

CHAPTER 7

UTILITIES

I. INTRODUCTION

The Utilities chapter addresses both private and public utility services within Thurston County. Goals and policies within this chapter cover issues relating to private utilities, including those that provide power and telecommunications, as well as goals and level of service (LOS) standards for the County-operated utility functions of solid waste, stormwater, drinking water and sewer.

Virtually all land uses require one or more of the utilities discussed in this Chapter. Local land use decisions and regulatory mandates drive the need for new or expanded utility facilities. In other words, utilities follow growth. Expansion of the utility systems is a function of the demand for reliable service that people, their land uses, and activities place on the systems.

2018 Update: Critical Issues

Key challenges and opportunities facing utility services in Thurston County over the next 20 years include:

- Responding to rapidly changing technology and consumer needs, while maintaining a system of aging infrastructure
- Ensuring rural areas of the county have sufficient access to communication technology to support economic opportunity, such as home-based businesses
- Supporting the development of infrastructure to enable the widespread integration of renewable energy sources
- Balancing the desire for greater access to utilities, such as wireless services, with the impacts of locating the physical infrastructure for such utilities

Ensuring sufficient waste and water management in in place to support a growing population.

GROWTH MANAGEMENT REQUIREMENTS

The Growth Management Act (GMA) requires a utilities element that shall, at minimum, consist of “the general location, proposed location, and capacity of all existing and proposed utilities, including but not limited to, electrical lines, telecommunication lines and natural gas lines.”

In addition, the State guidelines for implementing the GMA (Chapter 365-196-420 WAC) state that policies should be adopted which call for:

1. Joint use of transportation rights-of-way and utility corridors, where possible;
2. Timely and effective notification of interested utilities of road construction, and of maintenance and upgrades of existing roads to facilitate coordination of public and private utility trenching activities; and
3. Consideration of utility permits simultaneously with the proposals requesting service and, when possible, approval of utility permits when the project to be served is approved.
4. Cooperation and collaboration between the county and the utility provider to develop vegetation management policies and plans for utility corridors.

II. PLANNING CONTEXT FOR UTILITIES

This chapter has been developed in accordance with state Growth Management (GMA) goals, and is coordinated with other chapters of the Comprehensive Plan.

A. COUNTY WIDE PLANNING POLICIES

The County Wide Planning Policies include provisions to enable coordinated planning for both private and public utilities across jurisdictions in Thurston County. These policies focus on encouraging and accommodating development in urban areas in ways that can best support and be supported by utilities, and ensuring development in rural areas can be supported by minimal, non-urban utilities and services.

- Maximize the use of existing infrastructure and assets, and leveraging the value of these in building vital, healthy, and economically viable communities (3.2a)
- Where urban services & utilities are not yet available, require development to be configured so urban growth areas may eventually infill and become urban. (3.1h)
- Provide and maintain municipal services (water, sewer, solid waste, public safety, transportation, and communication networks) in a sustainable, and cost-effective manner. (3.2d)
- Phase extensions of urban services and facilities concurrent with development and prohibit extensions of urban services and facilities, such as sewer and water, beyond urban growth boundaries except to serve existing development in rural areas with public health or water quality problems. (3.2g)
- Identify, in advance of development, sites for...major stormwater facilities... and other public assets. Acquisition of sites for these facilities shall occur in a timely manner and as early as possible in the overall development of the area. (3.2h)
- Provide capacity to accommodate planned growth by assuring that each jurisdiction will have adequate capacity in...private utilities, storm drainage systems, municipal services... to serve growth that is planned for in adopted local comprehensive plans. (3.4a)
- Protect groundwater supplies and maintain groundwater in adequate supply by identifying and reserving future supplies well in advance of need. (3.4b)

These policies are especially applicable to Urban Growth Areas, though some apply throughout the unincorporated areas of Thurston County.

B. REGULATORY AUTHORITIES

The primary regulatory agency for most private utilities in Washington State is the Washington Utilities and Transportation Commission (WUTC), a state agency. The WUTC ensures that services of regulated companies are safe, available, reliable and fairly priced. The Commission regulates the rates and charges, services, facilities, and practices of most of Washington's investor-owned gas, electric and telecommunication utilities.

As defined by the WUTC, some utilities are considered a critical service, namely electricity and standard telephone, and must be provided "upon demand." In order to fulfill public service obligations, these utility providers must plan to extend or add to their facilities when needed.

Natural gas is not considered a necessity, but rather a utility of convenience. All utilities regulated by the WUTC are prohibited from passing the cost of new construction onto the existing rate base.

Telecommunications services are regulated by several entities, including the Federal Communications Commission (FCC) and the WUTC. Thurston County has some regulatory authority over telecommunications services through franchises and the development approval process, however recent changes to FCC rules have limited local discretion over the location of communication infrastructure.

Local government has a role in regulating for certain private utilities, such as franchise agreements with cable companies. However, the effort behind meeting Growth Management Act requirements is not primarily regulatory, rather it is to promote coordination and cooperation between jurisdictions and utility providers.

Renewable Energy

The passage of State Initiative 937 in RCW 19.285, requires all large utilities to obtain fifteen percent of their electricity from new renewable resources such as solar and wind by 2020 and undertake cost-effective energy conservation.

Thurston County has also adopted an Energy Efficiency and Conservation Strategy, designed to combat climate change. The plan includes strategies to make Thurston County government buildings and operations more energy-efficient, as well as promote energy-efficiency in new construction, land-use, transportation, and the management of natural resources within unincorporated areas of the county.

The County Wide Planning Policies also include a policy for more renewable energies within Thurston County:

1.12 Champion energy efficiency and renewable energy strategies that contribute to energy independence, economic stability, reduced climate impacts, and long-term household and community health.

C. LEVEL OF SERVICE (LOS) STANDARDS

Level of service (LOS) standards are used to evaluate whether a facility or utility is meeting the basic needs and expectations of the community. Typically, LOS standards are established to provide a quantitative goal for the amount of service or facility that is expected to be available. Some LOS Standards are based on national and state standards, while others can be influenced by citizen input and recommendations. LOS Standards for public utilities help determine when investment in a facility is needed to meet community demand, and help drive projects to be included in the Capital Facilities Plan (Chapter 6).

III. PRIVATE UTILITIES

The following information is provided on the existing and proposed locations, as well as the capacity of private utilities to meet the GMA requirement. In addition, [Map M-44](#) shows electrical and natural gas facilities, while [Map M-45](#) shows telecommunications service. There is great variability in the level of detail provided for future utility facilities. This is because some utilities

have done extensive future planning while others have done much less. More current and complete information may be available by contacting the relevant company.

State law mandates that electric and gas public service companies provide the same LOS on a uniform basis, regardless of location (Revised Code of Washington 80.28.110).

As of 2018, in Thurston County, private utilities are provided by the following companies:

<u>Electricity:</u>	Puget Sound Energy
<u>Natural Gas:</u>	Puget Sound Energy
<u>Standard Telephone:</u>	Various Providers
<u>Cellular Telephone:</u>	Various Providers
<u>Cable:</u>	Comcast

A. ELECTRICITY

Utility Provider: Puget Sound Energy

The electrical service provider in Thurston County and the unincorporated areas is Puget Sound Energy (PSE). PSE serves over 1,000,000 customers with electrical service in eight Washington counties. In Thurston County, PSE serves approximately 119,300 electrical customers. Electric service is considered a critical service; thus, PSE is required to provide service to customers who apply and can be suitably furnished with available electricity.

PSE obtains and generates its electricity from several sources: renewables such as hydro, wind, solar, and co-generation; and electricity generated from coal, gas, and oil-fired plants. PSE is also a national leader in wind power and is recognized as the second largest utility owner of wind energy facilities in the United States.

PSE Power-delivery facilities in Thurston County, as of 2012¹:

- 1,538 miles of overhead distribution lines
- 1,231 miles of underground cable
- 182 miles of high-voltage transmission lines
- 30 distribution substations
- Six transmission substations

Proposed Facilities

The following list is a summary of Puget Sound Energy proposed facilities for Thurston County. For more details on these proposed facilities, please see the *Puget Sound Energy 2017 Integrated Resource Plan (IRP)*, a forecast of conservation resources and supply-side resource to meet growing needs of PSE customers over the next 20 years². PSE delivery system infrastructure planning is

¹ PSE and Thurston County working together: Profile

² 2017 PSE Integrated Resource Plan. <https://pse.com/aboutpse/EnergySupply/Pages/Resource-Planning.aspx>

done on a 10-year basis, and those plans are updated continually as conditions, technologies and customer behavior change.

Although the IRP is not specific to Thurston County, PSE anticipates future improvements will benefit their service network region wide.

Transmission: statewide

In the next decade, PSE anticipates building approximately 104-plus miles of new transmission lines (100 kV and above) and upgrading over 122 miles of existing transmission lines. In addition, PSE anticipates needing to add up to three 230 kV bulk power substations across our service area. These planned improvements do not include transmission needed to support the broader region or improvements needed as a result of providing interconnections for large generation resources. Future transmission projects in the Thurston County region include:

- **Spurgeon Creek Transmission Substation Development (Phase 2)**

Estimated Date of Operation: 2020

In Phase 2, this project will improve the reliability of transmission service to the cities of Lacey, Olympia and Tumwater by looping the future transmission tap extension from Olympia via the Airport substation to Spurgeon Creek. This project also loops in the Olympia – St Clair #1 115 kV line into Spurgeon Creek.

- **Woodland – St. Clair 115 kV (Phase 2)**

Estimated Date of Operation: 2021+

This project will increase the transmission intertie capability and reliability between Pierce and Thurston counties by adding a third transmission intertie between Pierce and Thurston Counties with construction of the remaining 8 miles 115 kV line between Gravelly Lake and Woodland substations.

Distribution: statewide

In the next decade, PSE anticipates the need to build approximately 6 to 8 new distribution substations to serve load as existing substation capacity is exceeded and another 2 to 4 new substations to serve specific point loads. They also anticipate upgrading approximately 3 existing substations to replace aging infrastructure and adding additional capacity to serve local load growth. In total, the new or expanded substations will require 32 to 48 new distribution lines. PSE will continue work on improving reliability of its worst performing circuits as well as installing smart ready equipment for increasing the resiliency of the grid.

Ongoing Maintenance: statewide

Based upon current projections and past experience, in the next decade PSE expects to replace 1,800 miles of underground high molecular weight, failure-prone distribution cable, approximately 1,000 transmission and 10,000 distribution poles. Additionally, PSE anticipates replacement of several major substation components as a result of ongoing inspection and diagnostics. PSE anticipates replacement of its current aging and obsolete Automated Meter Reading (AMR) communication system as well as its electric customer meters with Advanced Metering

Infrastructure (AMI) technology to enable smart grid enhancements and customer offerings in the future.

Existing and proposed electrical facilities are illustrated on [Map M-44](#). For more details on electrical facilities, please contact the company.

B. NATURAL GAS

Utility Provider: Puget Sound Energy

Puget Sound Energy (PSE) operates and maintains approximately 26,000 miles of natural gas mains and service lines in six counties covering 2,900 square miles. About 75 percent of the natural gas system consists of corrosion-resistant plastic piping and the remainder is cathodically-protected, coated steel pipe. In Thurston County, PSE serves approximately 46,973 natural gas customers through 863 miles of natural gas lines.

Natural gas is considered a utility of convenience, and is therefore not a mandatory provision of service by PSE. PSE activities associated with the provision of natural gas service are regulated through federal and state legislation.

Proposed Facilities

Pressure Regulation Stations: statewide

In the next decade, PSE plans to build or upgrade approximately 7 Northwest Pipeline-supplied gate or limit stations and 16 district regulator stations to serve load as existing station capacity is exceeded.

Pipelines: statewide

In the next decade, PSE expects to add approximately 24 miles of high pressure main and 23 miles of intermediate pressure main as loads grow in our service area.

Ongoing Maintenance: statewide

As with the electric system, PSE is continually addressing aging gas infrastructure within the system in accordance with regulatory requirements and operating practices. In the next decade, PSE plans to replace 200 to 300 miles of gas main that is reaching the end of its useful life. PSE also anticipates replacing its current aging and obsolete Automated Meter Reading (AMR) communication system and gas customer modules with Advanced Metering Infrastructure (AMI) technology to enable smart grid enhancements and future customer offerings.

Existing and proposed natural gas facilities are illustrated on [Map M-44](#). For more details on natural gas facilities, please contact the company.

C. STANDARD TELEPHONE

Utility Provider: CenturyLink

CenturyLink, formerly Quest, is the main standard telephone service provider for unincorporated Thurston County. CenturyLink is an investor-owned corporation offering local telecommunication services to customers in 14 states. They also provide broadband data and voice (including long-distance) communications services outside their local service area, as well as globally. As

communities grow, facilities are upgraded to ensure adequate service levels. Facilities are also upgraded with new technology to make additional services available.

There are three CenturyLink Communications central switching offices (CO) serving Thurston County. One is located in the unincorporated county, and the other two are located in Olympia and Lacey. The three CO's work together to provide service to that part of the unincorporated area that is part of CenturyLink's territory. From the switching stations are main cable routes, branch feeder routes and local loops that provide dial tone.

CenturyLink also maintains a broadband telecommunications network over a mix of optical fiber, coaxial cable and copper wire. CenturyLink states that it currently provides telecommunications service to Thurston County and is committed to continuing to provide services in the future.

Proposed Facilities

CenturyLink states that, as of 2018, it provides telecommunications service to a major portion of Thurston County and does not expect difficulties in continuing to provide that service to the future residents over the next 20 years.

Utility Provider: Tenino Telephone Company

Tenino Telephone Company has one switching station located at company headquarters in Tenino. The company serves not only the City of Tenino but also part of the unincorporated county around the city.

Utility Provider: Consolidated Communications

Consolidated Communications, formerly YCOM and Fairpoint, provides phone and internet services to rural and unincorporated Thurston County. Services are fed centrally out of Yelm, along with the regional central office and switching station.

Proposed Facilities

Tenino Telephone Company and Consolidated Communications both state that within their service areas they can increase capacity indefinitely and do not foresee any problems in providing telephone service to customers in their areas over the next 20 years. It is not anticipated that these service boundaries will change in the foreseeable future.

D. CELLULAR TELEPHONE

Since passage of the Federal Telecommunications Act of 1996, there has been rapid growth in the number of cellular telephone antennas in the unincorporated County. The location of the existing sites are shown on [Map 45](#). For up-to-date information please see Thurston Geodata's website at <http://www.geodata.org> for current locations of cellular structures.

Together these antennas provide cellular telephone service for the county. The cellular phone system consists of a series of these low-powered antennas in a honeycomb pattern of "cells" that invisibly blanket the service area. Each cell site has an effective signal radius of only a few miles depending on terrain and capacity demand. As a caller drives from one cell to another, the call is automatically handed off to another cell by a central computer. This central computer also connects the cellular phone transmission with the local telephone company system that completes the call.

At the state level, cellular telecommunications companies are regulated by the WUTC. Although cellular technology is increasingly used as a reliable backup communication system during times of emergency, for example during natural disasters, the WUTC defines cellular technology similarly to natural gas, that is, as a utility of convenience, not necessity. Therefore, cellular phone providers are not required to provide service upon demand.

Proposed Facilities

Unlike other utilities, the cellular telephone industry does not plan facilities far into the future and analyzes market demand to determine expansion into new service areas. There are multiple cellular telephone providers in Thurston County, each of which will be proposing to add new antenna sites over the coming years.

E. CABLE

Utility Provider: Comcast Cable

Cable television in Thurston County is served by Comcast.

Proposed Facilities

Comcast works closely with other utility companies and the county to stay informed on proposed developments so that cable can be part of developers plans. Each year, company engineers assess the need for system expansion based on telephone inquiries, permitting data from the county and technological advances in distribution equipment.

IV. COUNTY-OWNED/OPERATED UTILITIES

A brief overview of County-owned and operated utility facilities is included in this chapter.

- Solid Waste
- Stormwater
- Water and Sewer

This section also includes level of service standards for each utility

For more information on the individual plans for each, please contact the departments or see their website for a list of those plans. For proposed projects for county-owned and operated utilities please see the most recent adopted version of the Capital Facilities Plan.

A. SOLID WASTE

In Thurston County, solid waste services are provided by both the public and private sectors as described in the Thurston County Solid Waste Management Plan (SWMP). The SWMP is a coordinated, comprehensive solid waste management plan, in cooperation with the cities within the County. The purpose is to serve as a guiding document for local governments' solid waste services, including programs for waste reduction, collection, handling, recycling, and disposal. Another important document related to solid waste planning is the Thurston County Hazardous Waste Management Plan.

Collection of solid waste from residences and businesses is provided either by individual subscription service or by the incorporated jurisdictions through a private collection company or, in the case of the City of Olympia, by city collection crews. Thurston County government is responsible for waste transfer and disposal. Thurston County Public Works, Solid Waste Division, manages the Waste and Recovery Center (WARC), which includes:

- A closed landfill;
- A moderate risk waste collection facility; and
- A contractor-operated transfer station along with separate collection areas for residential trash, yard waste, and recyclable materials.

The county's transfer station receives and manages most of the solid waste generated in the county, as well as a small amount of waste generated in nearby counties. The WARC, along with two drop-box facilities located in Rainier and Rochester, comprise the designated disposal system for all solid wastes generated in Thurston County. Solid waste accepted at these facilities is ultimately transferred for final disposal to a landfill located outside of the county.

The Solid Waste Division's operations and programs are funded largely by tipping fees paid by users of the County's solid waste facilities, as well as a small amount from grant funds provided by the Department of Ecology. Solid waste funds are also used for capital projects that are critical to maintaining the county's existing solid waste facilities and constructing improvements required to meet future demand for services. These projects are described in the county's Capital Facilities Plan.

LOS Standard for Solid Waste

LOS Level	LOS Units	LOS Standard
LOS A – Includes all 3 service level units.	1. Regulatory	New or Existing Facility: Meets or exceeds federal, state, and/or local regulatory requirements.
LOS B – Includes a combination of any 2 service level units.	2. Health/Safety	New or Existing Facility: Meets or exceeds federal, state, and/or local health / safety issues for public or employees.
LOS C – Includes 1 or no service level units.	3. Policy	New or Existing Facility: Addresses a solid waste comprehensive plan goal or policy.

B. STORMWATER UTILITY

The Stormwater Utility, a ratepayer-financed program, reduces flooding, erosion, and the amount of pollution in rainwater runoff. Property owners in unincorporated Thurston County pay Stormwater Utility rates as part of their property tax statement.

The original Utility was formed in 1985 in the northern part of the County and in 2007 expanded to include all portions of unincorporated Thurston County. Since January of 2007, Thurston County has been required to comply with the updated federal and state water pollution control laws. The County was issued a municipal stormwater permit (Permit) by the Washington Department of Ecology, which requires the County to take a number of actions to manage where and how rainwater from storms, or “stormwater,” enters our streams, rivers, lakes, and groundwater within the regulated area.

While rain is a natural occurrence, the byproducts of our society – such as pavement, oil from vehicles, and yard chemicals – are picked up and carried to our vital water resources during storms. The Permit requires the County to develop, implement and annually update a Stormwater Management Program Plan designed to reduce discharges of pollutants from its municipal stormwater systems to protect water quality.

The Stormwater Utility has completed seven basin plans as of 2018, and has partnered with the cities on two others. Thurston County Stormwater Utility programs include:

- Planning for community growth through Basin Planning and Watershed Characterization studies of our local waters.
- Publishing the Drainage Design and Erosion Control Manual which contains rules developers must follow to manage rainwater runoff.
- Inspecting stormwater facilities in neighborhoods and at businesses to make sure they work right.
- Constructing stormwater facilities to improve water quality and reduce flooding and erosion in older neighborhoods built before development rules were in effect.
- Pollution prevention programs as well as construction of stormwater facilities and restoration projects, including floodplain, riparian and wetland restoration, to address regulatory obligations contained in Total Maximum Daily Load water cleanup plans.
- Monitoring the County’s stormwater drainage system by detecting, eliminating, and preventing illicit discharge (illegal dumping) into the system.
- Developing, implementing, and annually updating a Stormwater Management Program Plan, designed to reduce discharges of pollutants from its municipal stormwater systems to protect water quality.

Current and future stormwater facilities plans are found in the Capital Facilities Plan (CFP). Capital projects are intended to address emerging environmental or regulatory issues relating to flooding, water quality and/or habitat degradation.

LOS Standard for Stormwater

LOS Level	LOS Units	LOS Standard
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<p>LOS A - Includes all 3 service level units</p> <p>LOS B - Includes a combination of any two service level units.</p> <p>LOS C – Includes 1 or no service level unit.</p>	<p>1. Local Flood Control: Provide capacity to store stormwater runoff volume and / or reduce peak flow from an “x” year storm event.</p>	<p>Facilities for new growth: Conveyance meets 25-year 24-hour event for public and private street piped systems and 100-year, 24-hour event for open channels and property protection.</p> <p>Detention: Provide capacity to store stormwater runoff volume and reduce peak durations such that post-development stormwater discharge durations match pre-development durations for a range of pre-developed discharge rates from 50% of the 2-year peak flow up to the full 50-year peak flow.</p> <p>On-Site Mitigation (Low Impact Development) Meet the LID Performance Standard of 8% of the 2-year peak flow to 50% of the 2-year peak flow or use LID BMPs from a list, in preferential order, to meet the LID standard.</p> <p>Facilities to improve existing deficiencies: Meet the new growth standard wherever possible.</p>
	<p>2. Water Quality: Meet federal, state, or local water quality standards in streams, rivers, lakes, and Puget Sound</p>	<p>Facilities for new growth: Water Quality Design Storm Volume: The 91st percentile, 24-hour runoff volume estimated by an approved continuous runoff model.</p> <p>Water Quality Design Flow Rate: Preceding detention facilities: Flow rate at or below which 91 percent of runoff volume is routed through the facility as determined by a continuous runoff model.</p> <p>Downstream of detention facilities: Flow rate of 2-year recurrence interval release from detention facility designed</p>

		<p>to meet flow duration standard using an approved continuous runoff model.</p> <p>Provide basic treatment (80% TSS removal), enhanced treatment (50% metals removal), phosphorous, and/or oil treatment based on project type & size.</p> <p>Facilities to improve existing deficiencies: Meet the new growth standards wherever possible.</p>
	<p>3. Habitat: Maintain or restore in-stream flows, reduce peaks, minimize bank full flow durations, improve water quality to address habitat related issues (e.g. salmonid, shellfish, etc)</p>	<p>In-stream Flow Goals at Basin Build out Conditions</p> <p><i>Peak Flows:</i> Maintain, or where possible, reduce durations.</p> <p><i>Bank full Flows:</i> Maintain or where possible, reduce durations.</p> <p><i>Base Flows:</i> Maintain, or where possible, increase.</p>

C. WATER AND SEWER

As a matter of policy, Thurston County does not provide municipal water and/or municipal sewer service to rural areas, with the exception of those areas where a public health-related issue or water quality concern necessitates county involvement. Cities are expected to provide water and sewer facilities to unincorporated areas within their respective urban growth areas.

The county owns 3 water systems (Boston Harbor, Grand Mound, and Tamoshan), and 5 rural sewer systems (Grand Mound, Boston Harbor, Tamoshan/Beverly Beach, and Olympic View), and one sewer line system in the Lacey Urban Growth Area (Woodland Creek Sanitary Sewer).

There are occasions when other rural privately-owned water and sewer systems experience operating troubles or failures which have a high potential for affecting a risk to public health. In those cases, the county will often assist the local residents in the planning, engineering and construction of improvements to the existing water and sewer systems to solve these local problems.

Urban Growth Areas

Sewer and water systems are expected to be provided to unincorporated parts of areas identified and zoned for urban growth, with these systems constructed as the areas urbanize. The cities are typically responsible for extending these services within the unincorporated parts of urban growth areas. The Woodland Creek sewer line is operated and maintained by the City of Lacey by agreement between the city and the county. The county will own the system until the construction loan is paid off at which time the system will come under the ownership of the City of Lacey.

Grand Mound UGA: An urban growth area was established in the Rochester/Grand Mound area in the late 1970s. The UGA boundaries and zoning were updated in 1995. A Utility Local Improvement District (ULID) was formed through approval by the community in late 1996 to provide water and sewer system improvements in the Grand Mound UGA. Both water and sewer systems are in operation providing service to customers located within the UGA. In 2002, the county established policies to provide water service to properties located outside of the UGA.

Lacey UGA: An urban growth area was established in the Lacey area in the early 1990s. The UGA boundaries and zoning were updated in compliance with City and County Joint Planning for the Lacey UGA. Thurston County has received loan and grant funding from the Washington State Department of Ecology to convert 131 septic systems in the Woodland Creek and Covington Place developments to a STEP sewer system that connects to the City of Lacey sewer collection system. The County will own this STEP system until the loan is payed-off, when ownership will be turned over to the City of Lacey. Until then by mutual agreement with the City of Lacey, they will operate and maintain the system. The system was completed and has been operational since March 2014.

LOS Standards for Water & Sewer

Facility	LOS Units	LOS Standard
<p>Water Systems <u>Rural:</u> Boston Harbor and Tamoshan; <u>Urban:</u> Grand Mound</p>	<p>Equivalent Residential Units (ERU): Cubic feet per month of water consumed as measured at the source, based on the following minimums: Rural: ERU=900 cf/mo Urban: ERU-700 cf/mo</p>	<p>Rural: Capacity to provide domestic water and fire flow services for residential and limited commercial uses. Urban: Capacity to provide domestic water and fire flow services for residential, commercial, and industrial uses. In addition, Rural and Urban water systems shall meet current federal, state and local drinking water standards, whenever possible.</p>
<p>Sewer Systems <u>Rural:</u> Boston Harbor, Tamoshan, Beverly Beach, and Olympic View <u>Urban:</u> Grand Mound Woodland Creek Estates</p>	<p>Equivalent Residential Units (ERU): Cubic feet per month of sewerage discharge as measured at the source, based on the following minimums; Rural: ERU=900 cf/mo Urban: ERU=700 cf/mo</p>	<p>Rural: Capacity to provide sewer collection and wastewater treatment services for residential uses. Urban: Capacity to provide sewer collection and wastewater treatment services for residential, commercial, and industrial uses. In addition, Rural and Urban systems shall meet federal, state and local permit requirements for receiving</p>

		water standards, whenever possible.
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For proposed projects for county-owned and operated utility facilities please see the most recent adopted version of the capital facilities plan.

V. GOALS, OBJECTIVES, AND POLICIES

A. PRIVATE UTILITIES

GOAL 1: TO FACILITATE PRIVATE UTILITY SERVICES AT THE APPROPRIATE LEVELS TO ACCOMMODATE THE DEMAND ASSOCIATED WITH CURRENT AND FUTURE LAND USES. SUCH SERVICES SHOULD BE PROVIDED IN A MANNER THAT MAXIMIZES PUBLIC SAFETY AND MINIMIZES POTENTIAL ADVERSE ENVIRONMENTAL IMPACTS.

OBJECTIVE A: The county maintains current information on the existing and proposed facilities of private utilities.

POLICIES:

1. Expansion and improvement of private utility systems should be recognized primarily as the responsibility of the private utility providing the corresponding service. The county should generally participate in the development of, and rely upon, plans prepared by each utility undertaking facility and capital improvement planning.
2. The county should maintain current information in the Comprehensive Plan on the future plans of private utility providers and as new information from private utility providers becomes available.
3. The county should maintain copies of utility providers' long-range system improvement plans and make them available as public information.

OBJECTIVE B: The county promotes the joint use of transportation rights-of-way and other utility corridors.

POLICIES:

1. The county should promote, wherever feasible, the co-location of new utility distribution and communication facilities when doing so is consistent with utility industry practices and national electrical and other codes. Examples of facilities which could be shared are trenches, transportation rights-of-way, towers, poles, and antennas.
2. The county should provide timely and effective notice to all affected private utilities of road construction, including the maintenance and repair of existing roads, in order to promote the joint planning and coordination of public and private utility trenching activities.
3. The county should review county standards and procedures to ensure that they support joint use of transportation rights-of-way and utility corridors.

4. The county should standardize locations for utilities within road rights-of-way when feasible.

OBJECTIVE C: The county coordinates with the cities and towns throughout the county on private utility planning.

POLICIES:

1. The county should coordinate on an ongoing basis with the cities and towns on private utility planning to ensure consistency in long-range plans and regulations to promote efficient and effective provision of utility services.
2. The county should coordinate with the cities and towns in the planning of multi-jurisdictional private utility facility improvements.
3. The county should encourage decisions made regarding private utility facilities to be consistent with and complementary to regional demand and resources, and should reinforce an interconnected regional distribution network.

OBJECTIVE D: The county coordinates with private utility providers.

POLICIES:

1. The county should coordinate on an ongoing basis planning activities with private utility providers to ensure consistency between the facilities' plans of private utilities and the long-range plans and regulations of the County.
2. The county should seek input from private utility providers when developing new plans, regulations and procedures which affect private utility service and activities, such as street excavation, street obstructions, and fee schedule revisions.
3. The county should support outreach efforts of utilities to educate commercial and residential power customers about the benefits of clean and efficient energy technologies and practices.

OBJECTIVE E: Potential adverse impacts of utility facilities are minimized.

POLICIES:

1. The county should encourage utility facilities such as electric substations, natural gas gate stations, wireless communication facilities (cellular telephone towers), and telephone switching stations be designed to minimize aesthetic and other impacts on surrounding land uses. Landscaped screening, buffers, setbacks, and other design and siting techniques should be used to accomplish this objective. The extent of these requirements depend on the adjacent land uses and zoning.
2. The county should encourage the location of private utility facilities near compatible land uses as defined in the county's Special Use standards.
3. The county should encourage telecommunication providers to use existing structures, such as existing towers and buildings, where feasible.

4. The county should encourage that community input is solicited prior to county approval of private utility facilities which may significantly impact the surrounding community.
5. In order to minimize adverse impacts on water quality and human health, the County should continue to review, through the existing permitting process (a) the management, spraying and clearing of vegetation in utility corridors and in the sanitary control portions of public right-of-way corridors, and (b) the new construction and expansion of lines.
6. The county should encourage that utility corridors on public lands are made available for recreational use when such use does not negatively impact adjacent land uses, and does not pose a public health or safety hazard, or result in property damage on adjacent lands.
7. If federal laws on electromagnetic fields change, the County should review its policies and regulations accordingly.

B. SOLID WASTE

GOAL 2: PROVIDE FOR THE MANAGEMENT OF SOLID WASTE AND HAZARDOUS WASTES ON A COUNTY-WIDE BASIS, INCLUDING PLANNING FOR FACILITIES AND SERVICES.

POLICIES:

1. The county should require that handling and disposal of solid and hazardous waste be done in ways that minimize land, air, and water pollution and protect public health.
2. The Thurston County Solid Waste Management Plan and the Thurston County Hazardous Waste Management Plan will identify the services that should be provided in the county.
3. The county should promote an integrated solid waste management strategy that places priority on waste reduction, reuse, and recycling of solid waste above resource recovery, incineration, and disposal in landfills.
4. The county has the responsibility for transfer and disposal of all solid wastes generated in the county and therefore, should continue to maintain its existing solid waste facilities and construct improvements, as needed, to meet current and future demand for services.
5. The county should continue to promote safe disposal of household and small business hazardous wastes outside of landfills, as well as the use of safer, less hazardous products and the reduction of hazardous materials.
6. The county should seek practical solutions to problems of illegal dumping.
7. The county should require that all facilities that store, process or use hazardous materials or generate or treat hazardous wastes in their operations be sited in compliance with state and local laws, and consistent with the county's Solid Waste Management Plan; use best management practices for the protection of groundwater, surface waters, and air quality and be periodically monitored for compliance with such laws and practices.

8. The county should revise the Zoning Code to ensure consistency with the adopted Moderate Risk Waste Plan, the Northern Thurston County Ground Water Management Plan, the Critical Areas Ordinance and the Comprehensive Plan's policies.

C. STORMWATER UTILITY

GOAL 3: PROVIDE FOR STORMWATER MANAGEMENT IN A MANNER THAT PROTECTS ENVIRONMENTAL QUALITY AND AVOIDS INCREASING THE RISK OF PROPERTY DAMAGE FROM STORMWATER RUNOFF.

OBJECTIVE: Provide stormwater management in a manner that protects receiving waters and property, consistent with state and federal law.

POLICIES:

1. Maintain or improve the quantity and quality of water entering groundwater and surface waters through the implementation of the County's Drainage, Design, and Erosion Control Manual (DDECM) and the Stormwater Management Program Plan (SWMPP).
2. Protect steep slopes and unstable soils through the implementation of DDECM and Thurston County Critical Areas Regulations to reduce the potential for slope failure.

Require that land use and activities, including septic tank effluent, not generate polluted stormwater runoff that has the potential to release pollutants to the County's municipal stormwater system or degrade surface or groundwater, including shellfish harvest areas.
3. Address the cumulative impacts of existing land and resource uses within drainage basins when identifying priorities for managing stormwater runoff using the County's Stormwater Capital Facilities Plan (CFP) and SWMPP.
4. Review and update the SWMPP, DDECM, and Stormwater CFP on a regular basis to reflect advancements in stormwater management.
5. Determine desired level of stormwater management service as well as adequate stormwater utility rate funding needed to meet regulatory obligations and desired service levels.
6. Work with the Thurston Conservation District Board to meet stormwater management objectives.
7. Ensure new and replacement drainage infrastructure can accommodate projected future climate conditions, such as higher peak flows associated with more frequent and intense precipitation events.
8. Increase education and enforcement efforts to ensure that commercial and residential building owners properly maintain low-impact development (LID) facilities that treat stormwater runoff on site.

NOTE: Other related policies dealing with water quality are found in Chapter 9 (Natural Environment).

D. DRINKING WATER & SEWER UTILITY

GOAL 4: PROVIDE PUBLIC WATER AND SEWER UTILITY SERVICE AT THE APPROPRIATE LEVELS WHERE IT SERVES THE PUBLIC INTEREST.

OBJECTIVE A: Provide sewer systems in designated urban growth areas and in rural areas only under limited circumstances.

POLICIES:

1. Thurston County should allow sewer systems in designated urban growth areas. In rural areas, sewer systems should be allowed only to correct identified health hazards or water quality deficiencies of areas of existing development. Expansion or extension into rural areas must be consistent with the Growth Management Act.
2. Decisions on the design capacity and service area designation for such sewer systems in rural areas should be made with consideration of adopted zoning designations of adjacent areas.
3. Where sewer systems are being provided to unincorporated rural areas or the Rochester-Grand Mound area, Thurston County should be the primary sewer system provider through the County Services Act.
4. In unincorporated areas inside the Urban Growth Areas around cities, the cities should be the primary sewer provider. As an exception, the county could provide sewers in a UGA on an interim basis (if the cities are unable to provide the service) or to protect water quality.
5. Utility services within growth areas should be phased outward from the urbanizing core as that core becomes substantially developed, in order to concentrate urban growth and infilling.
6. The County should develop, and periodically review and update, a comprehensive sewerage general plan for all unincorporated rural areas where there are health and water quality problems related to sewage in areas of existing development, and in all urban growth areas where no sewerage planning has been done.

NOTE: Other related policies dealing with sewer systems and water quality are found in Chapter 9 (Natural Environment).

OBJECTIVE B: Consider all factors and impacts in determining appropriate sewage treatment and disposal methods.

POLICIES:

1. Wastewater disposal methods should be determined by considering all factors, such as environmental impacts, long-term effects, technical feasibility, and cost effectiveness, especially the maintenance and improvement of water quality.

2. Wastewater collection, treatment, and disposal alternatives should be encouraged where feasible, where water quality can be protected and/or where appropriate operation and maintenance are provided.
3. Alternative methods of wastewater collection, treatment, and disposal should be discouraged in areas where sewer service is provided or planned. In other areas, they should be considered only when an acceptable plan for operation and maintenance is provided, and they will not adversely affect ground and surface water quality and/or public health.
4. The county should monitor the functioning of on-site wastewater disposal systems and require that they be maintained in a condition that will assure their longevity, protect public health, and prevent contamination of surface and ground water.
5. The county should periodically review and update the capacity and alternatives for wastewater treatment related to the limits of the LOTT treatment plant.
6. The county should review and revise policies for on-site wastewater disposal alternatives to comply with the above policies and adopted state wastewater disposal regulations.
7. The county should examine the building code for standards for low-water use fixtures, and should make available to residents literature comparing efficiency of low-water use fixtures and issues related to the no-flow alternative.

NOTE: Ecology does not allow discharge of chlorine.

OBJECTIVE C: Drinking water service inside urban growth areas are provided by cities or private utility systems which are the designated service providers through coordinated water system planning; the County provides drinking water systems in rural areas only under limited circumstances.

POLICIES:

1. In order to resolve documented health hazards, safety or pollution in areas of existing rural development, the county may serve as the water utility owner, or develop a proactive assistance program focused on keeping small distribution systems in private ownership.
2. In rural areas where the county provides sewer service, the county or a private utility system should also be the water provider.

NOTE: See Chapter 9 (Natural Environment) for other policies related to management of water systems and water resources.