

CAPITAL FACILITIES AND UTILITIES ELEMENT



Purpose

The Growth Management Act (GMA) requires cities to prepare a **Capital Facilities Element** consisting of:

1. An inventory of current capital facilities owned by public entities (including green infrastructure), showing the locations and capacities of the public facilities;
2. A forecast of the future needs for such capital facilities;
3. The proposed locations and capacities of expanded or new capital facilities;
4. At least a six-year plan that will finance capital facilities within projected funding capacities and clearly identifies sources of public money for such purposes, and;
5. A requirement to reassess the land use element if probable funding falls short of meeting existing needs and to ensure that the land use element, capital facilities plan element, and financing plan within the capital facilities plan element are coordinated and consistent.

Park and Recreation facilities shall also be included in the Capital Facilities Element.

Similarly the GMA requires comprehensive plans to include a **Utilities Element**. Specifically, this element must address electrical power, natural gas, and telecommunications in the following manner:

1. Inventory the general location of existing utilities.
2. Establish the proposed location of proposed utilities.
3. Examine the capacity of existing and proposed utilities.

Capital Facilities and Utilities Elements may be combined into one inclusive Comprehensive Plan Element. The GMA's overall goal for public facilities and services is to ensure that the provided services are adequate to serve the projected development and use without decreasing current service levels below locally established minimum standards.

Organization and Regulatory Context

The Capital Facilities and Utilities Element establishes the level of service standards the City is obligated to provide, along with strategies for maintaining those standards. The Element is based on the goals and policies of the other elements, and incorporates the facilities needs and standards identified in the Transportation Element. The following discussion provides detailed information on the inventory of facilities and projected future needs that the Plan must anticipate over the next 20 years, and incorporates capital facilities plans for the Orting School District and for the Pierce County Library.

Major Issues

Major utility issues involve continued resolution of the sewer collection system inflow and infiltration problems as financial resources permit. Transportation issues are described in the Transportation

Element. Other capital facilities issues revolve around the need to maintain effective concurrency management to ensure that utility capacity is available to match the demands of growth and development.

Siting Essential Public Facilities

The GMA requires that city and county development regulations identify a process to review the siting of “essential public facilities”. These are large scale land uses that provide regional benefits and include airports, state educational facilities, state or regional transportation facilities, state and local correction facilities, solid waste handling facilities, and inpatient facilities (e.g., substance abuse, mental health, group home, and secure community transition facilities). The Pierce County Countywide Planning Policies (CPPs) address this topic.

Water

The City’s Public Works Department operates the Water System and the Comprehensive Water System Plan provides long-term planning for the system.



The Comprehensive Water System Plan (2009 or as updated) is adopted into this Comprehensive Plan by reference.

Service Area

Orting’s water system is a small “Group A” system with four sub-service areas: Harman and Wingate Springs, Central Business District, Northend, and west of the Puyallup River along the Orting Kapowsin Highway.

Water Demand

Current Water Demand

As of January 2024, there were 3,276 metered connections in the City’s water system. For water demand calculations, the metered connections are converted to Equivalent Residential Units (ERUs) to account for non-residential services. The 3,276 connections are equivalent to 2,955 ERUs. In addition to the metered connections, unaccounted water in Orting’s system is estimated to be 745 ERUs. One ERU is equivalent to 200 gallons per day per connection for average use and 472 gallons per day per connection during peak day events.

Community water usage exceeds 1,800,000 gallons per day during peak events. The City has adequate water (and pressure) for fire flow city-wide.

Projected Water Demand

Future water demands are calculated by multiplying projected population estimates from the land use element by system ERUs for average and peak day demands. Because the types and extent of anticipated land uses do not differ substantially from the existing types of land uses, it is assumed that future water use patterns will not differ substantially from existing demands. **Table CFU-1** presents projections of future water demand.

Table CFU-1: Projection of Future Water Demands

Year	Projected Households (Equivalent Residential Unit) ¹	Average Daily Water Demand (gallons per day) ²	Maximum Daily Demand (gallons per day)
2030	3,950	790,000	1,896,000
3035	4,113	822,700	1,974,500
2040	4,285	857,000	2,056,800
2044	4,428	885,700	2,125,700

¹ Population based on County-wide allocation, and on a 2.5-person household size.

² Average and Maximum Daily Water Demands do not include Water Use Efficiency (WUE) Efforts

Water Supply

Table CFU-2 describes the proposed improvements to water sources for each service area. Based on the allowable capacity of the sources (the lesser of physical source capacity or water rights), the City's sources are currently capable of delivering instantaneous flow of up to 1,850 gpm and annual flow of up to 2,274.3 acre-feet. The current system allowable capacity is adequate for the current and projected population through the year 2045.

Year 2044 demand projections anticipate an instantaneous flow rate of 1,426 gpm and an annual flow of 1,045 acre-feet, both of which are far below the source capacity. **Table CFU-3** illustrates the water rights, physical capacities, and allowable use capacity of the City's water sources.



Table CFU-2 Inventory of Water Sources

Service Area	Source	Proposed Improvements	Distribution System
Wingate & Harman Springs	Wingate & Harman Springs	Replace wrapped steel and asbestos-cement distribution mains. Wingate booster pump station upgrades.	6-12" wrapped steel, ductile iron, and asbestos-cement pipe
Central Business District	Wells #1, #3, and #4 Wingate & Harman Springs	Replace asbestos-cement distribution mains. Well 2 improvements; iron and manganese filtration, well rehabilitation, new building.	2-12" wrapped steel, ductile iron, and asbestos-cement pipe
Northend	Wells #1, #3, and #4 Wingate & Harman Springs		6-12" ductile iron and PVC pipe
West of Puyallup River	Wells #1 and #3 Wingate & Harman Springs	8" ductile iron connecting Whitehawk to Calistoga E	8"-12" ductile iron, 9" PVC

Table CFU-3 Capacities of Water Sources

Source	Production Rate (GPM)
Well #1	500
Well #2	0 (Currently disconnected from distribution system)
Harman Springs	90
Wingate Spring	136
Well #3	650
Well #4	1,185
Total	2,561

Water Storage and Transmission

The total existing water storage capacity of the Orting water system is 1,958,600 gallons. Each of the two spring sites is equipped with a concrete reservoir storage tank with capacities as follows: Lower Harman (190,000), and Wingate (125,900). The lower Harman reservoir was replaced in 2003 with a 190,000-gallon tank to account for storage losses at the Boatman facility. Boatman Springs, which was once a source of supply for the City, has been disconnected from the distribution system. Well #1 has a 550,000 gallon concrete reservoir, and Well #4 has a 1-million gallon concrete reservoir.

Storage analysis indicates the City's existing storage facilities are sufficient. The addition of the 1-million-gallon North End Reservoir at Well #4 to the water system currently provides an excess storage capacity of over 500,000 gallons. At build-out conditions, the system will have an excess storage capacity of approximately TBD gallons. No storage improvements are needed to accommodate forecasted growth in the City; however, should storage improvements later be needed, the City would explore the potential to add capacity to Well #2.

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One of the most serious problems with the water system is the leaking of primary transmission pipes. These pipes carry municipal water from the wells and spring sites to the city's customers. The unaccounted water (the difference between quantities of water read at the source meters and consumers' meters) requires considerable city crew time to repair leaks and represents lost revenue potential for future connections. Prior to 2018 it was known that a majority of the water loss occurred in the upper zone of the system. In January 2018, the new Orville Road water main came online and distribution system leakage has largely decreased since.

The City is aware that a majority of this water loss occurring in the system is due to aging asbestos concrete (AC)¹ and wrapped steel pipe in the distribution systems. Annually, the City surveys all the existing AC and wrapped steel water lines running to spring sources and the downtown area for leaks. Additionally, the City has an annual leak detection program in an effort to reduce the quantity of unaccounted water.

Water Quality

The water supply is chlorinated at all of the sources and is carefully monitored in accordance with State Department of Health and US Environmental Protection Agency standards. The Orting water supply was analyzed on the basis of available storage and the ability of the system to supply fire flows as well as providing domestic needs.

Existing water rights will be adequate for supplying water for the demands of projected populations. The City has completed a number of water right change applications to create a well field so the newly constructed Well #4 can withdraw water utilizing the City's existing water rights. The system is capable of supplying fire flow requirements for single occurrence residential and commercial fires.

The Capital Facilities Program (**Table CFU-7**) contains specific water system improvements that have been identified in the water utility master plan. In addition, the plan identifies the need for additional operation and maintenance staffing. The 2022-2028 capital improvement projects include:

- On-Site Chlorination System
- WSDOT Water Line Replacement
- Well 1 Cleaning and Liner
- Water Meter Upgrades and Replacement
- Central Metering Technology

¹ Asbestos concrete was a water main material used in the 1920's to 1970's and is very brittle so it easily cracks. It's completely safe for drinking water but many cities are replacing due to leaks.

Wastewater

The City's Public Works Department operates the wastewater (sanitary sewer) system and the General Sewer Plan provides long-term planning for the system.



The General Sewer Plan (2001 with a 2010 addendum, or as updated) is adopted into this Comprehensive Plan by reference.

Existing Collection Systems

Orting's collection system ranges in age from the 1943 "old town" lines to new lines installed in recent subdivisions. The sewer system serves virtually all of the commercial and residential property in the city. As of September 2017, the City's sewer system had 2,897 physical connections which is equivalent to approximately 3,317 ERUs based upon consumptive meter readings. The system service area covers about 1,250 acres including the High Cedars golf course community located outside the City limits². At the present time there are no industrial users of the system.

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The general slope of the Orting planning area is from the southeast to the northwest, towards the treatment plant. The northern and western portions of the area slope away from the existing treatment plant, creating a need for the pumping of sewage.

The city has five pumping stations. One is located at the intersection of Calistoga Street W and the Puyallup River serving the Soldiers' Home and the portion of service area south of the Puyallup River. The Soldier's Home, housing approximately 192 residents, is the major commercial user in the area.

The second pumping station serves the High Cedars Village and Golf Course and discharges to the city sewer system through a 3,100 foot 6-inch diameter forcemain. The system is designed to handle 300 connections in the High Cedars development. In 2008, the pump station had a total of 180 hookups. The Village Green, Village Crest, and Rainier Meadows pumping stations respectively serve those three developments.

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Wastewater Treatment

The wastewater treatment plant serves all property within the City including the High Cedars golf course development and the Soldier's Home.

Existing Deficiencies

The existing gravity collection system has a serious inflow and infiltration problem due to the aging infrastructure. Inflow is defined as surface water and storm sewer water entering the sanitary sewer system through leaks. The state Department of Ecology has directed the city to correct this problem. Immediate complete correction of infiltration and inflow is not financially feasible, making gradual replacement and rehabilitation of the existing sewers the only economic alternative. Replacement and rehabilitation of the existing sewers will take place systematically by removing areas of the system with the greatest inflow and infiltration problems first. In 2008, the City performed a survey of the entire sanitary sewer collection system, which included videotaping and smoke testing. Through

Commented [NS4]: This information to be updated (the city staff is checking on this to determine the most recent video taping of the entire system).

² An agreement between the City and the County ensures that payments (user fees) are provided to the city for the use.

this survey, areas of high infiltration and inflow were identified and ranked based on severity. In 2011, the City completed sanitary sewer rehabilitation on Deeded Lane and Whitesell Street, two highly ranked locations identified by the sanitary survey. In 2017 the City constructed the Eldredge Avenue NW sanitary sewer rehabilitation project. The City continues working to reduce inflow and infiltration and plans to spend approximately \$300,000 each year on inflow and infiltration projects.

Effluent from the wastewater treatment plant currently discharges into the Carbon River just north of the plant through an outfall pipe located 8 feet above the river bottom. Due to concerns over river bar formation in the vicinity of the exposed outfall which prohibit the development of a submerged outfall, this side bank discharge will be maintained for all phases of future expansion. Solids from the treatment process are stored in a lagoon facility at the treatment plant site.

The City is currently designing a solids upgrade facility which will produce Class A biosolids, known as a **"Water Resource Recovery Facility."** The project would include the construction of a new 6,600 sq. ft. biosolids building and replacement of the lagoon operation (which is in need of substantial upgrades) with new technology that will produce a dry/stable Class A fertilizer.

These biosolids will be made available to the public as a fertilizer, high in nutrients. Initial market sounding has shown that the public, the agriculture community, and the Orting School District are interested in using the product as a soil amendment.

Future Wastewater Flows

To project future wastewater flows for Orting, existing treatment plant flows and loadings as well as future collection systems have been evaluated. Total wastewater flows are the sum of residential, commercial and industrial wastewater plus infiltration and inflow. The existing sewer flows are mainly a function of residential flows and infiltration and inflow; industrial and commercial flows are minimal, as described earlier. The City of Orting General Sewer Plan/Engineering Report Amendment (Parametrix, Inc., 2001) details the methodology for projecting service area population equivalents within the City's urban growth area. **Table CFU-4** shows the current population, the wastewater treatment plant design population and the projected build out population.

Table CFU-4: Sanitary Sewer Service Area Population Equivalents*

Region	Population Equivalents		
	Current	Phase 1	Build Out
Residential	3,723	4,312	8,025
Commercial	107	370	915
High Cedars	110	229	475
Total	3,940	4,911	9,415

* Population Equivalent = one individual contributing a typical per capita flow and waste load to the treatment plant.

* Residential: 2.5 population equivalents per dwelling unit

* Commercial 1,000 population equivalents per 7 acres; 2,000 gallons per acre per day; and 130 gallons per capita per day per population equivalent

* High Cedars: 110 existing dwelling units; 190 dwelling units at build out, for planning purposes only. Actual service is not anticipated.

Source: Parametrix, Inc.

The General Sewer Plan provides more information on the WWTP influent design flows and the rated capacity. The influent design flows are based on the build out condition of 9,415 population equivalents.

To further understand the effect of inflow and infiltration on plant capacity, the City of Orting completed an Infiltration and Inflow Report Update (Parametrix) in 2011. Inflow and infiltration appears to be consistent since the Deeded Lane and Whitesell Street sewer rehabilitation project completed in 2011. Continued sanitary sewer rehabilitation and replacement projects should further decrease and stabilize inflow and infiltration in the system.

Water Reuse

Irrigation of nonfood crops is the least costly and most prevalent potential use of reclaimed water. Irrigation demand could be greater than the dry season maximum month effluent flow of the Orting wastewater treatment plant. Feasible irrigation uses of reclaimed water include the Orting Middle School, Ptarmigan Ridge Elementary, Gratzner Park, Village Green and Whitehawk Parks, and the Foothills Trail. These uses are estimated to generate ultimate demand for 574 gpm on average and 1,150 gpm for the peak period. Water reuse facilities at the treatment plant and in the Orting Valley may be constructed by the City Sewer Utility. All facilities will be owned and operated by the City. Gratzner Park and the Orting Middle School were constructed with purple pipe irrigation systems, ready to receive reclaimed water.

The Capital Improvements Program (**Table CFU-8**) lists planned improvements to the wastewater and water reuse system that are planned for the next 14 years. These improvements include providing solids handling facilities at the treatment plant and development of an extensive water reuse treatment and distribution system. Storage of the solids in the on-site lagoon will end as soon as the solids treatment facility is complete.

Storm Water



The Stormwater Comprehensive Plan (2009 or as updated) is adopted into this Comprehensive Plan by reference.

The City's storm water utility collects fees based on storm water runoff created by impervious surfaces on each parcel within the city. These funds are used to construct needed storm water collection, detention, and treatment facilities. The City has also adopted ECY's Stormwater Management Manual for Western Washington, 2019 edition, as part of the Orting Municipal Code. All new and redevelopment must comply with the requirements and recommendations in the manual.

~~The Pierce County Comprehensive Flood Control Management Plan refers to Orting as one of the "hot spots" in the study area which has experienced chronic flooding problems and is not adequately protected from the 100-year floods. If a flood on either the Puyallup or Carbon Rivers were to cause levee failure or change their course, they would usually flood and possibly erode adjacent high-quality agricultural lands. Potential damage to urbanized areas in Orting is also high if the levees protecting these areas were to fail.~~

~~The Puyallup River Basin Comprehensive Flood Control Management Plan identifies the types of~~

potential damage which could occur along the Puyallup River, including the inundation of residential and agricultural lands south of Orting; the inundation of over 100 single family residences plus a power substation in Orting; closure of Calistoga St W, a major arterial in Orting; inundation of River Glen Campground, High Cedars Golf Course and agricultural lands northwest of Orting; and overtopping and possible closure of SR 162 between Orting and McMillin. Specific areas of potential damage along the Carbon River include minor inundation of vacant and agricultural land in Orting.

The Pierce County Comprehensive Flood Control Management Plan (2023) refers to Orting as one of the low lying "hot spots" in the study area which are subject to chronic flooding problems. Located between the Puyallup and Carbon Rivers, the flood risk is present along both levee systems. The City completed the Calistoga/Wolfe Levee Setback in 2015, which provides flood protection within City Limits for a 100-year flood event on the Puyallup River. However, the upstream Jones Levee does not provide adequate protection from a 100-year event, which has been mapped to show potential flood risks to the City. At the time of the 2023 Comprehensive Flood Hazard Management Plan, Pierce County has identified the \$25.1 million Jones Setback Levee as a project to address this problem. Additionally, the County is planning on \$2 million in maintenance to the Ford Setback Levee upstream of the Jones Levee.

On the Carbon River, the County has identified multiple projects upstream of City limits, extending to Bridge Street in Orting. These projects include the following:

1. Carbon River Setback Levee, left bank near Bridge Street to upstream of Voight Creek (\$19.6M)
2. Carbon River Right Bank Floodplain Connection (\$4.1M)
3. Carbon River Left Bank Voight Creek to SR 162 to Bridge, RM 4.5 - RM 5.9 Feasibility Study (\$25M)

In 2008, Pierce County completed their Levee Setback Feasibility Study between River Miles 2.6 and 23.3 on the Puyallup River. Information from Pierce County's Setback Levee Feasibility Study was used by the City as the first step in identifying a setback levee project location. Pierce County evaluated setback levee sites using three main goals: 1) Increase floodplain connectivity and flood storage, 2) Re-establish short and long-term geomorphic processes and function, and 3) Maximize aquatic habitat and diversity use. Out of 32 potential setback levee sites, the proposed site in Orting ranked as the second best location for a levee setback on the Puyallup River.

To prevent flooding from the Puyallup River, the City used this feasibility study to move forward with the Calistoga Setback Levee project. Between 2008 and 2013, the City worked to acquire property, coordinate with stakeholders, secure grant funding, and design and permit the 1.5-mile long Calistoga Setback Levee. The new levee was designed to be at least 3-feet above the 100-year base flood elevation to protect the City during large storm events. The project also provides habitat benefits to the River system. Removal of the existing levee reconnected approximately 46 acres of floodplain to the middle Puyallup River, in addition to 55 acres of reconnected side stream/backwater habitat. The project was completed in 2015.

Electrical System

Puget Sound Energy (PSE) is an investor-owned utility providing electrical and natural gas service to approximately 1,000,000 residential, commercial, and industrial customers in ten counties in western Washington. To provide reliable service, PSE builds, operates, and maintains an extensive electrical system consisting of generating plants, transmission lines, substations, and distribution systems. PSE is regulated by the Washington Utilities and Transportation Commission (WUTC) and is obligated to serve its customers subject to WUTC rates and tariffs.

Existing System

There are two main access points for receiving power in Pierce County: White River 230/115 kilovolt (kV) Transmission Station located north of Orting; and at PSE's Frederickson Generation station located in Frederickson Industrial area of Pierce County. A third and fourth access point from St. Clair transmission substation near the Thurston/Pierce County line and Tono near Thurston/Lewis county line provide a major tie between Pierce and Thurston Counties. The existing electrical system serving the Orting area consists of the following:



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Transmission Substations:

- The White River Transmission Station (immediately east of Sumner, north of Orting)
- Alderton Transmission Station (in Alderton)
- Electron Heights Switching Station
- Frederickson Generation Station

Distribution Substations:

- Orting
- Rhodes Lake
- Kapowsin
- Gardella
- Knoble

Transmission Lines (115kV):

- Alderton — Electron Heights
- White River — Alderton # 2
- Blumaer — Electron Heights

An existing 38-mile transmission line had previously only tied together three substations in the area, lacking the redundancy needed to reliably serve customers and increasing the possibility of outages in the area.

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To strengthen the system and improve electric service reliability for customers, PSE constructed three new 115 kilovolt transmission lines from points along the existing transmission system to the Alderton substation in Puyallup. The lines will were constructed in two phases:

PSE | Central Pierce-Alderton 115 kV transmission reliability improvement project

<https://www.pse.com/en/pages/pse-projects/central-pierce-alderton-115kv>

- Phase 1: Constructed one 115 kV transmission line along four miles of an existing water main corridor. The line runs from an interconnection point on an existing 115 kV line approximately 1,000 feet west of our existing Rhodes Lake substation in Bonney Lake to the Alderton substation.

- [Phase 2: Constructed two 115 kV transmission lines along 3.2 miles of an existing regional utility corridor. The two parallel lines run from the Alderton substation to an interconnection point on an existing 115 kV line at Myers Rd E near Highway 410.](#)

[By constructing the new lines, PSE segmented the existing system into three smaller, more reliable systems that can back up each other in the event of an outage on one of the lines. This project added redundancy which limits the number of affected customers during an outage and eliminating electric capacity constraints on the existing system - ultimately keeping the lights on for customers.](#)

[This work is related to our Pierce County 230 kV project, which constructed approximately eight miles of new 230 kV transmission line from the White River substation in Bonney Lake to the Alderton substation in Puyallup. The Pierce 230 kV project was completed in late 2017. These projects work together to strengthen the overall electric grid and increase electric reliability for customers Orting as well as in Sumner, Bonney Lake, and central Pierce County.](#)

Capacity

The power utilization factor of all distribution substations serving the City of Orting and surrounding area is at 72-percent. The utilization factor is a comparison of current peak system load (during the winter heating season), divided by the design capacity of the substations in the area. The following table illustrates the capacity versus peak winter loads for the Orting distribution substations.

Table CFU-1: Electrical Utilities: Existing Capacity in MVA*

Distribution Substations	Capacity	Winter Load (Feb 6, 2014)
Orting	25	23.2
Rhodes Lake	25	22.4
Kapowsin	20	12.7
Gardella	25	19.2
Knoble	25	8.9
Total	120	86.4

*MVA = Mega Volt Amperes

The electrical system can be expanded as the area load develops. The timing of future construction is largely dependent on the development growth of an area, and the associated increase electric demand (load), as well as facility maintenance requirements, reliability related improvements, or system replacement needs.

Projected Need

PSE's future Electrical Facilities Plans are developed for all of Pierce County to support the projected load level in the county including the city of Orting and surrounding areas.

The population and employment forecasts are based on a regional economic and demographic model and then allocated into each of the counties within the service territory. The regional forecasts

account for the latest assumption about the national economy and reflect the historical structure of employment and population within each county as well as their recent growth patterns. The historical population data by county is based on the state's Office of Financial Management data, while the employment data is based on the state's Employment Security Department's monthly reports. The projection of these inputs together with the company's projections of conservation, retail rates and any known short term large load additions or deletions from the company's forecast of energy and peak loads.

Proposed System

Puget Sound Energy has identified system and transmission improvements required to serve the forecasted load growth in Pierce County. Many improvements are in progress or planned for the future; others have been identified as future improvements to meet the growth demand. These improvements are intended to meet the growth and reliability demands for the City of Orting and the surrounding area, as well as other portions of Pierce County.

System Improvements in Progress

PSE has identified the need for a new bulk power delivery point for Pierce County at the Alderton Transmission Station, located approximately 5 miles north of Orting City limits. Existing transmission lines are planned to be upgraded to provide a 230 kV tie between the White River Transmission Station and the Alderton Transmission Station. Future improvements are as follows:

- **Alderton 230 kV Development** – Pierce County will need a major upgrade of bulk power delivery system in the near future. The Alderton Transmission Station has been identified as a future 230 kV transformation station. The project will involve upgrade of existing transmission lines north of Orting and installation of a 230 – 115 kV transformer at the Alderton transmission substation.
- **Blumaer** – Electron Heights 115 kV Transmission rebuild: This project is to rebuild the 42-mile transmission line in stages, rebuilding mostly low-capacity conductors with 115 kV high-capacity conductors.

Future Transmission Improvements:

- **Woodland** – St. Clair Phase II – This project will involve upgrade of Woodland substation (in southwest Puyallup) to a switching station and rebuilding of existing lines between Lakewood and Woodland. When completed, the project will increase transmission backup capacity between Pierce and Thurston counties and improve reliability in central Pierce County.
- **Alderton** – Electron Heights Transmission Re-configuration: This is a long range plan to Re-configure the 115 kV transmission network south of Alderton towards Electron Heights to increase transmission reliability in Orting valley and surrounding areas. This project may include a new transmission line between Frederickson and Electron Heights via Graham.

Completed Distribution Improvements

- **New 25MVA transformer bank installed at Orting substation in 2014** – The new transformer bank added 5 MVA of capacity to Orting substation.
- **White River** – Electron Heights transmission loop into Alderton – These improvements provided a transmission route from the Bonney Lake area into the Alderton Transmission Station and from the Rhodes Lake Area also into Alderton Transmission Station. Phase one of this project was completed in 2014; with the 2nd phase completed in 2017.

Future Distribution Improvements

- **New 12kV distribution circuit out of Orting substation** – This project will build up existing infrastructure and add new infrastructure to relieve load from the most heavily loaded and unreliable circuit at Orting substation. When completed, this project will help improve reliability for customers on both the existing circuit and the new circuit.

Additionally, PSE replaces aging underground electric cables across their service area. PSE initiated the Cable Remediation Program (CRP) initiated in response to increasing numbers of underground cable failures in residential areas, causing customer outages. For example, in 2024 approximately 1,235 linear feet of underground cable will be replaced along Grinnell Ave SW from Kansas Street and Belear Street SW, together with segments on Kansas Street, Fairlane Street and Belear Streets.

Climate

Climate change is one of the biggest existential threats facing our planet today. The City, in partnership with PSE, is on the path to meet current and future needs of customers and deliver on the requirements to decarbonize operations and serve customers and communities equitably. Potential efforts to support PSE programs and meet future Climate Resilience goals of the City could include:

- Promoting financial assistance and discounted billing programs for income qualified residents to ensure that the most vulnerable are not disproportionately impacted by the State's clean energy transition.
- Supporting EV charging infrastructure throughout the community in order to support the decarbonization of the transportation sector.
- Promoting energy efficiency programs and initiatives and expedite permitting processes related to energy efficiency upgrades.
- Promoting local investments and customer enrollment in clean energy projects and programs to achieve clean energy goals
- Promoting and supporting programs designed to decrease load on the grid during peak use.
- Effectively meeting rapidly increasing electrical demand as the City and region work to achieve a Clean Energy Transition by adopting codes that support existing and new technologies.
- Expediting local permitting and approval processes to maintain grid capacity and reliability.
- Promoting and supporting the growth of customer owned distribution energy resources.
- Supporting ongoing vegetation management to maintain system reliability.
- Pursuing public-private partnership to seek funding sources to accelerate clean energy projects.
- Supporting PSE's wildfire mitigation efforts including electric system upgrades, year-round vegetation management, and fire weather operational procedures. Work closely with utilities and local fire departments to lessen the risk and impact of wildfires.

Natural Gas

PSE operates the state's largest natural gas distribution system serving more than 900,000 gas customers in six counties. PSE manages a strategically diversified gas supply portfolio. About half the gas is obtained from producers and marketers in British Columbia and Alberta and the rest comes from Rocky Mountains states. All the gas PSE acquires is transported into its service area through large interstate pipelines owned and operated by another company. Once PSE takes possession of the gas, it is distributed to customers through more than 26,000 miles of PSE-owned gas mains and service lines.

PSE provides natural gas to certain locations in the city. Gas service is generally extended to new development upon evaluations of requests based on an economic feasibility study. Currently the natural gas supply system meets the existing demand.

Existing Distribution System

Natural gas comes from gas wells in the Rocky Mountains and in Canada and is transported through interstate pipelines by Williams Northwest Pipeline to Puget Sound Energy's gate stations. Supply mains then transport the gas from the gate stations to district regulators where the pressure is reduced to less than 60 psig. The supply mains are made of welded steel pipe that has been coated and is cathodically protected to prevent corrosion. They range in size from 4" to 20".

Distribution mains are fed from the district regulators. They range in size from 1- 1/4" to 8" and the pipe material typically is polyethylene (PE) or wrapped steel (STW). Individual residential service lines are fed by the distribution mains and are typically 5/8" or 1-1/8" in diameter. Individual commercial and industrial service lines are typically 1-1/4", 2" or 4" in diameter.

Future Facility Construction

PSE does not have any major projects planned in Orting at this time, but new projects can be developed in the future at any time due to:

- New or replacement of existing facilities to increased capacity requirements due to new building construction and conversion from alternate fuels.
- Main replacement to facilitate improved maintenance of facilities.
- Replacement or relocation of facilities due to municipal and state projects.

Telecommunications

Telecommunications services include switched and dedicated voice, data, video, and other communication services delivered over the telephone and cable network.

Regulated or non-regulated companies may provide these services. Cable service includes communication, information and entertainment services delivered over the cable system whether those services are provided in video, voice or data form.

There are no shortages in the existing or future capacity of the telecommunication services for Orting. The existing network of phone and cable television lines has sufficient capacity to accommodate increases in development or subscription. The limitation in providing services would stem from lack of a direct hook-up from a specific residence to the television or telephone line. This linkage can be installed when service is desired.

Communication Services

Multiple companies offer communication services in Orting, including integrated voice and data. CenturyLink (d.b.a. CenturyTel), the Incumbent Local Exchange Carrier (ILEC), provides local telephone and a mix of copper and fiber based internet services.

Since the Washington Utilities Trade Commission (WUTC) regulations require CenturyLink to provide adequate public switched telephone network (PTSN) telecommunications service on demand, there are no limits to future capacity, although demand for land lines is declining.

Orting is now served by most wireless telephone providers and several internet providers.

Cable and Satellite

Cable television and cable internet service is provided in Orting by Xfinity, Dish, and DirecTV. The Orting area is handled through the TCI Cable of Auburn Office.

Solid Waste Management

Under state law governing solid waste management (RCW 70.95.090) local governments are required to provide collection of source separated recyclable materials from single and multi-family residences; drop-off or alternative systems for rural residents; yard waste collection; educational and public outreach programs; programs to monitor the collection of recyclables from commercial sources; in-house recycling and procurement programs; and any other programs the municipalities determine are necessary to achieve state and local waste reduction and recycling goals.

The Tacoma-Pierce County Solid Waste Management Plan (2021-2040) guides all aspects of solid waste handling in Pierce County and each city and town wholly within Pierce County. The most recent plan was adopted by Orting City Council in September 2022 (Ordinance 2022-23). It is the primary tool implementing the law cited above. The Washington State Department of Ecology adopted the State Solid and Hazardous Waste Plan – Moving Washington Beyond Waste and Toxics Plan in December 2021, which provides direction for local governments on their individual waste management plans.

Except for collection contracting authority, which it retains through an Interlocal Agreement, Orting has designated Pierce County as the entity responsible for managing waste reduction, recycling, composting, disposal, and household hazardous waste programs, including associated public information, outreach, and engagement. Under County direction, waste generated within the City of Orting is disposed in the LRI Landfill in unincorporated Pierce County and yard waste is composted at facilities owned by Pierce County or operated under contract with Pierce County.

Orting contracts with Murrey's Disposal for the collection of household and commercial garbage, recyclables and yard waste. Residents and businesses can self-haul special wastes and recyclables (e.g., household hazardous waste, tires, batteries, and oil) to fixed facilities located throughout the County.

Public Schools

Orting is within the Orting School District. The GMA authorizes cities to impose impact fees for school facilities upon the adoption of a capital facilities plan element and enabling ordinance. These criteria have been met and the Orting School District collects impact fees for residential development.

The Orting School District Capital Facilities Plan is a six-year plan intended to be revised each year for the succeeding six years. The plan is intended to guide the District in providing new capital facilities to serve the projected increase in student enrollment as well as new developments emerging within the District boundaries. The plan is reviewed on an annual basis and updated based on current and future enrollment and projected financing.

Also included in the plan are major capital repairs and improvements needed to maintain the District's existing facilities.

School Facilities Inventory

Facilities include Orting High School, Orting Middle School, Orting Elementary School, Ptarmigan Ridge Elementary School, Central Administration Building, and the old Administration Building that houses the Transportation Department and Facilities Department (to include custodial, grounds, and maintenance).

The District recently acquired two separate parcels totaling 65 acres within the City of Orting boundaries. The District also owns 22.9 acres of undeveloped land south of Orting (known as the Orville Road property). County ordinances make the Orville Road property unsuitable for a school facility due to Pierce County zoning regulations prohibiting construction of school buildings in the Mount Rainier Lahar Designated Zone and wetlands area.

Forecast of Future Needs

To better understand the degree of the enrollment changes taking place in the Orting School District, the District's student enrollment history and enrollment projections are reviewed.

The School District reviews historical demographic trends and actual enrollments to determine projections for future enrollment. The District predicts growth in addition to the usual expected trends, due to the current plans for additional housing and planned developments within the District borders.

Student enrollment at the elementary level has experienced significant increases in recent years, with an exception for recent years due to Covid-19. This growth, combined with the current class size reduction initiatives by the Legislature, have created a high need for elementary school classrooms and support spaces. Ongoing growth without accompanying permanent capacity projects has created the need for additional temporary classrooms ("portables"). The Board approved a plan to purchase an eight-classroom portable at Ptarmigan Ridge Elementary School which was completed at the beginning of the 2019-2020 school year.

The District is anticipating significant growth from four major housing developments outside of Orting city limits; Tehaleh, Uplands, Daybreak, and South Sunrise. Tehaleh is expected to add 462 students over the next 6 years. Uplands is expected to add 376, Daybreak 221, and South Sunrise 203. Detailed projections by year, and total buildout projections, can be found in the Orting School District's Capital Facilities Plan.

The Orting School district acquired 65.08 additional acres of land in the City of Orting, and rezoned this land to Public Facilities from MUTCN. The preliminary goal for this site is a K-5 elementary school that may serve 600-700 students, and associated improvements. The Orting School District has been unsuccessful to bond for the construction on this new facility.

The District will need to determine how to proceed with the Board's February 2024 bond planning and CFAC recommendation to determine construction and modernization. These funds will be derived from the sale of general obligation bonds and impact fees on new housing developments as they are built. The District will consider the use of state matching funds in the overall

Commented [NS7]: We have updated this section but it is optional if the city wants to keep it

recommendation.

Mitigation / Impact Fees

Pursuant to RCW 82.02.050, Impact Fees “(a) Shall only be imposed for system improvements that are reasonably related to the new development; (b) Shall not exceed a proportionate share of the costs of system improvements that are reasonably related to the new development; and (c) Shall be used for system improvements that will reasonably benefit the new development.”

Impact fees can be calculated on the basis of “unhoused student need” as based on “the maintenance of a district’s level of service” related to students expected from new residential development. A determination of insufficient existing permanent and/or portable school space, combined with expected growth from new development over the six-year planning period, allows a district to seek imposition of impact fees on a new residential dwelling unit. The amounts to be charged are calculated based on the costs for providing the space to serve the average projected number of students who will reside within a residential unit. Credits are provided for anticipated SCAP funds that will be applied to the planned growth-related capacity project as well as taxes that a new homeowner will pay toward the school bond that will fund the capacity project. A district’s school board must first approve a Capital Facilities Plan with a recommended school impact fee and the District’s Capital Facilities Plan must be adopted by reference as a part of the assessing jurisdiction’s Comprehensive Plan, with the jurisdiction also adopting the impact fee amount based upon the District’s recommendation. Developers may contribute properties which will have value to a district. In such cases, the developer is entitled to a credit for the actual cost of the provided property. This credit can reduce or eliminate the impact fee that would otherwise be assessed on units within the development.

The code provisions for school impact fees in both Pierce County and the City of Orting contain a “maximum fee obligation” that is set at a rate significantly lower than the District’s calculated impact per dwelling unit.

Library

Public libraries offer education, information, and recreational services to the community, as well as community gathering space. Orting’s public library at 202 Washington Ave S. is a branch of the Pierce County Library System, housed in the Multi-purpose Center (the facility is jointly used by the library and the city’s Recreation department and the City owns the building). The Multi-purpose Center was constructed in 1981, and the library occupies 2,700 square feet of it and shares the restrooms and entry. The site area is 10,560 square feet and includes parking and an entry plaza.

The Orting Pierce County Library is a full-service public library. It provides residents with an on-site collection of over 20,000 books, movies, music, magazines, audio books, newspapers and reference resources, as well as access to the Library System’s collection of over 1.1 million books, movies and other materials. Public computers and printers are provided and free Wi-Fi is available to mobile computer users in the library as well as in the surrounding neighborhood.

The Library System’s 24/7 online branch also provides Orting residents free access to over 500,000 downloadable books, audiobooks, movies and other materials. Mobile services reach schools, adult care facilities, persons who are homebound and are present at community events. Pierce County Library has reciprocal borrowing agreements that provide Orting residents with free use of other Washington libraries including the nearby King County Library System and Timberland Regional Library, Tacoma Public Library and the Puyallup Public Library.

As part of the Pierce County Library system, use of the facility and its services is not limited to Orting residents. The Orting Library's current service area population is estimated at 12,700, and includes residents from surrounding communities such as Graham, South Prairie, Bonney Lake and Sumner.

Future Needs

The Pierce County Library system is updating their library facility plan and so future plans for the library are in the process of evaluation. However, in a previous facilities master plan that was prepared in 2010 called "Pierce County Library 2030," it was noted that the Orting library branch is a HUD-built building that is undersized for the communities needs and has complex ownership and maintenance agreement challenges. A recommendation to relocate and expand the Orting library was listed as a preferred facility recommendation, and between 10,400 to 12,100 square feet of space was listed as the probable space need. Amenities such as meeting rooms, group study spaces were listed, in addition to expanding the library's collection and computers at the site. A size that has minimal dangers from potential flooding or lahar impacts is preferred. The project cost was listed at \$8.3 Million (2010 dollars).

Parks and Recreation

The City's close proximity to Mt. Rainier National Park, the Gifford Pinchot National Forest and mountain wilderness areas offer Orting residents numerous recreation opportunities. The Foothills Trail is a regional attraction, and an important recreational asset within the community.

There are a little more than 170 acres of public parks and natural resource areas, and over two miles of trails within the City of Orting. Several local residential developments also maintain private parks. Descriptions and a full inventory, are provided in the Parks, Trails, and Open Space (PTOS) Plan.

A parks plan certified by the state Recreation and Conservation Office (RCO) is required to be eligible for RCO grant funding, and an update is required every six years. The PTOS is certified by the RCO and identifies current resources and needs, forecasts future demand, and identifies strategies for meeting future need. Level of Service standards for park, facilities, trails and natural resource areas are set in the Capital Facilities Element by Policy CF 3.3.



The City of Orting Parks, Trails, and Open Space (PTOS) Plan and Appendix, as approved by Orting City Council pursuant to Resolution 2022-03, are hereby adopted by this reference.

The City of Orting PTOS Plan covers a six-year planning period and may be amended or replaced at the end of that period, and subsequent six-year periods. This comprehensive plan references the most current version of the PTOS Plan.

There are a total of 19 parks within the City (including public and private) and ten of these are owned by the City. The City also contains three trails, multiple natural areas, and open space/playfields at school facilities. Additionally, the City has a Multi-Purpose Center which shares a building with the Orting Pierce County Library and offers rentable event space with a kitchen area. The Multi-Purpose

Center is also used for many of the recreational programs offered within the City, including various fitness and craft classes. The City of Orting has a Park Advisory Board, which is a five-member board that provides recommendations on park creation, improvements, and maintenance to the Orting City Council. City parks are maintained and operated by the Parks Department, within the Public Works Department.

Police Protection

The Orting Police Department is a full-service organization dedicated to excelling in all aspects of law enforcement, protecting people's rights, lives, and property, and collaborating with the community to solve problems, decrease crime, foster a safer atmosphere, and enhance quality of life. The Department's Mission is *"Through a partnership with our community, working to protect our citizens with integrity, compassion & respect."*

The Police Department is based out of the Orting Public Safety building which is adjacent to City Hall and also houses the Orting Municipal Court and the Orting Valley Fire and Rescue (OVFR).

The Orting Police Department operates with one chief, one Lieutenant, one Community Services Officer, a clerk, and six officers, one of which is also a School Resource Officer. Currently, the department has achieved a ratio of about 1 officer per 1,000 resident population, which is below the national average of 2.4 officers per 1,000 population. The Department's service area is limited to Orting city limits, but officers will respond to an incident outside of the city, as necessary to assist other agencies. The department strives to maintain an unofficial response time of three to four minutes.

Police facilities are currently located in the Orting City Hall at 104 Bridge St South, in downtown Orting. The Department has fourteen police vehicles, which allows for Reserve Officers & a backup vehicle for primary vehicles, when occasional maintenance takes them out of service. Orting is dispatched by South Sound 911 county wide dispatch service.

[Alternate text to consider:](#)

[The Orting Department has an authorized staff of thirteen full-time personnel, comprised of one civilian employee and commissioned Officers. Full time personnel work ten hour days four days a week to provide the best patrol coverage during peak hours. Currently, the department has a ratio of about 1.2 officers per 1,000 resident population, which is below the national average of 2.7 officers per 1,000 population. The Department's service area is limited to Orting city limits, but officers will respond to an incident outside of the city, as necessary to assist other agencies when necessary. Additionally, the department participates in numerous regional multi-jurisdiction investigative teams with surrounding law enforcement agencies to pool resources when needed to handle large-scale incidents.](#)

[The Department strives to maintain an unofficial response time of three to four minutes.](#)

[Police facilities are currently located in the new Orting City Hall at 104 Bridge Street. The Department has fourteen police vehicles, which allows for adequate assignment to Officers plus additional to act as backup vehicles, when occasional maintenance takes them out of service. Orting is dispatched by South Sound 911 county wide dispatch service.](#)

Fire and Emergency Medical Services

The City receives contracted services from Pierce County Fire District 18 also known as Orting Valley Fire and Rescue (OVFR), Central Pierce Fire & Rescue to provide fire protection and emergency medical services to Orting and the Orting Valley. Private properties within Orting pay a fire benefit charge on property taxes, and the charge varies depending on size of the structure and use of the property, in order to receive fire services. The Orting fire station is located in the Public Safety Building (southeast side of the building) at 401 Washington Ave S. OVFR has There is an additional fire station located on Patterson Road. The Fire Department is comprised of 32 response staff, including the Battalion Chief, Lieutenants, and firefighters, several of which double as paramedics. Additionally, OVFR employs the Fire Chief, three administrative staff, and a chaplain.

Orting has a Fire Insurance Rating classification of four on a scale that ranges from one to ten, with a rating of one being the highest.

City Administration

Orting City Hall is located at 104 Bridge Street S. (at the corner of Washington Avenue and Bridge Street), and houses the City's municipal services. This building was constructed in 2019 and is approximately 11,800 square feet. The new City Hall building helps the City provide appropriate services for Orting residents.

Additionally, in 2019 the City completed construction of a new Public Works and Maintenance Facility. This facility includes nearly 2,500 square feet of offices, meeting space, working area, locker rooms and conference rooms. The attached garage space includes 500 square feet of secure storage space, 3,600 square feet of heated garage space, 2,700 square feet of unheated enclosed garage space and an additional 3,600 square feet of open covered garage space. The building sits on a 1.5-acre site which includes public parking, and gated storage.

The City also has a cemetery overseen by a board of appointed managers.

Orting Emergency Evacuation Bridge System

Due to the City's location along the Puyallup and Carbon Rivers, which flow from Mt. Rainier, Orting is at risk in the event of a lahar flow. The Natural Environment element of this plan covers hazard mitigation in further detail. Construction for Phase 1 of a pedestrian bridge across the Carbon River with a grade-separated SR 162 crossing and pedestrian trail linkages is underway; this project is also known as Orting Emergency Evacuation Bridge System. This project is intended to provide an emergency evacuation route for children from the Orting schools, as well as other locations. Phase 1 consists of the above grade crossing of SR 162 at Rocky Road.

Phase 2, Preliminary/conceptual design for a pedestrian bridge across the Carbon River is complete. This project is intended to provide an emergency evacuation route for children from the Orting schools, as well as other locations. Efforts are underway to raise additional grant funding from state and federal sources for final design and construction of Phase 2.



Commented [N58]: **IMPORTANT!**

I reviewed a document on the City's website that describes that as of September 1, 2023 the Central Pierce Fire & Rescue assumed operational authority of Fire and Rescue Services in Orting.

<https://www.cityoforting.org/home/showpublisheddocument/6673> page marked as 279

What is correct?



Concurrency

The Capital Facilities Element is intended to establish an inventory of existing capital facilities, forecast future needs for such facilities based upon the projected growth in the community, and discuss how such facilities may be financed. Future needs should also be based not only upon the projected growth of the community, but also maintaining a locally determined level of service to be provided by those facilities. This concept of maintaining level of service standards throughout the planning time frame is a key goal of the Growth Management Act. Goal 12 of the Act states that those public facilities and services necessary to support development shall be adequate to serve the development at the same time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards. This concept is known as "concurrency," and it applies to transportation facilities and to a locally defined list of additional capital facilities.

Locally established standards are referred to as "level of service standards (LOS)," and are a method of measuring the quality or quantity of service provided by a facility. Policy CF 3.3 of the Capital Facilities Element establishes the City's adopted LOS. The Orting Municipal Code requires concurrency review for certain permitting processes. New development is required to be adequately served by public facilities and services within a reasonable time after development occurs, and the

adopted LOS must be maintained.

Capital Facilities Financing

The City's six-year capital facilities plan includes improvements that the comprehensive plan elements indicate are necessary, along with potential funding sources. In order to identify these potential funding sources, it is important to review how capital improvements have been financed in Orting in the past.

Orting does not typically allocate general fund revenues for large capital projects. Rather, these projects are funded through bond issues, state and federal grants, and revenues from enterprise funds, such as water, sewer and solid waste fee revenues. Over the past three years capital projects have been financed primarily through federal and state grants, and revenues from the Motor Vehicle Tax.



The City of Orting Capital Improvement Plan (CIP) for 2024-2030 or as amended is adopted into this Comprehensive Plan by reference.

Financing Sources

The funding sources identified below are potential long-term choices that may be available to the City for major capital improvement projects. The sources will depend on the status of the City's existing financial commitments, capital required, cash flow requirements, source availability, and whether the source is acceptable to the customers. Any package selected must provide sufficient revenue to construct system improvements as well as satisfying any debt services. The following section will describe the several funding sources available to the City without reference to any specific project.

Revenue Bonds

The most common source of funds for construction of major capital improvements is the sale of revenue bonds. The tax-free bonds are issued by the City. The major source of funds for debt service on these bonds is from user charges to the individual utility customers. The major advantage of revenue bonds is that they protect the general obligation debt capacity for other projects. The City is capable of issuing tax exempt bonds up to a 20-year term without public vote. In order to qualify to sell revenue bonds, the City must show that its net operating income (gross income less expenses from the utility) is equal to or greater than 1.4 times the annual principal and interest payments due for all outstanding bonded indebtedness. This 1.4 factor is commonly referred to as the coverage factor and is applicable to revenue bonds sold on the commercial market. As a comparison, the FmHA loan program only requires a coverage factor of approximately 1.1. The major disadvantages to revenue bonds when compared to general obligation bonds are:

- Issuance costs tend to be higher.
- Interest rates tend to be higher because of lower security with the lack of a general obligation bond.
- Revenue bonds may require that all of the project's net revenues first be applied to either reducing outstanding debt or creating reserve funds for the same purpose.

General Obligation Bonds

The City, by special election, may issue general obligation bonds to finance almost any project of

general benefit to the City. The bonds are paid off by assessments levied annually against all privately-owned properties within the City. This includes vacant property which otherwise would not contribute to the cost of such general improvements. This type of bond issue is usually reserved for municipal improvements that are of general benefit to the public, such as arterial streets, bridges, lighting, municipal buildings, firefighting equipment, and parks. In as much as the money is raised by assessment levied on property values, the business community also provides a fair share of the funds to pay off such bonds.

General obligation bonds have the best market value and carry the lowest rate of interest of all types of bonds available to the City because they are backed by the good faith of all the entire city's assets. Disadvantages of general obligation bonds include the following:

- Voter approval is required which may be time-consuming, with no guarantee of successful approval of the bond.
- The City would have a practical or legal limit for the total amount of general obligation debt. Financing large capital improvements through general obligation debt severely dilutes the ability of the city to issue future debt.
- Extensive use of general obligation debt may endanger the City's credit rating.

Utility Local Improvement Districts

Another potential source of funds for improvements comes through the formation of Utility Local Improvement Districts (ULID's) involving a lien against the property collected through assessment made on properties benefited by the improvements. ULID bonds are further guaranteed by revenues and are financed by issuance of revenue bonds.

ULID financing is frequently applied to water or sewer system extensions into previously unserved areas. Typically, ULID's are formed by the City at the written request (by petition) of the property owners within a specified area of the City. Upon receipt of a sufficient number of signatures on petitions, the local improvement area is defined, and a system is designed for that particular area in accordance with the City's general comprehensive plan. Each separate property in the ULID is assessed with the special benefits the property receives from the system improvements.

A City-wide ULID could form part of a financing package for large-scale capital projects such as water supply or storage improvements which benefit all residents in the service area. The City-wide ULID would be formed by a majority vote of the City Council.

There are several benefits to the City in selecting ULID financing. The assessment places a lien on the property and must be paid in full upon sale of the property. Further, a substantial number of property owners can be expected to pay the assessment immediately upon receipt.

Therefore, the City avoids the need to pay interest cost for a portion of the costs financed by the ULID. The advantages of ULID financing, as opposed to rate financing, to the property- owner include:

- The ability to avoid interest costs by early payment of assessments.
- If the ULID assessment is paid off in installments, it may be eligible to be deducted from federal income taxes.
- Low-income senior citizens may be able to defer assessment payments until the property is sold.
- Some Community Block Grant funds are available to property owners with incomes

near or below the poverty level. Funds are available only to reduce assessments.

The major disadvantage to the City-wide ULID process is that it may be politically difficult to approve formation. The ULID process may be stopped if owners of 40-percent of the property within the ULID boundary protest its formation.

Drinking Water State Revolving Fund

State low interest loans and loan guarantees administered by the Environmental Protection Agency. The Clean Water State Revolving Fund aims to help communities meet the goals of the Clean Water Act by improving water quality, achieving and maintaining compliance with environmental laws, protecting aquatic wildlife, protecting and restoring drinking water sources, and preserving waters for recreational use. Applicants must show a water quality need, have a facilities plan for treatment works, and show the ability to pay back the loan through a dedicated source of funding. Funds must be used for construction of water pollution control facilities (wastewater treatment plants, stormwater treatment facilities, etc.).

Department of Health Water Grants and Loans

State grants available for upgrading existing water systems, ensuring effective management, and achieving maximum conservation of safe drinking water. Grant funds can be used for technical assistance for upgrading current water systems. The Drinking Water State Revolving Fund provides low-interest construction loans to drinking water systems to finance infrastructure improvements.

Conservation Futures

Pierce County provides grant funds to purchase conservation easements or property for the purposes of habitat and resource protection and active recreation.

Housing and Urban Development Block Grant

The city may qualify for Federal Department of Housing and Urban Development (HUD) Block Grants depending on its needs and the ability to compete with other communities. To qualify for a block grant, the applicant must show that the project benefits low- and moderate-income persons or households.

State Public Works Board

The Public Works Board (PWB) is authorized to grant and loan money to jurisdictions in Washington State. The PWB offers construction, pre-construction, and emergency loans for public works development projects. These loans cover expenses related to repair, replacement, and construction of facilities, ROW acquisition, design and engineering work, permits, environmental and cultural review, value planning, and public notification.

Developer Financing

Developers may fund the construction of extensions to the water system to property within new plats. The Developer extensions are turned over to the City for operation and maintenance when completed. It may be necessary, in some cases, to require the developer to construct more facilities than those required by the development in order to provide either extensions beyond the plat and/or larger pipelines for the ultimate development of the sewer system. The City may, by policy, reimburse the developer through either direct outlay, latecomer charges, or reimbursement agreements for the additional cost of facilities, including increased size of pipelines over those required to serve the property under development. Compensation for oversizing is usually considered when it is necessary to construct a pipe larger than eight inches in diameter in residential areas to comply with the intent of the Comprehensive Plan. Construction of any pipe in commercial or industrial areas that is larger

than the size required to service the development should also be considered as an oversized line possibly eligible for compensation. Developer reimbursement (latecomer) agreements provide up to 10 years or more for developers to receive payment from other connections made to the developer-financed improvements. The developer may collect up to 75% of the cost of the original improvement through latecomer reimbursement.

System Development Charges

The City may adopt a system development charge to finance improvements of general benefit to the total system which are required to meet future growth. System development charges (general facilities charges) are generally established as one-time charges assessed against developers or new customers as a way to recover a part or all of the cost of additional system capacity constructed for their use.

The system development charge or fee is deposited in a construction fund to construct such facilities. The intent is that all new system customers will pay an equitable share of the cost of the system improvements needed to accommodate growth. Typical items of construction financed by the system development charge are water treatment facilities, pump stations, transmission lines, and other general improvements that benefit the entire system. This system development charge is quite effective in a fast growing community, but of little value in areas with slow growth because too much time is required to accumulate sufficient funds.

The system development charge is applicable to those lots within plat developments that install a complete water system in their plat to include all lines and appurtenances. The system development charge then help finance the development of transmission lines, pump stations and water treatment facilities to increase the system capacity to meet the new demands.

There are two basic methods for determining system development charges. One is the system buy-in method, and the other is the incremental-cost pricing method. The first method recognizes capital contributions of existing customers towards financing existing facilities. New customers are required to pay an amount equivalent to that paid by existing customers towards invested capital funds under this method. Under the incremental-cost pricing method, new customers are responsible for their share of the last increment of the cost of system facilities. The goal of the incremental-cost pricing method is to eliminate or minimize future service rate increases due to growth by an up-front charge for new capacity.

CERB (Community Economic Revitalization Board): CERB provides funding to local governments and federally-recognized tribes for public infrastructure which supports private business growth and expansion. Eligible projects include domestic and industrial water, storm water, wastewater, public buildings, telecommunications, and port facilities.

Department of Ecology Grants: The Washington State Department of Ecology offers grants on an annual basis for projects that improve and protect water quality, including stormwater facilities and activities. Grants are awarded based on funding availability.

Other Federal Grants: Congressional transportation funding appropriations and other federal grant sources may be available to the city; future grant funding is highly volatile and dependent upon actions taken by Congress.

RCO (Recreation and Conservation Office): The State Recreation and Conservation Office (RCO) manages a number of different grants for recreation projects, such as the Aquatic Land

Enhancement Account (ALEA), Washington Wildlife Recreation Program (WWRP), Recreational Trails Program (RTP), and Youth Athletic Facilities (YAF).

SRF (State Revolving Fund): The Drinking Water State Revolving Fund (DWSRF) makes funds available to drinking water systems to pay for infrastructure improvements. This loan program is funded through federal and state money and subject to state laws and additional federal regulations.

STP (Surface Transportation Program): This is a program of the Federal Highway Administration, and one of several federal funding sources created by the Intermodal Surface Transportation Efficiency Act to finance transportation projects. STP funds are the most “flexible” funding source since they may be used on transit projects, bicycle and pedestrian, safety, traffic monitoring and management, planning, and the development of management systems, as well as more traditional road or bridge projects. A local match of 13.5 percent is required. For pedestrian and bike facilities, a 20 percent local match is required.

- STP-E: Surface Transportation program – Enhancement
- STP-U: Surface Transportation program –Urban
- STP-UL: Surface Transportation program – Urban, Large Area

TIB (Transportation Improvement Board): The Washington State Transportation Improvement Board (TIB) funds high priority transportation projects in communities throughout Washington to enhance the movement of people, goods, and services. TIB is an independent state agency, created by the Legislature, which distributes and manages street construction and maintenance grants. Funding for TIB's grant programs comes from revenue generated by three cents of the statewide gas tax.

- **UAP (Urban Arterial Program):** The Washington State Transportation Improvement Board manages UAP grants. The purpose of the UAP Program is to provide financial assistance to local agencies to improve the state's arterial street system by increasing capacity, reducing accident rates, correcting structural deficiencies, and providing adequate widths. The UAP receives eight percent of the gas tax revenue. Funded projects must be listed in the City's six-year Capital Improvement Plan.

Interlocal Agreements and Partnerships: Partnerships and interlocal agreements are important to the City of Orting. Partnering with other local jurisdictions and local agencies (with and without financial agreements or components) ensure that projects and programs can take place.

Impact Fees: Impact fees are one-time charges assessed by local governments against a new development project to help pay for new or expanded public facilities that will directly address the increased demand created by that development. Impact fees may only be used for capital facilities that are reasonably related to the new development, will directly benefit the new development, and will also serve the community at large (in other words, impact fees may not be used to pay for private facilities that solely benefit the development).

LIDs (Local Improvement Districts): LIDs are special assessment districts in which improvements will specially benefit primarily the property owners in the district. They are created under the sponsorship of a municipal government and are not self-governing special purpose districts. To the extent and in the manner noted in the enabling statutes, they must be approved by both the local government and benefitted property owners.

Real Estate Excise Tax Funds (REET): The real estate excise tax is levied on all sales of real estate, measured by the full selling price, including the amount of any liens, mortgages, and other debts

given to secure the purchase. The state levies this tax at a rate between 1.1% and 3% based upon sales price. Orting has added the locally imposed tax of .50 for a total of 1.78-percent.

- The City must spend the first .25-percent up to \$100,000 of the real estate excise tax receipts solely on capital projects that are listed in the capital facilities plan element of the comprehensive plan. "Capital projects" funded by the first quarter percent of the REET are "public works projects of a local government for planning, acquisition, construction, reconstruction, repair, replacement, rehabilitation, or improvement of streets; roads; highways; sidewalks; street and road lighting systems; traffic signals; bridges; domestic water systems; storm and sanitary sewer systems; parks; recreational facilities; law enforcement facilities; fire protection facilities; trails; libraries; administrative and judicial facilities". The state law requires that the "legislative authority" (Council) shall identify in the adopted budget the capital projects funded in whole or in part from the proceeds of the tax authorized in this section, and shall indicate that such tax is intended to be in addition to other funds that may be reasonably available for such capital projects. These funds may also be used to make loan and debt service payments on projects that are permitted uses.
- The second .25-percent of the REET, may be used to fund capital projects listed above, except that acquisition of land for parks is not permitted. Payments of loan and debt service for these projects are also authorized for the use of these funds.

Revenue Bonds: Revenue bonds may be issued to finance projects for any enterprise that is self-supporting. Revenue bonds are generally used to finance water and wastewater projects, airports, and stormwater systems. Payment for debt service on revenue bonds comes from user fees generated by the capital facility that is being built. The local entity is then responsible for establishing and collecting sufficient revenue (through rates) to retire the debt.

Six Year Capital Facilities Plan

The six-year capital facilities plan, based on the capital facility needs identified in this plan and related functional plans, is adopted annually by ordinance. Since the comprehensive planning process is a continuing, evolving process, this six-year plan will be continually reviewed and updated. Any plan is a tool to aid in decision making. This plan is no exception. By outlining how the needed capital facilities of the future can be successfully provided, it will assist annual budget decisions which need to incrementally provide the funding for those facilities. The plan is not intended as a substitute for those budget decisions, only to provide a tool for them.

Capital facility is a widely used term that can be used in a variety of ways. In accounting, it may mean any asset that is capable of being capitalized. As such it would include vehicles, furniture, equipment, and similar assets, as well as much longer-term fixed assets. The use of the term here, however, is intended to be much more limited, referring instead to long term fixed assets that have a significant (at least three year) life, and a substantial cost (at least \$20,000). As such, these facilities would require a policy for financing on a longer-term basis than that which can be readily afforded by the annual budget cycle of the City.

In addition to the six-year plan, the Comprehensive Plan also anticipates other capital facilities needs throughout the 20-year life of the Plan.

20-Year Capital Facilities Needs

Table CFU-7 lists the anticipated capital facilities needs, estimated costs, and potential funding sources for projects that the City is considering to accommodate growth between 2015 and 2035.

(Transportation Facility Needs are identified in **Table T-XX** in the Transportation Appendix)

Table CFU-7 Twenty-Year Capital Facilities Needs

WATER PROJECTS	YEAR(S)	ESTIMATED COST
Well #2 Rehab Design and Construction (Treatment & Well)	2025-2026	TBD
Well #1 and Wingate Roof Coating	2025	\$100,000
SCADA System Upgrades	2025	\$175,000
Security Upgrades – Video/Control Access	2028-2029	TBD
WSDOT Water Line Replacement per Franchise (lowering water lines)	2025-2029	\$300,000
Water System Plan – Addendums	2025	\$200,000
Downtown Main Replacement Program	2025-2029	\$1,250,000
Tacoma Intertie Design and Construction	2026-2027	TBD
Kansas Street Water Lines	2025	TBD
Backup Power for Wingate, Well #1, #3, and #4	TBD	TBD
Wingate Reservoir & Pump Station Upgrade	2028-2029	TBD
Wingate Water Line Replacement – Design	2025	TBD
Wingate Water Line Replacement – Construction	2025-2026	TBD
Capital Equipment	TBD	TBD
Water Meter Upgrades and Replacement	2025-2029	\$70,000
Central Metering Technology	2025	\$100,000
Chlorination System – Well #4 Upgrade	TBD	TBD
WSDOT Franchise	2025	TBD
Water Line Relocation: WSDOT/Fish Passage Upgrade	2025	TBD
Water Line Relocation: Orville and SR162 (Rouche/Card Creek Crossing) Design and Construction	2025-2026	TBD

Commented [N59]: This is a draft version as of 7/30/2024. This list is consistent with information brought to a council committee for review earlier this summer, with some subsequent small adjustments. Further refinement may be needed.

SEWER PROJECTS	YEAR(S)	ESTIMATED COST
System Plan	2025	TBD
SCADA Sewer	2025	\$175,000
WRRF/WWTP Upgrades Construction	2025-2026	\$18,500,000
Process Design	2026	TBD
Membrane Filtration Design	2026-2027	TBD
Membrane Filtration Upgrade	2028	TBD
Lagoon Dredge	2025	\$850,000
Manhole Upgrades	2025-2029	TBD
I&I Improvements Design	2026-2029	\$120,000
I&I Improvements Construction	2026-2029	\$1,200,000
STORMWATER PROJECTS	YEAR(S)	ESTIMATED COST
Village Green Outfall ROW and construction	2025-2030	\$700,000
Calistoga St W Storm/Kansas St SW Outfall Construction	TBD	\$1,400,000
Kansas Street Stormwater Improvement	2027	\$1,600,000
Program: NPDES Stormwater Mgmt. Plan Updates	2025-2030	\$30,000
Equipment: Vactor Truck	2025	\$180,000
Equipment: Street Sweeper	2026	\$200,000
Equipment: Lift Truck	2027	\$160,000
PARKS AND RECREATION PROJECTS	YEAR(S)	ESTIMATED COST
Parks Master Plan Design and Construction	2024	TBD
Realignment of Trail Design	2024	\$175,000
Realignment of Trail Construction	2025	\$1,260,000

Calistoga/Whitehawk Master Plan	TBD	TBD
Whitehawk/Gratzer Park Complex Master Plan	TBD	TBD
Charter Park Court Complex Design	2025	\$50,000
Charter Park Court Complex Construction	2026	\$800,000
Play Structure Ground Cover	TBD	TBD
MUNICIPAL FACILITIES PROJECTS	YEAR(S)	ESTIMATED COST
Develop Plan to Dispose of Old Facilities	2025-2030	TBD
MPC/Library Window Replacement	TBD	TBD
Old City Hall Building Roof	TBD	TBD

Goals and Policies for Capital Facilities

Goal CF 1 Assure that capital improvements necessary to carry out the comprehensive plan are provided when they are needed.

- CF 1.1 The City ~~shall~~will coordinate its land use and public works planning activities with an ongoing program of long-range financial planning, in order to identify fiscal resources necessary to implement the capital facilities plan.
- CF 1.2 Management of capital facilities should emphasize the following concepts:
- a. Providing preventative maintenance and cost-effective replacement of aging elements;
 - b. Planning for the orderly extension and upgrading of capital systems while recognizing that system extensions associated with new development should be the responsibility of those desiring service;
 - c. Inspecting systems to ensure conformance with design standards; and,
 - ~~ed.~~ Reducing the potential for drastic rate increases through effective fiscal management and rate structures that reflect the LOS and CIP's.
- CF 1.3 Determine which services are most cost-effectively delivered by the city and which services should be contracted out to be delivered by other jurisdictions or service providers. Where appropriate, joint facilities with adjacent service purveyors should be used to provide the most efficient and cost-effective service to customers.

Goal CF 2 Ensure that the continued development and implementation of the Capital Improvement Program (CIP) reflects the policy priorities of the City Council.

- CF 2.1 ~~High priority of funding shall be accorded to~~ Projects which are consistent with the adopted goals and policies of the City Council will be given priority.
- CF 2.2 Projects ~~shall~~should be funded only when incorporated into the City budget, as adopted by the City Council, unless an emergency warrants funding.
- ~~CF 2.3 Capital projects that are not included in the six-year Capital Facilities Plan and which are potentially inconsistent with the comprehensive plan shall be evaluated by means of the comprehensive planning process prior to their inclusion into the City's annual budget.~~
- CF 2.3 The six-year Capital Facilities Plan ~~shall~~should be updated annually prior to the City budget process.
- CF 2.4 All City departments shall review changes to the CIP and ~~shall~~should participate in the annual review.

Goal CF 3 ~~Manage growth and the related development of city facilities and services to direct and control land use patterns and intensities.~~Ensure that all new development can be adequately served by capital facilities, utilities, and municipal services.

- CF 3.1 The City ~~shall~~will continue upgrading the sanitary sewer system as needs emerge to

ensure adequate capacity for future growth and development.

CF 3.2 The following level of service guidelines ~~shall~~ will be used to evaluate whether existing public facilities are adequate to accommodate the demands of new development:

Water (Source Capacity and Reliability) LOS: Maintain the existing source capacity of approximately 1.73 MGD for adequate household use and fire protection. The minimum fire flow requirements are based on Pierce County's Ordinance No. 17C.60:

Development Classification	Minimum Fire Flow Requirement
Residential	750 gpm for 45 minutes
Commercial & Multi-Family	1,500 gpm for 60 minutes
Industrial	2,000 gpm for 120 minutes

Water Quality LOS: The water system quality ~~shall~~ standard will be in compliance with Washington Administrative Code requirements for water quality.

Sewer LOS: Maximum month average daily flows for the City's wastewater gravity collection system and wastewater treatment facility shall not exceed the Washington Department of Ecology's MGD limit.

Stormwater LOS: Stormwater management ~~shall~~ will comply with the Washington Department of Ecology's requirements.

Fire LOS: Design – Coordinate land use planning, development review and fire protection facility planning to ensure that: a) adequate fire protection and emergency medical service can be provided; and b) project designs minimize the potential for fire hazard.

Fire LOS: Rating – Orting Valley Fire and Rescue (Pierce County Fire District 18) ~~shall~~ should maintain and make efforts to improve its current insurance rating of "7".

Police LOS: Design – Coordinate land use planning, development review, and police protection facility planning to ensure that: a) adequate police protection can be provided; and b) project designs discourage criminal activity.

Police LOS: Response Time – The Orting Police Department ~~shall~~ will have as a goal to maintain a 3 to 4 minute response time for emergency calls.

Parks, Trails and Open Space LOS: ~~The following level of service standards shall apply to land and facilities:~~ The Parks, Trails, and Open Space (PTOS) LOS is established by the PTOS Plan, adopted here by reference.

Type of Facility	LOS (facilities/population)
Baseball/Softball Field	1/2,000 (softball) 1/2 1/2,000 (baseball)
Multi-Use Rectangular Field (e.g. soccer, football, lacrosse)	1/3,500

Basketball Courts (Two half courts are equivalent to one court)	1/3,500
Tennis/ Pickle/ Racquetball Courts	1/4,000
Playground/ Big Toy	1/1,000
Special Facilities (e.g. skate park, splash park, BMX park)	1/5,000
Trails	.25 miles/1,000
Natural Resource Areas/ Open Space	14 acres/ 1,000
Parkland	8 acres/1,000

Transportation LOS: Transportation and land use planning should be coordinated so that adequate transportation facilities can be built concurrent with growth. The following level of service standards should be used to evaluate whether existing transportation facilities are adequate to accommodate the demands of new development: The transportation system ~~shall~~ should function at a service level of at least D.

- CF 3.3 A development ~~shall~~ should not be approved if it causes the level of service on a capital facility to decline below the standards set forth in CF Policy 3. ~~23 and 3.4~~, unless capital improvements or a strategy to accommodate the impacts are made concurrent with the development for the purposes of this policy. In this context, "concurrent with the development" ~~shall mean means~~ that improvements or strategy are in place at the time of the development or that a financial commitment is in place to complete the improvements or strategies within six years.
- CF 3.4 If adequate facilities are currently unavailable and public funds are not committed to provide such facilities, developers must provide such facilities at their own expense, or pay impact fees in order to develop. If the probable funding falls short of meeting the capital facility needs of the anticipated future land uses and population, the type and extent of land uses planned for the City must be reassessed.
- CF 3.5 Require that development proposals are reviewed by the various providers of services, such as school districts, sewer, water, and fire departments, for available capacity to accommodate development and needed system improvements.
- CF 3.6 New or expanded capital facilities should be compatible with surrounding land uses; such facilities should have a minimal impact on the natural or built environment.
- CF 3.7 Maintain the water quality of the Carbon and Puyallup Rivers by complying with Washington Department of Ecology guidelines.

Goal CF 4 *Ensure that financing for the city's needed capital facilities is as economical, efficient, and equitable as possible.*

- CF 4.1 The burden for financing capital facility improvements should be borne by the primary beneficiaries of the facility.
- CF 4.2 General Fund revenues should be used only to fund projects that provide a benefit to the entire community or to accommodate unmet facility needs beyond those created by new growth.

- CF 4.3 Long-term borrowing for capital facilities should be considered as an appropriate method of financing large facilities that benefit more than one generation of users.
- CF 4.4 Where possible, special assessment, revenue and other self-supporting bonds and grants will be used instead of tax supported general obligation bonds.

Goal CF 5 *Provide the most cost-effective and efficient water, stormwater and sewer service to residents within Orting and its service area.*

- CF 5.1 Expansion of sewer service ~~shall~~ will be coordinated among Orting, the Washington State Department of Ecology, and Pierce County, and ~~shall give priority~~ will be given to infill within the city limits and existing urbanized unincorporated areas within the ~~urban growth~~ service area.
~~CF 5.2 Phasing of sewer expansion shall follow the city's urban growth area established in the comprehensive plan, unless sewer service will remedy groundwater contamination and other health problems or the city arranges to provide services to other urban growth areas established by the Pierce County Comprehensive Plan~~
- CF 5.2 New industrial development ~~shall~~ will not be allowed to utilize on-site sewage systems. ~~New industrial development, and shall must~~ be served by the City's treatment facilities.
- CF 5.3 Require sewage gravity collection system connections for all new development including single-family subdivisions unless otherwise approved by the Council and consistent with the Pierce County Countywide policies.
- CF 5.4 Identify, prioritize, and gradually replace existing sewer lines in poor condition to reduce inflow and infiltration to increase the capacity of the sewage treatment system.
- CF 5.5 Provide an adequate water supply and distribution system for all domestic use, fire flow and fire protection at all times. Fire flow capabilities can be increased, and Fire Insurance Rating Classifications improved by upgrading water pipeline sizes, creating additional pipe networks, and increasing water storage capacities. Require transfer of private water rights to the city as part of all development permit approvals.

Commented [NS10]: This should be deleted because the city does not have a UGA beyond city limits.

Goal CF 6 *Develop a system of parks and recreation facilities that is attractive, safe, and available to all segments of the population.*

- CF 6.1 Mitigate impacts on parks, trails, and the recreation system from new growth based on impact fees, land dedication, and/or facility donations based on the level of service standards.
- CF 6.2 Cooperate and coordinate with the school district, other public agencies and private groups through the use of interlocal agreements and contracts to meet the recreation needs of the City.
- CF 6.3 Support continued development of the Foothills Trail and related links and parks for bicycles, pedestrians and equestrians, running through Pierce County to Mount Rainier National Park.
- CF 6.4 Develop a network of parks, open space and trails throughout the city for pedestrians, bicycles and equestrians, with priorities on:

a. The dedication and development of lands which would link with the Foothills Trail, the downtown parks, the Puyallup and Carbon River waterfront corridors and a linkage across the Carbon River to the Cascadia trail system.

b. Maintaining and improving the accessibility, usability, and safety of Orting's parks and trails, and

c. Sustaining community-wide efforts to improve public access to the Carbon and Puyallup Rivers at those points along the banks which best fulfill the criteria for education, accessibility and restoration as outlined in the City's Shoreline Master Program.

CF 6.5 Future park plans or remodels should prioritize barrier-free equipment additions, such as wheelchair swings, adaptive spinners, or the like where none currently exist.

CF 6.6 Create, periodically review, and update the Main Parks Master Plan to provide for cohesive development of the park and connectivity with the downtown core. Continue progress toward the finalization and construction of the Main Parks Master Plan.

CF 6.7 Work with Pierce County and applicable agencies to identify and help mitigate impacts to Calistoga Park.

~~Pol. CF 6.1 — Mitigate impacts on parks, trails, and the recreation system from new growth based on impact fees, land dedication, and/or facility donations based on the level of service standards.~~

~~Pol. CF 6.2 — Cooperate and coordinate with the school district, other public agencies and private groups through the use of interlocal agreements and contracts to meet the recreation needs of the City.~~

~~Pol. CF 6.3 — Support Pierce County development of the Foothills Trail, and related links and parks, for bicycles, pedestrians and equestrians, running through Pierce County to Mount Rainier National Park.~~

~~Pol. CF 6.4 — Improve the network of parks, open space and trails throughout the city for pedestrians, bicycles and equestrians, with priority on:~~

~~The dedication and development of lands which would link with the Foothills Trail, the downtown parks, the Puyallup and Carbon River waterfront corridors and a linkage across the Carbon River to the Cascadia trail system;~~

~~Maintaining and improving the accessibility, usability, and safety of Orting's sidewalks, parks and trails, and~~

~~Sustaining community-wide efforts to improve public access to the Carbon and Puyallup Rivers at those points along the banks which best fulfill the criteria for education, accessibility and restoration as outlined in the 2009 Shoreline Master Program.~~

~~Pol. CF 6.5 — Future park plans or remodels should prioritize barrier free equipment additions, such as wheelchair swings, adaptive spinners, or the like — where none currently exist.~~

~~Pol. CF 6.6 — Create and periodically review and update a Master Plan for City Park to provide for cohesive development of the park that serves the community.~~

~~Pol. CF 6.7 — Work with Pierce County and applicable agencies to identify and help mitigate impacts to Calistoga Park.~~

Goal CF 7 Cooperate in the siting of essential public facilities in Orting.

CF 7.1 The site selection process for essential public facilities on the list maintained by the Office of Finance and Management ~~shall~~ should include the following components:

a. The state must provide a justifiable need for the public facility and its location

in Orting based upon forecasted needs and a logical service area;

b. The state must establish a public process by which residents of Orting have an opportunity to meaningfully participate in the site selection process.

CF 7.2 Public facilities ~~shall~~should not be located in designated resource lands, critical areas, or other areas where the siting of such facilities would be incompatible.

CF 7.3 Multiple use of corridors for major utilities, trails, and transportation rights-of-way is encouraged.

CF 7.4 Siting of public facilities ~~shall~~will be based upon criteria including, but not limited to:

- a. Specific facility requirements (acreage, transportation access, etc.);
- b. Land use compatibility;
- c. Potential environmental impacts;
- d. Potential traffic impacts;
- e. Fair distribution of such public facilities throughout the County;
- f. Consistency with state law and regulations.

CF 7.5 City plans and development regulations should identify and allow for the siting of essential public facilities. Design standards ~~shall be~~are required to ensure compatibility with adjacent land uses and mitigate any adverse impacts. The City's siting process may include requirements that facilities provide amenities or incentives to the neighborhood as a condition of approval. At least one public hearing ~~shall~~will be required to ensure adequate public participation.

CF 7.6 Cooperatively work with surrounding municipalities including Pierce County during the siting and development of facilities of regional significance. The City ~~shall~~will seek an agreement with neighboring jurisdictions, state or county agencies to mitigate any disproportionate financial and other burdens which may fall on the City due to the siting.

CF 7.7 Essential public facilities that are county-wide or state-wide in nature (e.g., solid waste and/or hazardous waste facilities), must meet existing state law and regulations requiring specific siting and permitting requirements.

Goal CF 8 Manage stormwater runoff in such a manner as to: Protect property from flooding and erosion; protect streams and shorelines from erosion and sedimentation to avoid the degradation of environmental quality and natural system aesthetics; protect the quality of groundwater and surface water, and; provide recharge of groundwater where appropriate.

CF 8.1 Manage the stormwater utility to:

- a. Identify existing and potential problems at the drainage basin level;
- b. Propose solutions to those problems;
- c. Recognize the importance of natural systems and receiving waters and their preservation and protection;
- d. Set design and development guidelines; and
- e. Provide a strategy for implementation and funding.

CF 8.2 Encourage either regional or low impact development approaches to managing stormwater ~~to~~ provide improved performance, maintenance, and cost efficiency. Wherever possible, regional facilities should be considered as a multi-functional

community resource which provides other public benefits such as recreational, habitat, cultural, educational, open space, and aesthetic opportunities.

- CF 8.3 The City should require new development to provide onsite storm drainage and all off-site improvements necessary to avoid adverse downstream impacts.
- CF 8.4 Where appropriate and feasible, infiltration of stormwater is preferred over surface discharge to downstream system. The return of precipitation to the soil at natural rates near where it falls should be encouraged through the use of detention ponds, grassy swales, and infiltration.
- CF 8.5 Development should be designed to minimize disruption and/or degradation of natural drainage systems, both during and after construction. Development design which minimizes impermeable surface coverage ~~by limiting site coverage and maximizing~~ maximizes the exposure of natural surfaces should be encouraged.
- CF 8.6 Industries and businesses should use best management practices to prevent erosion and sedimentation from occurring, and to prevent pollutants from entering ground or surface waters.
- CF 8.7 Sites that have been cleared, graded, or filled in violation of current or prior standards should be fully restored before construction permits are issued.

~~Goal CF 9 — Ensure that those public facilities and services necessary to support development shall be adequate to serve the development without decreasing current service levels below adopted level of service standards.~~

~~Pol. CF 9.1 — Coordinate new development with the provision of an adequate level of services and facilities, such as schools, water, transportation and parks, as established in the capital facilities element.~~

~~Pol. CF 9.2 — Ensure that new development does not outpace the City's ability to provide and maintain adequate public facilities and services, by allowing new development to occur only when and where adequate facilities exist or will be provided.~~

~~Pol. CF 9.3 — The City will coordinate concurrency review. Developers shall provide information relating to impacts that the proposed development will have on public facilities and services. The City shall evaluate the impact analysis and determine whether the development will be served by adequate public facilities.~~

~~Pol. CF 9.4 — The City shall permit the development of essential public facilities in accordance with the provisions of the County-Wide Planning Policies.~~

Goal CF 9 — Ensure that all public facilities and services are sited and provided in an equitable and sustainable manner.

- CF 9.1 Consider the potential impacts of climate change on public facilities and support the necessary investments to move to low-carbon energy sources and other green initiatives for public infrastructure and services.
- CF 9.2 Promote affordable and equitable access to public services, including drinking water and telecommunication infrastructure, to provide access to all communities, especially underserved communities.
- CF 9.3 Locate community facilities and services, including civic places like parks, schools, and other public spaces, in centers and near transit (or near probable future locations for transit), with consideration for climate change, economic, social and health impacts.

Goals and Policies for Utilities

Goal U 1 Assure that the energy and communication facilities and services to support current and future development are available as needed.

- U 1.1 The City does not provide natural gas, electrical or communication services. These facilities and services are currently provided by private companies. To facilitate the coordination of these services, the City should discuss and exchange population forecasts, development plans and technical data with the agencies identified in this plan.
- U 1.2 New development ~~shall~~ should be allowed only when and where all public utilities are adequate, and only when and where such development can be adequately served without reducing level of service elsewhere.
- U 1.3 Coordinate City actions with the appropriate activities of the service providers such as Bonneville Power Administration, Puget Sound Energy, CenturyLink, ~~AT&T, MCI, Sprint, and Comcast~~ and so forth. These coordination efforts should ensure that these providers of services and utilities rely upon the Land Use Element of this Plan to plan future facilities.
- U 1.4 The City of Orting adopts the following level of service guidelines:
- a. Collection service for solid waste ~~shall~~ will be available and required for all properties within the City.
 - b. Coordinate land use and facility planning with Puget Sound Energy to allow for siting and construction of electrical transmission and distribution facilities that provide sufficient amounts of power with minimal periods of service interruption.
 - c. Promote the extension of natural gas distribution lines within the City.
- Coordinate land use and facility planning to allow for construction and replacement of natural gas distribution conduits along roadways which are undergoing reconstruction.
- e. For telecommunications, including telephone, internet, cellular telephone and cable television, advocate the development and maintenance of facilities necessary to provide services as needed to accommodate population growth and advancements in technology. For cellular telephone service, work with providers to enhance the range of the regional service area.

Goal U 2 Seek to minimize impacts associated with the siting, development, and operation of utility services and facilities on adjacent properties and the natural environment.

- U 2.1 Electric power substations and recycling drop-off boxes should be sited, designed, and buffered (through extensive screening and/or landscaping) to fit in harmoniously with their surroundings. When sited within or adjacent to residential areas, special attention should be given to minimizing noise, light and glare impacts. Visual and land use impacts resulting from electrical system upgrades ~~shall~~ must also be mitigated.
- U 2.2 The City ~~shall~~ should encourage or require implementation of resource conservation practices and best management practices according to the U.S.D.A. Soil Conservation Service during the construction, operation, and maintenance of utility

structures and improvements.

- U 2.3 The City ~~shall~~ should establish a process for identifying and siting essential public facilities, such as solid waste or recycling handling facilities and cooperatively work with surrounding municipalities and Pierce County during the siting and development of facilities of regional significance.
- U 2.4 Protect and enhance the environment and public health and safety when providing services and facilities.

Goal U 3 Maintain an adequate and effective solid waste and recycling program which maintains public health, environmental and land use quality.

- U 3.1 Continue work with Pierce County and solid waste haulers to reduce the solid waste stream and maintain or surpass the 50-percent recycling goal.
- U 3.2 Continue existing recycling activities and work with Pierce County and solid waste haulers to expand the local recycling program, including collection of materials not currently collected.
- U 3.3 Support Pierce County in maintaining an information management program which will aid in tracking and evaluating the waste stream and recycling program impacts in the City.
- U 3.4 Encourage private and public sector involvement in recycling programs and in the use of recycled products.



NATURAL ENVIRONMENT ELEMENT

Purpose

This Natural Environment Element, added to the Comprehensive Plan as a part of the 2024 periodic update, contains the goals and policies necessary to support the City's responsibility and desire for preserving, protecting, and enhancing the natural environment through implementing regulations, guidelines, and standards. It also addresses strategies for managing risks posed by natural hazards such as floods, wildfire, and lahars. It is maintained to direct land use and City decisions and policies over the next 20 years.

The opening discussion of the Natural Environment element contains the data and background information that informs the goals and policies that follow.

Discussion

The Carbon and Puyallup Rivers

Orting is bordered on the northeast by the Carbon River and on its southwest boundary by the Puyallup River. The Carbon River flows from the Carbon Glacier on the north side of Mt. Rainier, and joins with the Puyallup river just northwest of Orting. According to the Statewide Washington Integrated Fish Distribution (SWIFD) dataset managed by the Washington Department of Fish and Wildlife, the Carbon River supports runs of cutthroat, steelhead, and bull trout, and chinook, chum, coho, and pink salmon. Many of these fish are also supported by nearby streams that feed the Carbon River.

The Puyallup River has two source points on the west side of Mt. Rainier; the Puyallup Glacier and the Tahoma Glacier. The SWIFD dataset indicates that the Puyallup River supports chinook, chum, coho, and pink salmon, and steelhead and bull trout. Orting falls within the Puyallup watershed.

Both the Carbon and Puyallup rivers flow northwest into the Puget Sound (Commencement Bay) and are regionally significant in terms of fish and wildlife habitat, and human use and recreation.

Orting's geographic situation requires unique land use considerations throughout the city and evaluation of flood risks in a significant portion of the city. This element includes an exploration of flood risk data and flood hazard maps that inform many land use decisions. In addition to assessing



risks to property from flooding associated with the rivers, it is important to consider the effects of land use decisions on the rivers and areas adjacent to the rivers.

Both rivers are classified as Shorelines of the State, which means they are protected under the Shoreline Management Act (1971). The primary goal of the Act is “to prevent the inherent harm in an uncoordinated and piecemeal development of the state’s shorelines.” The City’s Shoreline Master Program (SMP) (2019) implements the state’s Shoreline Management Act (SMA). The SMP includes:

- An inventory of the natural characteristics and land use patterns along shorelines covered by the SMA;
- Shoreline development regulations;
- A permit system to further the goals and policies of both the SMA and the SMP; and
- A Restoration Plan that includes goals, policies, and actions for restoration of impaired shoreline ecological functions.

According to the SMP there are 4.5 miles of river shoreline within city limits. The SMP provides environmental protection and consistency of development along the rivers and their associated 100-year floodways. The SMP designates a shoreline jurisdiction and establishes regulations and requirements for development in that shoreline environment. All of the shorelines within the city have been designated Urban Conservancy. No development except for limited public facilities is allowed within the first 150 feet of the shoreline jurisdiction along the rivers.

The City conducted a comprehensive update of the SMP in 2007 which included the preparation of a detailed inventory and characterization of the shoreline conditions along the Carbon and Puyallup Rivers to document “baseline conditions” for future permitting purposes. In addition, “opportunity sites” for potential shoreline restoration and increased public access were identified. A minor update of the SMP was adopted in 2013, and again in 2019. [Ordinance 2019-1045](#).

| [The current SMP, or as amended](#), is adopted as a part of this Comprehensive Plan.

WRIA 10 Watershed

Orting falls within Water Resource Inventory Area (WRIA) 10. The Washington Department of Ecology (Ecology) states that “WRIAs are areas defined by higher elevation that capture precipitation and funnel rain and snowmelt through smaller subbasins into streams, tributaries, and rivers.” WRIA 10 is referred to as the Puyallup-White watershed, and includes the Puyallup, Carbon, and White Rivers. The watershed extends from Mt. Rainier National Park to the Port of Tacoma. Ecology regulates and manages water availability for each WRIA; WRIA 10 is regulated by the Watershed Restoration and Enhancement Plan, adopted by Ecology in 2021.

Water Quality Protection Measures

The City has adopted Best Management Practices (BMPs) to protect water quality. BMPs are a structure or operation intended to prevent pollutants from coming into contact with stormwater through physical separation of areas or careful management of activities that are sources of

pollutants. Operational source control BMPs are non-structural practices that prevent or reduce pollutants from entering stormwater.

The City of Orting is covered under the Western Washington Phase II Municipal Stormwater Permit (Permit). This permit was issued by the Washington State Department of Ecology to administer the Federal Clean Water Act National Pollutant Discharge Elimination System (NPDES) requirements. Coverage under the Permit requires the City to implement a stormwater management program and adopt stormwater design and control measures. The City adopted the Ecology Stormwater Management Manual for Western Washington to satisfy this Permit requirement. The Permit is renewed every five years by Ecology which results in the local adoption of updated design standards by the City to facilitate permit compliance.

These measures are further described in the Capital Facilities Element of this plan.

Critical Areas

The protection of critical areas is a key component of the City's land use plan. Critical areas are those which are environmentally sensitive and must be protected according to state statute. The plans and regulations designed to protect critical areas are not intended to deny a reasonable use of private and public property, but to assure that development on or near critical areas is accomplished in a manner that is sensitive to the environmental resources of the community.

As mandated by the GMA, the City's Critical Areas Ordinance (CAO), codified at Orting Municipal Code Title 11, promotes the maintenance, enhancement, and preservation of critical areas and environmentally sensitive natural systems by avoiding or minimizing adverse impacts from construction and development. Under the state GMA, local governments are required to use the Best Available Science (BAS) when reviewing and revising policies and regulations for critical areas per WAC 365-196-485.

Wetlands

Wetlands are defined in WAC 197-11-756 "[...]as areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar area."

Most, but not all, mapped potential wetland areas in Orting are associated with the Carbon and Puyallup rivers, and many of the larger wetland areas fall within existing reserves, parks, or open green spaces. The Pierce County Wetland Inventory and the National Wetland Inventory provide general wetland data and locations as shown on **Figure NE-1** however, studies conducted by the City or by individual property owners yield more specific and accurate data. Wetlands are regulated by Orting's Critical Areas Ordinance, according to the Washington State Department of Ecology requirements and are classified using the Washington State Wetland Rating System for Western Washington.

Commented [WC1]: Modification based on discussion with Planning Commission on July 1, 2024

This paragraph is a revision to the previous language that identified the version of the Ecology that is in place today. The Ecology manual adoption will change periodically as the City maintains compliance with the Permit.

Geologic Hazard Areas

Geologically hazardous areas “include areas susceptible to erosion, sliding, earthquake, or other geological events. They pose a threat to the health and safety of citizens when incompatible commercial, residential, or industrial development is sited in areas of significant hazard. Some geological hazards can be reduced or mitigated by engineering, design, or modified construction or mining practices so that risks to public health and safety are minimized. When technology cannot reduce risks to acceptable levels, building in geologically hazardous areas must be avoided.” (WAC 365-190-120)

The topography of the land within Orting’s city limits is generally very flat. However, along the banks of the Carbon and Puyallup Rivers near the borders of the city, there are some steep areas that pose erosion and landslide risks. Regionally, western Washington is at risk for earthquake events of varying severity. According to the Washington Department of Natural Resources, Orting falls within an area of Moderate to High liquefaction susceptibility, meaning that during an earthquake, saturated sand and silt have a higher risk of taking on the characteristics of a liquid. Liquefaction poses a risk of increased damage during an earthquake.

Critical Aquifer Recharge Areas (CARAs)

Groundwater is water that has collected beneath the surface in underground basins called aquifers and is typically accessed as a water source by drilling wells. Groundwater is important both for human use, and for maintaining stream flows in dry seasons. Contamination of soil and surface water can damage or pollute groundwater reserves. In order to maintain water quality and prevent damage to ecosystems, some areas are designated as protected aquifer recharge areas, or Critical Aquifer Recharge Areas (CARAs).

As depicted in **Figure NE-2**, much of Orting lies within CARAs which are defined by the Growth Management act as, “areas with a critical recharging effect on aquifers used for potable water.” These areas are protected and maintained to avoid contamination of groundwater sources, such as wells¹. They are classified by the Orting CAO as either High, Medium, or Low Significance, depending on the physical characteristics of the soil in the area. Based on local conditions, the City classifies wellhead protection areas as CARAs. Wellhead protection areas are defined by the boundaries of the 10-year groundwater time of travel, or boundaries established using alternate criteria approved by the Department of Health in those settings where groundwater time of travel is not a reasonable delineation criterion, in accordance with WAC 246-290-135. Protection of these sites is of vital importance as the City uses well water to provide potable drinking water to citizens. As required by federal law, water used for municipal drinking water is monitored and tested to ensure it meets the required standards.

While development is allowed in these areas, certain uses with a high risk for contamination require a hydrogeologic assessment to ensure that the use will not pose a threat to the aquifer system.

¹ The Washington State Department of Health (DOH) Source Water Assessment Program (SWAP) mapping program should also be consulted for permitting land uses that may impact CARAs, available at <https://fortress.wa.gov/doh/swap/index.html>

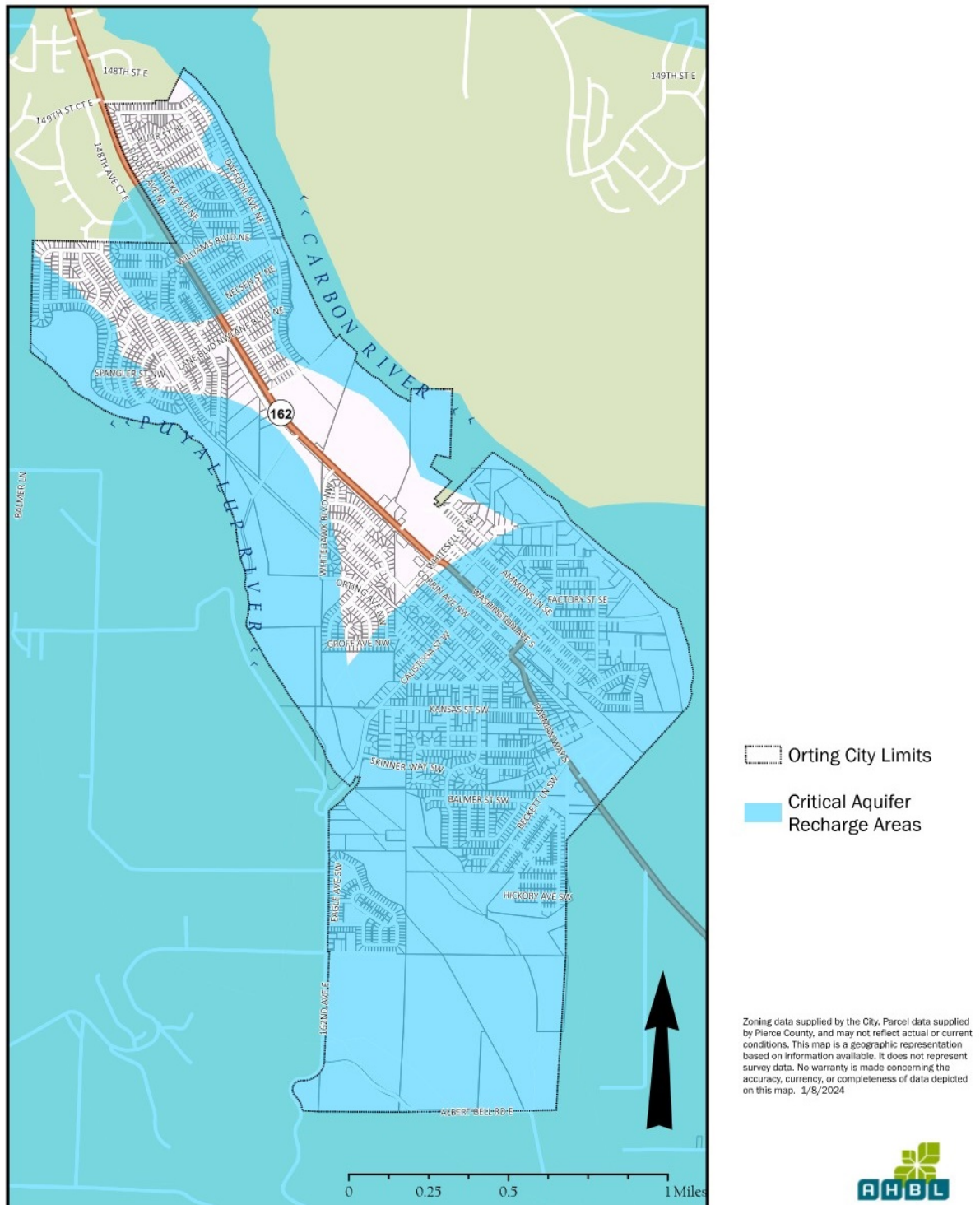


Figure NE-2: Critical Aquifer Recharge Areas

Fish and Wildlife Habitat Conservation Areas

Critical Fish and Wildlife Habitat Conservation areas are those areas identified as being of critical importance in the maintenance and preservation of fish, wildlife, and natural vegetation.

The Washington Department of Fish and Wildlife (WDFW) maintains maps and data regarding Priority [Habitats and Species-and Habitats](#) (PHS). The PHS system indicates locations for threatened, endangered, or otherwise protected species and their habitats. As discussed elsewhere in this Plan, the Carbon and Puyallup rivers and their banks provide habitat to several species of birds and fish, including salmon. The freshwater wetland areas near the riverbanks also provide habitat to the Little Brown Bat.

Potential threatened or endangered species include:

- Oregon spotted frog
- Streaked horned lark
- Marbled murrelet
- Fisher
- Mash sandwort
- Golden paintbrush
- Bull trout
- Chinook salmon
- Steelhead
- North American wolverine

The City is located within the Pacific Flyway, a migratory bird route that extends from Alaska to South America.

Flood Hazard Areas

The Carbon and Puyallup Rivers are susceptible to annual flooding events that pose threats to life and safety and may cause significant property damage. Snowmelt from the Cascade Mountain range also contributes substantially to flooding. Flood-related damage occurs nearly every year. The flooding events of November 2006 and February 2009 caused significant flooding when prolonged precipitation accompanied by snowmelt, caused by a warm-weather trend known as a “Pineapple Express,” caused many rivers and creeks throughout the Puyallup/Carbon watershed to rise to 100-year flood levels, causing flooding in both rural and urban areas. There was also a major flooding event in 2014, but the city remained protected by the levee system.

Flood hazard areas exist along the Puyallup and Carbon rivers and **Figure NE-3** shows the approximate location and extents of these areas as documented by the Federal Emergency Management Administration (FEMA) Flood Insurance Rate Maps (FIRMs) released in March 2017.

The zones depicted on Figure NE-3 are defined as follows:

- Floodway: The floodway is the channel of a stream plus any adjacent areas that must be kept free of encroachment.
- Special flood hazard areas (SFHA) are areas that will be inundated by the flood event having a 1% chance of being equaled or exceeded in any given year; this is also referred to as the base flood or the 100-year flood.

Other mapped Flood Areas include the 500-year flood area and areas protected by levees from the 100-year flood.

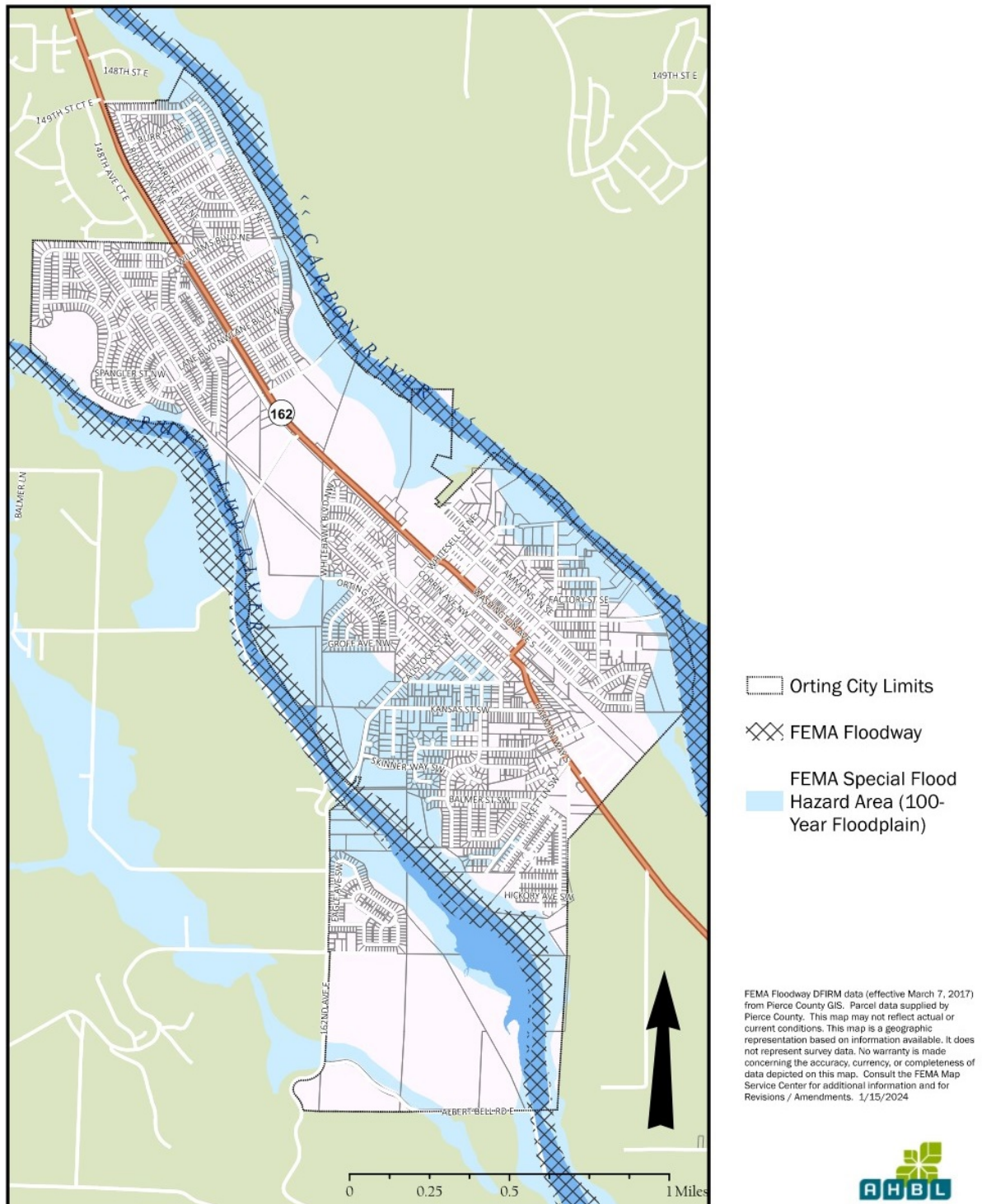


Figure NE-3: Flood Hazards

Flooding occurs when climate, geology, and hydrology combine to create conditions where river and stream waters flow outside of their usual course and “overspill” beyond their banks. In Orting, the combination of these factors creates chronic seasonal flooding conditions. Mt. Rainier’s snowmelt provides a continuous water source throughout the year and can contribute significantly to the development of flooding.

Flooding is most common from October through April, when storms from the Pacific Ocean, 100 miles away, bring intense rainfall to the area. Larger floods result from heavy rains that continue over the course of several days, augmented by snowmelt at a time when the soil is near saturation from previous rains. Frozen topsoil also contributes to the frequency of floods.

The City of Orting participates in the National Flood Insurance Program (NFIP) that makes available federally backed flood insurance for all structures, whether or not they are located within the floodplain. Title 14 of the Orting Municipal Code “Flood Control” governs development and uses in frequently flooded areas. The City also provides useful information about flooding on the City’s website.

About 10 years ago the Calistoga Reach Setback Levee and Side-Channel Construction project was completed. The project reduced flood risk and helped restore salmon habitat on 3.5 miles of the Puyallup River.

By reconnecting side channels, moving 1.5 miles of the levee back to give the river more room, and installing log jams that effectively slow the river down, the Calistoga Reach Floodplains by Design project has proven to be a success for the community.

Topography and Soils

Topography within the City is generally flat across the valley floor, with steeper slopes surrounding the developed areas. The valley floor slopes gently from south (300 feet NAVD 88) to north (140 feet NAVD 88). Most of the soil in the valley is comprised of alluvial deposits from the White, Carbon, and Puyallup Rivers. A large portion of the soils can be attributed to mudflows from eruptions of Mt. Rainier. Infiltration capabilities vary, based on the amount of fine silts and clays in the top layers. Overall, the soils in the valley infiltrate poorly.

Additionally, the area within Orting’s city limits consists mostly of the Puyallup-Sultan soil association. According to the National Cooperative Soil Survey, the Puyallup soil association is commonly used for growing crops such as hay and row crops. Native vegetation such as the Douglas fir, western red cedar, black- and salmonberries, and ferns grow well in this soil.

Climate and Climate Change

The Puget Sound region has already experienced measurable effects of a changing climate, and this trend will likely continue. According to Pierce County, average temperatures in the Pacific Northwest have increased by 1.3 degrees Fahrenheit since 1895. The County predicts that extreme heat events will become more likely in the coming years. Western Washington has also seen an increase

in wildfires and according to the EPA, Washington has experienced an increase of 2.83 acres of burned land per square mile from 2002-2020, compared to 1984-2001 (EPA, 2022).

Pierce county also predicts impacts to rivers, including the Carbon and Puyallup rivers, due to glacial changes on Mt. Rainier. Glaciers and snowpack on the mountain have been receding due to temperature changes, exposing more soil, and decreasing summer stream flows. Increased sedimentation which occurs as a result of these processes poses a greater flood risk, as it raises the elevation of stream and river channels. Other impacts associated with climate change, which should be taken into account when planning, are rising sea levels, increased severe weather events, and more extreme precipitation. Increased water temperature and acidity and decreased air quality will likely affect wildlife in the region as well.

In 2023 the state legislature passed HB 1181 and added **Climate Change and Resiliency** as the 14th Growth Management Act goal. Under the new law, the city is required to have a “Climate” Element in the future and must:

- Add a greenhouse gas emissions reduction sub-element by June 30, 2029. The sub-element and implementing development regulations must identify actions Orting will take that will result in reductions in overall greenhouse gas (GHG) emissions generated by the transportation and land use systems within the jurisdiction but without increasing emissions elsewhere; result in reductions in vehicle miles traveled within the jurisdictions but without increasing emissions elsewhere; and prioritize reductions that would benefit overburdened communities in order to maximize the co-benefits of reduced air pollution and environmental justice.
- Add a resiliency sub-element by June 30, 2029. This requirement can potentially be satisfied by adopting by reference a FEMA natural hazard mitigation plan that is in substantial conformance with this sub-element.
- Update the Transportation Element by June 30, 2029, to include certain climate change related topics, including a prohibition on denying a development permit because a project may cause the transportation level of service to fall below the minimum standard where multimodal mitigation is possible.
- By June 30, 2034, update the land use, capital facilities, park and recreation, and utilities elements to include certain climate change related topics.

The State’s Health Environment for All (or HEAL) Act defines Environmental Justice as “The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, rules, and policies. Environmental justice includes addressing disproportionate environmental and health impacts in all laws, rules, and policies by prioritizing vulnerable populations and overburdened communities, striving for the equitable distribution of resources and benefits, and

- Include consideration of environmental justice² in order to avoid worsening environmental health disparities.

The city will fortunately be eligible for grant funding from the Department of Commerce to fund these future changes.

Natural Resources and Energy Conservation

Trees enhance the natural environment and help provide many benefits. Trees provide oxygen, purify the air, slow and absorb stormwater runoff, mask noise and screen from visual trespass, stabilize slopes, prevent erosion, and provide shade. They can greatly enhance a community's appearance, and provide natural beauty. Trees also provide habitat for birds and animals.

Street trees can provide added benefits by visually enhancing a roadway and can help to provide a unifying look. Street trees can shade public areas and parking lots, and help control temperatures.

The retention of native vegetation and significant trees is a required stormwater management technique within the City of Orting which aids in the conservation of natural resources. The standards for the preservation of significant trees and vegetation are contained in the Orting Municipal Code.

In addition to the energy saving benefits from trees, the City of Orting has adopted a suite of building codes adopted by the Washington State Building Code Council WAC Title 15 to aid in the conservation of energy and resources.

Hazard Mitigation Planning

The Disaster Mitigation Act of 2000 established a new federal priority for pre-disaster planning and mitigation as opposed to post-disaster assistance. FEMA leads this program through the provision of planning guidelines and grants. The state of Washington Department of Emergency Services manages the program.

Orting adopted a Comprehensive Flood Hazard Mitigation Plan under the program in 2009 and has completed the Calistoga Setback Levee along the Puyallup River between the Calistoga Bridge and Village Green Wetland Park. This project is further described in the Capital Facilities Element.

The City is also included in the Pierce County Region 5 Hazard Mitigation Plan, a multi-jurisdictional plan encompassing 77 jurisdictions including municipalities, fire districts, school districts, universities, and other special-purpose districts. The Plan is a natural hazard mitigation plan in which all jurisdictions worked together to develop shared goals and a foundation for mitigation measures.

² The definition of "Environmental Justice" is from the HEAL act which was passed into law in 2021 and created requirements for state agencies. While it does not impose specific requirements on the City of Orting, the City could utilize the framework and tools that resulted from the Act to assess and address potential Environmental Justice issues within the City. Additionally, these tools can help to ensure appropriate consideration is given to environmental health disparities that exist among the local population.

The Plan is maintained by the Pierce County Department of Emergency Management, and is available online at <https://www.piercecountywa.gov/943/Emergency-Planning>.

The City has plans and programs in place to address future impacts of potential natural hazards. The City is a participant in the Pierce County Forum's development of the Region 5 All Hazard Mitigation Plan process. That plan contains an extensive city-specific mitigation strategy for avoiding and/or addressing impacts of natural hazards including floods, lahars, storms, and other events. The City has implemented some of these strategies through the completion of setback levees, and the on-going planning for the Carbon River Evacuation Bridge (Bridge for Kids). In addition, the City manages public education and involvement activities related to the strategies. The City is also a part of the East Pierce Interlocal Coalition for Emergency Management which is a group of seven jurisdictions that coordinate emergency management planning, including evacuation training, seeking out grant opportunities, and collaborating on planning documents.

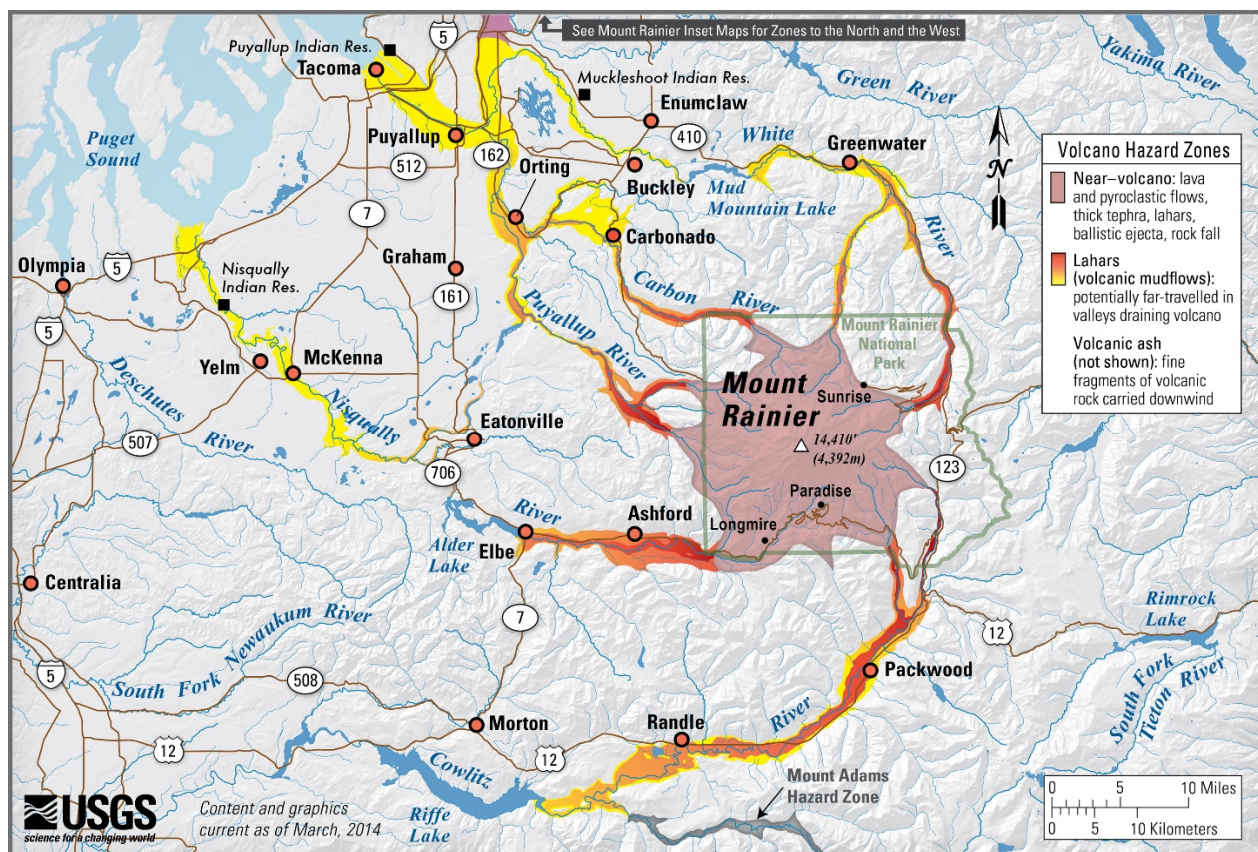


Figure NE-4: Hazard zones for lahars, lava flows and pyroclastic flows from Mount Rainier

Source: USGS Communications and Publishing, 2016

[Accessed at <https://www.usgs.gov/media/images/mt-rainier-lahar-hazard-map>]

Mt. Rainier Lahar Preparedness

The greatest hazard from Mt. Rainier is a potential lahar event, also known as volcanic mudflows or debris flows (illustrated in **Figure NE-4**). The city is located on top of the Electron Mudflow pathway, one of three major lahar events from the last 10,000 years and is at risk of experiencing future lahar events. The United States Geological Survey (USGS) and Pierce County Emergency Management have taken steps to monitor seismic activity on Mt. Rainier to provide early warning of volcanic activity. A lahar event could result from:

- A Volcanic Eruption causing rapid melting of snow and glaciers (Pyroclastic flows).
- Mobilization of soil sediments as a result of heavy rains.
- Sulfuric breakdown of Mt. Rainier western flanks resulting in a collapse of the western flank.
- Earthquake caused landslides which can occur without forewarning of rising magma.
- Release of debris dammed lakes.

Figure NE-5 shows that Orting is situated in an area mapped as “Case 2 Lahar” severity rating, as delineated by Cascade Volcano Observatory scientists³. These are areas that could be affected by relatively large non-cohesive lahars, which most commonly are caused by the melting of snow and glacier ice by hot rock fragments during an eruption, but which can also have a non-eruptive origin. The average time interval between Case 2 lahars from Mount Rainer is near the lower end of the 100 to 500-year range, making these flows analogous to the so-called “100-year flood” commonly considered in engineering practice.

The City has instituted the following procedures:

- 1 - Lahar sirens are tested monthly.
- 2 - Evacuation signage leading out of the city.
- 3 - Annual School District evacuation drill.
- 4 - Website and packages to citizens identifying the current pedestrian evacuation to the Peirce County Rock Quarry.

³ Additional information on the dataset is available at https://matterhorn.co.pierce.wa.us/GISmetadata/pdbplan_volcanic_hazards.html

The city is located at the confluence of the Puyallup and Carbon rivers, both of which originate on Mt. Rainier. Any lahar that originates on the north face of Mt. Rainier will flow down the Puyallup River and/or Carbon River valleys. USGS estimates that the city will have approximately 42 minutes to evacuate once a lahar event is confirmed.



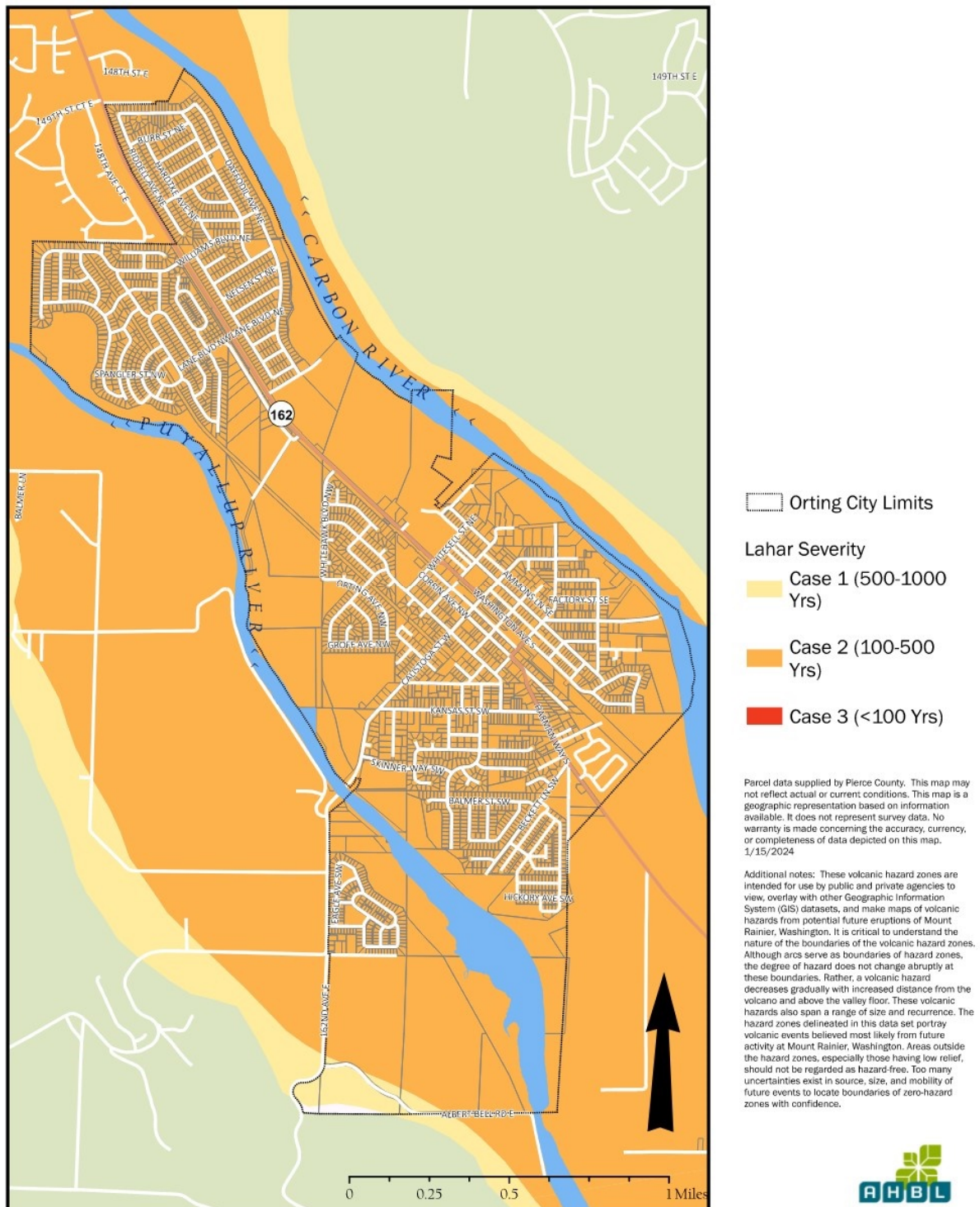


Figure NE-5: Lahar Severity Map

Needed Evacuation Route Improvements

Sensors on Mt. Rainier are intended to warn residents in the valley of a Lahar in progress. The current pedestrian evacuation route leads to Pierce County Rock Quarry. Based on the 2024 Orting School District evacuation drills, it takes an average of 47 minutes for a majority of the students to evacuate to this location. Remaining children and seniors are vulnerable with inadequate time to evacuate by foot. The current evacuation plan relies heavily on motor vehicle evacuation. The risks of over-reliance on a Motor Vehicle Plan include roads becoming congested and an increased risk for vehicular accidents. Pedestrian evacuation is the most reliable way to evacuate people on the valley floor within a short time period.

Orting Emergency Evacuation Bridge System

Founded in 2002, the Bridge for Kids non-profit organization was awarded grant money from the State and Federal Government of nearly \$2.4 million to do a feasibility study and eventually design a more effective evacuation route off the valley floor. Pierce County Public Works administered the design process and funds. The engineering firm, BergerABAM was contracted to design the evacuation route and structures needed to meet ADA compliance and the 40-minute criteria.

The proposed three-component Emergency Evacuation Bridge System as presented in October 2014, was adopted by the City Council. The project is now identified as the “Orting Emergency Evacuation Bridge System.” It consists of a bridge over the state highway at Rocky Road NE, an evacuation designation of Rocky Road NE, and an ADA compliant Bridge over the Carbon River. Through a stewardship agreement with the Federal Highway Administration (FHWA), the Washington State Department of Transportation (WSDOT) retained the approval authority for the final Bridge for Kids Alternative Analysis Report, which the Bridge for Kids Committee played a central role in developing. WSDOT determined that Pierce County had delivered a product meeting the intent of the federal grant funds.

The design for the project was funded by the Washington State Department of Transportation and Washington State Department of Commerce. Conceptual drawings are shown in **Figure NE-6**. In the event of a lahar from Mt. Rainier or a major flood event, students and residents will be able to utilize the bridge to safely cross SR-162. By removing the existing at-grade highway crossing with the bridge over the highway a safer pedestrian access to schools, commercial centers and to the Foothills Trail will be available.

The Orting Emergency Evacuation Bridge project will construct a new elevated pedestrian bridge across SR 162. The bridge provides a single 112-foot main span across SR 162. Construction of the project is estimated to cost between \$7.0 million and \$7.5 million and is anticipated to be completed in 2025.



Figure NE-6: Bridge Design Conceptual Drawings

Wildfires

Orting is situated in a narrow valley proximate to beautifully forested areas. Additionally, new development expands into areas that were previously undisturbed, resulting in an expansion of an area that is commonly considered the “Wildland – Urban Interface” as depicted⁴ in **Figure NE-7**.

The Wildland-Urban Interface (WUI) can be thought of as a zone where natural areas and development meet. This is where the possible threat of wildfires on structures is increased due to the proximity of fire-prone vegetation near the structures. Climate conditions, weather patterns,

⁴ The Washington State Department of Natural Resources (DNR) provides these geographic data as is; DNR makes no guarantee or warranty concerning the accuracy of information contained in the geographic data. DNR further makes no warranties, either expressed or implied as to any other matter whatsoever, including, without limitation, the condition of the product, or its fitness for any particular purpose. The burden for determining fitness for use lies entirely with the user. Although these data have been processed successfully on computers of DNR, no warranty, expressed or implied, is made by DNR regarding the use of these data on any other system, nor does the fact of distribution constitute or imply any such warranty. In no event shall the DNR have any liability whatsoever for payment of any consequential, incidental, indirect, special, or tort damages of any kind, including, but not limited to, any loss of profits arising out of use of or reliance on the geographic data or arising out of the delivery, installation, operation, or support by DNR

topography, hydrology, and development conditions all contribute to the set of conditions that can increase potential threat of catastrophic events.

Through implementation of land use and related land development policies and regulations, the City can support mitigation, particularly where firefighting (or suppression) systems may be limited.

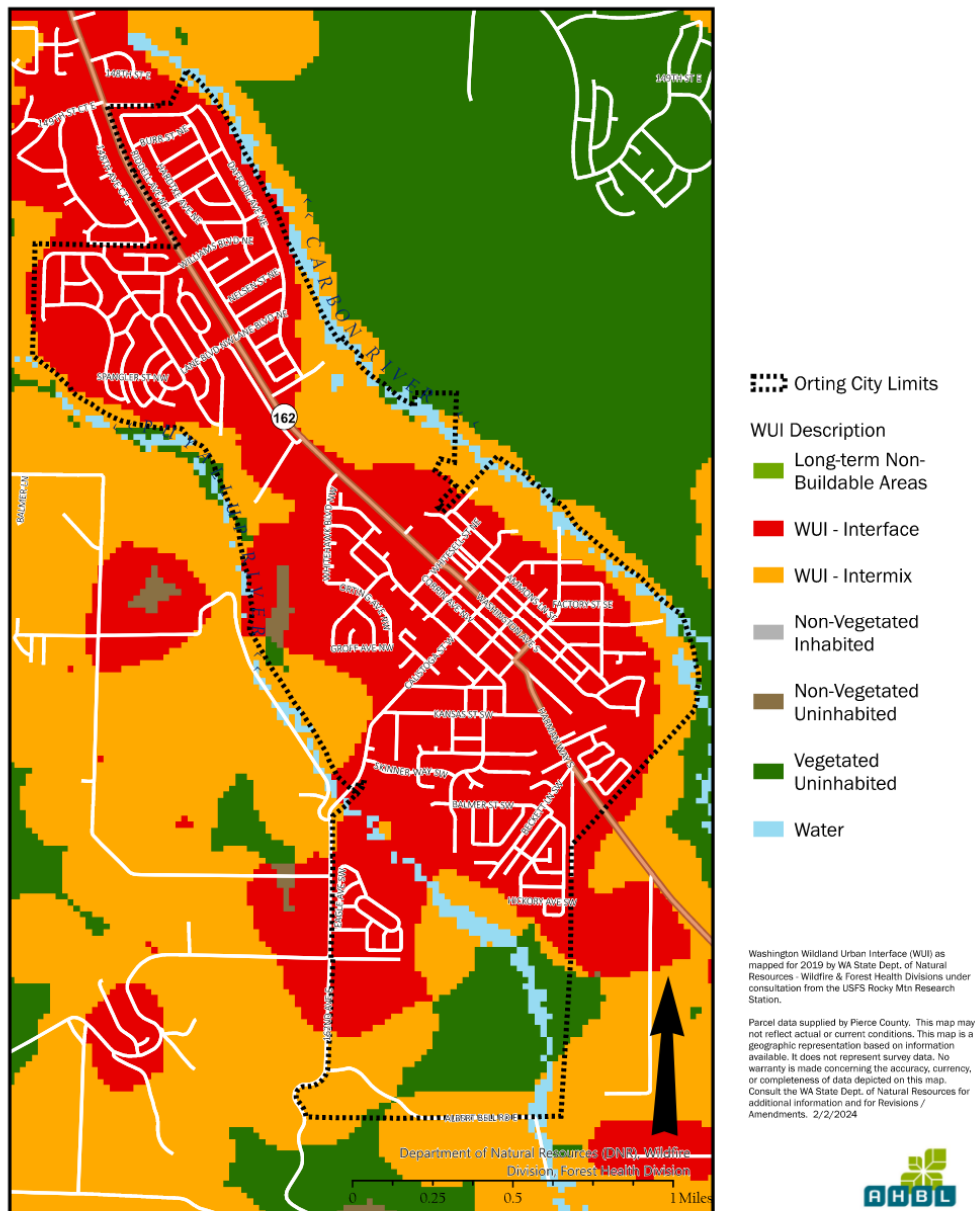


Figure NE-7: Wildland Urban Interface (WUI)

Goals & Policies

Critical Areas

Goal NE 1 *Protect the City's critical areas.*

- NE 1.1 All development activities shall be located, designed, constructed, and managed to avoid disturbance of and minimize adverse impacts to fish and wildlife resources, including spawning, nesting, rearing and habitat areas and migratory routes, [resulting in no net loss of critical area functions.](#)
- NE 1.2 Prohibit the unnecessary disturbance of natural vegetation in new development, in accordance with the Critical Areas Ordinance.
- NE 1.3 Where there is a high probability of erosion, grading should be kept to a minimum and disturbed vegetation should be restored as soon as feasible. In all cases, appropriate measures to control erosion and sedimentation shall be required.
- NE 1.4 Seek to retain as open space wetlands, river and stream banks, ravines, and any other areas that provide essential habitat for endangered or threatened plant or wildlife species.
- NE 1.5 Protect wetlands to enable them to fulfill their natural functions as recipients of floodwaters and as habitat for wildlife through the critical areas ordinance.
- NE 1.6 Advance integrated and interdisciplinary approaches for environmental planning and assessments and ensure the use of the Best Available Science.
- NE 1.7 Alternative domestic waste systems are discouraged, and must meet Pierce County Department of Health standards for soil suitability and location.

Commented [A2]: These policies are moved here from the Land Use element Goal LU 11. We have shown proposed edits with tracked changes.

General

Goal NE 2 *Protect local surface water and groundwater quality.*

- NE 2.1 Agricultural land uses within the Carbon and Puyallup River floodplains shall use Best Management Practices as recommended by the U.S.D.A. Soil Conservation Service to minimize the use of chemicals that may later be released into surface waters and to minimize erosion of soil into surface waters.
- NE 2.2 Alternative domestic waste systems are discouraged, and must meet Pierce County Department of Health standards for soil suitability and location.
- NE 2.3 The City shall consider the impacts of new development on water quality as part of its review process and require any appropriate mitigating measures. Impacts on fish resources shall be a priority concern in such reviews.

Commented [A3]: From former Pol. LU 11.7

Commented [A4]: From former Pol. LU 11.8

NE 2.4 The City's Shoreline Master Program shall govern the development of all designated Shorelines of the State within Orting. Lands adjacent to these areas shall be managed in a manner consistent with that program.

Commented [A5]: From Former Pol LU 11.9

NE 2.5 Implement the use of source-control Best Management Practices (BMPs) to benefit plants, animals, fish, and related habitats. BMPs are a structure or operation intended to prevent pollutants from coming into contact with stormwater through physical separation of areas or careful management of activities that are sources of pollutants. Operational source control BMPs are non-structural practices that prevent or reduce pollutants from entering stormwater.

Commented [A6]: NE 2.5 and 2.6 Newly added

NE 2.6 Encourage the use of Low-Impact Development principles (i.e., reducing impervious surfaces, reducing stormwater runoff, and encouraging native plantings) to reduce and to mitigate against the discharge of pollutants.

Goal NE 3 *Promote equity and environmental justice in environmental planning and land use decisions, and balance economic viability with critical areas protection.*

NE 3.1 Support programs to ensure that all residents, regardless of race, social, or economic status, have clean air, clean water, and other elements of a healthy environment and prioritize the reduction of impacts to vulnerable populations that have been disproportionately affected. Address impacts to vulnerable populations and areas that have been or will be disproportionately affected by climate change.

Commented [A7]: NE 3.1 is newly added (Environmental Justice requirements)

NE 3.2 Support and incentivize environmental stewardship on private and public lands

Goal NE 4 *Consider and plan for the impacts of climate change, and promote methods for the reduction of environmental impacts.*

NE 4.1 Protect and restore natural resources that sequester and store carbon.

Commented [A8]: Goal NE 4 and policies are newly added (Partial compliance with the Climate Action bill)

NE 4.2 Support programs and policies to identify and address the impacts of climate change and natural hazards on the region to increase resiliency.

NE 4.3 Address rising sea water by siting and planning for relocation of hazardous industries and essential public services away from the 500-year floodplain.

NE 4.4 Encourage non-motorized forms of transportation, carpooling and other trip-reduction measures.

NE 4.5 Establish a network of paths and multi-use trails throughout the city.

NE 4.6 Encourage energy-efficient homes, buildings, and building systems.

- NE4.7 By June 30, 2029 add a Climate Element, comprised of two sub-elements (a Greenhouse Gas Emissions Reduction sub-element and a Resiliency sub-element) to this Plan (pending the availability of grant funding).

Goal NE 5 *Support Wildland-Urban Interface (WUI) hazard mitigation planning and implement adopted mitigation initiatives.*

- NE 5.1 Implement the provisions of the Wildland-Urban Interface (WUI) code as adopted by the Washington State Legislature, in order to reduce and mitigate the risk to lives and property posed by wildfires.
- NE 5.2 Inform the public of the Wildland Urban Interface (WUI) mapping products produced by the Washington State Department of Natural Resources.
- NE 5.3 Consider implementation of selected "Firewise" principles, as established by the National Fire Protection Association, which can assist in hazard abatement and mitigation.
- NE 5.4 Require proposed developments to provide sufficient and adequate access for firefighting equipment.
- NE 5.5 Require bridges, culverts, road drains and other structures shall be constructed and maintained in a manner to accommodate firefighting apparatus on a year-round basis.

Commented [A9]: Goal 5 and policies are newly added (Requirement for WUI planning)

Shoreline

The Goals and Policies in the City of Orting Shoreline Master Program (as adopted via Ordinance 2019-1045 or as amended) are incorporated into this Plan by reference.

Commented [A10]: This is a proposed addition.

Emergency Management

Commented [NS11]: This section is newly added

Goal NE 6 *Protect life and property and avoid (or mitigate) significant risks to public / private property and to public health and safety.*

- NE 6.1 Review divisions of land (subdivisions and short plats) for the ability for future development to protect people and property from wildfires and other emergency situations. Providing more than one route "out" of an area is an example of a way to ensure safety and mitigate against potential threats.
- NE 6.2 Implement "Firewise" principles and advise property owners on steps they can take to protect life and property from wildfire threat, particularly in remote areas and in areas on the urban fringe and in locations where the diversity and amount of fire

equipment and available fire-fighting personnel is limited, and especially in cases where property may be difficult to access (such as steep slopes).

- NE 6.3 Coordinate the following with local agencies and jurisdictions to assure quick responses in case of emergencies: the transportation/circulation system, emergency services plan, signage, and general access provisions.
- NE 6.4 Continue to coordinate with Orting Valley Fire & Rescue as well as regional, state and federal agencies to ensure comprehensive emergency management planning is conducted and ready to implement.

APPENDIX I: LAND USE CAPACITY

This appendix serves as the *Land Capacity Analysis* and supports the Land Use Element and the Housing Element.

Background

The **Buildable Lands Program** is a continuous review and monitoring initiative mandated by the **Growth Management Act** (GMA) in RCW 36.70A.215. Pierce County is responsible for establishing and overseeing this program, ensuring coordination among Orting and the county's other 22 cities and towns. In collaboration with its cities and towns, the County annually collects development data and uses the information to produce a report on observed development and future capacity within the urban growth area (UGA). Pierce County issued the 2021 Buildable Lands Report (Fourth Edition, Updated Version, Published 11/11/2022) to fulfill their ongoing reporting requirements.

The data that was assembled and analyzed for the buildable lands program can now be used as a baseline for assessing the city's future land use map / zoning map in the context of the Comprehensive Plan Update, and for evaluating the city's capacity to accommodate housing needs among various income levels.

Part one: Land Capacity Check

As noted in the Land Use Element, Orting's population is targeted to grow to 9,590 persons and 3,167 housing units by the year 2044. Likewise, the City must plan for a target of 1,473 jobs by that year. Using the data from the 2021 Buildable Lands Report, we evaluated the city's capacity to meet the projections.

As of April 1, 2024 the state Office of Financial Management (OFM) estimates the city's population to be 9,125 residents which are housed in 3,035 housing units. *This means we need to ensure that there are sufficient lands to accommodate 465 additional people and 135 new housing units in the next 20 years.*

We have reproduced Table 14-8 from the Buildable Lands Report, with corrections, which is labeled as **Table 1**. The data is from January 2020.

Table 1: City of Orting 2020-2044 Housing Capacity (Dwelling Units)

Zone:	Vacant	Underutilized	Vacant - Single Unit	Pipeline	Total
LM	0	0	0	0	0
MUTC	26	9	0	0	35
MUTCN	166	0	0	4	170
PF	0	0	1	0	1
RC	0	1	2	0	3
RMF	10	5	0	0	15
RU ⁽¹⁾	28	12	30	52	122
Total	230	27	33	56	346

(1) Typos are corrected per AHBL Correspondence from 11/22/2023 for RU Vacant Single Unit and Pipeline (the values in the “total” row and column were correct)

The table shows the city’s estimated net capacity for new housing units among parcels that were classified among four categories, as *vacant*, *underutilized*, *vacant – single unit*, or *pipeline* to arrive at estimates for capacity on a per unit basis according to zoning district (*built out* and *undevelopable* counts are not shown).

- These “net” figures account for deductions to land capacity made for probable market factors, critical area protections, and other factors. (*See the Buildable Lands Report for further information on methodology and for definitions*).

However, more than half of the total residential capacity that was reported in the buildable lands report is now no longer available. This is because the report’s analysis was based on a previous Land Use map for the city which featured a large area of land with the Mixed-Use Town Center North (MUTCN) zoning designation – a location where residential units are permitted to be built.

- In January of 2023 the City Council adopted amendments to the Comprehensive Plan changing the land use and zoning designation of approximately 65 acres from the MUTCN designation to Public Facilities (PF). The change was made to grant the request by the school district because the district bought the property for planned capital projects.
- While residential units were permitted in the MUTCN designation, they are not permitted in the PF zoning district resulting in reduced capacity.

To reconcile and update the data, we obtained the GIS shapefile prepared by the County for the buildable lands analysis and assembled permit data for the time period of 2020-2024 to create an updated table according to all known changes that have occurred since 2020, and additionally consulted with you for your input. As a result of this step, we made the following adjustments, listed by zoning district and detailed in **Table 2: Adjustment Matrix**.

Light Manufacturing (LM) Zone: *No changes*

Mixed Use – Town Center (MUTC) Zone:

- Elimination of 1 unit from the vacant category due to parcel consolidation at 222 Washington Ave N
- Added 1 unit to the vacant category due to land that was apparently missed (parcel 6565000773 on Bridge Street)
- There is no net change

Mixed Use – Town Center North (MUTCN) Zone:

- Elimination of 166 units from the “Vacant, MUTCN” and elimination 4 units from the “Pipeline, MUTCN” group due to the Comprehensive Plan map change detailed above

Public Facilities (PF) Zone:

- Elimination of 1 unit in “PF, Vacant, single unit” for the city hall site

Residential – Conservation (RC) Zone: *No changes*

Residential – Multifamily (RMF) Zone:

- Addition of 33 units to “Pipeline, RMF” for the Bridgewater plat (note: there is no offset as the land was previously identified as “unbuildable”)

Residential – Urban (RU) Zone:

- We have accounted for 53 new units due to recent construction, all in the RU zone that were previously counted as “pipeline:”
 - a. 19 units for the Meadows at Orting South development (all removed from “pipeline”)
 - b. 32 units for the Tahoma Valley Estates development (removed 30 from “pipeline”)
 - c. 2 units removed from “pipeline” for homes at 604 and 606 Harmon Way S.
- We have accounted for 10 additional new units due to recent construction, all in the RU zone that were previously counted as “vacant” (removed from “vacant” using our best guess / assumption)
 - a. 10 units of additional “infill” type development not occurring in a long plat subdivision (removed from “vacant” using our best guess/ assumption)
- Following that we have the following additional adjustments:
 - a. Removal of 11 units from “Underutilized, RU” and addition of 41 units to “Pipeline” for the Rainier Meadows Division 2 development (parent parcel no. 0519321001)
 - b. Addition of 8 units (per feasibility check) as “vacant” for the land at parcels 7930000-102 and -103 which are currently for sale (there is no offset as the land was previously identified as “unbuildable”)
 - c. Addition of 6 units as parcels 0519293096 and 2585000114 have not been developed and have plenty of net acreage for development but were previously identified as either constructed or “unbuildable” (thus no offset)
 - d. Addition of 10 units at parcel 0519311700 which was listed as “unbuildable” due to critical areas; there are ROW improvements for the site but it can likely also accommodate some modest housing development

Table 2: Adjustment Matrix

Zone:	Vacant	Under - utilized	Vacant - Single Unit	Pipeline
LM				
MUTC	0			
MUTCN	-166			-4
PF			-1	
RC				
RMF				+33
	-10			
	+8			
	+6			-53
RU	+10	-11		+41
Total	-152	-11	-1	-17

With these documented adjustments, the resulting table provides our best estimate of land capacity from 2024-2044, aligning the information to be consistent with current population counts.

The resulting table shows an updated total capacity for 193 units, 75 of which are now in the current “pipeline”:

Table 3: City of Orting 2024-2044 Housing Capacity (Dwelling Units)

Zone:	Vacant	Underutilized	Vacant - Single Unit	Pipeline	Updated Total Capacity
LM	0	0	0	0	0
MUTC	26	9	0	0	35
MUTCN	0	0	0	0	0
PF	0	0	0	0	0
RC	0	1	2	0	3
RMF	10	5	0	33	48
RU	34	1	30	42	107
Total	70	16	32	75	193

In conclusion, we have documented that Orting has sufficient land for planned population growth (population and housing targets).

Part two: Accommodating Housing Needs

The Growth Management Act (GMA) requires comprehensive plans to include a Housing Element identifying “sufficient capacity of land” to accommodate all projected housing needs during the 20-year planning period (RCW 36.70A.070(2)(c)). With recent state law changes, the state now additionally requires municipalities to specifically review their ability to accommodate needs for *moderate, low, very low* and *extremely low*-income households, as defined in RCW 36.70A.030. The income level is relative to “median household income adjusted for household size, for the county where the household is located, as reported by the United States department of housing and urban

development.” The Department of Housing and Urban Development (HUD) publishes Area Median Income (AMI) for each county (or market area which may include several counties) on an annual basis. The AMI in 2024 is \$136,600.00

Through Pierce County Ordinance No. 2023-22s, the County set out the specific housing unit requirements for Orting according to income band, which is further detailed in the draft Housing Element prepared for the Comprehensive Plan Periodic Update project (AHBL, June 25, 2024). In order to evaluate land capacity by income level, we used the 6-step process as outlined by Commerce¹.

STEP 1: SUMMARIZE LAND CAPACITY BY ZONE

Table 3, “City of Orting 2024-2044 Housing Capacity (Dwelling Units)” provides this information. The Buildable Lands Report does not take the addition of ADUs into account but there is some latent capacity that could be realized. Orting must make code amendments to allow two ADUs per lot, on lots that allow single family homes, per HB 1337. Orting already adopted code changes pursuant to HB 1923 that increased the opportunity for ADUs. As of April 1, 2024 there are 2,711 single family residential homes in Orting per OFM. Assuming that ADUs will be added to 3 percent of all those lots within the coming 20 years, we can estimate that 81 ADUs could be added in the time period from now to 2044 throughout the city in all zones, which is probably a conservative estimate (4 per year).

STEP 2: CATEGORIZE ZONES

In Table 4, we document what the code allows for, and what assigned zoning category corresponds to each zoning district.

“DUA” stands for dwelling unit per acre.

Table 4: Orting Zoning Districts and Allowed Housing Types / Density Level

Zone	Housing types allowed	Max density level allowed	Assigned zone category
MUTC	Duplex, Multifamily, townhouse	None	Low rise multifamily
MUTCN	Duplex, Multifamily, cottage, townhouse	N/A	Low rise multifamily
RC	Detached single family, Cottage, duplex,	0.5 DUA	Low density
RU	Detached single family, townhouse, duplex, cottage	6 DUA	Low density
RMF	Cottage, duplex, multifamily, townhouse	8 DUA	Moderate density

STEP 3: RELATE ZONE CATEGORIES TO POTENTIAL INCOME LEVELS & HOUSING TYPES SERVED

The following table is from Commerce’s “Guidance for Updating Your Housing Element.” It is important to note how ADU’s are classified, as well as how subsidies and other marketplace interventions are assumed to be needed for the attainment of housing for certain income levels.

¹ “Guidance for Updating Your Housing Element: Updating Your Housing Element to Address New Requirements. Local Government Division, Growth Management Services. Department of Commerce. August 2023. Available at <https://deptofcommerce.app.box.com/s/1d9d517g509r389f0mjpowh8isjpirlh>

Table 5: Zone categories and potential income levels served

Zone category	Housing types allowed	Lowest Potential income level served		Assumed affordability level for capacity analysis
		Market Rate	With subsidies and/or incentives	
Low Density		Higher income (>120% AMI)	Not typically feasible at scale	Higher income (>120% AMI)
Moderate Density		Moderate income (>80-120% AMI)	Not typically feasible at scale	Moderate income (>80-120% AMI)
Low-Rise Multifamily		Low income (>50-80% AMI)	Extremely low and Very low income (0-50% AMI)	Low income (0-80% AMI) and Permanent Supportive Housing (PSH)
ADUs (All zones)	Accessory dwelling Units on developed residential lots	Low income (>50-80% AMI)	N/A	Low income (> 50-80% AMI)

STEP 4: SUMMARIZE CAPACITY BY ZONE CATEGORY

We estimate there is a capacity for 110 units in the low-density category, 35 units in the low-rise multifamily category and 48 units in the moderate density category in addition to capacity for 81 ADUs as show in Table 6:

Table 6: Orting Building Capacity Summarized by Zone Category

Zone:	Unit Capacity (from Table 3)	Unit Capacity for ADUs	Assigned zone category
MUTC	35		Low Rise Multifamily
RC	3		Low Density
RMF	48		Moderate Density
RU	107		Low Density
ALL		81	N/A

STEP 5: COMPARE PROJECTED HOUSING NEEDS BY CAPACITY

For Step 5 we populated Table 7 to show the housing need as allocated by Pierce County for the years 2020-2044, but also adjusted to reflect that development of 63+ units which has occurred since the year 2000 to satisfy (and likely exceed) the housing need at the income bands at or above 100% of AMI. As a result, we have labeled the table for the years 2024-2044 and set the housing need for the bands from 100-120% to 4 and for the band at or above 120% of AMI to 0. We also adjusted down the projected housing need for 0-30% PSH by a reduction of 35 units to account for the 35 units of permanent supportive housing that was constructed in 2021 at the Orting Veteran's Village.

Table 7: Orting Projected Housing Needs compared to Available Capacity (2024-2044)

Income Level (% AMI)	Projected housing need (*Denotes Adjusted for 2024-2044)	Zone categories serving these needs	Aggregated housing needs	Total capacity (from Step 4)	Capacity: surplus or deficit
0-30% PSH	4*	Low-rise multifamily Plus all zones, with ADUs	107	116	+9
0-30% Other	29				
>30-50%	41				
>50-80%	33				
>80-100%	14	Moderate density	18	48	+30
>100-120%	4*	Low density	0	107	+107
>120%	0*				

PSH = Permanent Supportive Housing

The results of our evaluation show that Orting has no deficit in housing capacity for any of the income bands.

STEP 6: IMPLEMENT ACTIONS TO INCREASE CAPACITY FOR ONE OR MORE HOUSING NEEDS. THEN REASSESS CAPACITY (STEP 1) BASED ON ACTIONS.

This step does not apply; there is sufficient capacity.

APPENDIX II: ECONOMIC BASELINE ANALYSIS

This Appendix serves as the Economic Baseline Analysis, providing a foundation for the Economic Development Element. Orting has long understood that it has very limited resources to directly support economic development in a formal way from City Hall (for example, with dedicated staff or a department to provide specific services). However, many small cities find that they can achieve success in improving the tax base and creating local jobs through collaboration and setting the stage through policy measures that support business which nurtures economic prosperity. Orting is an attractive community in many ways and new residents continue to be attracted to the community. In turn, these factors generating demand for community-serving retail and personal service businesses, parks and schools, and transportation infrastructure.

This analysis provides comparisons to Pierce County and other surrounding cities as needed to contextualize conditions and articulate the City's situation in the region. The analysis relied on data primarily sourced from the United States Census Bureau's 5-year American Community Survey (ACS) estimates, CoStar, Washington Office of Financial Management (OFM), the United States Department of Housing and Urban Development (HUD), the Puget Sound Regional Council (PSRC), and the City of Orting. This appendix summarizes the economic development analysis in three sections: 1) City Economic Profile, 2) Market Potential, and 3) Employment Growth Targets and Land Demand.

SECTION 1. CITY ECONOMIC PROFILE

Population

Population Growth & Projections

Figure ED- 1 shows Orting's population and population average annual growth rate (AAGR) between 2000 and 2024. According to data from the state Office of Financial Management (OFM), Orting's population grew from 3,931 persons in 2000 to 9,125 persons in 2024, for a total increase of 5,194 persons. During this time period, Orting more than doubled its population with an average annual growth rate (AAGR) of 3.6%, compared to 1.3% for Pierce County. Between 2000 and 2020, Orting experienced rapid population growth which diminished to a slower pace between 2020 and 2024.



According to the Puget Sound Regional Council projections, the population of Orting is anticipated to experience additional growth, with an estimated population of 9,550 persons by 2044, implying a substantial slowing of growth over the next two decades.

Figure ED- 1. Population and Population Growth (1999-2024)

Source: Washington State Office of Financial Management

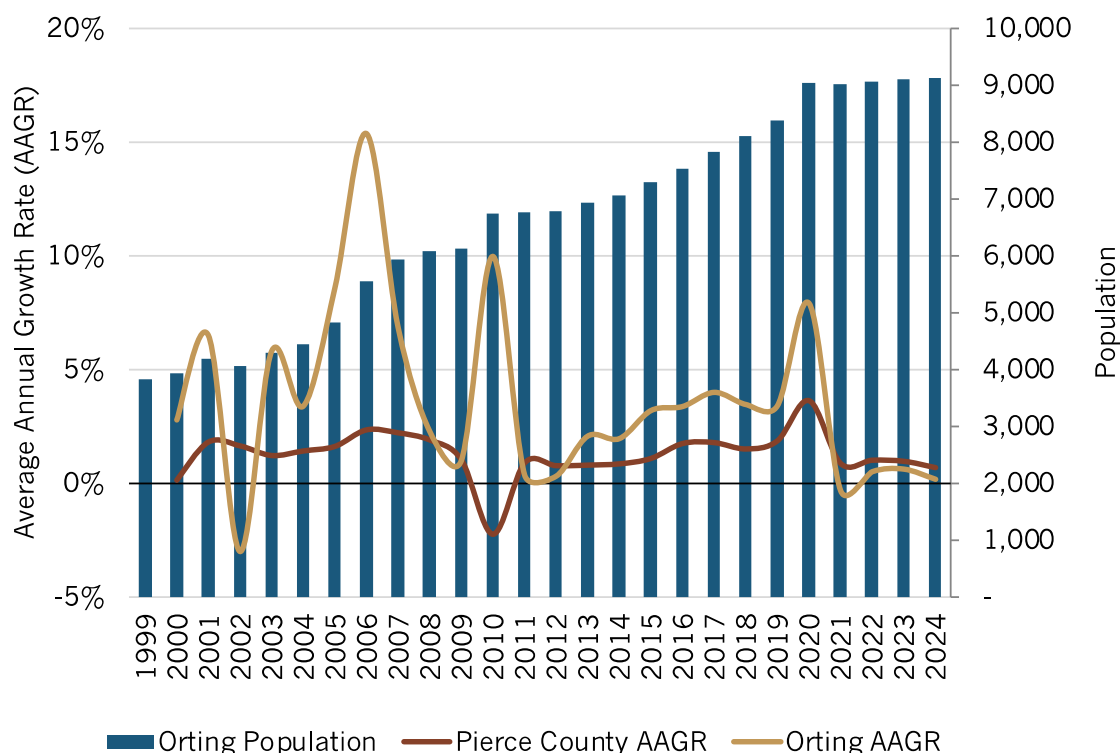


Figure ED- 2. City of Orting Population and Household Projections (2025 through 2050)

	2025	2030	2035	2040	2044	2050
Population	9,109	9,222	9,334	9,450	9,550	9,679
Households	2,986	3,055	3,124	3,194	3,250	3,333

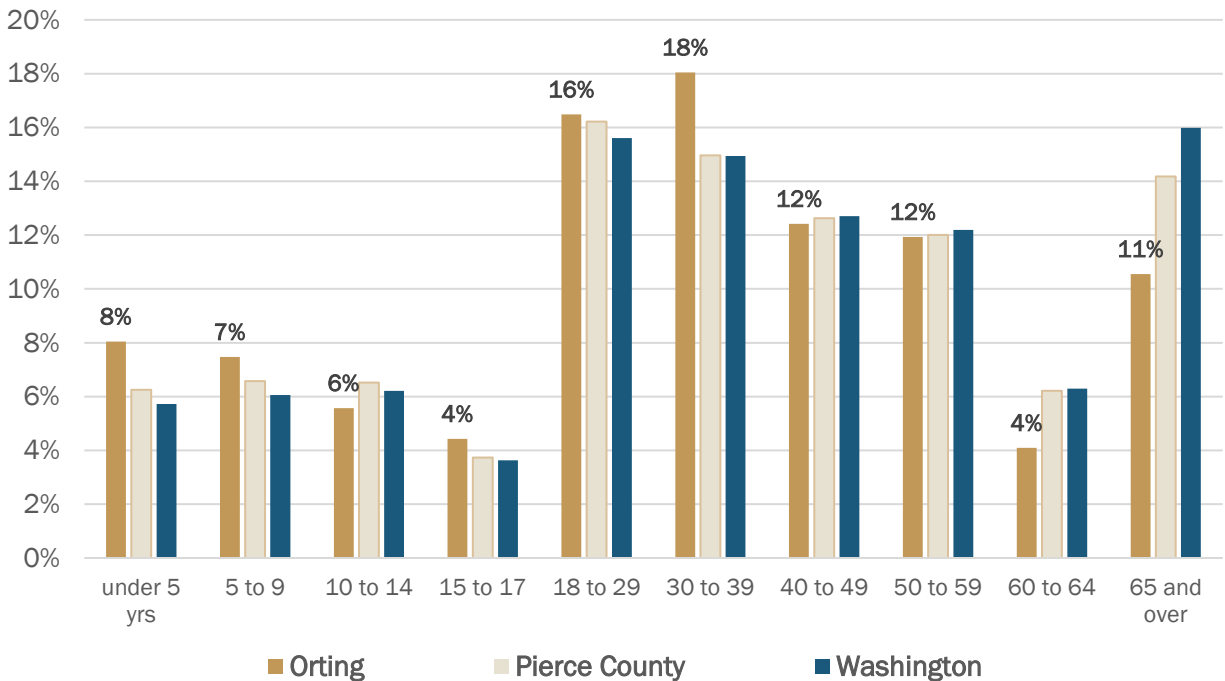
Population by Age

Orting's population tends to be younger with a median age of 34.1 years, compared to 37.0 years in Pierce County and 38.4 years in Washington. Orting's younger population is reflected in the higher concentration of children (17 years and under) and young adults and working age persons (aged 18 to 49 years old) as shown in Figure ED- 3. These trends indicate that Orting is attracting families with children. As these families mature, they will need diverse employment opportunities. The City could

strategically plan for a diverse job sector, including technology, healthcare, and environmentally sustainable industries to broaden the career paths for the young adult demographic.

Figure ED- 3. Population Distribution by Age Group, Orting (2022)

Source: U.S. Census Bureau, 2018-2022 ACS 5-Year Estimates



Population by Race and Ethnicity

While most of Orting's residents identify as white (78%), Orting became more racially and ethnically diverse between 2012 and 2022. The Hispanic population comprises the second largest ethnic group making up 9% of the City's total population, which has remained steady from 2012 to 2022. The percentage of residents identifying as two or more races has grown over time to 8%, becoming the third largest racial/ethnic demographic in the City. The Asian and American Indian demographic has also experienced a notable increase in population size over time.

Figure ED- 4. Population by Race and Ethnicity, Orting (2022)

Source: U.S. Census Bureau, 2018-2022 ACS 5-Year Estimates

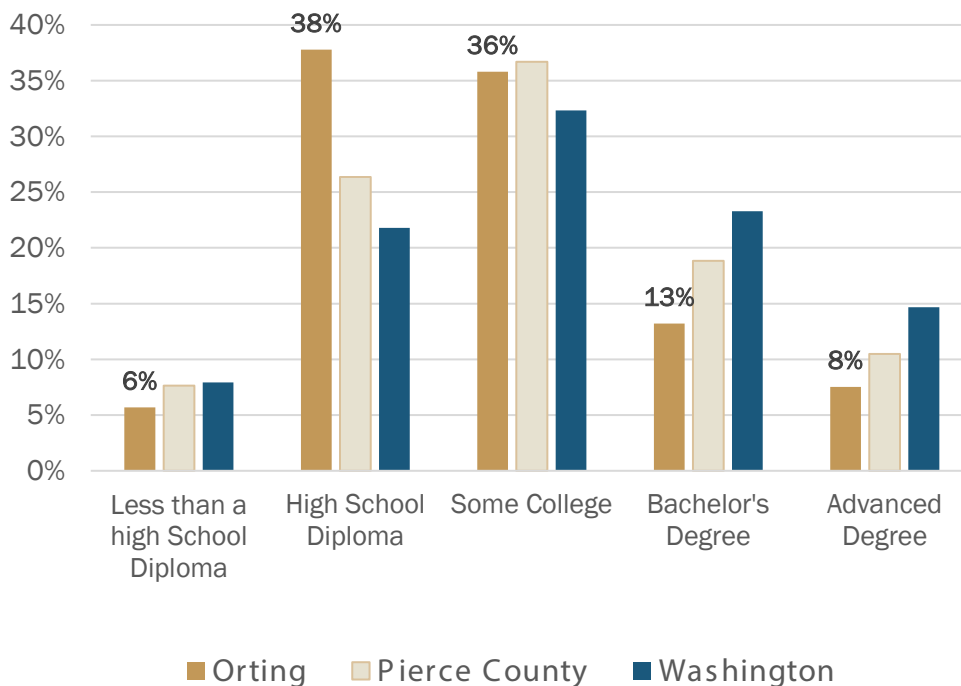
	2012	2022
White	82%	78%
Black or African American	1%	1%
American Indian	0%	2%
Asian	1%	2%
Pacific Islander	1%	0%
Other Race	0%	0%
Two or More Races	6%	8%
Hispanic	9%	9%

Educational Attainment

Orting's workforce shows diverse educational attainment with 38% having a high school diploma and 36% having some college education. Only 13% of the City's population have a bachelor's degree and 8% have an advanced degree, which are both lower percentages than the averages for both Pierce County and Washington.

Figure ED- 5. Education Attainment (Population 25 Years and Older), Orting (2022)

Source: U.S. Census Bureau, 2018-2022 ACS 5-Year Estimates



Employment

From 2012 to 2022, Orting experienced a 29% increase in total employment, rising from 1,022 to 1,320 jobs. The services sector, which saw a 43% increase, remains the largest employment sector,

accounting for 38% of jobs in 2022. Significant growth was also seen in the education industry (33%). In contrast, the finance, insurance, and real estate sector experienced a 20% decline, while government employment saw a slight 4% decrease.

Figure ED- 6. Total Employment by Industry, Orting (2012-2022)

Source: Puget Sound Regional Council (PSRC)

Note(s):

*Finance, Insurance, and Real Estate industries collectively form the FIRE sector

**Wholesale trade, Transportation and Warehousing, and Utilities collectively make up the WTU sector

*** The term “suppressed” indicates that data related to a particular industry with a limited number of employers, or a single dominant employer is withheld to maintain confidentiality and protect sensitive employer information.

	2012		2022		2012-2022
	COUNT	PERCENT	COUNT	PERCENT	PERCENT CHANGE
Construction & Resources	Suppressed***	-	86	7%	-
FIRE*	25	2%	20	2%	-20%
Manufacturing	Suppressed	-	0	0%	-
Retail	47	5%	58	4%	23%
Services	351	34%	503	38%	43%
WTU**	3	0%	7	1%	133%
Government	251	25%	240	18%	-4%
Education	306	30%	406	31%	33%
Total	1,022	100%	1,320	100%	29%

According to OFM, the average annual wage across all industries in Pierce County was \$61,050 in 2021 (see Figure ED- 7). The highest paying sectors included management of companies and enterprises (\$101,031), utilities (\$99,828), and finance and insurance (\$97,380).

Orting’s employment concentration lies within education, services, and the government sector. These industries in Pierce County tend to have average annual wages ranging between \$43,117 on the lower-end and \$75,440 on the upper-end.

In 2022, Orting’s median household income was \$114,458, substantially higher than Pierce County’s \$91,486 and Washington States \$90,325 (see Figure ED- 8). This shows that Orting is a relatively affluent community, with residents earning substantially more than the county and state averages. The commuting patterns and trends in household median income suggest that Orting serves as a bedroom community for higher-paying jobs in nearby centers like Tacoma and Seattle, allowing residents to earn higher salaries—despite lower educational attainment, while potentially benefiting from a lower cost of living.

Figure ED- 7. Average Annual Wages, Pierce County (2021)

Source: Office of Finance and Management

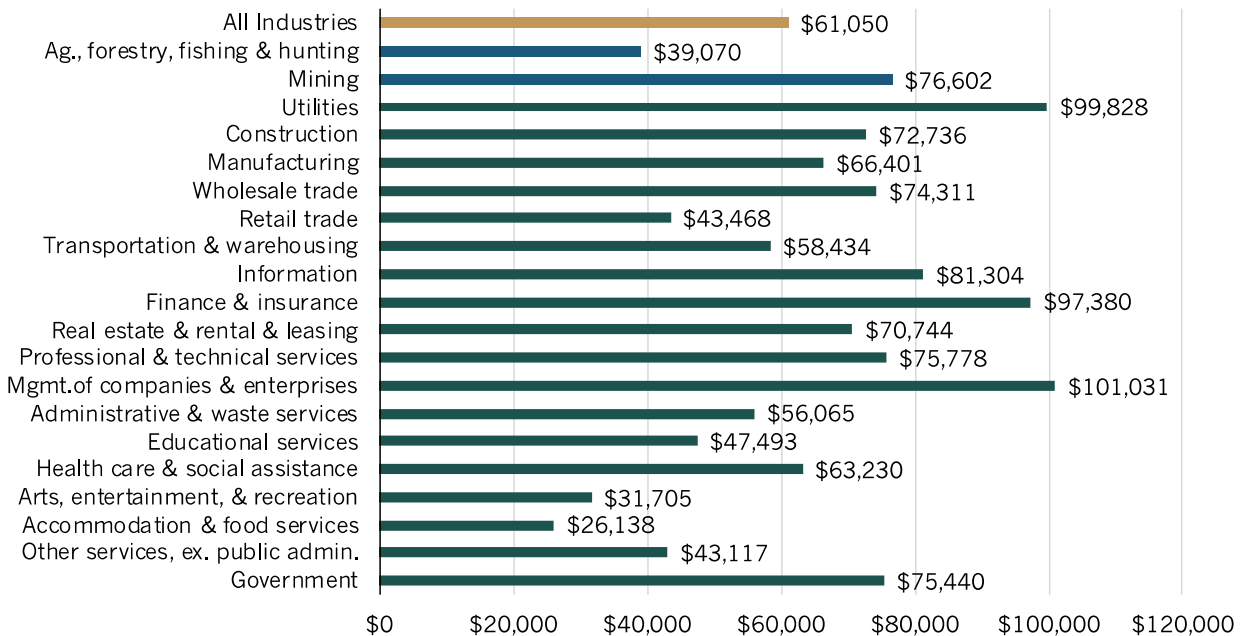
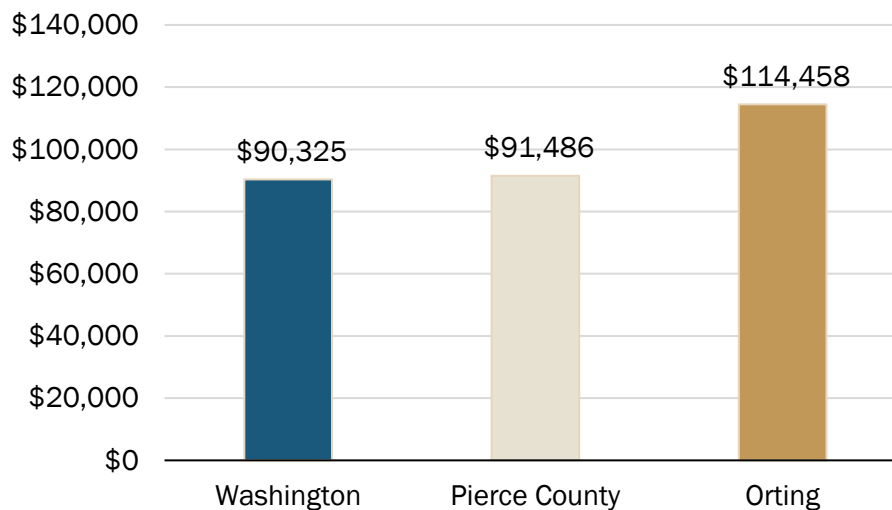


Figure ED- 8. Median Household Income, Orting (2022)

Source: U.S. Census Bureau, 2018-2022 ACS 5-Year Estimates



Commute Patterns

The location of job opportunities significantly impacts an individual's choice of residence, and similarly, their residential preference can influence where they decide to relocate. Figure ED-9 shows that more than 2,750 Orting residents commute outside the city for work, while approximately 626

employees commute to Orting for work, and 79 residents live and work within Orting. This suggests that Orting can be considered a bedroom or commuter community, due to a greater number of residents traveling outside of the City for work, compared to the number of employees who commute into Orting for employment.

Figure ED- 9. Inflow/Outflow Job Counts (Commute Patterns), Orting (2021)

Source: U.S. Census Bureau; OnTheMap Application and LEHD Origin-Destination Employment Statistics. Note: The arrows are conceptual and do not show the exact direction of commute flows.

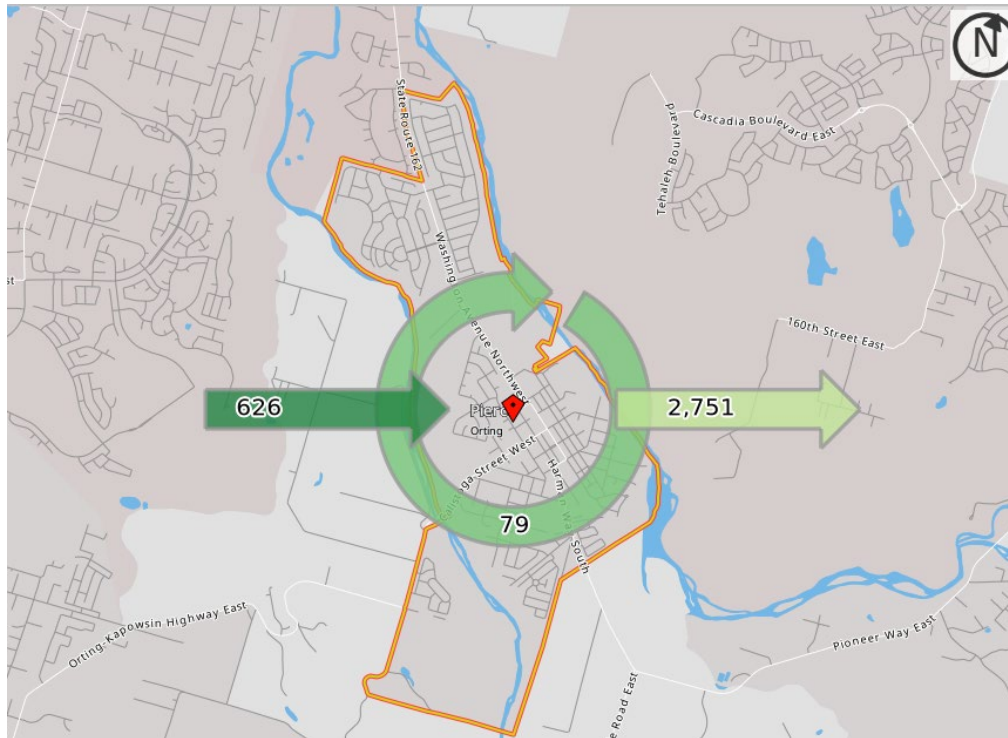
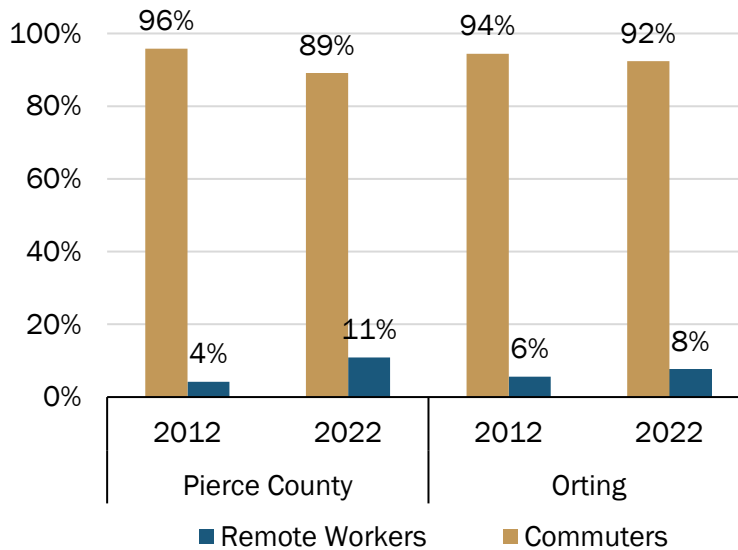


Figure ED- 10 shows that the majority of Orting residents commute to work (92%), and a small share of these residents work from home (8%). The COVID-19 pandemic accelerated remote work trends in major cities across the U.S.; however, Orting has experienced a subtle increase (2%) in remote workers since 2012. In contrast, Pierce County has seen a substantial increase (7%) in remote workers compared to Orting.

Figure ED- 10. Share of Workers Commuting to Work, Orting (2022)

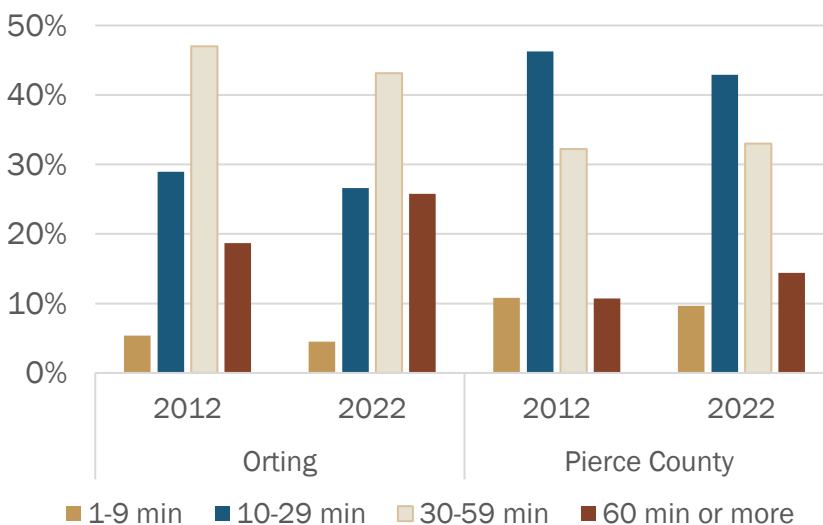
Source: U.S. Census Bureau, 2018-2022 ACS 5-Year Estimates



In 2022, a significant portion of Orting workers experienced long commutes, with 45% traveling 30-59 minutes and 26% commuting 60 minutes or more – an increase from 2012, where only 19% of workers commuted for 60 minutes or more. Comparatively, Pierce County residents generally had shorter commutes, with 43% traveling 10-29 minutes and only 14% commuting 60 minutes or more.

Figure ED- 11. Travel Time to Work, Orting (2022)

Source: U.S. Census Bureau, 2018-2022 ACS 5-Year Estimates



SECTION 2. MARKET POTENTIAL

Sales Tax Revenue

In 2023, Orting's taxable retail sales per resident was the lowest among nearby cities at \$12,904, compared to Sumner's \$82,761 and Puyallup's \$68,606, indicating a relatively smaller retail sector. The top sectors driving Orting's taxable sales and significant consumer spending included retail trade, accommodations & food services (restaurants), and construction¹. These trends suggest Orting experiences a lot of taxable sales leakage to nearby communities and underscores the importance of diversifying and expanding Orting's retail offerings.

Smaller peer cities like Enumclaw and Milton exhibit higher sales per resident compared to Orting, partially attributed to their advantageous location alongside major highways. This high visibility and concentration of other retail stores is crucial to a thriving retail business and significantly contributes to their relative success.

Figure ED- 12. Taxable Retail Sales per Resident, Orting and Nearby Cities, (2023)

Source: Washington Department of Revenue

LOCATION	POPULATION (2023)	TAXABLE SALES	TAXABLE SALES PER RESIDENT
Sumner	10,800	\$893,821,393	\$82,761
Puyallup	43,420	\$2,978,860,550	\$68,606
Enumclaw	13,090	\$514,147,748	\$39,278
Bonney Lake	23,250	\$874,565,210	\$37,616
Milton	8,715	\$242,233,017	\$27,795
DuPont	10,180	\$167,567,521	\$16,460
Orting	9,110	\$117,553,978	\$12,904

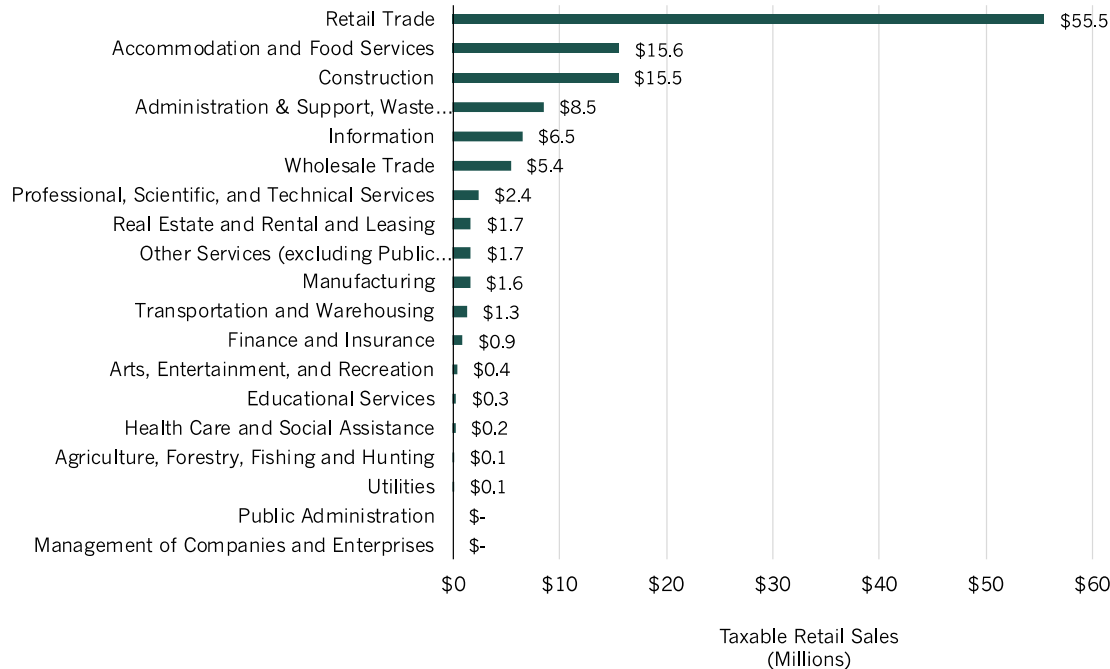
Sales Taxes by Industry

In 2023, retail trade businesses generated roughly 47% or \$55.5 million of Orting's total taxable sales revenue. The accommodations and food services businesses as well as construction businesses both generated 13% of all taxable sales revenue equaling roughly \$15.6 and \$15.5 million each.

¹ RCW 82.08.0293. Washington law exempts most grocery type food from retail sales tax. However, the law does not exempt "prepared food," "soft drinks," or "dietary supplements." Businesses that sell these "foods" must collect sales tax.

Figure ED- 13. Taxable Retail Sales by Industry, Orting (2023 Annual)

Source: Washington Department of Revenue



RETAIL SALES IN ORTING

Orting's economy faces challenges in attracting diverse retail options due to its small population, remote location within Pierce County, and competition from established commercial centers in nearby cities. While Orting boasts a higher average household income than county and state averages, retailers prioritize high population density and visibility, which are lacking in Orting. As a result, residents often shop outside the city, contributing to lower retail sales per capita (\$7,165) compared to neighboring areas (Sumner with \$148,000 retail sales per capita, Puyallup \$54,000 retail sales per capita, and Bonney Lake with \$21,346 retail sales per capita). To meet growing demands, Orting may need to focus on personal services while relying on regional centers for broader retail options.

Note(s):

1. Retail sales per capita are from the 2017 American Community Survey Economic Census.
2. The term "Per Capita" in economics and statistics is used to express an average per person in a population.

Commercial Real Estate Trends

Retail

With more than 174,000 square feet of retail inventory, the retail sector accounts for most of the commercial real estate inventory in Orting. Compared to other peer cities, Orting’s retail inventory is small in size, and most residents shop outside of the city for a lot of their household retail spending. As of 2024 Q3, the retail market has maintained a healthy trajectory with a low vacancy rate of 2.5% and a rent of \$24.00 per square foot. As population increases in Orting, the new households will require additional retail services to support a growing population.

Office

Orting’s office space market is small with little more than 30,000 square feet of office inventory across a few buildings. According to CoStar, the office vacancy rate is 0.0% and with rents at \$24.00 per square foot. While there are no major employers in Orting that require a lot of office space, a 0.0% vacancy rate could indicate a constrained office market. This could lead to a near-term surge in rents to accommodate the demand for office space or prompt businesses to seek opportunities in areas with available vacancies. As Orting’s population continues to grow, there will be an increasing demand for personal services. Small-format office spaces, such as those for dental and insurance offices, can effectively meet this need and support the community’s evolving requirements.

Figure ED- 14. The State of Commercial Real Estate in Orting (2024 Q3)

Source: CoStar

	INVENTORY (SF)	INVENTORY (BLDGS)	UNDER CONSTRUCTION	VACANCY RATE	RENT (PSF)
Retail	174,588	26	0	2.5%	\$24.00
Office	30,853	10	0	0.0%	\$24.00

SECTION 3. EMPLOYMENT GROWTH TARGETS AND LAND DEMAND

Employment Forecasts

The Puget Sound Regional Council supplies employment and population forecasts to the counties and municipalities within King, Kitsap, Pierce, and Snohomish Counties. These forecasts help inform the updates to countywide planning policies and local comprehensive plans. Although they are not precise targets, they play a crucial role in shaping each county’s growth target process.

From 2020 to 2044, Orting’s employment is projected to grow by 196 jobs or 13% at an average annual growth rate of 0.52%. In comparison, Pierce County is projected to grow by 141,379 jobs or 41% at a larger average annual growth rate of 1.44% during the same time period.

Figure ED- 15. Total Employment and Employment Forecast, Orting (2020-2044)

Source: PSRC, LUV-it.

Note: The term AAGR refers to average annual growth rate.

LOCATION	2020 EMPLOYMENT	2044 EMPLOYMENT	NUMBER CHANGE	PERCENT CHANGE	AAGR
City of Orting	1,473	1669	196	13%	0.52%
Pierce County	346,255	487,634	141,379	41%	1.44%

Population to Employment Ratio

The population to employment ratio is an economic indicator that measures the proportion of population to employment within a city. Generally, a high ratio indicates that there is a larger proportion of residents compared to the number of available jobs in the City. Conversely, a low ratio indicates that there is a low proportion of residents compared to a higher proportion of jobs.

In 2020, Orting had a much higher population to employment ratio of 6.40 compared to Pierce County, indicating a high proportion of residents compared to the number of available jobs. This is consistent with commute trends where most Orting residents commute outside of the City for employment. By 2044, both Orting's employment opportunities and population is projected to grow and have a population to employment ratio of 5.73. This suggests that employment is expected to grow slightly faster than population in the coming decades.

Figure ED- 16. Population to Employment Ratio, Orting (2002-2044)

Source: PSRC

LOCATION	2002	2010	2020	2044
City of Orting	6.49	6.30	6.40	5.73
Pierce County	3.04	3.05	2.44	2.45

Employment Forecasts by Industry

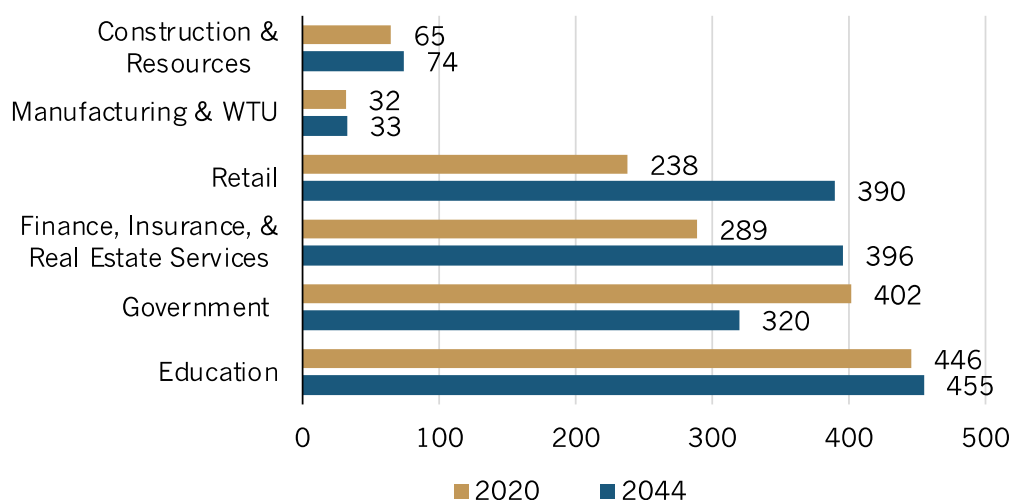
According to the PSRC LUV-it model, all industries except for government across the region are projected to grow by 2044. The retail sector is forecasted to see the most substantial growth, increasing by 64%, followed by the finance, insurance, and real estate sector which is forecasted to increase by 37%. Construction and resources, and manufacturing and wholesale trade and utilities sectors are projected to grow modestly by 14% and 3% respectively.

In contrast, the government sector is forecasted to decline by 20%, reflecting a shift in employment distribution. Although the education sector is forecasted to see only a slight growth of 2%, it will continue to make up a significant part of the workforce. The construction of approximately 5,000

homes in the Tehaleh, Uplands, Daybreak, and Sunrise developments by 2035 will likely draw over 2,500 students to the local school district—more than doubling current enrollment. This growth in enrollment will likely surpass employment forecast in the education industry by PSRC². Overall, these forecasted changes indicate increased diversification in Orting’s employment landscape, with significant growth in retail and service-oriented sectors—all of which tend to pay low to moderate wages.

Figure ED- 17. Employment Forecast by Industry, Orting (2020-2044)

Source: PSRC



Employment Capacity and Land Need

The Pierce County Buildable Lands Report (BLR, 2022) assesses housing and employment capacity within the Urban Growth Area (UGA) and Pierce County jurisdictions to meet the 20-year growth targets by 2044. The report concludes that Orting has sufficient capacity for 1,398 jobs within its designated zones, with the 2020-2044 employment forecast indicating that the city needs to have sufficient land supply to accommodate 196 additional jobs. Note that the Pierce County Buildable Lands Report does not account for home based businesses. Assuming some future employment will locate in residential areas implies the city has additional capacity for jobs beyond the 1,398 estimated in the BLR.

There have been some changes to the city’s Future Land Use and Zoning map since the analysis was conducted that impacts job capacity somewhat because the school district purchased land that was zoned Mixed Use Town Center North (MUTCN) and the land is now zoned Public Facilities. This means the specific job capacity count assumption values have likely shifted to an insignificant extent (because the assumed number of jobs per acre likely differ between those districts). Nonetheless Orting is well-positioned to support the projected employment growth over the next two decades by 2044.

² <https://komonews.com/news/local/education-funding-superintendent-classrooms-washington-education-projections-infrastructure-voters-87-over-capacity-orting-school-district-needs-voters-to-pass-bond>

Figure ED- 18. Employment Capacity Compared to Growth Targets, Orting (2020-2044)

Source: Pierce County Buildable Lands Report 2022

EMPLOYMENT CAPACITY	2020-2044 EMPLOYMENT NEED	DIFFERENCE
1,398	196	1,202

Figure ED- 19. City of Orting 2020-2044 Employment Capacity (Jobs)

Source: Pierce County Buildable Lands Report 2022. There was no employment capacity in the RC, RMF, and RU zones.

ZONING	VACANT	UNDERUTILIZED	PIPELINE	TOTAL
Light Manufacturing (LM)	0	0	0	0
Mixed Use – Town Center (MUTC)	65	72	0	137
Mixed Use – Town Center North (MUTCN)	646	0	0	646
Public Facilities (PF)	615	0	0	615
Residential Conservation (RC)	0	0	0	0
Residential Multi-Family (RMF)	0	0	0	0
Residential – Urban (RU)	0	0	0	0
<i>Total</i>	<i>1,326</i>	<i>72</i>	<i>0</i>	<i>1,398</i>