to the south, and surrounded by the Columbia River Gorge National Scenic Area.

The community has also struggled economically. While the unemployment rate in Hood River County is quite low, the unemployment rate in Cascade Locks is over 14 percent. Local stakeholders interested in economic development have tried to increase job opportunities for residents. Ten years ago, plans for a proposed casino were canceled. This casino would have provided jobs and increased local economic activity. More recently, the State of Oregon blocked the construction of a water bottling plant that would have provided family wage jobs and increased City tax revenue.

The Port of Cascade Locks, which is charged with promoting economic development within the community, sees several tradeoffs related to the airport: (1) the community needs land for growth and economic stimulus, (2) the airport has a lot of vacant land that gets little use, but (3) those who do use the airport value it highly, and many residents value the services that the airport provides in an emergency. *To evaluate these tradeoffs, the Port desires an objective analysis of the airport property to explore all potential future uses of the land.*

This memorandum summarizes demographic and economic conditions in Cascade Locks. Its focus is on the amount and type of future population and employment growth that could occur in Cascade Locks, and on the implications of that growth for residential, industrial, and commercial development.

The purpose of this memorandum is to provide enough information for the Project Steering Committee to understand the economic conditions that will influence future development at the Cascade Locks Airport. The analysis in this memorandum aims at providing sufficient information for an informed discussion; it is not comprehensive assessment. Further analysis may be warranted after the Project Steering Committee reviews this memorandum and provides comments.

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## 1.2 Framework

The analysis in this memorandum focuses on demographic and economic conditions. It was conducted midway through the Cascade Locks Airport Project. A similar analysis, led by the aviation engineering firm Century West Engineering, focuses on historical, current, and future potential of aviation uses at the airport.

This memorandum describes the characteristics of the local population and the local economy that will influence any future land use decisions at the airport or in other parts of the community. It reports data from several sources. We use U.S. Census data to understand demographic, housing, and economic trends. We also use data from other Federal government agencies—the Bureau of Labor Statistics, and the Bureau of Economic Analysis, to further complete the story of local economic trends. We have also gathered data through conversations with local and regional officials and stakeholders. Combined, these data—both quantitative and qualitative—tell the story of where the community and economy of Cascade Locks is today, and where it appears to be headed.

## 1.3 Memorandum Organization

This memorandum is structured to provide a clear presentation of the demographic and economic forces that will affect any future land use decision at the Cascade Locks Airport. The following sections include:

- **The Airport Property** - An examination of the current conditions at Cascade Locks Airport property.
- **Demographic Trends – Key Findings** - A discussion of the City’s demographic composition and recent demographic trends.
- **Economic Trends – Key Findings** - An evaluation of local economic indicators, including unemployment and business data.
- **Cascade Locks Real Estate Trends** – An overview of the local real estate market.
- **Land Capacity Analysis** - A high-level review of the competitive supply of developable land within the community.

Following these sections, these data are then synthesized into a conditions summary.

## 2 Conditions: Historical and Existing

### 2.1 The City of Cascade Locks

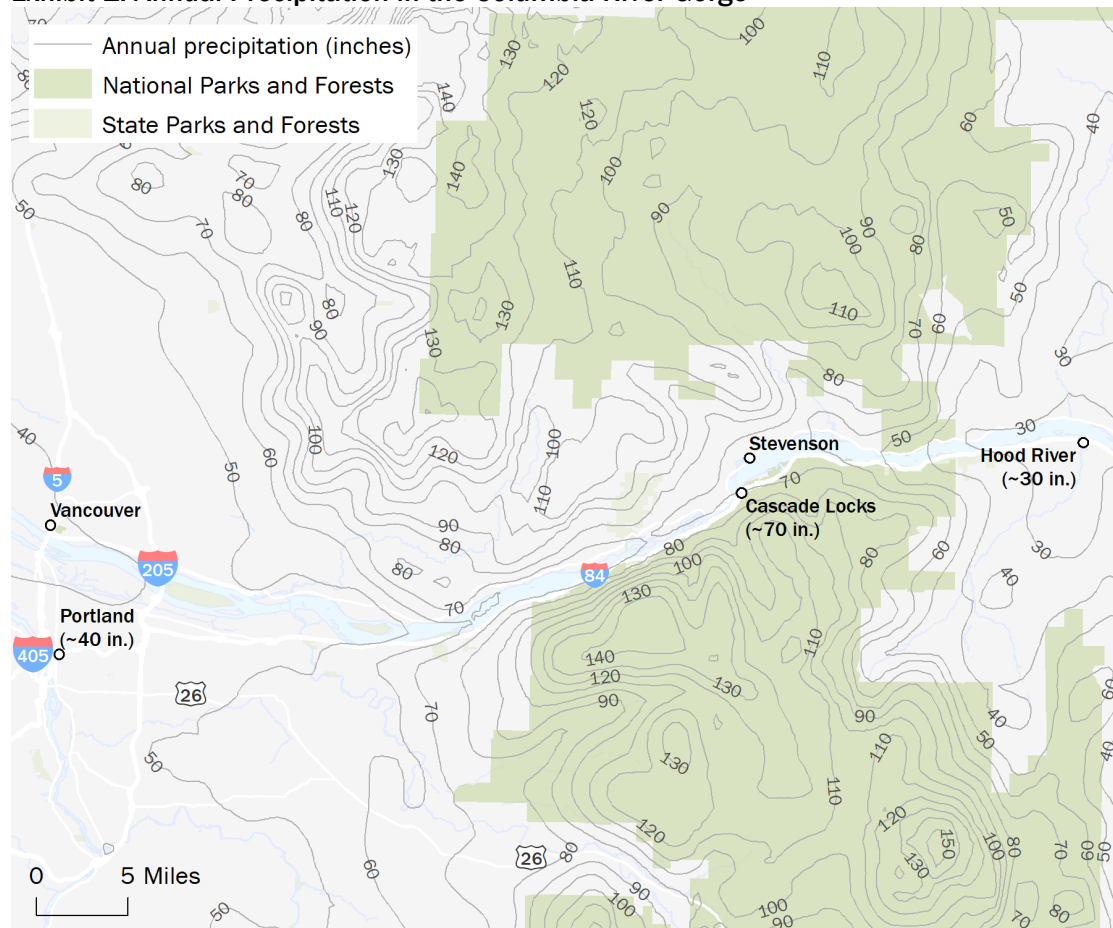
The City of Cascade Locks is located in Hood River County, Oregon, on the south side of the Columbia River gorge. The City has historically been, and continues to be, a crossroads for travelers heading in all four directions. Cascade Locks is the location of “The Bridge of the Gods,” one of three bridge crossings over the Columbia River in the Gorge area, and the first bridge after the Interstate 205 bridge that drivers come to when traveling east from Portland

along Interstate 84. Cascade Locks is also a notable stop along the Pacific Crest Trail; a hiking route that runs between Mexico and Canada.

Cascade Locks has a noticeably different local climate than Portland to the west and the City of Hood River to the east. The “Rain Shadow” created by the Cascade Range of mountains runs almost directly through the city. This means that Cascade Locks receives more rain than the City of Hood River, and other locations to the east (see Exhibit 1).

In addition to the increased rainfall that is attributable to the Cascade Mountain Range, Cascade Locks is also located where the Columbia River Gorge narrows. The narrowing of the gorge creates turbulent weather that comes and goes without much warning. These two factors—the wet climate and the turbulent weather—create an unpredictable route for airplanes flying through the area. It is for this reason that the Cascade Locks airport was constructed in the late 1940s and why it still exists today.

**Exhibit 1. Annual Precipitation in the Columbia River Gorge**



Source: 30-year annuals, 1981-2010, PRISM Climate Group, Oregon State University, <http://prism.oregonstate.edu>, created 2 Mar 2018

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## 2.2 The Airport Property

### 2.2.1 Historical and Current Land Use

Cascade Locks Airport was built as an emergency landing airstrip in 1949 due to the poor weather conditions in the Columbia River Gorge. The construction of the airport was partially funded through the Federal Airport Aid Act of 1946. Both Oregon and Washington provided the remaining funds, and Oregon paid for the cost of the land in Cascade Locks.<sup>1</sup> The airport remains an emergency landing airstrip. The airport is classified as a Category V—RAES (Remote Access/Emergency Service) airport in the 2007 Oregon Aviation Plan (OAP). The OPA defines Category V airport as: “...airports support primarily single-engine general aviation aircraft, special use aviation activities, access to remote areas, or provide emergency service access.”

Current usage levels of the airstrip by small planes is unclear. It is common at airports without control towers or other facilities to only have estimates of their usage. Detailed tracking methods are not required by policy and sign-in boxes, like the one at the Cascade Locks Airport, do not always show a complete accounting of each take off or landing. Estimates of aircraft usage levels range from 238 takeoffs and landings over the course of a year to 750 takeoffs and landings per year<sup>2</sup>. These estimates cannot be verified. Another measure of airport usage commonly used in the aviation industry is the number of based aircraft. Based aircraft are planes that are primarily stored or parked at the airport; their home base. There are zero based aircraft at the Cascade Locks airport.

There are no buildings on the property. The Oregon Department of Aviation recently demolished a bathroom on the property, replacing it with a portable toilet. There is a windsock and several airplane tie downs.

The southern portion of the property contains a ballfield that is maintained by the City and sees use in the warmer months.

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<sup>1</sup> Oregon Department of Aviation

<sup>2</sup> Sources: OAP Individual Airport Report and FAA Airport Master Record (Form 5010-1). For further discussion and information, refer to Century West Engineering’s companion study.

## Exhibit 2. Cascade Locks Airport (CZK) Site Context



### 2.2.2 Ownership

The State of Oregon, primarily through the Oregon Department of Aviation, owns the properties that contain the Cascade Locks Airport as well as associated properties that lie in the airstrip's flight path. (Exhibit 3).

### Exhibit 3. State-Owned Land near Cascade Locks Airport



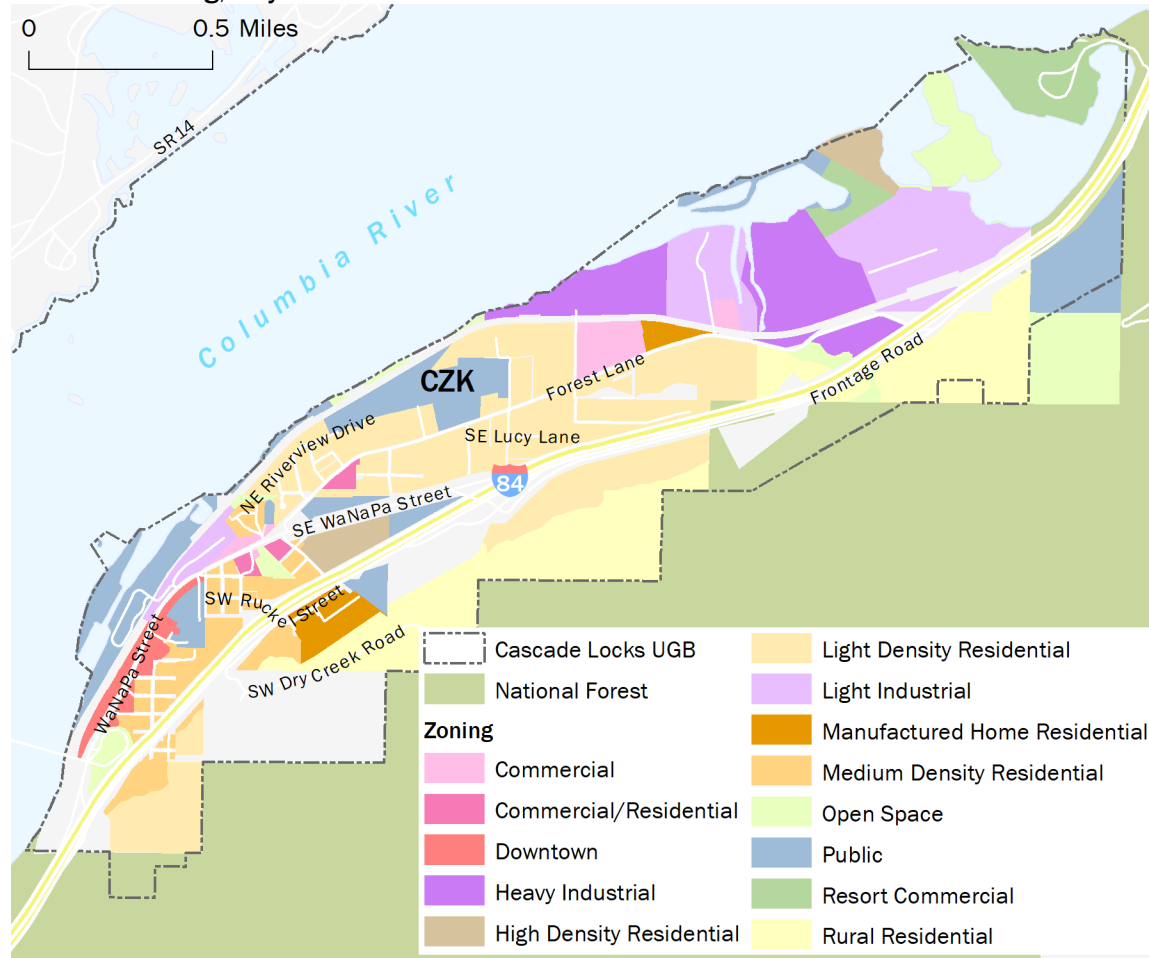
Source: Cascade Locks Parcel Data, Hood River County GIS

### 2.2.3 Zoning and Regulatory Conditions

The land at the Cascade Locks Airport is currently zoned 'Public'; a non-taxable designation that recognizes its long-term airport use and ownership by the State of Oregon. Land located immediately adjacent to the airport properties are zoned for light-density residential uses (Exhibit 4). The airport is labeled in this map as "CZK." Permitted uses in the 'Public' zone include community services, schools, and accessory structures. Conditional uses that are subject to review in the Public zone include:

- Retail sales and service
- Parks and open space
- Marinas
- Utilities
- Public facilities

#### Exhibit 4. Zoning, City of Cascade Locks



Source: Cascade Locks Zoning Data, Hood River County GIS

The airport properties and some adjacent and nearby properties are subject to an Airport Protection Overlay Zone (AP). The AP overlay restricts land uses to ensure a clear, functional, and safe flight path for airplanes using the airport. These use limitations include:<sup>3</sup>

- *No searchlight, beacon light, or other glaring light shall be used, maintained, or operated within one-half mile of said airports, so that the same shall reflect, glare, or shine upon or in the direction of the airport.*
- *No glare producing materials shall be used on the exterior of any structure located within the AP Overlay Zone.*
- *No electromagnetic radiation that would interfere with normal aircraft communication.*
- *No land use or activity that produces smoke or haze to a degree that would interfere with normal aircraft operations.*
- *No land use or activity that produces excessive bird strike hazard in the designated zones.*

<sup>3</sup> Chapter 8-6.132. Airport Protection Overlay Zone. Cascade Locks Community Development Code.



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- *No residences and other structures or uses intended for human occupancy in the runway protection zone, which includes the land below the first 1,000 feet of the approach surface.*
  - *No place of public assembly for schools, hospitals, churches or similar activities which attract more than 25 persons per acre under the approach surface.*

#### **2.2.4 Infrastructure and Utilities**

The Cascade Locks Airport property is well served by utilities and development servicing infrastructure. Located along Forest Lane, a local collector street, the site has access to sewer and water lines, broadband, and adequate power for a variety of land uses. Depending on the type of future development, on-site stormwater treatment may be required.

#### **2.2.5 Cascade Locks Recent Planning Efforts**

The City of Cascade Locks last updated its Comprehensive Plan in 2001. The Comprehensive Plan noted the airport property and provided background information on its use. The plan mentioned that the airport was then being used for business, tourism, and emergency uses. At the time, the Plan noted that the airport had recently seen moderate growth, “with a significant portion of air traffic dedicated to business viability,”<sup>4</sup> though Plan mentions that the Oregon Department of Aviation was not planning any improvements.

In 2009, the City hired E.D. Hovee & Company to complete an Economic Opportunities Analysis (EOA). The EOA analysis determined that the supply of vacant land in Cascade Locks would meet the needs of industrial and commercial development within the 20-year period. The EOA cited that the primary limitation to economic development activities in the City was infrastructure access for industrial development. Recommendations in the EOA included the implementation of the *Cascade Locks Downtown Development Plan and Strategy*, improved access to Marine Park, build-out of the Port properties, and an emphasis on development partnerships in downtown Cascade Locks and industrial areas.<sup>5</sup>

The City of Cascade Locks is currently undergoing a development code update. The City’s Planning Commission will hold a public hearing of third draft of the update in mid-April 2018. The code updates include modifications to design and development standards, parking requirements, as well as new chapters for accessory dwelling unit and cottage development standards.<sup>6</sup>

### **2.3 Cascade Locks Demographic Trends**

Cascade Locks has a population of approximately 1,300 people. The community has been on a growth trajectory for years and is projected to continue to grow in the near future. Compared to

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<sup>4</sup> Cascade Locks Comprehensive Plan—Part II. May 2001. Pp. 18.

<sup>5</sup> Cascade Locks Economic Opportunities Analysis. August 2009.

<sup>6</sup> Cascade Locks Development Code Update – Draft #3. March 2018.

Hood River County and the State of Oregon, the community’s population has grown at a slightly slower rate.

**From 2000 to 2017, Cascade Locks added about 195 residents, growing by a total of 17%, an annual average growth rate of 1.0%.**

Hood River County added about 4,700 residents since 2000, growing by a total of 23%, an annual average growth rate of 1.2%. The State of Oregon had an annual average growth rate of 1.1% over 2000 to 2017.

**Exhibit 5. Population Growth, Cascade Locks, Hood River County, Oregon, 2000-2017**

Source: Decennial Census 2000, Portland State University Population Research Center  
AAGR is Average Annual Growth Rate

	Population		Change (2000-2017)		
	2000	2017	Number	% Change	AAGR
<b>Cascade Locks</b>	1,115	1,310	195	17%	1.0%
<b>Hood River County</b>	20,411	25,145	4,734	23%	1.2%
<b>Oregon</b>	3,421,399	4,141,100	719,701	21%	1.1%

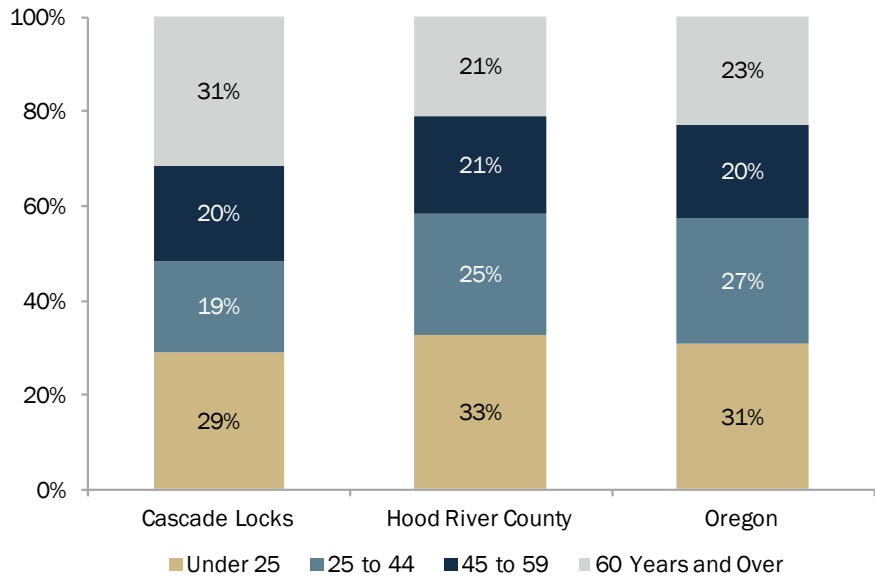
The city’s population is projected to continue to grow at a similar rate in the near future. By 2040, Cascade Locks is estimated to have a population of over 1,500 residents, a 15 percent increase over its population in 2017.

The population of Cascade Locks skews older than the populations in other parts of the gorge area and also at the state level. The median age of the local population is 49, ten years older than the median age of Hood River County’s population and the statewide population. Proportionally, the city has a larger population of residents aged 60 and above than these other geographies. The number of older residents is expected to outpace the growth of other age groups over the next several decades.

The largest age cohort in Cascade Locks are those 60 years and over. This proportion of older residents is larger than both Hood River County and Oregon.

**Exhibit 6. Population Distribution by Age, Cascade Locks, Hood River County, Oregon, 2012-2016**

Source: US Census Bureau, 2012-2016 ACS Table S0101



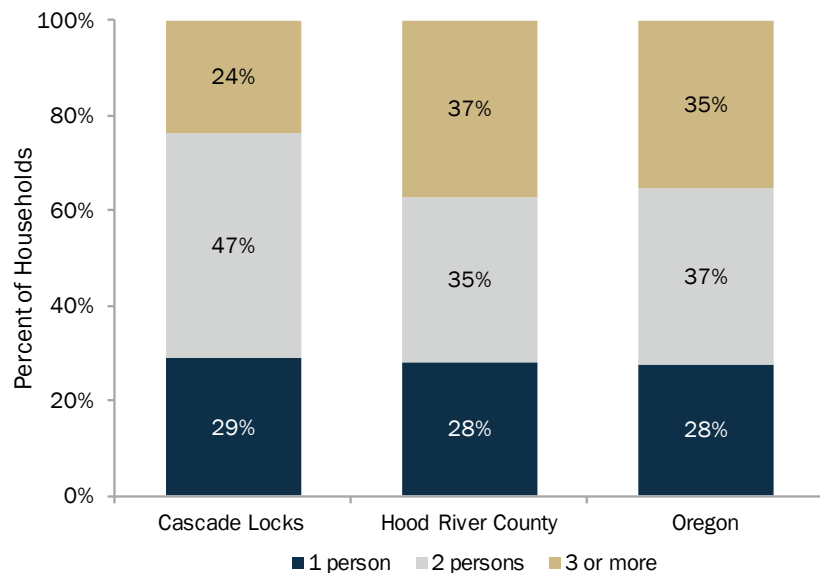
A trend that usually follows population age patterns is household size. If the local population is an older population, the average household size will typically be smaller. Cascade Locks is no different: the average household size is 2.3, which is lower than average household size at the county and state level. The household size trend in Cascade Locks is starkly different from other parts of Oregon. Over 75 percent of the local population lives in one or two person households.

**Two-person households account for the largest share (47%) of households in Cascade Locks.**

About 29% of households are one-person households and the remaining 24% are three-person households or larger.

**Exhibit 7. Household Size, Cascade Locks, Hood River County, Oregon, 2012-2016**

Source: US Census Bureau, 2012-16 ACS Table B25009

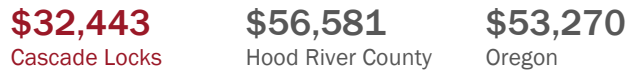


Household incomes in Cascade Locks are much lower than those at the county and state level. The majority of local households earn less than \$50,000 per year and the median household income is more than \$20,000 less than the median household income at the county and state level.

The median household income for Cascade Locks is below Hood River County's and Oregon's median household income.

**Exhibit 8. Median Household Income, Cascade Locks, Hood River County, Oregon, 2012-2016**

Source: US Census Bureau, 2012-16 ACS Table B25119

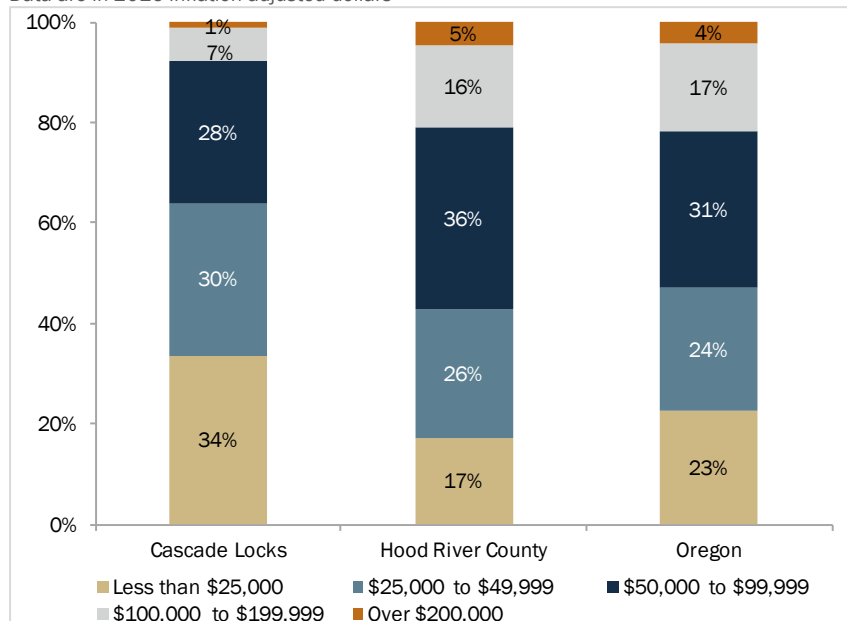


About 64% of Cascade Locks households earned incomes below \$50,000. A little more than one-quarter (28%) of households earned \$50,000 to \$99,999.

**Exhibit 9. Household Income, Cascade Locks, Hood River County, Oregon, 2012-2016**

Source: US Census Bureau, 2012-16 ACS Table B19001

Data are in 2016 inflation-adjusted dollars



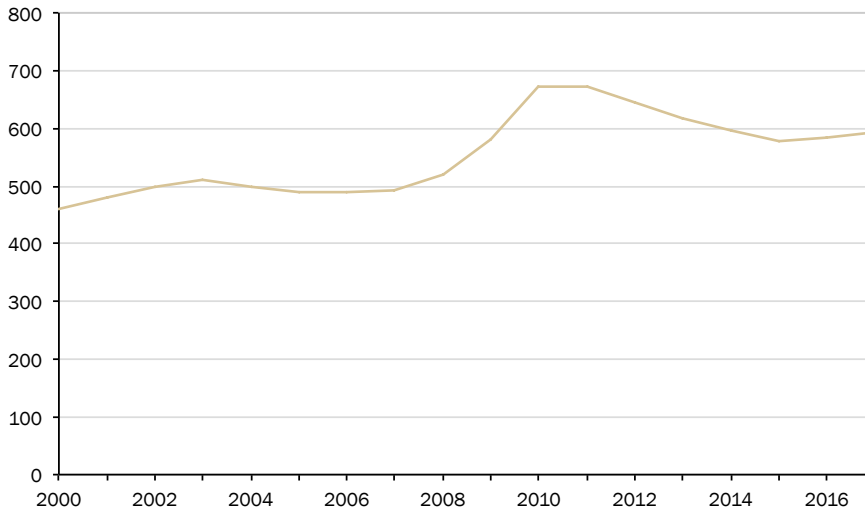
**2.4 Cascade Locks Economic Trends**

The Cascade Locks workforce has experienced a slight increase over pre-recession levels. In 2017, preliminary estimates put the annual labor force at 592. The labor force size peaked in 2010 at 672. Exhibit 10 shows labor force participation trends between 2000 and 2017.

### Exhibit 10. Cascade Locks Labor Force, 2000 through 2017

Source: Oregon LAUS, 2000-2017.

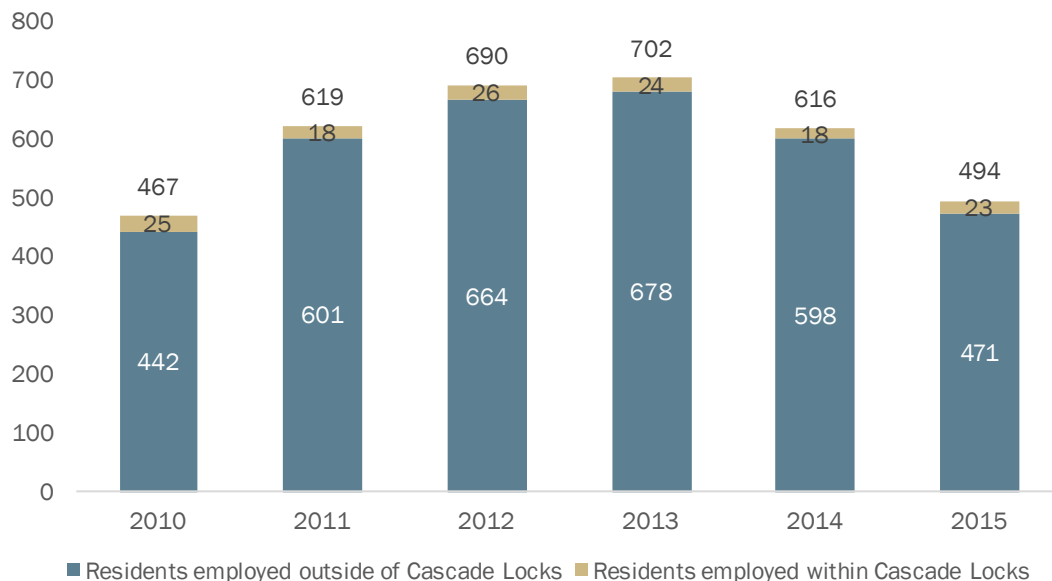
Note: Cascade Locks annual unemployment rates for 2017 are preliminary.



Local residents are primarily employed outside of Cascade Locks. As shown in Exhibit 11, the Cascade Locks workforce has fluctuated significantly in recent years, with a peak of 702 employed residents in 2013 and a worker count of 494 in 2015, but the number of residents employed in the town of Cascade Locks has shown no meaningful change between 2010 and 2015.

### Exhibit 11. Cascade Locks Resident Workforce by Employment Location, 2010 through 2015

Source: Census LEHD data retrieved through OnTheMap

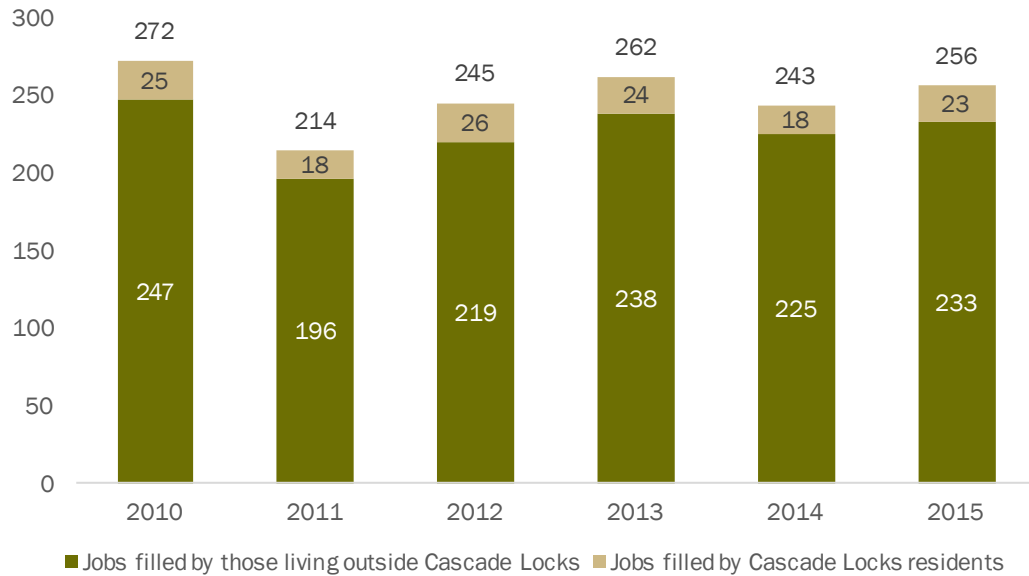


The number of jobs available within Cascade Locks has remained relatively stable since 2010, with 256 reported jobs reported in 2015. As shown in Exhibit 12, jobs within Cascade Locks are

primarily filled by workers living outside of the community. In 2016, jobs in Cascade Locks represented roughly two percent of all jobs in Hood River County.

**Exhibit 12. Jobs within Cascade Locks by Worker Residence, 2010 through 2015**

Source: Census LEHD data retrieved through OnTheMap

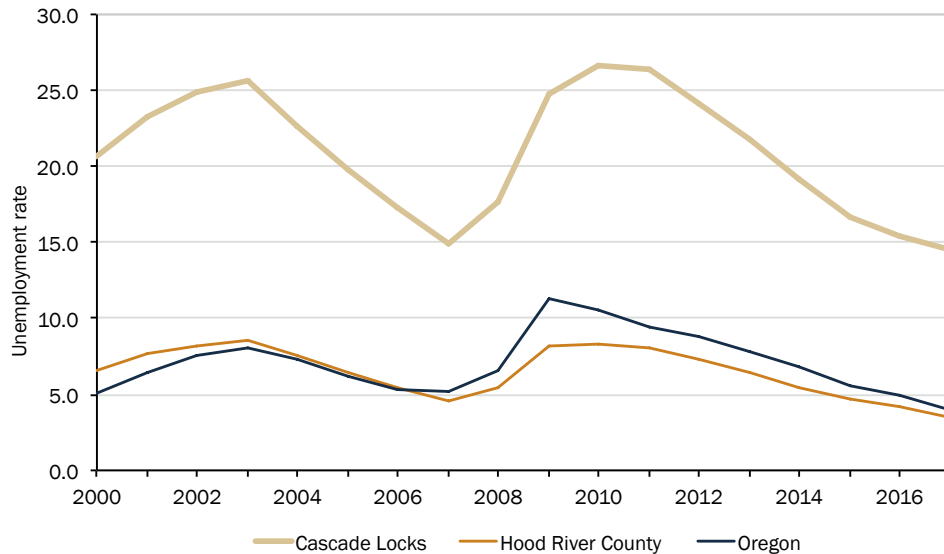


Cascade Locks has much higher rates of unemployment than Hood River County. In 2017, Cascade Locks residents experienced an unemployment rate of 14.5 percent, compared to 3.5 percent and 4 percent at the county and state level, respectively. Unemployment in Cascade Locks has trended with Hood River County and Oregon, but was harder hit by the recession, with an unemployment peak of 26.7 percent in 2010. It has also taken longer for unemployment rates in Cascade Locks to decrease, compared with Hood River County. This increase in unemployment is also influenced by the increase in the labor force over this same time period.

### Exhibit 13. Unemployment Rate, Cascade Locks, Hood River County, Oregon, 2000–2017

Source: Bureau of Labor Statistics, 2000–2017; Oregon LAUS, 2000-2017.

Note: Cascade Locks annual unemployment rates for 2017 are preliminary



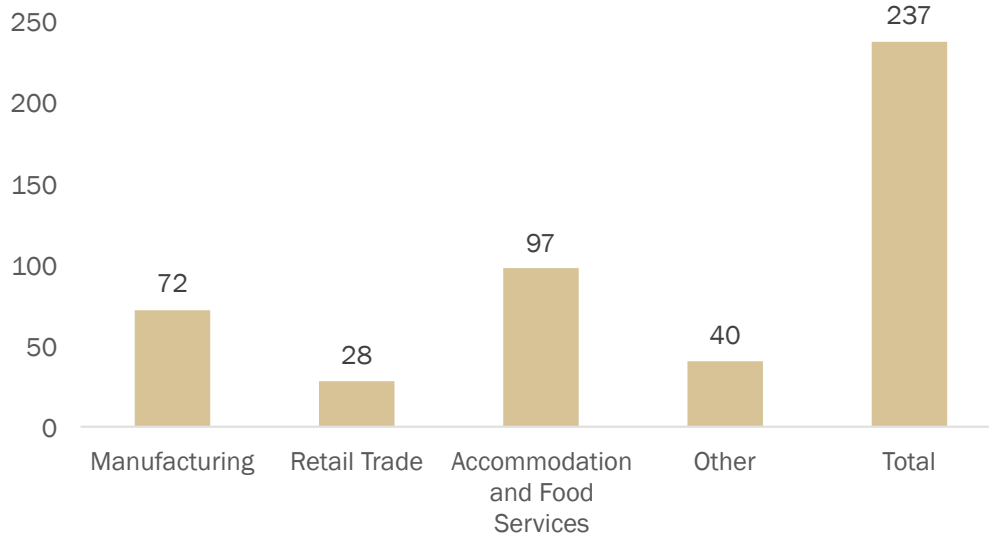
Cascade Locks is home to 33 businesses, as of 2016. These businesses primarily fall into three industry sectors: manufacturing (6 employers), retail (5 employers), and accommodation and food services (5 employers). Other industries include construction (1 employer), wholesale trade (3 employers), transportation (1 employer), real estate (2 employers), professional services (1 employer), health care (1 employer), arts and entertainment (2 employers), and 6 employers from other industry sectors.

Exhibit 14 shows employment within the primary and other industry sectors for Cascade Locks. Jobs within Cascade Locks are concentrated in accommodation and food services, and manufacturing, covering roughly 70 percent of employment.

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### Exhibit 14. Employment by Sector, Cascade Locks 2016

Source: Oregon QCEW, 2016



## 2.5 Cascade Locks Real Estate Trends

The community of Cascade Locks has a small real estate market. The most recent figures (2016) show that there are 653 housing units in the city<sup>7</sup>. This is an increase of 37 percent since 2000, a 1.9% average annual growth rate, compared to a 1.0% growth rate for population. The residential real estate market is primarily composed of single family homes (over 75 percent of all housing units); other housing is in several mobile home parks, a few duplexes, and a couple of apartment buildings.

The increase in the rate of housing construction is strongest recently. In 2016, local planning staff saw 40 residential permits pulled in the city, which was a record number (Exhibit 15). City officials have noted that there are more residential projects in pre-development, including a 15-unit apartment building—a residential product type not seen constructed in Cascade Locks in decades.<sup>8</sup>

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<sup>7</sup> Source: U.S. Census Bureau, 2012-2016 ACS

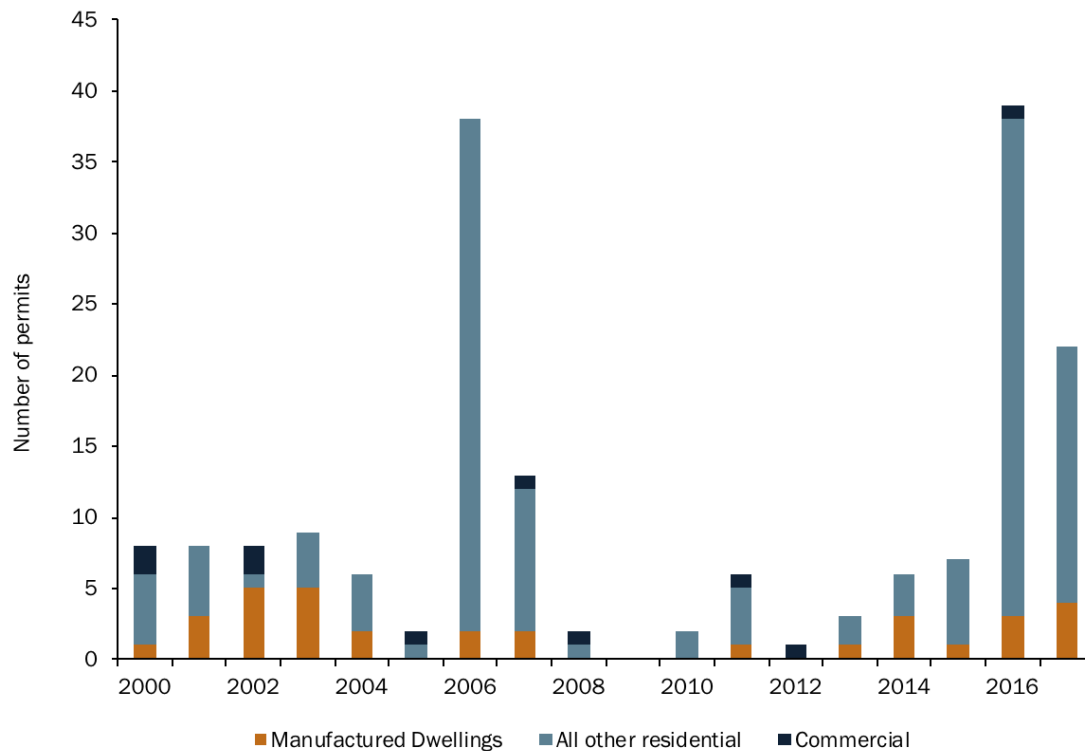
<sup>8</sup> Source: City of Cascade Locks



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### Exhibit 15. Building Permits, City of Cascade Locks

Source: Hood River County



The Cascade Locks commercial real estate market is seeing some growth, but commercial permit activity has been low—only one commercial permit was pulled in 2016 and none in 2017. The City reports that there are a number of commercial development projects in pre-development<sup>9</sup>.

The Port of Cascade Locks reports that most of the properties along Herman Creek Lane are either fully built out, under-construction, or in lease negotiations. The Port’s Business Park, located in the eastern portion of the city, currently contains Bear Mountain Forest Products, one of the nation’s largest stove pellet producers. The Port is also in talks with a couple other potential tenants that are interested in locating in the Business Park.

Most commercial and retail development is concentrated just east of the Bridge of the Gods along Wa Na Pa Street. This area is seeing increased development activity. The City reports that two microbrewery restaurants are planned for this part of town, both of which should open in 2018 or 2019.

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<sup>9</sup> Source: City of Cascade Locks

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## 2.6 Land Capacity Analysis

The previous sections of this conditions analysis looked at demand-related data—population growth, levels economic activity, and trends in real estate development. Such demand cannot manifest itself without supply: in this case, the growth of population creates a demand for housing that must be supplied; and new housing cannot be supplied without a supply of *buildable* land. By understanding both the demand for land and the existing supply of buildable (developable) land, we can illustrate the extent to which more land for development is needed in the near to mid-term. The purpose of this exercise is to estimate, roughly, the amount of available land for future residential and commercial development.

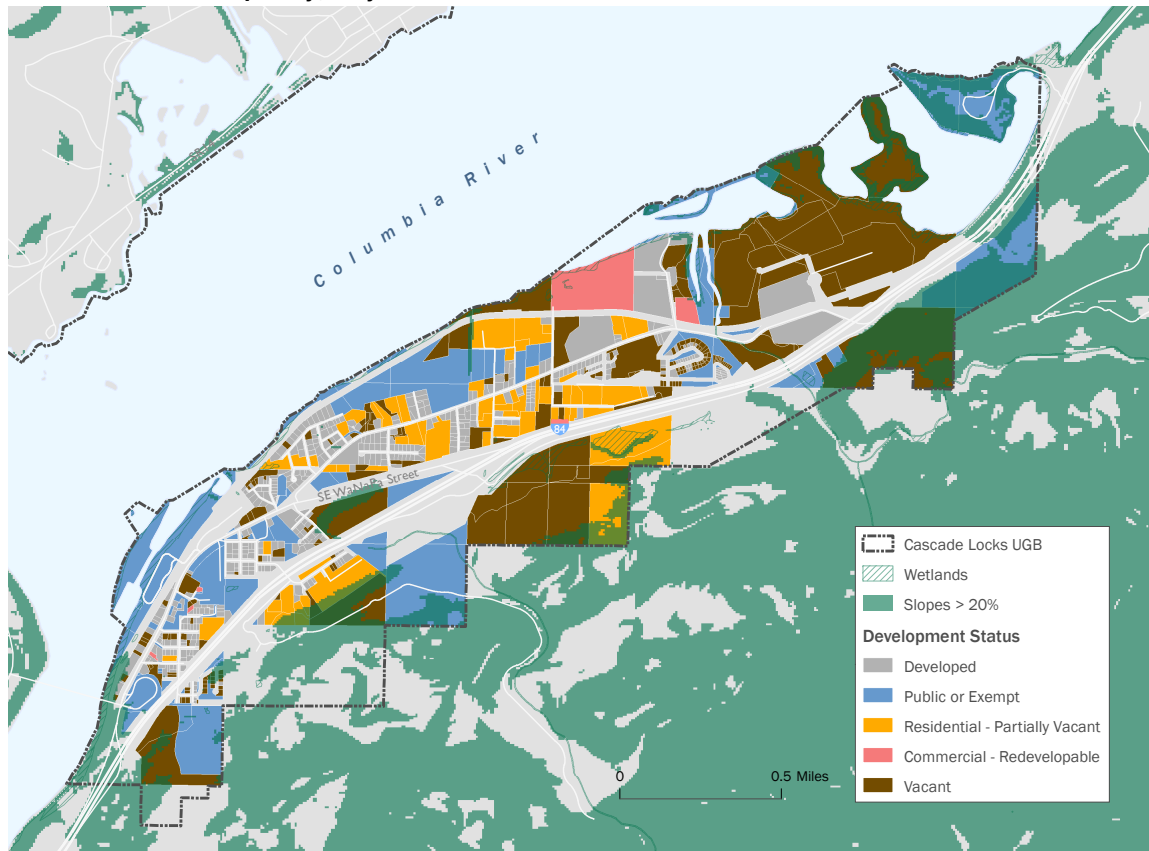
A land capacity analysis is an examination of the available land in a city or subarea, usually categorized by land use type or zoning code. It creates a snapshot of land supply in a certain place. For the land capacity analysis of the City of Cascade Locks, we have used the following methodology:

- **Step 1: Generate a “land base.”** This involves selecting all of the property parcels in study area—in this case, within the Urban Growth Boundary of the City of Cascade Locks. Parcel data was obtained from the Hood River County Community Development Department.
- **Step 2: Classify lands.** Classify each parcel into one of the following categories.
  - Developed land = Assessed improvement value greater than \$10,000 (Gross)
  - Vacant land = Assessed improvement value less than \$10,000
  - Residential partially vacant land = Residential land with an assessed improvement value greater than \$10,000 that could be subdivided or further developed.
  - Commercial redevelopable = Any commercial or industrial property with a land to improvement value ratio below 0.5.
  - Public or exempt land = Land owned by public, non-profit, or other entities that is generally not available for development
- **Step 3: Apply environmental constraints.** Environmental constraints in this analysis included wetlands and slopes greater than 20 percent. These constraints were intersected with the parcel data.
- **Step 4: Tabulation and mapping.** The results are then presented in tabular and map format, including the land base by status (vacant, partially vacant, etc.), zoning, constrained land by status and zoning, and net unconstrained land by status and zoning.

### 2.6.1 Land Capacity Analysis Summary

The City of Cascade Locks contains approximately 1,000 acres of land. Slightly more than ¼ of the land within the Urban Growth Boundary is constrained either by steep slopes or wetlands. This leaves about 740 total acres of land that is unconstrained by geographic features and therefore is either developable or already developed.

### Exhibit 16. Land Capacity, City of Cascade Locks



Source: Hood River County GIS

Developed property makes up about 124 of these acres, leaving 617 “extra” acres. Not all of these “extra” acres can be treated in the same way. In the methods section above, we introduced the categories of: developed land, vacant land, residentially partially vacant land, commercial redevelopable land, and public/exempt land. Combined with land use zones, these categories can be used to understand the amount of residential and commercial land available for future development. Exhibit 17 below shows each of these categories cross-tabulated with Cascade Locks Land Use Zones.

**Exhibit 17. Net Unconstrained Acres, City of Cascade Locks**

Zone	Developed	Exempt	Vacant	Residential		Total
				Partially Vacant	Commercial Redevelopable	
LDR - Low Density Residential	50.1	39.6	50.5	68.3	0.0	208.4
P - Public	0.0	91.9	2.2	0.0	0.0	94.1
LI - Light Industrial	16.8	14.9	50.1	0.0	0.0	81.7
HI - Heavy Industrial	8.4	10.7	43.6	0.0	22.7	85.3
RR - Rural Residential	0.7	36.4	55.8	10.9	0.0	103.9
MDR - Medium Density Residential	24.0	15.3	5.3	8.5	0.0	53.1
OS - Open Space	0.1	12.8	4.9	0.3	0.0	18.0
RC - Resort Commercial	0.0	15.1	6.9	0.0	0.0	22.0
C - Commercial	10.1	0.5	6.5	0.0	3.2	20.4
MHR - Manuf. Home Residential	2.6	0.0	0.7	13.4	0.0	16.8
D - Downtown	6.5	4.5	3.2	0.0	0.6	14.7
HDR - High Density Residential	0.0	7.4	7.9	0.0	0.0	15.3
CR - Commercial/Residential	4.2	2.1	0.0	0.0	0.0	6.3
<b>Total</b>	<b>123.5</b>	<b>251.1</b>	<b>237.5</b>	<b>101.5</b>	<b>26.5</b>	<b>740.0</b>

Source: Hood River County GIS, Land capacity analysis by ECONorthwest

We found the following key takeaways from the land capacity analysis exercise:

- Cascade Locks has approximately 116+/- acres of vacant industrial land.<sup>10</sup>
- Approximately 20+/- acres of commercial land in Cascade Locks is vacant or redevelopable<sup>11</sup>.
- About 64+/- acres of easily-accessed residential land in Cascade Locks is vacant<sup>12</sup>.

The State of Oregon has a relatively rigorous and well-defined set of standards for making a quantitative determination of whether a city has insufficient lands within its Urban Growth Boundary and, thus, should be allowed to expand that boundary. The basic test is whether the amount of buildable land (vacant and partially vacant / redevelopable) is sufficient to accommodate 20 years of growth at expected densities. By that standard, it appears that Cascade Locks, in the aggregate, has sufficient land to accommodate the growth forecasted for the next 20 years.

The most significant exception to that basic calculation relates to larger-sized parcels to accommodate commercial and industrial growth. In theory, cities are allowed to have enough vacant land in a mix of parcel sizes (e.g., 2, 5, 10, 20 acres [and larger in bigger cities and metropolitan areas]) so that they could accommodate larger businesses.

In larger Oregon cities (populations of, say, 25,000 or more), if there is sufficient land inside an Urban Growth Boundary to assume that there is enough *buildable land* in the aggregate, then there will be enough diversity in locational attributes, parcel size, and other site attributes, and ownership that market incentives will bring parcels to market for development. In small cities,

<sup>10</sup> LI + HI Zones categorized as vacant or commercial redevelopable.

<sup>11</sup> RC + C + D + CR categorized as vacant or commercial redevelopable.

<sup>12</sup> LDR + MDR + MHR + HDR categorized as vacant. RR (Rural Residential parcels are not included).

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the supply of land that theoretically would accommodate growth may be so small that those assumptions are incorrect. On a percentage basis, small cities may need a higher percentage of buildable land (relative to estimated demand) than larger cities. In Cascade Locks, such a problem could manifest itself as development-ready land being dispersed across the community, or not easily unlocked for development. Turning these properties into productive land uses—new homes or businesses—could prove to be a challenge. A bigger supply of buildable land would create some market incentives to bring vacant land online for development, and do so at lower costs.

## 3 Appendix

### 3.1 Population Forecast

Hood River County’s population is projected to grow by about 7,600 people between 2016 and 2040, according to Portland State University’s Population Forecast Program. This is a total forecasted growth of 31 percent, or an annual average growth rate of 1.1 percent. Hood River County’s forecast also projected population growth within several cities in the county. These estimates used each cities’ Urban Growth Boundaries (UGBs) as the geography of analysis. These projections estimate that the City of Cascade Locks will grow by 284 people over the 24-year period; from 1,231 in 2016 up to 1,515 in 2040. This is a 23 percent increase in residents or an approximate annual average growth rate of 1 percent.

**Hood River County forecasts their population to grow by 7,609 residents over 2016 to 2040, a 31% increase. Cascade Locks is forecasted to grow by 23%, increasing from 1,231 residents in 2016 to 1,515 residents in 2040.**

**Exhibit 18. Total Population Forecast, 2016 – 2040**

Source: Portland State University, Population Forecast Program, Region 2 Forecasts

	Population		Change (2016-2040)		
	2016	2040	Number	% Change	AAGR
<b>Cascade Locks UGB</b>	1,231	1,515	284	23%	1.0%
Hood River County	24,436	32,045	7,609	31%	1.1%

### 3.2 Age Characteristics

Cascade Locks’ median age is higher than the median age of Hood River County and of the statewide median age. The City’s population distribution by age (Exhibit 20) further illuminates the larger proportion of older residents that live in Cascade Locks. About 31 percent of Cascade Locks residents are 60 years and older. By comparison, 21 percent of Hood River County residents are 60 and over, and 23 percent of Oregon residents are of this age group.

Population projections estimate that the portion of residents over the age of 60 in Hood River County will continue to expand; growing from 21 percent today (2016) to almost 30 percent of the County’s total population by 2040.

**The median age in Cascade Locks is 49 years old.**

The median age in both Hood River County and at the State level is 39.

**Exhibit 19. Median Age, Cascade Locks, Hood River County, Oregon, 2012-16**

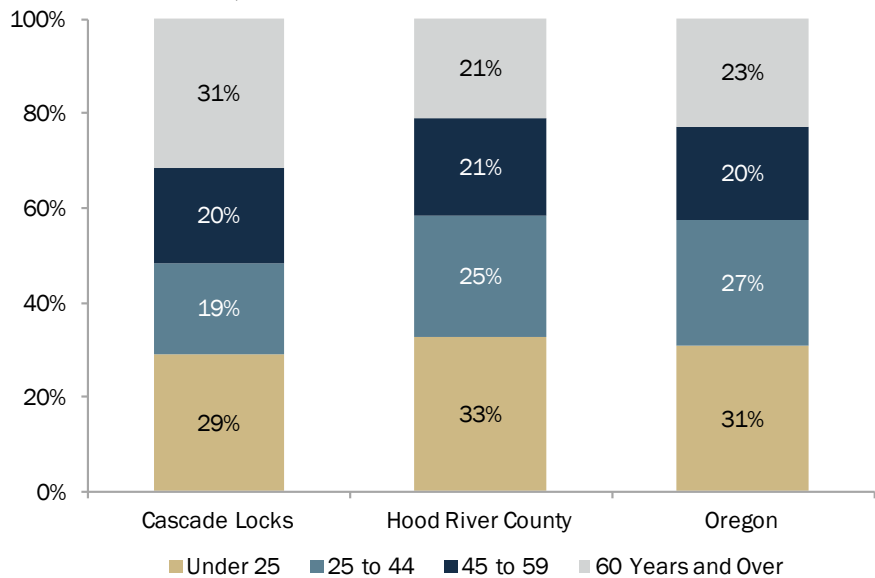
Source: US Census Bureau, 2012-16 ACS Table B01002

<b>49</b>	<b>39</b>	<b>39</b>
Cascade Locks	Hood River County	Oregon

The largest age cohort in Cascade Locks are those 60 years and over. This proportion of older residents is larger than both Hood River County and Oregon.

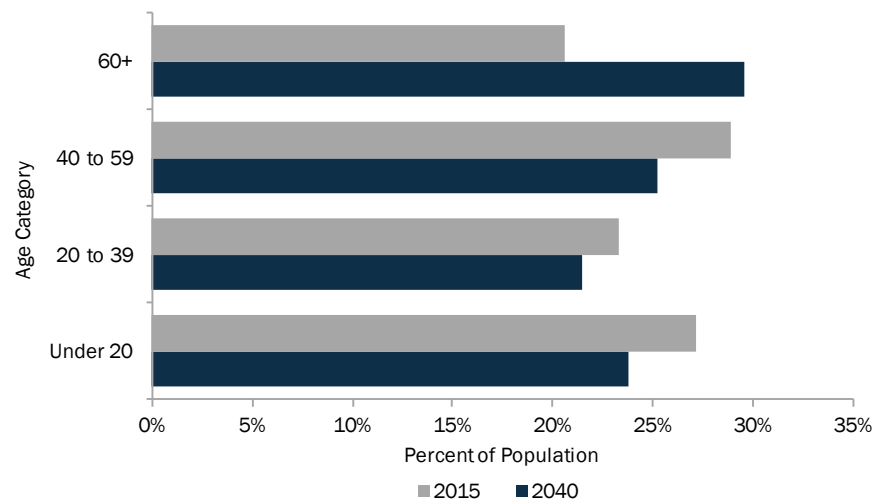
**Exhibit 20. Population Distribution by Age, Cascade Locks, Hood River County, Oregon, 2012-16**

Source: US Census Bureau, 2012-2016 ACS Table S0101



**Exhibit 21. Population Forecast by Age Group, Hood River County, 2016 – 2040**

Source: Portland State University, Population Forecast Program, Region 2 Forecasts



### Household Characteristics

Cascades Locks has a slightly smaller average household size relative to Oregon and an even smaller household size when compared to Hood River County. Nearly half of all households in Cascade Locks (47 percent) are estimated to be two-person households, which is 12 percent higher than Hood River County (35 percent) and 10 percent higher than Oregon’s proportion (37 percent) of two-person households.

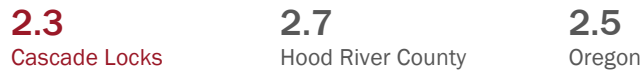
The average household size is 2.3 persons per household in Cascade Locks, 2.7 in Hood River County, and 2.5 persons in Oregon.

Two-person households account for the largest share (47%) of households in Cascade Locks.

About 29% of households are one-person households and the remaining 24% are three-person households or larger.

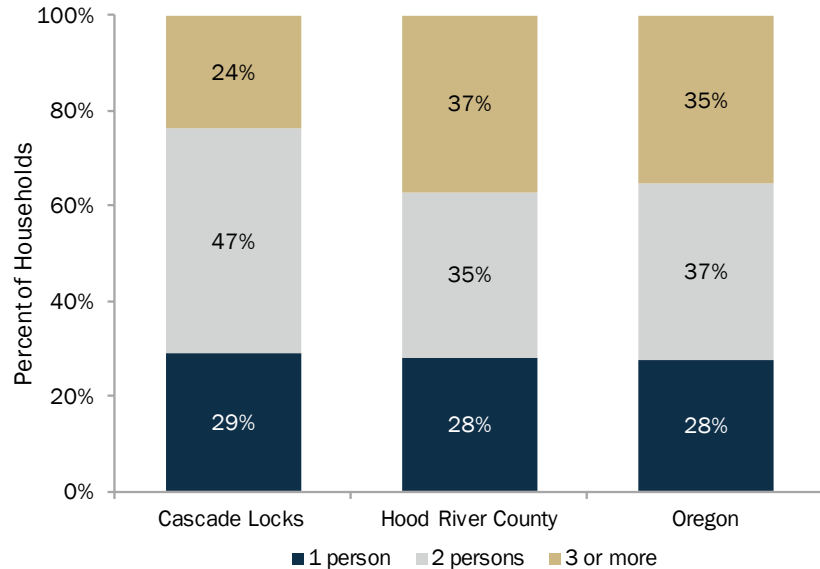
**Exhibit 22. Average Household Size, Number of Persons per Household, Cascade Locks, Hood River County, Oregon, 2012-16**

Source: US Census Bureau, 2012-2016 ACS Table B25010



**Exhibit 23. Household Size, Cascade Locks, Hood River County, Oregon, 2012-16**

Source: US Census Bureau, 2012-16 ACS Table B25009



### Housing Mix

Between 2000 to 2012-2016<sup>13</sup>, Cascade Locks added a total of 177 dwelling units, increasing its housing stock from 476 in 2000 to 653 in 2012-2016. This equates to an approximate 37 percent increase in quantity of housing units.

The majority of housing units in Cascades Locks, Hood River County, and Oregon are single-family detached homes. In the City of Cascade Locks, 78 percent of housing units are single family detached homes. Approximately 19 percent of housing units in Cascade Locks are multifamily units – a proportional amount that is similar to the County, but less than the State’s portion.

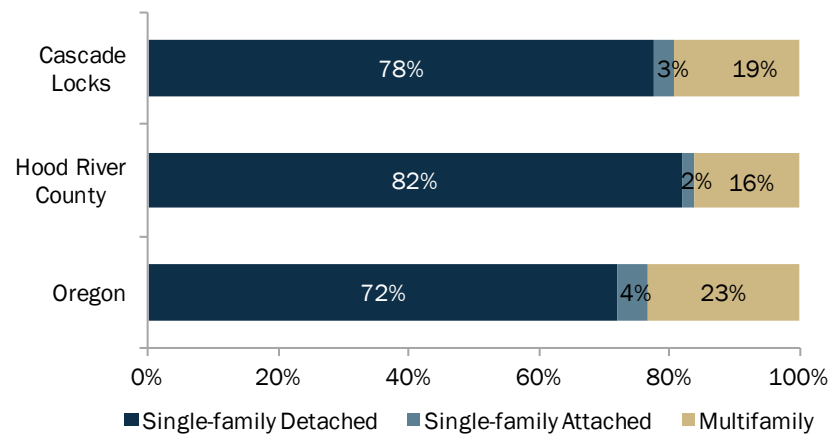
<sup>13</sup> A range is provided here due to the data source: the US Census Bureau’s, 2012-2016 American Community Survey.



About 78% of Cascade Locks' housing stock is single-family detached. Approximately 19% of its housing stock is multifamily, 4% less than Oregon's multifamily housing stock, but 3% higher than Hood River County's housing stock.

**Exhibit 24. Housing Mix, Cascade Locks, Hood River County, Oregon, 2012-16**

Source: US Census Bureau, 2012-2016 ACS Table B25024

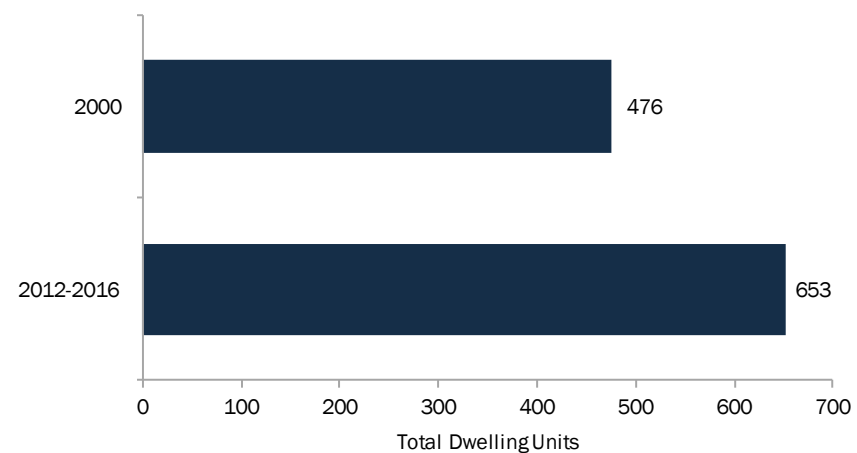


Cascade Locks' total dwelling units has increased by 177 from 2000 to 2012-2016.

This amounted to a 37% increase over the analysis period.

**Exhibit 25. Total Dwelling Units, Cascade Locks, 2012-16**

Source: US Census Bureau, 2012-16 ACS Table B25024



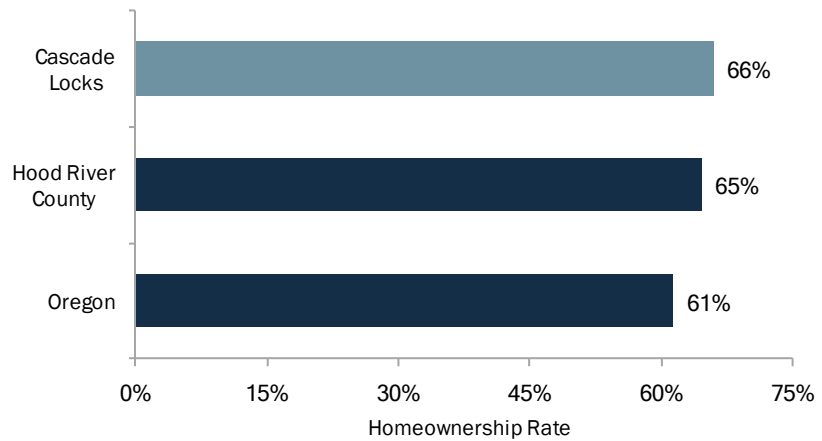
### Housing Tenure

Homeownership rates are higher in Cascade Locks, than those in large geographies. Approximately two-thirds (66 percent) of Cascade Locks households were owner-occupied during 2012-2016 Census estimation period. This homeownership rate is one percent higher than Hood River County (65 percent) and five percent higher than Oregon (61 percent). Over the last sixteen years, 2000 to 2012-2016, the homeownership rate in Cascade Locks has decreased by about two percent.

**Cascade Locks' homeownership rate is just above Hood River County's rate. Both Cascade Locks and Hood River County have higher homeownership rates compared to Oregon.**

**Exhibit 26. Homeownership for Occupied Units, Cascade Locks, Hood River County, Oregon, 2012-16**

Source: US Census Bureau, 2012-2016 ACS Table B25024

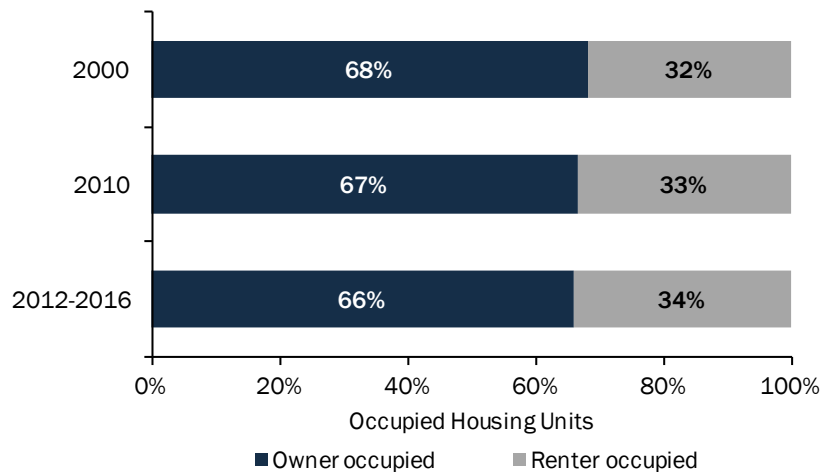


**Cascade Locks' homeownership rate has slightly declined since 2000 as renter occupancy has increased.**

As homeownership rates fell from 68% in 2000 to 66% in 2012-2016, renter occupancy rates increased from 32% in 2000 to 34% in 2012-2016.

**Exhibit 27. Tenure, Occupied Units, Cascade Locks, 2012-16**

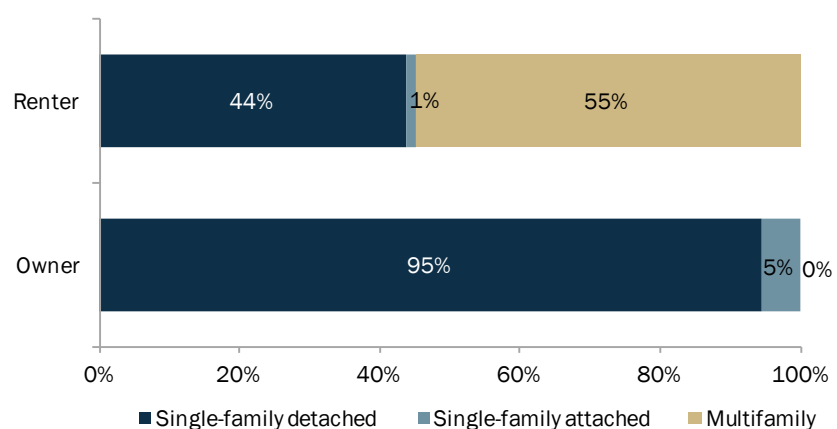
Source: US Census Bureau, 2012-16 ACS Table B25024



**The majority of Cascade Locks renters live in multifamily housing (55%).**

**Exhibit 28. Housing Units by Type and Tenure, Cascade Locks, 2012-16**

Source: Census Bureau, 2012-2016 ACS Table B25032



## Income Characteristics

Median household income in Cascade Locks is approximately \$32,443 for the 2012-2016 period. This is lower than Hood River County's and Oregon's median household income over the same time frame. Median household income in Hood River County was \$56,581 for 2012-2016, \$24,183 above Cascade Locks' median household income. Oregon's median household income is also well above Cascade Locks' median household income, though it is a few thousand dollars beneath Hood River County's estimate (\$53,270 compared to \$56,581).

Cascade Locks households tend to have lower incomes relative to the larger Hood River County and Oregon. Though this was illustrated by comparing median household median incomes of the respective geographies, Exhibit 29 provides extra detail. Approximately 64% of Cascade Locks households earned incomes less than \$50,000, whereas 43% of Hood River County households and 47% of Oregon households earned that much. At the higher end, a smaller proportion of Cascade Locks households take home earnings in excess of \$100,000. Where 8% of Cascade Locks households earn \$100,000 or more, 21% of Hood River County households and Oregon households earn that amount.

**The median household income for Cascade Locks is below Hood River County's and Oregon's median household income.**

**About 64% of Cascade Locks households earned incomes below \$50,000. A little more than one-quarter (28%) of households earned \$50,000 to \$99,999.**

Approximately 47% of households in Clark County and Nevada earned incomes below \$50,000.

### Exhibit 29. Median Household Income, Cascade Locks, Hood River County, Oregon, 2012-16

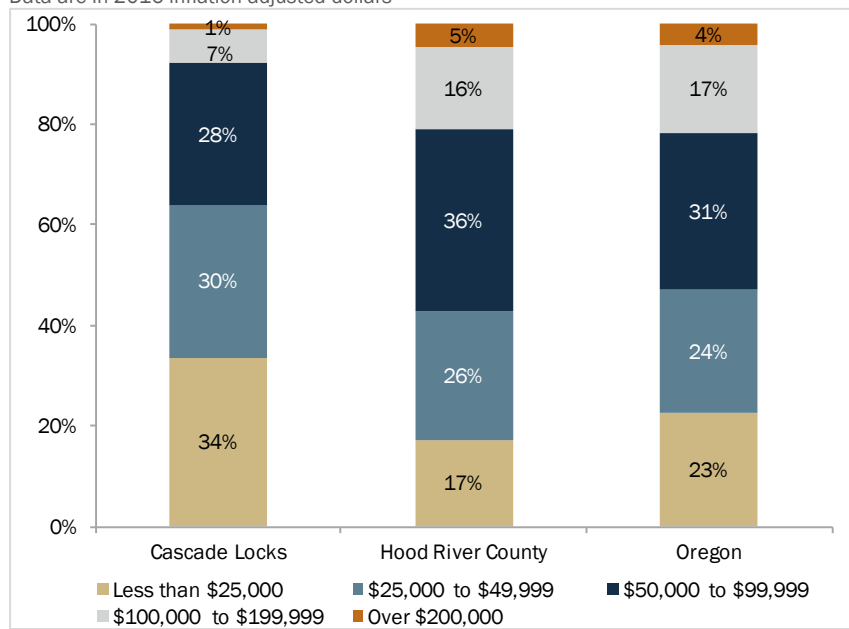
Source: US Census Bureau, 2012-16 ACS Table B25119

<b>\$32,443</b>	<b>\$56,581</b>	<b>\$53,270</b>
Cascade Locks	Hood River County	Oregon

### Exhibit 30. Household Income, Cascade Lock, Hood River County, Oregon, 2012-16

Source: US Census Bureau, 2012-16 ACS Table B19001

Data are in 2016 inflation-adjusted dollars



## MEMO

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**To:** Matthew Craigie - ECONorthwest

**From:** David Miller, AICP – Century West Engineering

**Date:** February 23, 2018

**Re:** Cascade Locks Airport Opportunities and Constraints

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### 2.1 Overview of Small Airports in Oregon

The 2007 Oregon Aviation Plan (OAP 2007) defines the system of 97 public use airports in Oregon “ranging from small emergency use airports in remote regions of the state to large commercial service airports.” OAP 2007 defines five categories (I-V) of public use airports based on their functional roles:

- Category I – Commercial Service Airports
- Category II – Urban General Aviation Airports
- Category III – Regional General Aviation Airports
- Category IV – Local General Aviation Airports
- Category V – RAES (Remote Access/Emergency Service) Airports

Small airports are typically included in Category IV and V. Cascade Locks State Airport is included in Category V – RAES (Remote Access/Emergency Service) Airports. OAP 2007 Chapter 4 - Airport Functional Roles (Section 4.1d - Airport Functional Roles) defines the functional role for Category V airports:

- *These airports support primarily single-engine general aviation aircraft, special use aviation activities, access to remote areas, or provide emergency service access.*

#### OAP Policy

OAP 2007 includes numerous policies intended to preserve and enhance Oregon’s system of public use airports. Chapter 1 - Introduction (Section 1.2a - Preservation Policies and Actions) includes a policy that is closely aligned with a primary functional role for Category V airports, including Cascade Locks State Airport:

*Interest: Preserve the investment in Oregon’s system of airports.*

*Policy: Preserve Oregon’s system of airports and its current level of service.*

*Actions...*

- *Preserve airports that fulfill a unique safety function. A number of airports that are rarely used serve a safety function as emergency landing strips.*

## Airport Service Areas

The airport categories in OAP 2007 have geographic service areas that reflect the functional role defined for each type of airport. With the exception of commercial service airports (Category I) that use a 120-minute drive time to define their airport service area, service areas for all other airport categories are defined by a 30-minute drive time from the airport. In regions with multiple airports, individual airport service areas often overlap. In less densely developed or populated regions, gaps of coverage may exist due to the limited number of existing airports.

The existing Oregon Aviation System Coverage map (OAP 2007 - Figure 5.11) depicts continuous airport service area coverage along the Columbia River from Scappoose to Wasco. The system coverage map also depicts service area coverage for several northern Oregon airports, including Cascade Locks State, extending into Washington. Cascade Locks State Airport provides service area coverage for the section of the Columbia River Gorge that passes through the heart of the Cascade Range, filling a significant geographic gap formed by the service areas of the two nearest public use airports – Troutdale Airport (23 miles west) and Ken Jernstedt Airfield (Hood River) (15 miles east). The straight line flight distance between Troutdale and Hood River is approximately 37 nautical miles. Cascade Locks State Airport provides the only designated emergency landing area for small wheel-equipped aircraft along this route. The weather conditions in the mountainous Columbia River Gorge change rapidly, which makes preserving an emergency landing option for small single-engine aircraft a critical system need, as expressed in OAP 2007 Section 1.2a - Preservation Policies and Actions.

## Warning Airport Designation

In addition to the five airport categories described above, OAP 2007 Chapter 6 - Special Considerations (Section 6.14 - State Warning Airports) identifies nine Category V airports owned by the Oregon Department of Aviation (ODA), including Cascade Locks State (Section 6.14a) that are designated as “warning airports.” This information is currently presented on the ODA webpage.

*“The Oregon Department of Aviation owns and operates 28 airports. Of these, nine have been designated as warning airports. These airports do not meet normal dimensional standards and have conditions that require specific pilot knowledge. They require special techniques and procedures to use safely and may not be usable by many aircraft under normal conditions.*

*If you have not flown into Cascade Locks, Crescent Lake, McKenzie Bridge, Owyhee Reservoir, Pacific City, Pinehurst, Santiam Junction, Toledo, or Wakonda Beach recently, we encourage you to contact us at (800) 874-0102 to get the latest information on them.*

*We also encourage you to use the "sign in" boxes we have at some of the state airports. This allows us to better assess the level of use at some of our smaller airports. If you observe any problems at any of the state airports, please let us know so that we can correct the problem as soon as possible.*

*For specific questions regarding the State Warning Airports, contact ODA at 800-874-0102 or [aviation.mail@state.or.us](mailto:aviation.mail@state.or.us)."*

#### **Cascade Locks State (Section 6.14a)**

***Cascade Locks State Airport** is a little used but important emergency strip, centrally located in the scenic Columbia Gorge. Many pilots flying through the Gorge in marginal weather and unable to continue VFR have been very grateful to have access to this airport. It has even accommodated a successful forced landing or two.*

*The main reason this Cascade Locks is a warning airport is because the runway is only 1800' long and 30' wide. The approach on the west end is clear and is over the Columbia River. The terrain drops off rapidly to the west, so trees aren't a problem. The approach from the east is obstructed by many large trees, and a fairly steep approach is required to land to the west. There is also a road, fence and brush 180' from the east end.*

*The traffic pattern for Runway 24 is right traffic. Both patterns are to the north, over the river to avoid the mountains to the south. Winds are frequently very strong in the Gorge, and significant turbulence can be expected. The runway is surrounded by trees, so crosswinds can produce extreme low level turbulence and unexpected wind currents.*

*The turf tiedown area is on the south side in the middle and is not well defined. Use caution when taxiing, as it can be difficult to see the tiedowns if the grass has not been mowed recently.*

*It is about a one-mile walk into town from the airport. There are several restaurants, motels and tourist attractions. There is an attractive riverside marine part that hosts a sternwheeler during summer months. Bonneville Dam is about 5 miles to the west and Skamania Lodge is just across the river in Washington State."*

The assessment of warning airports acknowledges that not all performance criteria defined for Category V airports can realistically be met. However, the underlying importance of these airports, primarily as emergency landing areas, suggest that even with non-standard conditions, the airports provide an important safety component within the system of airports. Efforts to improve existing conditions should be pursued whenever feasible.

OAP 2007 Section 6.14a provides a brief description of the conditions that warrant its "warning airport" designation:

- **Runway Length and Width:** 1,800 feet long and 30 feet wide.
- **East Approach:** obstructed by trees, requiring a steep approach for landing to the west
- **Close-in Obstructions at East End of Runway:** road, fence and brush 180 feet from east runway end

- **Strong Winds:** winds are frequently strong in the Gorge, and significant turbulence can be expected; the runway is surrounded by trees, so crosswinds can produce extreme low-level turbulence and unexpected wind currents
- **Taxiing:** use caution when taxiing, as it can be difficult to see the tie-downs if the grass has not been mowed recently

### Divestment of State Owned Airports

OAP 2007 Chapter 6 – Special Considerations (Section 6.9) acknowledges the significant financial investment required to maintain, improve, and manage ODA’s group of 27 airports. The section states:

*“Divestment of state-owned airports should be considered when a community is willing and capable of maintaining a state-owned airport. This will reduce the financial responsibilities of the state and provide the community with a valuable resource that they can develop in a manner that best supports their needs.”*

This guidance suggests that transferring ownership of an ODA airport to a local entity may be considered when the airport’s functional role is maintained and the continued operation and development of the facility benefits the local community.

#### **2.1.1 Current Airport Planning Criteria**

OAP 2007 Chapter 4 - Airport Functional Roles (Section 4.1d) establishes performance criteria for airside facilities, general facilities, and services for each airport category based on their unique functional roles. The performance criteria provide a variety of benchmarks for broadly assessing facility and system wide capabilities. “Minimum” and “desired” criteria are listed for each item, where applicable.

For the purposes of this evaluation, the existing facilities or conditions at Cascade Locks State Airport were compared to the “minimum” criteria cited in OAP 2007. The use of the “minimum” criteria is appropriate for Cascade Locks State Airport based on the “warning airport” designation noted earlier, although it is recognized that it may not be feasible to meet all minimum criteria.

A review of the performance criteria defined for Category V airports identifies a limited number of applicable standards for airside facilities. No performance criteria is assigned for general facilities or services for Category V airports. The limited range of performance criteria assigned to Category V airports is consistent with their defined functional role.

Common airport facilities/services such as runway lighting, visual approach aids, taxiways, taxiway lighting or reflectors, rotating beacon, hangars, aircraft parking, fuel, auto parking, fencing, restrooms, or based aircraft are identified “Not an Objective” for Category V airports.

**Table 1** summarizes the applicable minimum performance criteria for Category V airports and current conditions at Cascade Locks State Airport.

Table 1  
Category V Airports – Applicable Minimum Performance Criteria

Performance Criteria	Minimum Criteria	Cascade Locks State Airport*
FAA – Airport Reference Code	A-I	B-I
Runway Orientation	Varies by Airport	060/240 degrees magnetic
Runway Length	2,500 feet Turf	1,800 feet
Runway Width	60 feet Turf	30 feet
Runway Pavement Type	Turf, Gravel	Asphalt
Runway Pavement Strength	Varies by Airport	Single Wheel (S) - 4,000 lbs.
Runway Pavement PCI	Varies by Airport	78 (Scale 0-100) “Satisfactory”
Approach Type	Visual	Visual
* Warning Airport status notes that unique site constraints may prevent application of minimum standards and notes pilot requirements.		

OAP 2007 Chapter 5 – System Analysis and Recommendations (Table 5.15) summarizes the applicable performance measures for Cascade Locks State Airport:

- **Runway Length** and **Runway Width** are identified as “Deficient” (compared to minimum criteria)
- **Runway Pavement Type** is identified as “Meets Minimum Criteria”
- **Approach Type** is identified as “Meets Minimum Criteria”
- All other facilities or services are identified as “Not an Objective”

The OAP 2007 assessment of Cascade Locks State Airport will be addressed in Sections 2.26 and 3.2.

### 2.1.2 Current Airport Status and Regulations

Cascade Locks State Airport is not included in the federal airport system (National Plan of Integrated Airport Systems - NPIAS) and is therefore not eligible to receive Federal Aviation Administration (FAA) funding. As a non-NPIAS airport, Cascade Locks State Airport is not required to conform to FAA airport design standards. The performance criteria contained in OAP 2007 and other ODA programs are used to define development and safety standards for non-NPIAS airports.

Aircraft flight activity (pilots and aircraft operation) is regulated by the FAA through various Federal Aviation Regulations (FARs). With the exception of establishing recommended airport traffic pattern locations and altitudes (subject to FAA approval) and voluntary noise abatement procedures, airport owners have no regulatory authority for aircraft in flight.

#### Land Use Regulation

Cascade Locks State Airport is physically located within the City of Cascade Locks city limits. The City of Cascade Locks has land use authority for the Airport and its immediate surroundings. The Airport has a **Public (P)** comprehensive plan land use designation and zoning designation.



The outer portions of the FAR Part 77 airspace defined for Runway 6/24 extend beyond the Cascade Locks city limits and urban growth boundary (UGB) into unincorporated Hood River County, Oregon, unincorporated Skamania County, Washington and the City of Stevenson, Washington. Each local jurisdiction has the responsibility to protect federally-defined (FAR Part 77) airspace, regardless of the physical location of the airport.

### Comprehensive Plan

The City of Cascade Locks Comprehensive Plan was adopted in May 2001. The comprehensive plan includes two Statewide Planning Goals are directly relevant to Cascade Locks State Airport:

Goal 11: Public Facilities and Services

To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

Goal 12: Transportation

To provide and encourage a safe, convenient and economic transportation system.

Section II, A. Public Transit and Special Transportation Needs lists Cascade Locks State Airport among three existing transportation services (bus, rail, air). Cascade Locks State Airport has a **Public (P)** comprehensive plan land use designation, which is applied to publicly-owned land within the city limits, including open space. The implementing zones for the Public land use designation are P (Public Zone) and OS (Open Space).

### Zoning

Cascade Locks Community Development Code (CDC) Title 8-6, Article III - Land Use Districts defines applicable development standards for the airport. Cascade Locks State Airport is zoned **Public Zone (P)**. CDC Chapter 8-6.92 Public Zone (P) defines the purpose, permitted and conditional uses, and dimensional standards.

Section 8-6.92.010 Purpose states *“The purpose of the P zone is to provide land for community and recreational facilities to be used by city residents and visitors. The zone implements the Comprehensive Plan policies and regulations that are intended to create, maintain and promote these activities.”*

Airports are not specifically identified among the different types of uses defined for the P zone. The existing airport use is most consistent with conditional use “E.” (Public facilities) contained in 8.6.92.030.

CDC 8-6.08.030 (F) Public and Institutional Use types defines Public facilities as: *“Public uses that support transportation, safety, and emergency services to the general public. Examples include police stations, fire stations, ambulance stations, public utility offices, operations centers, transit stations, and park-and-ride facilities for transit. This definition excludes streets.”*

The code also notes if a use is not listed as a permitted or conditional use *“it may be held to be a similar unlisted use under the provisions of Chapter 8-6.48, Unlisted Use.”*

Conditional use “B.” (Parks and open space) is consistent with the existing baseball field located on the airport. The City of Cascade Locks operates the field through a permit issued by ODA, but it is unknown if the facility is designated as a park or open space within its comprehensive plan.

The maximum building height allowed in the P zone is 35 feet. However, development is also subject to the requirements of the Airport Protection Overlay Zone (AP).

The City of Cascade Locks is currently updating its development code. [The City of Cascade Locks Development Code Update Draft #2](#) (February 8, 2018 - posted on City web page) was reviewed to identify any relevant sections that may affect the Cascade Locks State Airport.

Two specific items related to the Airport are noted from the review of Draft #2: 1) The Public Zone (P) (CDC Chapter 8-6.92) currently assigned to the airport is not included in the draft document. 2) The Airport Protection Overlay Zone (AP) (CDC Chapter 8-6.132) is not included in the draft document. It is unknown if these chapters will be added in subsequent drafts or if the chapters are planned for deletion or revision. Draft #2 contains several proposed residential, commercial and downtown zones, in addition to elements such as development standards for subdivisions, accessory dwelling units and cottage housing. The current draft does not include specific zoning designations that would be appropriate for existing public land parcels, including Cascade Locks State Airport.

#### Airport Overlay Zoning

CDC Article IV – Development Standards (Chapter 8-6.132) defines the requirements of the **Airport Protection Overlay Zone (AP)** for Cascade Locks State Airport. The boundaries defined for the overlay zone are based on FAR Part 77 surfaces defined for Runway 6/24 noted below. CDC Appendix A provides a map of the current AP overlay zone for Cascade Locks State Airport.

The AP overlay zone describes the process for reviewing development proposals for compatibility, use limitations, height limitations, and approval criteria. The AP overlay zone notes that “any permitted or conditional use in the base zone is subject to the provisions of this chapter.”

The existing airport land use protections adopted by the City of Cascade Locks are consistent with the guidance provided in OAR 660 and ORS 830 for public use airports.

#### FAR Part 77 Airspace

The federal airspace protections outlined below, commonly referred to as Federal Air Regulation (FAR) Part 77, apply to all public use airports including Cascade Locks State Airport.

14 Code of Federal Regulations (CFR), Chapter 1, Part 77 - Objects Affecting Navigable Airspace establishes standards for determining obstructions to air navigation.

Subpart C – Obstruction Standards – Section 77.21(a) states:

*“This subpart establishes standards for determining obstructions to air navigation. It applies to existing and proposed manmade objects, objects of natural growth, and terrain. The standards apply to the use of navigable airspace by aircraft and to existing air navigation facilities, such as an air navigational aid, **airport**, Federal airway, instrument approach or departure procedure, or approved off airway route.”*

Section 77.25 (a-e) defines the following civil airport imaginary surfaces for runways:

- (a) *Horizontal Surface – a horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of specified radii from the center of each end of the primary surface of each runway of each airport and connecting the adjacent arcs by lines tangent to those arcs. (radii dimensions are runway dependent)*
- (b) *Conical Surface – a surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.*
- (c) *Primary Surface – a surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of that runway...The elevation of any point on the primary surface is the same as the nearest point on the runway centerline. (width dimension is runway dependent)*
- (d) *Approach Surface - a surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. (surface dimensions and slope are runway dependent)*
- (e) *Transitional Surface –These surfaces extend outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7:1 from the sides of the primary surface and from the sides of the approach surfaces.*

The FAR Part 77 airspace for Runway 6/24 at Cascade Locks State Airport is summarized in **Table 2**.

Table 2  
FAR Part 77 Airspace – Runway 6/24 Cascade Locks State Airport

Width of Primary Surface	250 feet
Transitional Surface	7:1 Slope to 150 feet above runway
Horizontal Surface Elevation/Radius	150 feet above airport elevation/5,000 feet
Conical Surface	20:1 for 4,000
Approach Surface Length	5,000
Approach Surface Slope	20:1
Approach Surface Width at End	1,500

Development proposals in the vicinity of Cascade Locks State Airport are subject to ODA and FAA review for potential impacts to FAR Part 77 airspace and the visual flight rules (VFR) airport traffic pattern. Applicants are required to submit **Form 7460-1 - Notice of Proposed Construction or Alteration** to ODA/FAA prior to development. This process is normally initiated through the review of building permit applications, with initial notification provided to ODA, then subsequently FAA if required. The City of

Cascade Locks **Airport Protection Overlay Zone (AP)** reflects the FAR Part 77 airspace surfaces noted in **Table 2**, which is the primary focus of ODA and FAA evaluations.

### 2.1.3 Usage of Small Airports in Oregon

Small general aviation airports throughout Oregon accommodate a variety of uses. Airports such as Cascade Locks State often do not support locally-based aircraft or development such as aircraft hangars or permanent airport tenants. The potential to add based aircraft or to accommodate airport-related development such as aircraft hangars is determined by market demand and the airport site's ability to accommodate a particular activity or facility. Ultimately, approval of any proposed tenant activity at a state airport is subject to the determination made by the ODA State Airport Manager. As such, Cascade Locks State Airport may have the potential for attracting and accommodating locally-based airport users (aircraft tiedowns or hangars). This segment of users would be limited to aircraft and pilots capable of safely operating from facilities typical of the "warning airport" designation. The ability to accommodate hangar development would be based on a review of developable landside areas. The airport's existing small airplane tiedowns are capable of accommodating both transient and based aircraft.

The emergency use function of Cascade Locks State Airport for transient aircraft is similar to the eight other State Warning Airports identified in OAP 2007. These airports typically have few or no based aircraft, low activity levels, and are strategically located throughout Oregon:

- Crescent Lake State Airport
- McKenzie Bridge State Airport
- Owyhee Reservoir State Airport
- Pacific City State Airport
- Pinehurst State Airport
- Santiam Junction State Airport
- Toledo State Airport
- Wakonda Beach State Airport

The ODA webpage notes the following in its description of Cascade Locks State Airport:

*"The airport plays a supportive role in the current system, providing access to the surrounding recreational areas, including the starting/ending point of the Pacific Crest National Scenic Trail and the Mt. Hood National Forest. In addition, the airport provides a safe alternative landing site for aircraft flying through the Columbia River Gorge during inclement weather conditions. "*

As defined in OAP 2007 policy, maintaining the current level of emergency airport capability within the Oregon Aviation System is a high priority. Based on the geographically strategic importance of these airports, primarily as emergency landing areas, the inability to meet specific design criteria or having a low level of activity does not provide sufficient justification to close a Category V airport.

It is important to note that maintaining the aeronautical function of these airports does not necessarily preclude considering compatible mixed use development that support local economies while also contributing to the cost of maintaining the system of state owned airports.

## 2.2 The Airport Property

The ODA webpage provides the following description of Cascade Locks State Airport:

*“The first property for this airport was acquired in 1948. The construction of the airport took place in 1949 with financing furnished by Oregon State Board of Aeronautics, Washington Aeronautics Commission and the Civil Aeronautics Authority (the predecessor of the FAA).”*

The site for Cascade Locks State Airport is defined by both natural terrain and built items. **Figure 1** depicts the current airport property. The site consists of approximately 41 acres that includes two separate, non-contiguous parcels:

- The main airfield parcel (approximately 34 acres) is located between the Union Pacific Railroad right of way (north) and NW Forest Lane (Historic Columbia River Highway 100), a major collector street (south)
- A second parcel (approximately 7 acres) located on the north edge of the Union Pacific Railroad right of way and extends into the Columbia River

Surface access to the airfield is provided by Pleasant Drive (direct connection to NW Forest Lane/Historic Columbia River Highway 100). North Jackson Roberts Road abuts the east end of the airport and provides access to adjacent residential parcels, although there is no established access to the north side of the airport.

### 2.2.1 Existing On-Airport Land Use (Airfield Parcel - 34 Acres +/-)

#### Airport Operations

Approximately 25 acres of the parcel supports aircraft operations associated with the runway. This includes the runway and its protected surfaces, portions of the runway protection zones (RPZ), and the areas inside the building restriction lines (BRL) located on both sides of the runway that could accommodate aircraft parking or similar facilities, but no structures. The current Airport Layout Plan (ALP)<sup>1</sup> depicts the following protected areas or development setbacks for the current runway:

- Runway Safety Area (RSA)
- Runway Object Free Area (OFA)
- Building Restriction Lines (BRL)
- Runway Protection Zones (RPZ)

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<sup>1</sup> GCR (2/6/04)

These areas are not suitable for development of structures or uses that may create a hazard to aircraft operating on the runway.

### Airport Development Area

The remaining 9 acres of the main airfield parcel is located outside the north and south BRLs established for the runway. The BRLs are located 250 feet from the runway centerline, which correspond to building heights of 17.8 feet above runway elevation, at the BRL. This measurement is based on the required clearance for the FAR Part 77 transitional surface (7:1 slope) for the runway. The areas located outside the BRLs could potentially accommodate either aeronautical or non-aeronautical uses that are compatible with airport operations. This area has two primary sections (north and south) that have the potential of accommodating development. A smaller third section located adjacent to the west runway protection zone (RPZ) is not considered developable.

**South Section.** A semi-rectangular area approximately 4 acres in size. The area directly abuts NW Forest Lane/Historic Columbia River Highway 100 and the south BRL for Runway 6/24. Current development includes the airport access road (Pleasant Drive), a portable toilet, and a small baseball field. The area is not currently served by utilities, although water, sewer, electric, telephone service is located along NW Forest Lane on south side of the airport.

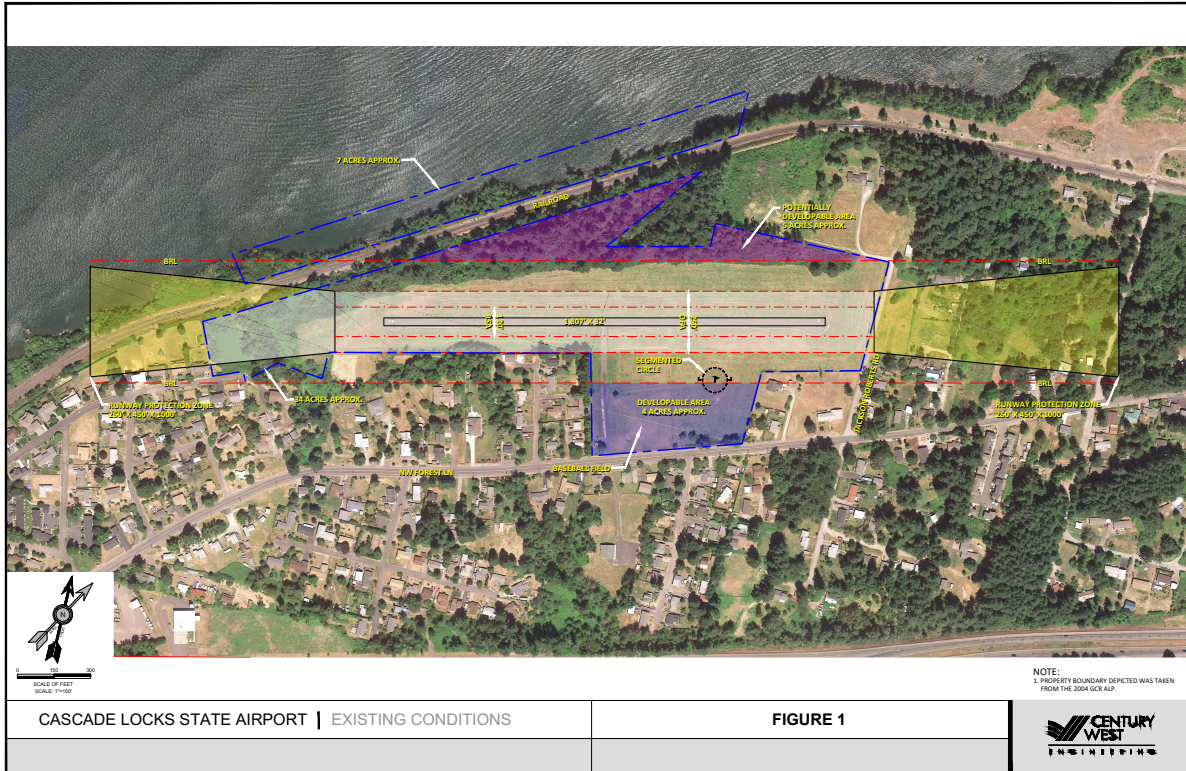
**North Section.** An irregularly-shaped area approximately 5 acres in size. The section is defined by the north BRL for Runway 6/24 and the north airport property line/Union Pacific Rail Line. The area is wooded and undeveloped. No additional information about the site conditions is available. Surface access is limited. North Jackson Roberts Road extends to the northeast corner of the airport and becomes a private driveway. The nearest utility service appears to serve residences located along North Jackson Roberts Road.

There are currently no existing hangars or based aircraft at the airport. The current ALP drawing for Cascade Locks State Airport does not depict a future hangar development area. Any potential development of structures (aeronautical or non-aeronautical use) would be sited outside the BRLs unless it could be demonstrated that it's (lower) height avoided penetrating the runway transitional surface (FAR Part 77).

### **2.2.2 Existing River Frontage (7 Acres +/-)**

A second parcel abuts the north edge of the Union Pacific Railroad right of way and extends into the Columbia River. There are no existing railroad crossings connecting two airport parcels and there is no access to the parcel from land. Water access is feasible, although limited shoreline is available.

Figure 1 – Airport Property



### 2.2.3 Physical Airport Conditions

Cascade Locks State Airport has basic airfield facilities including a paved runway, paved access taxiway, turf aircraft tiedowns, a wind cone and segmented circle. The airport is not currently served with electrical power and has no lighting.

The runway is 1,800 feet long and 30 feet wide, with small aircraft turnarounds at both ends.

A single access taxiway (15 feet wide) is located near mid-runway and extends approximately 190 feet south, where it transitions directly into the airport access road. The taxiway provides access from the runway to the adjacent turf aircraft tiedown area.

The ODA Pavement Evaluation/Maintenance Management Program 2017 for Cascade Locks State Airport lists a pavement condition index (PCI) of 78 for Runway 6/24, on a scale of 0 to 100. This PCI translates into a “satisfactory” condition rating. The forecast PCIs (assuming no intervening maintenance) for 2022 and 2027 (77 and 75) also correspond to a “satisfactory” rating. The PMMP recommends a slurry seal for the runway in 2018. The recommended maintenance for the runway is adequate to maintain a safe operating surface for the foreseeable future. The exit taxiway is not captured in the pavement inspection inventory. The taxiway appears similar in construction and condition as the runway and should be added to the airfield pavement inventory and maintenance program.

The runway markings include runway end numbers and a centerline stripe. The markings are worn/faded and will be repainted in conjunction with the slurry seal project noted below. The access taxiway has no markings.

The airport site has significant tall tree growth along the north side of the runway and limited areas on the south side of the runway. Both runway approaches appear to have significant tree growth penetrations. The current FAA Airport Master Record form indicates that the Runway 6 (west end) unobstructed approach clearance is 7:1 (trees located 458 feet from runway end). The Runway 24 (east end) unobstructed approach clearance is 0:1 (road located 200 feet from runway end). The Runway 24 approach also has numerous trees located 500 feet from runway end, and beyond. Although these are not identified as the controlling obstruction, their heights likely create significant penetrations (50 feet +) to the approach surface.

The airport has one access road that connects directly to NW Forest Lane (Historic Columbia River Highway 100). The paved access road leads to a locked gate and fence. The road continues past the gate and transitions into the access taxiway that connects to the runway.

The airport has limited fencing along its property line and a secondary fence separating the airfield and baseball field.



#### 2.2.4 Historical and Current Airport Usage

OAP 2007 provides the most recent airport-specific estimates of historic and forecast activity at Cascade Locks State Airport. The forecast uses a base year of 2005 and provides forecasts of aviation activity for the 2005-2025 time period. **Table 3** summarizes the OAP 2007 based aircraft and annual aircraft operations forecasts.

Table 3  
Cascade Locks State Airport Activity

Year	Based Aircraft	Annual Aircraft Operations
Historical		
2005	1	475
Projected		
2010	1	475
2015	1	475
2025	1	475
Source: Oregon Aviation Plan Individual Airport Report (2007) An aircraft operation is 1 takeoff or 1 landing.		

The current FAA Airport Master Record (Form 5010-1) lists 0 based aircraft and 1,500 annual operations for the 12 months ending 9/27/17. The source for the 5010 estimates cannot be verified and should be considered a high estimate.

#### 2.2.5 Ownership and Management

ODA owns and operates Cascade Locks State Airport. ODA's State Airports Manager is responsible for the maintenance and operation of the airport from ODA's office in Salem. Periodic airfield maintenance is performed seasonally or on an as-needed basis.

Cascade Locks State Airport currently has no aviation tenants. ODA provides a portable chemical toilet for the airport that is regularly serviced.

ODA airport management reports one active lease at Cascade Locks State Airport to the National Oceanic Atmospheric Administration (NOAA) for weather observation equipment. The monitoring unit is located near the airport wind cone and segmented circle.

ODA has issued a permit to the City of Cascade Locks for the baseball field located on airport property. The current 5-year permit is in effect (expiration date unknown).

#### 2.2.6 Infrastructure and Current Capital Needs

Cascade Locks State Airport does not have a master plan defined capital improvement program (CIP) to guide future improvements. However, recommended facility improvements for the Airport are identified in OAP 2007 and several improvements are depicted on the current ALP drawing. In addition,

ODA's airfield pavement management program recommends one pavement related maintenance project for the Airport. These recommendations are summarized below.

#### OAP 2007

OAP 2007 (Table 5.19) included the following recommended improvements for Cascade Locks State Airport:

- Extend runway to 2,500 feet
- Widen runway to 60 feet
- Install medium intensity taxiway lighting
- Construct vehicle parking lot
- Relocated existing fuel farm

The runway length and width recommendations are generally consistent with the performance criteria defined for Category V airports, but do not necessarily reflect the site limitations noted in the warning airport designation.

The runway extensions appear to have limited feasibility based on the current configuration, property ownership, and the ability to meet basic design standards such as runway safety area. Additional planning and engineering evaluation would be required to determine the feasibility and cost of the recommended runway extensions. Runway widening is feasible within the current site, but may require reconstruction of the existing runway to provide a 60-foot wide runway section.

Taxiway lighting not a minimum criteria for Category V airports, although it is identified as a desired criteria. When required, runway edge lighting is normally prioritized ahead of taxiway edge lighting. However, there is no recommendation to install runway lighting at the Airport. The short section of access taxiway (190 feet) would not normally be a high priority for edge lighting.

There is no fuel storage in current use at the airport. It is unknown if the recommendation to relocate the existing fuel farm is in error or if there is a decommissioned underground fuel storage tank (UST) on site.

A small pull out/vehicle parking area is located adjacent to the portable toilet and the airport access road. A restroom structure previously located in this area was demolished due to its condition. A small vehicle parking area could be improved in this area.

#### Airport Layout Plan (2004)

The 2004 ALP drawing depicts minor runway improvements in conceptual form, but does not provide sufficient detail to evaluate feasibility, effectiveness, or cost. Two future runway extensions are depicted on the ALP:

- A 100-foot extension at the Runway 6 (west) end
- A 93-foot extension at the Runway 24 (east) end

The future runway length is listed as 2,000 feet. Future RPZs are depicted for the runway based on the recommended extensions, although future runway safety area or runway object free areas that correspond to the recommended extensions are not depicted. No future increase in runway width is identified on the ALP.

The west runway extension appears to be feasible based on the current property ownership. However, the west end of the runway sits on a bluff above the adjacent railroad line and the Columbia River and the terrain in this area slopes significantly downward. The feasibility to extend runway safety area (up to an additional 240 feet) beyond the runway end is unknown. As indicated in published airport information, pilots often experience significant turbulence when approaching the runway from the west as they encounter the terrain rising up from the river.

The east runway extension can also be contained within existing airport property. However, several issues would need to be analyzed to determine feasibility, effectiveness, safety, and cost. These include the close proximity of North Jackson Roberts Road (less than 200 feet from current runway end). Shifting the runway end closer to road would increase the obstruction created by vehicles traveling on the road. The ALP does not depict any recommended mitigation such as a displaced landing threshold or realignment of the road to improve obstruction clearance. In addition, the trees currently penetrating the existing Runway 24 approach will be closer to the extended runway end and therefore require removal or a steeper approach for landing aircraft.

No other improvements are depicted on the ALP.

#### Pavement Evaluation/Maintenance Management Program (2017)

The PMMP recommends a slurry seal for the runway in 2018 at an estimated cost of \$17,961. No other pavement maintenance projects are identified for the Airport in the 2017-2027 time period. The recommended maintenance is adequate to maintain the current runway surface for the foreseeable future, although as noted earlier, similar maintenance should also be performed on the access taxiway.

### **3.2 Opportunities, Constraints, and Possible Airport Futures**

The future use of Cascade Locks State Airport to support mixed use development and maintain its current emergency use aeronautical function will limit development to the approximately nine acres of airport land that sits outside the protected areas for the runway. The ability to generate revenue through long term land leases or limited parcel sales could offset the cost of maintaining or improving airfield facilities

#### South Area

The 4-acre area located on the south side of the airport appears to have reasonable development potential that could be explored. The area has been previously cleared and currently supports non-aeronautical uses. Additional site evaluation would be required to assess feasibility and cost of development.

Potential advantages:

- Direct access to Major Collector Street
- Close proximity to basic utilities
- Clear, level and developable site
- No existing or planned aeronautical use
- Acreage will support scaled development
- Uniform shape for all acreage

Potential challenges:

- Existing recreational facility (ball field)
- Existing zoning does not support mixed use or light industrial use
- Residential land uses adjacent to area

North Area

The 5-acre area located on the north side of the airport may have development potential that could be explored. However, much less is known about this area since it is currently undeveloped. Additional site evaluation would be required to assess feasibility and cost of development.

Potential advantages:

- No existing or planned aeronautical use
- Overall acreage

Potential challenges:

- Irregular shape with east and west portions connected by a narrow middle section
- Heavily forested, undeveloped site
- Unknown environmental conditions
- No existing surface access to site
- No existing utilities to site
- Existing zoning does not support mixed use or light industrial use
- Residential land uses adjacent to area

Full Airport Redevelopment Option

The option of closing Cascade Locks State Airport and converting the site to other uses is not consistent with current ODA policies for divesting State owned airports or the defined functional requirements of the Oregon Aviation System.

**3.2.1 Feasibility of Physical Airport Modifications or Enhancements**

The warning airport designation for Cascade Locks State Airport reflects the practical site constraints affecting the feasibility of improving the runway. As noted earlier, widening the runway appears to be feasible, although the cost would be significant. Runway extensions appear to be less feasible based on the limits of the site. Incremental improvement to the runway environment, including removing trees obstructing the runway approaches would improve existing aeronautical function and safety. Acquiring

adjacent property or realigning North Jackson Roberts Road near the east end of the runway to improve ground and approach clearances may be considered, although the cost and overall feasibility is unknown.

### **3.2.2 Aviation Oriented Uses Common at Other Airports**

Small airports with similar runway dimensions to Cascade Locks State Airport accommodate a variety of small single-engine aircraft. Many of these aircraft are capable of operating on unimproved landing strips, from 1,500 to 2,500 feet long. Runway widths of 30 to 40 feet are common.

Hundreds of small runways located in Oregon and Washington provide valuable emergency landing options for small aircraft. Some of the airports accommodate locally-based aircraft, while others are used mostly by transient aircraft. The revenue generating potential for this category of airport in a small community or remote area is heavily dependent on the ability to attract based aircraft. Most transient use does not generate significant revenue at small airports. As noted earlier, Cascade Locks State Airport has available land capacity to accommodate aircraft hangars and existing tiedowns for parked aircraft. However, a combination of market conditions and the unique airfield features appear to be reflected in the current and historic absence of based aircraft at the airport.

It is noted that the strong wind conditions common at Cascade Locks State Airport will discourage regular use many small aircraft. However, the use of the runway during an aircraft emergency provides a better opportunity for a safe landing even in severe weather conditions, compared to an off-airport landing in the surrounding area.



*Cascade Locks State Airport*

DATE: March 16, 2018  
TO: Cascade Locks Airport Project Steering Committee  
FROM: Matt Craigie and Terry Moore  
SUBJECT: **CASCADE LOCKS AIRPORT STUDY**  
SUMMARY OF TECHNICAL MEMORANDA

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## Background

The Port of Cascade Locks is assessing options for future land uses at the Cascade Locks Airport. It is working in collaboration with the Oregon Department of Aviation, the City of Cascade Locks, the Office of the Governor, and other local and regional stakeholders. It created a Project Steering Committee with the task of identifying possible future land uses at the airport that are viable, beneficial to the local community, and agreeable to a broad range of users and community members.

When the study is complete (June 2018), the Project Steering Committee (PSC) will make a recommendation to the State of Oregon regarding preferred future land uses at the airport.

The PSC and its staff are about mid-way in the project. Staff have collected information about the airport site, aviation uses, other possible uses on the site, and public opinion about opportunities and concerns. In particular, the consultant team—ECONorthwest and Century West Engineering—conducted two technical evaluations related to future use of the airport: one about uses related to aviation, and one about non-aviation uses (e.g., residential, commercial, and industrial uses). **This memorandum summarizes the results of those evaluations.**

The PSC will discuss this information at its meeting in Cascade Locks on March 20<sup>th</sup>.

## Summary of the Technical Analyses

Following is a short summary of the key findings from the technical analyses. Details are in supporting technical memoranda. The final section of this memorandum is a discussion of the tradeoffs involved in any decision concerning the future of the Cascade Locks Airport.

### Aviation

Century West Engineering conducted an analysis of the historical, current, and potential aviation related uses at the airport. Its key findings:

- The Cascade Locks Airport is in the lowest category of Oregon airports (Category V, Remote Access/Emergency Service (RAES)). It is a “warning airport” meaning that landing at/taking off from the airport is technically more difficult than other airports of similar size. Pilots are advised to review and understand the technical details regarding how to safely use the airport prior to their journey.

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- Warning airports, like the Cascade Locks Airport, are situated to tie together airport networks across a wider region. The Cascade Locks Airport fills an emergency safety gap for small-wheel equipped aircraft along the route between Troutdale and Hood River. There are no alternative airports in the immediate area.
  - There are no current plans to upgrade or enhance the Cascade Locks airport. The Oregon Aviation Plan (OAP) of 2007, says that airport upgrades are “not an objective” for Category V airports.
  - The OAP plan of 2007 mentions that divestment of state-owned airports to local municipalities is a consideration if the functional role of the airport is maintained and continued operation and development of the facility benefits the local community.
  - The Cascade Locks airport is not included in the Federal Airport System, and is therefore not eligible for Federal Aviation Administration (FAA) funding.
  - The short runway length and its narrow width are the primarily limiters to the airstrip’s functionality. Other constraints include the difficulty of the runway approaches and common inclement weather conditions (especially heavy crosswinds). There is space to expand the width, but changing the site and its surroundings to do support increasing the length.
  - The most realistic upgrade that would increase airstrip usability and safety would be to widen the runway. Widening the runway could cost between \$300,000 to \$1 million. Such a widening would increase safety for aircraft that can use the airstrip now, but would not greatly expand the types of aircrafts that could use the airstrip in the future.
  - Airport usage is difficult to estimate. The OAP of 2007 estimated 475 annual aircraft operations (i.e. one takeoff or one landing), although this estimate cannot be verified. This would mean an average of 1 ½ aircraft visits per day. Anecdotal information suggests that some pilots use the airport to practice short landings and takeoffs. Whether and how those multiple operations are included in the use estimates are unknown. Airports with fewer than 1,000 operations are considered to have low usage rates. Based on the available evidence about the airstrip’s legal status, length, and use, Cascade Locks is clearly a “low use” airport.
  - From an aviation standpoint, the ability for the aviation use to generate income for the property owner is highly dependent on the ability to attract based aircraft. Transient use does not generate significant revenue for small airports. There are no aircraft currently based at the Cascade Locks airport.
  - A four-acre area on the southern portion of the airport and a five-acre area of the northern portion of the airport are potentially redevelopable without significant interference of current aviation uses.

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## Economic Development

ECONorthwest conducted an analysis of demographic and economic drivers that will influence future land use and development within the community of Cascade Locks. Its key findings:

- The population of Cascade Locks is growing. The current population of 1,300 residents is projected to grow by 15 percent over the next two decades. Given supportable assumptions about vacancy rates and household size, that growth would require about 100 new housing units.
- The population of Cascade Locks is older and less affluent compared to other parts of the Gorge or to the entire state. Household sizes are also smaller.
- There are relatively few jobs in Cascade Locks. Most city residents commute outside of the area for work.
- Unemployment is higher in Cascade Locks compared to other parts of the Gorge or to the entire state.
- Employment is centered on tourism and manufacturing.
- Residential construction rates have increased recently.
- Although few commercial permits have been issued recently, City officials have noted a recent increased interest in commercial and industrial development.
- The State of Oregon has a relatively rigorous and well-defined set of standards for making a quantitative determination of whether a city has insufficient lands within its Urban Growth Boundary and, thus, should be allowed to expand that boundary. The basic test is whether the acreage of buildable land (vacant and partially vacant / redevelopable) is sufficient to accommodate 20 years of growth at expected densities. By that standard it appears that Cascade Locks, in the aggregate, has sufficient land for most land use types to accommodate the growth forecasted for 20 years.

The most significant exception to that basic calculation relates to larger-sized parcels to accommodate commercial and industrial growth. In theory, cities are allowed to have enough vacant land in a mix of parcel sizes (e.g., 2, 5, 10, 20 acres [and larger in bigger cities and metropolitan areas]) so that they could accommodate larger businesses.

In larger Oregon cities (populations of, say, 25,000 or more), if there is sufficient land inside an urban growth boundary to assume that there is enough *buildable land* in the aggregate, then there will be enough diversity in locational attributes, parcel size and other site attributes, and ownership that market incentives will bring parcels to market for development. In small cities, the supply of land that theoretically would accommodate growth may be so small that those assumptions are incorrect. On a percentage basis, small cities may need a higher percentage of buildable land (relative to estimated demand) than larger cities. In Cascade Locks, such a problem could manifest itself as development-ready land being dispersed across the community, or not easily unlocked for development. Turning these properties into productive land uses—new



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homes or businesses—could prove to be a challenge. A bigger supply of buildable land would create some market incentives to bring vacant land online for development, and do so at lower costs.

## Implications for Land Use at the Cascade Locks Airport

A fundamental problem for evaluating the future land use at the airport is that users (primarily pilots); secondarily city residents (for open space and potential use in emergencies) are not owners (the state of Oregon, and ODA). A small group of users may value their use of airport highly, but not enough to pay annual fees that would be required if the state were trying to get a return on the land the way a private land owner would. The inevitable consequence is that some people in Cascade Locks see high value for the airport land in future, non-airport uses, and some people want to keep the airport operation (for a variety of reasons), and are less concerned about the value of alternative uses, which was the Port's motivation for doing this evaluation.

We can be more specific. Even though the airstrip may be seldom used, pilots who fly (or may fly) in the area clearly prefer keeping the airstrip to provide emergency landing spot. But Cascade Locks is growing, and elected and appointed officials in the city have various obligations to encourage and accommodate growth in a city with physical and administrative land constraints: they desire to use properties within its borders effectively. The 37-acre airport is easily accessible and almost development-ready land. But it generates no tax revenue and a negligible amount of economic activity.

There will be trade-offs with any decision that is made regarding the future use of the airport property. Without judging one alternative over another, here are our comments on these trade-offs:

On the one hand, given the State of Oregon's strict land use policies, it is hard for a community to have "too much" industrial or commercial land. Additionally, population growth—one of the primary drivers of economic growth—in the Gorge is projected to continue for the foreseeable future. The airport property is flat, easily-accessed land along a major city street. From a physical standpoint, the airport could easily be redeveloped into any number of potential uses—residential, commercial, or industrial. Further, the airport is seldom used and is a financial burden for the State of Oregon.

On the other hand, the airport is highly valued by pilots as a potential landing site in an emergency. The situation is common with any low-probability / high-impact event (e.g., earthquakes, floods, fires, crimes, random acts of violence): how much protection is enough protection? What is the *cost-effective* amount of protection? The answers to questions like that are different depending on whether one has to pay for that protection. Moreover, at the public meeting in February, a clear majority of the citizens of Cascade Locks that attended, favored keeping the airstrip open for various reasons, including use in an emergency or open space; not seeing the need or value for alternative uses at the site.

Exhibit 1 tries to illustrate some of these tradeoffs.

**Exhibit 1. Cascade Locks Airport Future Options - Tradeoffs**

	Benefits	Drawbacks
Keep Airport “As-Is”	<ul style="list-style-type: none"> <li>Continuation of emergency landing spot for aviators</li> <li>Emergency staging area for responding to community emergencies (e.g. forest fires, earthquakes)</li> </ul>	<ul style="list-style-type: none"> <li>Land unavailable for other uses that generate jobs, economic activity, and tax revenue to support community services.</li> <li>Ongoing operational and opportunity costs to the State of Oregon.</li> </ul>
Non-Aviation Uses (Commercial, Industrial, or Residential)	<ul style="list-style-type: none"> <li>Land that is easily accessible, almost development-ready, and suitable for many development options</li> </ul>	<ul style="list-style-type: none"> <li>Loss of airstrip creates a larger gap without an emergency landing spot for small planes flying in the Gorge area</li> </ul>
Mix of Uses (Including Aviation)	<ul style="list-style-type: none"> <li>Continuation of emergency landing spot for aviators</li> <li>Emergency staging area for community emergencies (e.g. forest fires, earthquakes)</li> <li>Ability to generate economic activity on a portion of the airport property</li> </ul>	<ul style="list-style-type: none"> <li>Non-aviation uses may be greatly restricted by aviation land use regulations.</li> </ul>

Is there an option that addresses the interests of all parties? The most compelling need of aviators flying through the Gorge is safety. Their minimum requirement is the current airstrip, which is already shorter and narrower than it should be. The aviation technical analysis identified nine acres of the airport property that may be developable and are likely to not interfere with functionality of the airstrip. Could development on these acres achieve community goals for development, while also preserving the aviation use? Exhibit 2 suggests some possibilities.

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## Exhibit 2. Middle Ground Options

	Opportunities	Constraints
Develop “surplus” nine acres on the airport property	<ul style="list-style-type: none"><li>• Potential for commercial, industrial, or residential development that is compatible with the use of the airstrip</li></ul>	<ul style="list-style-type: none"><li>• Redevelopment on the airport property is likely to require a zoning change, infrastructure development, and perhaps a change in property ownership</li></ul>
Rezone Adjacent Properties to the Airport	<ul style="list-style-type: none"><li>• A rezoning of properties adjacent to the airport to align these uses with aviation may increase the usability and economic activity generated by the airport</li></ul>	<ul style="list-style-type: none"><li>• Most properties adjacent to the airport are fully developed. A rezone alone is unlikely to trigger redevelopment</li></ul>
Enhance Aviation Uses at the Airport	<ul style="list-style-type: none"><li>• An enhanced airport could increase aviation usage rates, bringing the potential for more economic activity</li></ul>	<ul style="list-style-type: none"><li>• Geographic and weather constraints will always make airport usage technically difficult. Therefore, an enhanced airport may not increase usage rates.</li></ul>

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## Next Steps

The scope of work for this project, approved by the PSC, included a check-in with the PSC when a draft of the technical work was completed, and before work began on developing alternatives for uses of the site. That is where the project is now.

Our assessment is that alternatives that close the airstrip—and transfer all the land to the Port or City for future development in other urban uses—are unlikely to gain consensus support. This is an opinion—the PSC may disagree. If it does agree, however, then the only viable alternatives are to either leave the airport property as it is, or to create some middle-ground redevelopment option that preserves the functionality of the airstrip. How to proceed with this project, that is—if the removal of the airstrip should even be considered—is the decision of the Project Steering Committee and will be a key topic of discussion during the next PSC meeting on March 20<sup>th</sup>.

Port of Cascade Locks

**SUMMARY MINUTES OF AIRPORT FEASIBILITY STEERING COMMITTEE**

**MEETING ONE**

December 7, 2017

2 pm at Cascade Locks City Hall.

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**Steering Committee Members Present:** Mitch Swecker, Mary Rosenblum, Warren Hendrickson, Joel Madsen, Carolyn Meece, Nate Stice, Travis Cieloha, Amanda Hoey, Jeff Hecksel, Eric Johnson, Kristen Stallman, Don Mann and Sally Moore and Paul Koch. ECONwest staff members present were Matt Craigie with Terry Moore on the telephone.

**Summary Minutes:** The meeting was called to order and everyone was asked to introduce themselves.

The meeting began with a presentation by Mitch Swecker, State Aviation Director who provided a brief history of the Cascade Locks Airport. This was followed by a presentation by Paul Koch, GM Port of Cascade Locks outlining how we all got to this point.

Matt Craigie of project consultant ECONwest reviewed the proposed scope of work and took comments and answered questions that Steering Committee members brought to the meeting. Terry Moore also of ECONwest was on the telephone calling in from Mexico. There was agreement over the proposed scope of work. There was general agreement over the following issues.

1. The proposed scope of work.
2. The need to meet when called.
3. That meeting announcements provide plenty of lead time for Committee members.
4. Materials to be used with an agenda are provided to the Steering Committee in advance of the meeting.

It was agreed that future meetings would be well advertised and members of the Steering Committee given lots of advanced notice of meetings.

DATE: April 10, 2018  
TO: Cascade Locks Airport Project Steering Committee  
FROM: Terry Moore, Matt Craigie, Margaret Raimann  
SUBJECT: CASCADE LOCKS AIRPORT ANALYSIS PSC MEETING #2 MINUTES

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## Cascade Locks Airport Analysis Project Steering Committee Meeting #2

The second of four Project Steering Committee (PSC) meetings for the Cascade Locks Airport Analysis was held on March 20, 2018 from four to six p.m. at the Marine Park Pavilion in Cascade Locks. The purpose of the meeting was: (1) to review the consultants' technical analyses, and; (2) to decide on the next direction of the project.

### Meeting Attendance

#### Project Steering Committee Members

- Mitch Swecker – Oregon Department of Aviation (ODA) (on the phone)
- George Steed – Washington Pilots Association
- Neal White – Oregon Pilots Association
- Andrew Plambeck – ODOT (on the phone)
- Nate Stice – Regional Solutions, Office of the Governor
- Gordon Zimmerman – City Administrator, Cascade Locks
- Paul Koch – General Manager, Port of Cascade Locks
- Jeff Hecksel – County Administrator, Hood River County
- Amanda Hoey – Executive Director, MCEDD
- Eric Johnson – WSDOT Aviation

#### Public Participation

- Approximately 10 members of the public attended the meeting
- In discussions with members of the public, many identified themselves as residents of Cascade Locks. A representative of the Cascade Locks Historical Museum was also in attendance.

#### Consultant Team Members in Attendance

- Terry Moore – ECONorthwest
- Matt Craigie – ECONorthwest
- Margaret Raimann – ECONorthwest
- Matt Rogers – Century West

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- David Miller – Century West

## Meeting Agenda

The meeting began with a welcome, and introductions from all PSC members, community members, and consultant team staff in attendance. Century West and ECONorthwest each provided key takeaways from the technical memoranda, followed by questions and discussion with the PSC. The discussion of each technical memorandum ended with additional questions from community members. At the end of the meeting, there was discussion regarding the project's direction and also tasks for the consultant team to complete before the next PSC meeting.

## Meeting Packet

Prior to the meeting, ECONorthwest provided a packet of documents for the PSC to review. It included:

- Town Hall Meeting Summary (prepared by ECONorthwest)
- Summary of Technical Memoranda (prepared by ECONorthwest)
- Economic Development Conditions Report (prepared by ECONorthwest)
- Airport Opportunities and Constraints Memo (prepared by Century West Engineering)

The Summary of Technical Memoranda provided a consolidated summary of the Economic Development Conditions Report and the Airport Opportunities and Constraints Memo. Century West and ECONorthwest presented the findings of these analyses to the PSC. Each memorandum presentation then spurred a conversation about the implications of its findings. These conversations were generally about issues or opportunities related to aviation uses at the airport, and then later about economic development possibilities. These discussions are summarized below.

## Aviation Discussion

Century West (David Miller) started the discussion with a brief presentation of their study's results. The PSC asked for clarification on issues related to: the benefits to extending or widening the runway; the possibility for removal of trees at the east end of the runway approach; space available to build hangars; and the definition of the emergency function (i.e., warning designation) of the airport.

Century West confirmed that either widening or lengthening the runway is possible, but the cost may outweigh any benefits. The extent to which the runway could be lengthened or widened is small, and these runway enhancements would not change the class of the airport or enable much larger planes to use the airport. Given the choice, Century West recommended widening over lengthening the runway.

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The Oregon Department of Aviation confirmed that they can remove trees that obstruct the runway's approach from the east, and there are funds available to remove obstructions on the state-owned property. The airport overlay zone covers this area and there is an obligation to protect airspace in that zone.

Century West noted that there is space on the property to accommodate longer-term access, including space to build hangars. ODA commented that in the past there has been some interest in longer term facilities, such as hangars or long-term tie downs, but interested parties never moved beyond the inquiry stage.

The discussion then shifted to the airport's status as a "warning" airport. The PSC asked about how this emergency function of the airport is defined, expressing concerns that eliminating the Cascade Locks Airport would create a gap for safe landing options in the Gorge area. Century West clarified that the "warning" airport designation means that it serves as an emergency landing spot in the case of weather conditions or mechanical problems. Warning airports, such as Cascade Locks, are also technically difficult for landing and takeoff due to runway dimension and location, but can serve as an emergency link in a regional airport network. Pilot representatives on the PSC expressed the necessity of the airport given its location in a convergence zone,<sup>1</sup> and mentioned that it has saved pilots in emergency situations caused by inclement weather conditions.

### **Economic Development Discussion**

ECONorthwest (ECO) continued the discussion with a presentation of the findings from their memorandum. PSC members commented on the restrictions to expanding the UGB in Cascade Locks and asked for clarification on the population forecast numbers for the City of Cascade Locks.

The City Administrator noted that the City of Cascade Locks is in the National Scenic Area, and it is not possible to expand the Urban Growth Boundary (UGB) without federal legislation.

The PSC asked for clarification on the discrepancies in the population numbers presented by ECO and those available elsewhere. ECO provided background information about the various data sources for population forecasts and previous counts, and why the PSU population forecasts (the source in ECO's memorandum) are preferred. ECO staff also explained that it is policy and not forecasts that affect population growth; meaning that public agencies play a significant role in influencing the local growth rate. The opportunities for growth in Cascade Locks are limited by a UGB that is unlikely to ever be expanded. The City Administrator discussed the recent residential development pressure on Cascade Locks that is coming from the wider region. He confirmed that residents of Hood River (Insitu employees, for example) and Portland are buying homes in Cascade Locks.

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<sup>1</sup> Term used in meteorology to explain locations where two atmospheric flows meet, causing increased precipitation.

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## Discussion of Alternatives

Before the PSC meeting, ECO sent a one-question poll to PSC members that asked for their preference regarding which future development options for the airport property they would like to pursue during the remainder of the project. The purpose of the poll was for the consultant team to gain a preliminary understanding of the options that the PSC would like to explore further. The options included: (1) abandon further evaluation (leave the airport “as-is”) (2) create and evaluate some “middle-ground” options, or (3) create and evaluate a full range of options. Most PSC members who answered the poll preferred the third option (about 58 percent). About 33 percent preferred the second option, and about 8 percent preferred the first option, to abandon further evaluation. The poll informed the final discussion of the PSC meeting: which development options the consultant team should explore and present to the PSC for further consideration.

To initiate the discussion, ECONorthwest presented some tradeoffs for each potential development option, and then opened the discussion to the PSC and other community members in attendance. The Port reiterated that they don’t want the consultant team to focus on opportunities that “will never fly.” Moreover, the Port is interested in exploring options that are likely to be feasible and politically acceptable to the full range of stakeholders.

The PSC discussed the “mix of uses” (i.e., middle-ground) option, and questioned whether there should be another option that focuses exclusively on new aviation-related development uses—referred to as going “all-in” on the airport. Currently, the airport is no weather station, no fuel system for planes, or other aviation improvements. Some PSC members expressed interest in those additions. Century West noted that the size of the runway, even if slightly expanded, may still present challenges in attracting more aviators and aviation supportive businesses (e.g. a café) to the airport. However, attracting aeronautical or drone businesses to the airport may be a feasible option. Century West added that it may be difficult to gain a return on investment on a fuel system that complies with DEQ standards, stating that this has been a difficulty at other Oregon airports. The PSC requested to see the cost estimates associated with this enhanced aviation option.

ODA Staff provided an example of the airport in Cottage Grove that has completed recent improvements, including spaces for based aircraft, a fueling system, hangars, a pilot’s lounge, and an on-site vehicle for pilot use. These improvements are new and ODA Staff reported that no economic analysis on the enhancement’s economic impacts on the local community have been conducted yet.

Community members in attendance presented concerns over eliminating the airport entirely and its essential function during wildfires. In response, the City Administrator asked about the frequency of use of the airport, and Century West responded that it is difficult to estimate



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without someone counting flights in and out, something that rarely happens at airports without control towers; unverified counts, they stated, estimate between 475-1,500 operations per year.<sup>2</sup>

One community member asked about adding an east-west road connection between Riverview Drive and either Jackson Roberts Road or Gravel Pit Road, which would allow development along the river. The PSC expressed interest in this option, and ODA Staff responded that they would be willing to clear trees and approve the connection of the roads on the state-owned property. Century West also commented that if the state owns the property near the roads, then extending the runway would be easier to do. Another community member agreed and noted that riverfront property would be a selling point for potential buyers.

A final community comment reiterated that the UGB won't expand, and given that reality, then the city will hit its buildable land capacity at some point in the near future. The City Administrator commented that a limited housing supply results in increased housing prices, and Cascade Locks does not want to see housing prices increase to Hood River prices.

## Other Meeting Comments

- PSC member Neal White has the name and contact information for a airplane hangar developer and will send via email to the consultant team.
- One PSC member presented the idea of a residential airpark on the property. ODA staff mentioned their familiarity with airparks, and cited the Independence, OR airport as a good example. The ODA would be willing to explore this option, ODA staff mentioned; noting that while airparks can be popular they are not a very efficient use of land. A PSC member offered that an alternative to the airpark idea is hangar development.
- Another community member (identified as a business owner in Cascade Locks) noted that he has not witnessed aviators who use the airport as patrons of local businesses. The community member argued that there are larger economic development opportunities in getting more people off of I-84, and that improvement to the airport might not have long-term benefits.

## Next Steps

At the conclusion of the meeting, the PSC and the consultant team discussed the best approach for moving the project forward. Based on the discussion, it was decided that the consultant team will explore a full range of development options for the Cascade Locks Airport. The PSC agreed that they wanted to understand the full spectrum of options for the property so that they would understand the potential tradeoffs between one option over another.

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<sup>2</sup> An "operation" is either one take-off or one landing.

DATE: May 25, 2018  
TO: Cascade Locks Airfield Project Steering Committee  
FROM: Terry Moore, Matt Craigie, Margaret Raimann  
SUBJECT: CASCADE LOCKS AIRFIELD ANALYSIS PSC MEETING #3 MINUTES

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## Cascade Locks Airfield Analysis Project Steering Committee Meeting #3

The third and final<sup>1</sup> Project Steering Committee (PSC) meetings for the Cascade Locks Airfield Analysis was held on May 22, 2018 from five to seven p.m. at the Marine Park Pavilion in Cascade Locks. Prior to the meeting, ECONorthwest (ECO) and Century West provided a draft of the final report with development options for the airfield property. The purpose of the meeting was: (1) to review and confirm the facts included in the consultants' development options report, and; (2) to review the timeline of the project following this analysis.

### Meeting Attendance

#### Project Steering Committee Members

- Kristin Stallman – ODOT
- Eric Johnson – WSDOT Aviation
- Warren Hendrickson – Pilots Association
- Neal White – Oregon Pilots Association
- George Steed – Washington Pilots Association
- Matt Maass (In place of Mitch Swecker) Oregon Department of Aviation ODA
- Carolyn Meece – BIZ Oregon
- Gordon Zimmerman – City Administrator, Cascade Locks
- Paul Koch – General Manager, Port of Cascade Locks
- Nate Stice – Regional Solutions, Office of the Governor

#### Public Participation

- Approximately 10 members of the public attended the meeting.
- In discussions with members of the public, many identified themselves as residents of Cascade Locks. One member also submitted written comments to the Port following the meeting.

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<sup>1</sup> The original scope of work outlined 4 PSC meetings. The PLT determined that the third meeting would be the final meeting, with a presentation by ECONorthwest to the Port Commission in place of the fourth meeting.

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## Consultant Team Members in Attendance

- Terry Moore – ECONorthwest
- Matt Craigie – ECONorthwest
- Margaret Raimann – ECONorthwest
- Matt Rogers – Century West
- David Miller – Century West

## Meeting Agenda

The meeting began with a welcome, and introductions from all PSC members, community members, and consultant team staff in attendance. The Port asked for general comments on the airfield property and final report, from the community members. Then, ECONorthwest provided an overview of the process thus far and the purpose of the final meeting of the PSC. The goal of the meeting was to confirm and clarify facts presented in the development options report and accept the report as a reasonable set of options. ECONorthwest and Century West provided a description of each development option and asked the PSC to discuss the facts presented in these options. At the end of the meeting, there was discussion regarding how the consultant team would edit and redistribute the report and the Port's timeline for future decision making.

## Process Overview

ECONorthwest (ECO) provided an overview of the project's process and asked for any concerns or clarifications about how the consultant team will deliver final products to the Port. The PSC requested that record from the December 7<sup>th</sup> meeting be included in the deliverables, in addition to the other PSC meeting minutes, town hall summary, and technical reports. The PSC also asked for the Port of Cascade Locks' to explain their plan for future airport related decisions. Port staff explained that the Port Commission will take the final report, hold public hearings for additional input from the community, and will use the work to inform future decisions-making.

## Discussion of Options

This section summarizes the PSC's requests for the consultant team to add or clarify in the final development options report.

### General Comments

**Expanded discussion about emergency helicopter access.** PSC members and community members expressed concern over how the options would affect access for emergency helicopter landing. The Oregon Department of Aviation also noted that fire and rescue helicopters require staging areas for equipment in addition to landing area. The PSC requested that the consultant team add a discussion in the report that highlighted that a removal of the airfield would need to

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include consideration for where emergency helicopters (Life Flight) could land and natural disaster staging could take place elsewhere in the City of Cascade Locks.

**Add lighted runway discussion.** Century West noted that the runway at the Cascade Locks airfield is not currently lighted. They recommended the addition of runway lighting as another possible airfield enhancement.

**Add funding discussion.** ODA and Century West reminded the PSC that the Cascade Locks airfield is not eligible for FFA funding, as it is not in the national plan and does not meet federal standards. The PSC asked that the consultant team make sure that this point is highlighted in the final report documents.

### **Enhanced Aviation Option**

**Expanded discussion about ease of implementation.** PSC members noted that there are potential improvements to the airfield that would be easier to implement than others. They requested an expanded discussion about the range of improvement options and an evaluation of the ease of implementation, including the following:

- Weather observation system
- Vacating road/roadway relocation/expansion of Gravel Pit Road
- Widening of runway and clearer approach as a higher priority than length
- Avigation easements
- Realignment of the runway
- Compatibility of enhanced airfield with options C1/C2

**Add analysis of runway realignment.** The PSC requested that Century West complete an analysis of the feasibility of realigning the runway. Pivoting the runway to the north, some PSC members argued, could increase the safety of landings at the airfield. Century West will also complete an updated figure with the potential realignment.

### **Airfield with Additional Development Options**

**Expanded discussion about the implementation of residential development.** Century West and the PSC noted the typical complications with developing residential use near an airfield. The PSC requested expanded discussion of the legal considerations (e.g., avigation easements) to mitigate issues with developing residential near an airfield and to protect the airfield use.

**Clarify residential option map.** The PSC requested that the conceptual map for the airfield and residential option show both densities discussed in the report—Low and Medium Density Residential.

**Clarify implications of developing Parcel B in both options.** The PSC asked about the athletic field currently located at Parcel B. They requested that the report discuss the potential issues

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with developing this area and the importance of the field to the community, as expressed at the Town Hall meeting.

**Expanded discussion about developing commercial or industrial adjacent to residential.** The PSC noted that developing commercial or industrial use adjacent to residential land may present compatibility issues.

### **Airfield Removal with Redevelopment Options**

**Clarify residential development assumptions.** The PSC asked ECO to clarify residential density assumptions in the final report. ECO will add that the 25 percent ROW assumption also includes considerations for impacts on community needs and increased services.

**Add consideration for shoreline parcel.** ODA noted that if the airfield is removed, then they would not want to maintain the undevelopable parcel on the shoreline (Parcel D). ECO will add a note clarifying this issue to both options that suggest removal of the airfield.

### **Next Steps**

At the conclusion of the meeting, ECO outlined the plan for the final report submission and the Port discussed their timeline moving forward. The PSC agreed that the consultant team will address the points of clarification discussed in the meeting, submit the final report with a cover memo that outlines the project's evolution, and ECO will present the final report to the Port Commission. The Port will use the report as a benchmark in the ongoing process, and hope that the State will use the study to prioritize improvements and future decisions. The Port also proposed to hold another community hearing to receive additional feedback on the airport project.

When discussing this timeline, ODA noted that they will move forward with certain improvements on the airfield, regardless of the potential additional development at the property. The PSC asked that they continue to receive information about the final report and the Port's future discussions of the development options.

DATE: March 16, 2018  
TO: Cascade Locks Airport Project Steering Committee  
FROM: Terry Moore and Matt Craigie  
SUBJECT: CASCADE LOCKS AIRPORT STUDY:  
SUMMARY OF TOWN-HALL MEETING

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## The Cascade Locks Airport Study: Background

The Port of Cascade Locks is assessing options for future land uses at the Cascade Locks Airport. It is working in collaboration with the Oregon Department of Aviation, the City of Cascade Locks, the Office of the Governor, and other local and regional stakeholders. It created a Project Steering Committee with the task of identifying possible future land uses at the airport that are viable, beneficial to the local community, and agreeable to a broad range of users and community members.

When the study is complete (June 2018), the Project Steering Committee will make a recommendation to the State of Oregon regarding preferred future land uses at the airport.

Now, however, the Project Steering Committee and its staff are in the early stages of the project. They are collecting information about the airport site, aviation uses, other possible uses on the site (and how they might help meet community needs and perform economically), and public opinion about opportunities and concerns.

## The Town-Hall Meeting: Background

To get information from the public about its opinions, the project's directors (the Port of Cascade Locks, the City of Cascade Locks, and the Project Steering Committee) asked the project's consultants (ECONorthwest) to organize and facilitate a public meeting about the future uses of the airport property. The purpose of the town hall meeting was to: (1) inform the public about the project's purpose, project sponsors, work plan, schedule, and findings to date, and; (2) allow the public to comment on the project's direction and potential outcomes.

A public meeting was held on February 22, 2018 at the Port's Pavilion Meeting Space in Cascade Locks. An estimated 80 people participated in the meeting. Based on attendance records, ECONorthwest estimates that approximately 75% of the attendees were Cascade Locks residents. Attendees from a wider region, including State and Regional government staff, composed the other 25%.

After a brief introduction by the City and Port of Cascade Locks, ECONorthwest staff gave a presentation about the Airport Project (Attachment A to this memorandum). Following the presentation, meeting participants were invited to gather at the "Discussion Stations" to talk to project staff and provide comments. The stations were organized by different themes related to the airport property—aviation uses, economic development, state objectives, and local

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objectives. The meeting ended with the distribution of a questionnaire, which attendees either turned in at the meeting or submitted via email.

## Summary of Comments Received

### Comments at Discussion Stations

To promote a robust, but focused conversation about the future of the airport property and aspects of the project itself, ECONorthwest set up several Discussion Stations at the meeting. The Discussion Stations were assigned themes—aviation, economic development, State involvement, and local issues/objectives. Public feedback was gathered through written comments on large sheets of paper. This summary is focused on feedback that provided specific input related to each theme.

A theme that was consistent across all of the stations was the use of the airport for health and safety reasons, especially related to community needs. Many cited the airport's recent use for emergency management and staging related to the Eagle Creek Fire. Others suggested the airport's potential as a long-term emergency site during an earthquake or other natural disaster. There were several comments that cited the importance of the airport for east-west travel for small planes through the Gorge during inclement weather. One community member noted that emergency vehicles and air-lift helicopters could use several other properties within the community just as easily as the airport.

A few comments suggested that the airport's current use could be improved. A few people promoted the idea that the airport could be used for tourism—either through tourist flights that utilized the airstrip, or aviation compatible complimentary uses at the site. These suggestions included adding airplane tours, an aviation school, or leasable hangers at the airport property.

### Questionnaire summary

This section provides a summary of the public feedback collected through the questionnaire. The purpose of the questionnaire was to capture the people's preferences for potential future uses for the airport property. The questionnaire contained a combination of multiple choice and open-response questions. For reference, a blank copy of the questionnaire is attached to the end of this summary (Attachment B).

The questionnaire was organized into three sections. The first section asked about general demographic information, the second section featured a rank-preference question related to potential future uses of the airport property, and the third section provided open-ended questions to allow for additional comments and suggestions related to the project and future uses of the airport.

The following three subsections summarize all responses to the questionnaire.

## Demographic Responses

Twenty-nine questionnaires were collected as a result of the town hall meeting. Of those who responded, just under 70% of people identified as residents of Cascade Locks. The small majority of people who responded as residents have lived in Cascade Locks for more than 20 years (55%). There was a total of nine respondents who reported that they did not live in Cascade Locks. Of those who did not live in Cascade Locks, the Hood River area and the Portland area were most frequently cited as respondent’s home locations.

Just over one-quarter (28%) of people reported that they work in Cascade Locks. About 69% reported owning property in Cascade Locks. People reported that they currently use the airport for aviation (55%), other uses (45%) (e.g. recreation), and 21% reported not using the airport property at all.

**Exhibit 1. Town Hall Questionnaire Demographic Summary**

	<i>Question</i>	<i>Response</i>	<i>Count</i>
	<b>TOTAL NUMBER OF QUESTIONNAIRES COLLECTED =</b>		<b>29</b>
Q1	I live in Cascade Locks	<b>69%</b>	<b>20</b>
	I have lived in Cascade Locks for <b>1-5 years</b>	<b>15%</b>	<b>3</b>
	I have lived in Cascade Locks for <b>5-10 years</b>	<b>10%</b>	<b>2</b>
	I have lived in Cascade Locks for <b>10-20 years</b>	<b>20%</b>	<b>4</b>
	I have lived in Cascade Locks for <b>more than 20 years</b>	<b>55%</b>	<b>11</b>
Q2	I work in Cascade Locks	<b>28%</b>	<b>8</b>
Q3	I own property in Cascade locks	<b>69%</b>	<b>20</b>
Q4	I use the airport property... <sup>1</sup>		
	I use the airport property... <b>Not at all</b>	<b>21%</b>	<b>6</b>
	I use the airport property... <b>for Aviation</b>	<b>55%</b>	<b>11</b>
	I use the airport property... <b>for Other</b>	<b>45%</b>	<b>13</b>

## Rank-Preference Question Responses

Questionnaire respondents were asked to share their desirability for each type of potential future use of the airport on a scale from 1 (meaning very low/undesirable) to 5 (meaning very high/desirable). People were able to rate each type of use separately, rather than ranking them in priority order. Most respondents—79%— favored a continuation of use of the property as an

<sup>1</sup> The tally for this question is 30, not 29. This is due to one respondent checking two boxes—“For Aviation” and “For Other.”



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airport. A similar response rate—72%—of respondents favored expanding the aviation facilities. The third most favorable option, although ranked much lower, was to continue to use the airport property for aviation uses along with a mix of other uses (38% of all respondents favored this option). Among those who responded to the questionnaire, the least favorable use of the airport property was for uses that excluded aviation and designated the property for other types of exclusive use, such as industrial, commercial, or residential.

### **Open-Ended Question Responses**

Most respondents took the opportunity to write in comments in response to the open-ended questions. Common themes that arose in respondents' answers to these questions were: the importance of the airport for emergency and safety uses; the need for aviation-related improvements; and the desire to keep the airport "as-is".

There were a handful of comments suggesting that any non-aviation related development that would be proposed for the airport site could also be accommodated on other commercial, industrial, or residential properties in other parts of the Cascade Locks area. There was also concern expressed that commercial development at the airport property would only benefit a small subset of stakeholders.

Respondents also provided feedback on the public meeting itself. Some people expressed their appreciation for the opportunity to provide feedback on the project and noted that they enjoyed the discussion. Several others wished that instead of Discussion Stations, there had been an opportunity for the entire group to hold one large conversation altogether.



# Cascade Locks Airport Project Town Hall Meeting

**ECON**orthwest  
ECONOMICS • FINANCE • PLANNING

22 February 2018

- Introduction to the Airport Project
  - Purpose, what's been done, what's to come
- Your Questions and Concerns
  - At tables around the room
  - Questionnaire

- For households, businesses, government
  - What are we trying to achieve?
  - Are we making the best use of what we have?

- What do people in Cascade Locks, and the groups that represent them, want to achieve?
- How can land at the airport contribute to the achievement of the community goals?

- **Project Purpose**
  - Objective evaluation of airport property to explore all future uses of the land
- **Pursued how?**
  - **Evaluation**
    - Beneficial? To whom?
    - Efficient? Financially viable?
    - Agreeable to a broad range of users and community members?

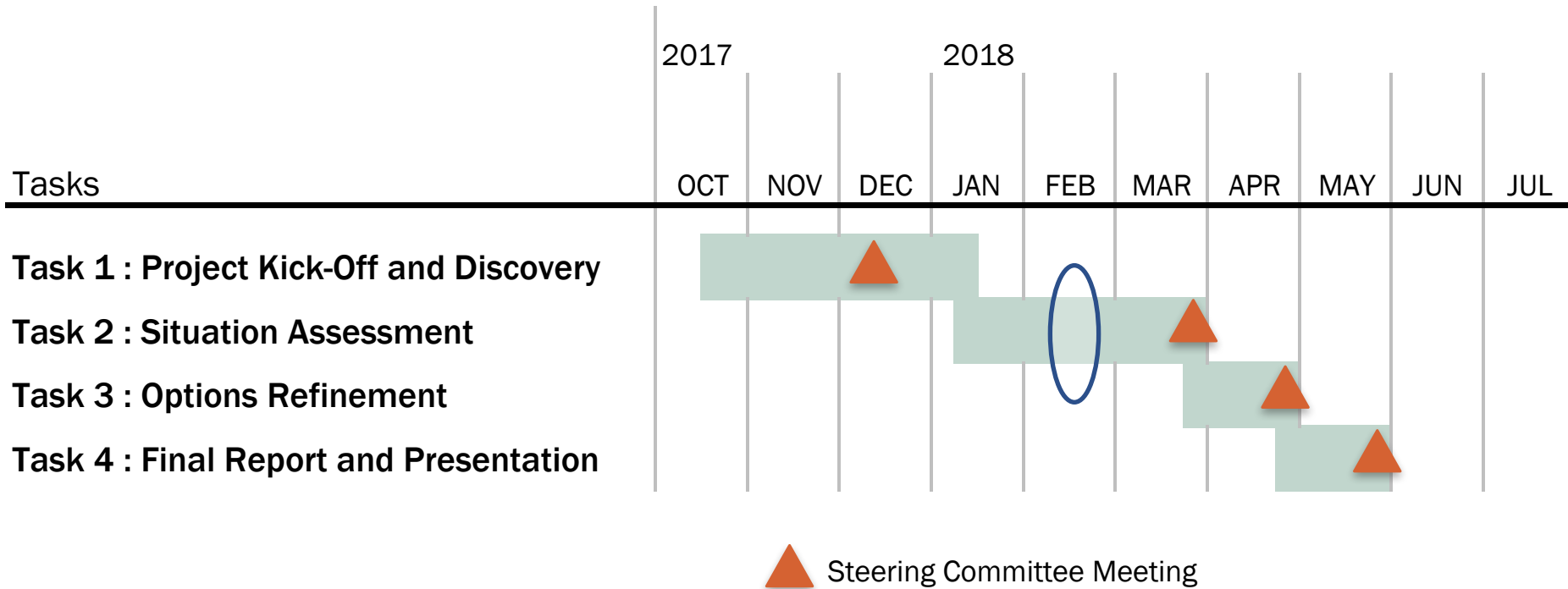
- **Sponsors.** Port, City, State of Oregon, other local and regional partners
- **Researchers.**  
- **Monitors and Decision-Makers.** Project Steering Committee



- Technical work
  - Research & Data Gathering
- Public Opinion
  - Project Steering Committee
  - Interviews
  - Comments via email
  - Public Check-In—Tonight ✓



- Technical Analyses
  - Economic Development & Commercial/Residential Real Estate
  - Aviation: Airport Modifications or Enhancements
- Facilitation of Project Steering Committee discussions



- **May 2018: Project Steering Committee**
  - Review, listen, debate, decide
  - Recommendation to the State of Oregon on preferred future land uses at the airport

- We're seeking information about...
  - Airport Property: conditions and use
  - Demographic and economic trends
  - Real estate development trends
    - Both commercial and residential
  - The OR/WA Aviation System

# How you can continue to be involved

- Sign up to receive project updates from the Port of Cascade Locks
  - Email Paul Koch, Port :  
[pkoch@portofcascadelocks.org](mailto:pkoch@portofcascadelocks.org)
- Attend Project Steering Committee Meetings
  - Contact Paul for details
  - The next Project Steering Committee Meeting will be held in Cascade Locks on:

**March 20<sup>th</sup> at 4pm**

- Four Stations around this room that are focused on different perspectives
  - Aviation Uses
  - Economic Development
  - State's Objectives/Issues
  - Local Objectives/Issues
- Please visit as many Stations as you wish

# Discussion and Questionnaire



# Cascade Locks Airport Study – Questionnaire

## Open House February 22, 2018

Please complete this questionnaire before you leave tonight. It can be done in as few as 5 minutes. If you are unable to do that, but still want to complete the questionnaire, you can either:

- Take a questionnaire with you, fill it out, and send to the consultants by mail or email:
  - ATTN: Matt Craigie  
ECONorthwest  
KOIN Center  
222 SW Columbia Street, Suite 1600  
Portland, OR 97201
  - Scan the completed questionnaire and email it to Matt at ECONorthwest: [craigie@econw.com](mailto:craigie@econw.com)

The Port of Cascade Locks is assessing options for development at the Cascade Locks Airport. It is working in collaboration with the Oregon Department of Aviation, the City of Cascade Locks, the Office of the Governor, and other local and regional stakeholders. It created a *Project Steering Committee* (PSC) with the task of identifying future land uses at the airport that are viable, beneficial to the local community, and agreeable to a broad range of users and community members.

Future development options *could* include: no changes at the airstrip; an enhanced airstrip; an airstrip with compatible land uses; or redevelopment of the airstrip into residential, industrial, or commercial uses. At this point in the study those options are not well defined; no decisions have been made yet, because there are no concrete options nor an evaluation process for making decisions.

Before it develops and evaluates options, *the Project Steering Committee would like to hear from you.* This questionnaire can be completed in as little as 10 minutes; there are some quick survey questions as well as opportunities for longer answers from those willing and able to take more time. Thank you for helping the PSC understand the range of viewpoints and interests in the airport property and in the future of Cascade Locks.

### First, tell us a little bit about yourself

Check all that apply:

- I live in Cascade Locks 
  - If you checked the box, how many years? 1 -5  5- 10  10 -20  more than 20
  - If not, what is the zipcode of your residence? \_\_\_\_\_
- I work in Cascade Locks
- I own property in Cascade locks
- I use the airport property....
  - Not at all  for Aviation  for Other  describe \_\_\_\_\_



**Second, what do you prefer in general?**

The Project Steering Committee members are charged with thinking broadly about potential future uses of the airport property. They would like to hear what uses you think are desirable.

- How do you rate the following possible uses (from 1 = very low / undesirable, to 5 = very high /desirable). **Circle one number for each type of use** (only one number per line).

Type of use	How desirable is this use?				
	1 Very Low	2	3 Okay	4	5 Very Hi
Exclusive use for <b>Aviation</b> ; leave as is	1	2	3	4	5
Exclusive use for <b>Aviation</b> ; expand facilities	1	2	3	4	5
Exclusive use for <b>Residential</b>	1	2	3	4	5
Exclusive use for <b>Commercial</b>	1	2	3	4	5
Exclusive use for <b>Industrial</b>	1	2	3	4	5
Exclusive use for Recreation / Open Space	1	2	3	4	5
Mixed uses, <i>including Aviation</i>	1	2	3	4	5
Mixed uses, <i>not including Aviation</i>	1	2	3	4	5
Other _____	1	2	3	4	5

**Third, do you have any comments (positive or negative)? (More sheets are available if you need one)**

- About the reasons for your answers above. Why do you want some uses and not want others? Do any particular combinations of these options seem more desirable, or more likely to succeed?

- About the details of how you would like to see your preferred uses develop or operate.

- About other growth and development issues in Cascade Locks.

- About this study: its purposes and its process.