

# Utilities



Public Works Utility employee enjoying a day on the job.

## **What Olympia Values:**

*Olympians value the community decision making and control, and cost-effective locally provided service delivery that is provided through its city-owned utilities; its high quality drinking water supply which exceeds all drinking water regulatory standards; protecting Puget Sound and local waterways by preventing pollution and effectively treating stormwater and wastewater before it is discharged into Puget Sound and local waterways, and; a clean sanitary city where waste products are disposed of properly and a reduction in use occurs to conserve energy and resources.*

## **Our Vision for the Future:**

*Clean, plentiful water and significant reduction of pollution and waste.*

*Through careful planning, improved efficiency of our drinking water use and voluntary conservation, Olympia will be able to meet the water needs of its future population. Improved wastewater and stormwater treatment and management will support a healthy community of native aquatic life in Budd Inlet and our local waterways.*

*We will place less pressure on landfills, through our recycling and composting programs and efforts to support state packaging and product life-cycle initiatives, local solid waste incentives, and the voluntary actions of our community members. Olympia households no longer use harmful products that could contaminate local water bodies.*

*To use community resources wisely, city-owned utility assets are maintained or replaced at the ideal time so that future ratepayers inherit reliable water, wastewater, stormwater and garbage services.*

Read more in the [Community Values and Vision chapter](#)

## **Introduction - Utilities Shape the Future**

Olympia's future ability to achieve long-term environmental, economic and social balance is influenced by how we deliver utility services to the community. To achieve this, we'll need to shift from a short- to a long-term focus that considers how today's actions will affect future generations. The long-term view will emphasize reducing waste, preventing pollution, engaging the community, and managing our fiscal and environmental resources conservatively.

City utilities include Drinking Water, Wastewater, Storm and Surface Water, and Waste ReSources (garbage, organics, and recycling). Privately-owned utilities such as natural gas and electric, cable service, and telecommunications facilities are regulated locally, especially within city-owned rights-of-way. Olympia's future will be shaped, in part, by where and when these facilities are provided.

Olympia's utilities also provide services that protect nature and conserve resources by reducing pollution and waste, restoring habitat, and conserving water. The City is also partnering with private utilities to provide their Olympia customers with more opportunities to use renewable energy.

All of the City's utilities discussed in this chapter have adopted and periodically update their own detailed master plans to guide the design and daily administration of their services. This chapter is intended to serve as a bridge between those specific plans and the broader vision of this Comprehensive Plan.

Olympia's utilities are responsible for funding all of their related costs through user fees; they do not depend on tax revenues or Olympia's General Fund resources. Additionally, Olympia's utilities are subject to a municipal utility tax which serves as a source of operating revenue for the City. Because Olympia's utilities are user funded, the cost of the municipal utility tax is paid by utility customers as part of their rates.

## **City-Owned Utilities Working Together**

City-owned and operated utilities provide the community with essential services and can help shape Olympia's future in meaningful ways. We take a coordinated, cost-effective approach to managing our utilities and fully consider the economic,

social and environmental implications of all our actions.



A young customer enjoying a sip of Olympia's drinking water.

Community engagement and involvement is an important component of City utility management. Customers and users help with environmental restoration projects and efforts to reduce pollution and waste. They also can participate in utility management and rate setting. A Utility Advisory Committee (UAC) appointed by the City Council also reviews and provides advice and direction on programs, policies and rates and evaluates operations to ensure the utilities are operated in a sustainable manner.

The four City-owned and operated utilities include:

- **Drinking Water.** This utility's mission is to provide and protect healthy drinking water for the community. This involves protecting groundwater and promoting water conservation, as well as ensuring that our drinking water meets federal Safe Drinking Water Act standards.
- **Wastewater.** This utility collects and conveys wastewater to treatment facilities to protect public and environmental health. It also works to reduce the number of septic systems in the City.
- **Storm and Surface Water.** The mission of this utility is to minimize



flooding, improve water quality, and protect or enhance aquatic habitat.

- **Waste ReSources.** Provides collection services for residential and commercial garbage, residential recyclables, and residential and commercial organics (yard debris, food waste and soiled paper), and also encourages waste reduction through educational programs. Its mission is to lead our community toward a waste-free future.



The City collects organics for composting through its Waste ReSources Utility.

Over the next 20 years, there will be a growing need for us to manage our utility resources efficiently. Our challenges will include:

- **Repairing and replacing aging systems.** Operation and maintenance needs will continue to expand as the pipes, pumps, valves, treatment facilities, reservoirs and wells that make up our utility system age. These needs must be met while keeping rates affordable.
- **Protecting the natural environment.** Water quality deterioration and habitat loss will continue to be a concern as development and utilities expand to new areas.
- **Reacting to and mitigating against climate change.** The changing climate in the Pacific Northwest is expected to result in more frequent and



intensive winter rainfall events, drier summers and rising sea levels. Increased rainfall and associated flooding could result in increased flows in the combined stormwater/sewer system, while sea level rise could impact utility infrastructure located in our downtown. Efforts taken by the City's utilities, such as reducing energy use, protecting and enhancing habitat areas, promoting water conservation and recycling, and reducing inflow and infiltration, could assist the community to mitigate for the impacts from climate change.

- **Advancing Olympia's social equity goals.** While keeping utility rates as low as possible and structured in a way that helps advance the City's social equity goals, city-owned utilities will also need to balance establishing the utility rates necessary to address ongoing utility maintenance needs and the increasing need to replace aging infrastructure.
- **Adapting to growth and density.** City-owned utilities will need to be prepared to provide utility services to greater urban densities. Fast or slow, the rate of growth will determine how, for example, new water sources are developed and when they come on-line. Higher densities can make providing the space required for solid waste collection problematic.

Our utility programs will need to find partnerships and outside resources to help the City face these new challenges.

## Goals and Policies

**GU1 Utility and land use plans are coordinated so that utility services can be provided and maintained for proposed future land uses.**

**PU1.1** Require annexation of all properties for which new City wastewater or drinking water services are requested if the property is outside the City, but inside the Urban Growth Area. Or, require property owners to sign a Binding Agreement to Annex when requested by the City.


**PU1.2** Require new developments to construct drinking water, wastewater and stormwater utilities and provide space for solid waste collection in ways that meet the community development, environmental protection, and resource protection goals of this Plan, and that are consistent with adopted utility plans and extension policies.

**PU1.3** Evaluate land use plans and utility goals periodically to ensure growth is

guided by our knowledge of current environmental constraints. This includes risks from climate change and the latest available utility technology and up-to-date growth and development projections, including those that incorporate climate migration considerations.

**PU1.4** Make necessary improvements to utility facilities that do not currently meet minimum standards. Prioritize capital improvements to existing systems based on age, condition, risk of failure, and capacity, while also balancing the fair distribution of services and benefits to the entire community.

**PU1.5** Ensure that public utility and transportation-related facilities constructed in Olympia and its Urban Growth Area meet City standards for safety, constructability, durability and maintainability. (See City of Olympia [Engineering Design and Development Standards](#).)

**PU1.6** Annually update the utility portions of the [Capital Facilities Plan](#)  to reevaluate infrastructure priorities.

**GU2 Reliable utility service is provided at the lowest reasonable cost, consistent with the City's aims of environmental stewardship, social equity, economic development and the protection of public health.**

**PU2.1** Ensure that new development projects pay for their own utility infrastructure based on their expected needs for the next 20 years. This also includes balancing the City's social equity and affordable housing goals and requires development projects to contribute to their portion of existing infrastructure. Routinely review new-development charges (such as general facility charges) when updating utility master plans or do so more frequently as needed.

**PU2.2** Ensure that utility fees, such as rates and general facility charges, are structured to reasonably reflect the actual cost of providing services to each customer rate-service class. Fees must also encourage customers to conserve water and reduce their demand on our wastewater treatment system.

**PU2.3** Provide special rates for low-income senior and low-income disabled utility customers and consider expanding established or creating new special rate programs overtime to further the City's social equity goals.

**PU2.4** Ensure that adequate funds are generated by the City's utilities to maintain utility services and capital improvement programs.

**PU2.5** Use fiscally responsible management practices in order to maintain

favorable bond ratings for the City's utilities.

**PU2.6** Provide service to existing and new customers consistent with the legal obligation of City utilities to provide service.

**PU2.7** Use pricing and incentives to encourage utility customers to reduce waste, recycle, conserve water and help protect our surface water quality.

**PU2.8** Use debt financing responsibly to support needed capital facility investments and "smooth" rate impacts.

**PU2.9** Use Developer Reimbursement Agreements that include "latecomer fees" and similar tools to enable property owners to recover some of the initial costs of extending infrastructure to serve their developments, when others connect to such extensions at a later date.

**PU2.10** Consider the social, economic and environmental impacts of utility repairs, replacements and upgrades while balancing the fair distribution of services and benefits to the entire community.


PU2.11 Pursue grant funding (e.g. state, federal) opportunities to enhance utility services.

PU2.12 Changes to the municipal utility tax will consider impacts to the City's utilities' ability to deliver service. This includes be evaluated against City-owned utilities' ability to deliver service, including long-range infrastructure renewal and replacement, the City's operating budget needs, and social and equity goals.

PU2.13 City-owned utilities will use long-range financial planning, policies and transparent processes to guide rate, capital project and operational decisions.

### **GU3 Utilities are developed and managed efficiently and effectively.**

**PU3.1** Coordinate public utility functions (such as operations and maintenance, public education and outreach, and Capital Facilities planning) for drinking water, wastewater, storm and surface water, and waste resources.

**PU3.2** Regularly review and where needed, revise the [Olympia Municipal Code](#)  and Engineering Development and Design Standards to give detailed guidance on how utility services should be delivered and paid for, in accordance with the principles established in this Comprehensive Plan.

**PU3.3** Update all utility master plans regularly and in accordance with state law.



When updating utility master plans, ensure the City's climate and social equity goals are considered.

**PU3.4** Coordinate long-term planning and scheduling of utility capital improvements with neighboring jurisdictions and other local agencies, such as LOTT.

**PU3.5** Work with neighboring jurisdictions to provide regionally coordinated utility systems for urban services that benefit from a regional approach.

**PU3.6** Locate public and private utilities in public rights-of-way and/or easements on private property in a manner to facilitate safe and efficient operation, maintenance and repair, and to minimize conflicts. Provide guidance within the Engineering Design and Development Standards that shows how and where public and private utilities should be located, including opportunities for co-location.

**PU3.7** Evaluate programs for effectiveness and efficiency on a regular basis.

**PU3.8** Contribute a portion of utility revenue each year to provide outreach and engagement programs that are inclusive, accessible and representative of the entire community and result in the fair distribution of services and benefits to help meet utility goals.

**PU3.9** Ensure consistent maintenance, asset management, and emergency management practices for all utilities.


**GU4 Use Olympia's water resources efficiently to meet the needs of the community, reduce demand on facilities, and protect the natural environment.**

**PU4.1** Encourage and allow re-use techniques, including: rainwater collection, greywater systems, and the use of Class A reclaimed water as alternatives to the use of potable water. This can enhance stream flows or recharge aquifers, while also protecting water quality consistent with local and State regulations.

**PU4.2** Develop specific targets for reducing potable water use.

**PU4.3** Raise community awareness about why and how to conserve water.

**PU4.4** Reduce water system leakage as much as possible, at a minimum below the Washington State limit of 10 percent of total water production on a three-year rolling average.

**PU4.5** Model best practices in our City operations and the [Olympia Municipal Code](#) .

**PU4.6** Advance the use of reclaimed water as defined in Council-adopted policies and as outlined in the Drinking Water Utility's Water System Plan.

## Drinking Water on Tap


Olympians recognize that the water they use comes from groundwater supplies that need to remain plentiful and unpolluted by our “above-ground” activities. The City’s Drinking Water Utility aims not only to preserve the supply of this resource, but to keep it clean – both for us and for the plants, fish and wildlife that also depend on it.



A young Olympian drinks from a water fountain at Percival Landing.

Every day, the City of Olympia delivers high-quality drinking water to nearly 55,000 people through about 19,000 connections. This water consistently meets 100% of U.S. Environmental Protection Agency standards for safe drinking water, and it is pumped to our homes at a fraction of the cost some will pay for unregulated bottled water.

The City also provides transmission and distribution of Class A Reclaimed water to customers in a limited area of downtown Olympia and provides the community with a free, untreated source of water in downtown Olympia known as Olympia’s Artesian Well.

Olympia’s Drinking Water Utility operates under a permit granted by the Washington State Department of Health’s Office of Drinking Water. Information about the City’s Drinking Water Utility can be found in [Olympia’s Water System Plan](#) .

In the next 20 years, the Utility will face these challenges and issues:

- **Changing water quality regulations.** The Utility must be ready to respond to any changes in water quality regulations and treatment requirements imposed by state and federal agencies.
- **Keeping pace with development.** Fast or slow, the rate of growth will determine how new water sources are developed and when they come on line.
- **Protecting groundwater from contamination.** Risks to groundwater will increase as the population increases, and will require the City to regularly evaluate, monitor and take action to control sources of pollution. The City's Drainage Design and Erosion Control Manual – a requirement of the Clean Water Act – and the Critical Areas Ordinance, help to protect groundwater from contamination. The City's only drinking water sources considered at risk of saltwater intrusion from rising sea levels are the Allison Springs sources. However, these wells are considered to be at low risk of saltwater intrusion and are regularly monitored for changes in conductivity and chloride concentration that may indicate an influence of salt water.

## Goals and Policies

**GU5 Adequate supplies of clean drinking water are available for current and future generations and instream flows and aquifer capacity are protected.**

**PU5.1** Reserve water supply rights for at least 50 years in advance of need, so that supplies can be protected from contamination.

**PU5.2** Develop and maintain multiple, geographically-dispersed sources of water supply to increase the reliability of the system.

**PU5.3** Monitor water levels in aquifers and maintain numerical groundwater models.

**PU5.4** Coordinate with Lacey, Tumwater, Thurston County Public Utility District #1 and tribal interests to assure adequate water supplies throughout the City's Water Service Area, following the provisions of the [Growth Management Act](#), the Public Water System Coordination Act, and the Municipal Water Law.



**PU5.5** When practical, develop regionally consistent Critical Areas Ordinance regulations, Drainage Manual requirements, and other policies to ensure we are protecting groundwater quantity and quality across jurisdictional boundaries.

**GU6 Groundwater in the City's Drinking Water (Wellhead) Protection Areas is protected from contamination so that it does not require additional treatment.**

**PU6.1** Monitor groundwater quality to detect contamination, evaluate pollution reduction efforts, and to understand risks to groundwater.

**PU6.2** Implement programs to change behaviors that threaten groundwater quality, and that raise awareness about aquifers and the need for groundwater protection. Such programs should be designed to be inclusive, accessible and representative of the entire community and to provide opportunities for cross-utility messaging.

**PU6.3** Prevent groundwater contamination in Drinking Water Protection Areas by developing and implementing spill prevention and response plans.

**PU6.4** Maintain the City's Critical Areas Ordinance, policies, development review process and program management, to ensure we protect groundwater quality and quantity.

**PU6.5** Maintain a contaminant-source inventory that identifies priority pollutants for each water source within Drinking Water (wellhead) Protection Areas, and update them regularly.

**GU7 The drinking water system is reliable and is operated and maintained so that high quality drinking water is delivered to customers.**

**PU7.1** Maintain and update the [Water System Plan](#), [Engineering Design and Development Standards](#) and [Olympia Municipal Code](#) to ensure drinking water utility facilities meet the requirements of the [Growth Management Act](#), North Thurston County Coordinated Water System Plan, Washington Department of Health and Olympia Fire Code.

**PU7.2** Maintain 100 percent compliance with all state and federal requirements, and continually improve our water quality management program.

**PU7.3** Design Olympia's water supply system to achieve the most favorable and practical fire insurance rating, consistent with adopted service levels.

**PU7.4** Continue and improve maintenance management, including preventive maintenance, repairs and replacements consistent with American Water Works Association best management practices.

**PU7.5** Prepare for and respond to emergencies and maintain secure facilities in a manner commensurate to the critical nature of the infrastructure.

**PU7.6** Continue to improve operations and maintenance program management, including safety, asset management and meter replacement and in a manner that is consistent with the City's social equity goals.

**PU7.7** Develop and maintain adequate storage, transmission and distribution facilities.

**PU7.8** Require private water purveyors that build new systems within Olympia's water service area to build to Olympia's standards so the systems can be integrated in the future.

**PU7.9** Allow telecommunications companies to locate antennas and associated equipment on Drinking Water Utility owned property, including on storage tanks, only when the security of the facility as critical infrastructure is assured and a lease or other appropriate agreement with Olympia is in place.


## **Managing Wastewater Effectively**




The purpose of Olympia's Wastewater Utility is to protect public and environmental health by ensuring that wastewater is collected and conveyed to treatment and disposal facilities with minimal risk.


Olympia provides wastewater collection service to 17.5 square miles of the City, and about eight square miles of Urban Growth Area in unincorporated Thurston County. However, many neighborhoods and individual lots within the City are still using septic systems. By 2045, Olympia expects public sewers will be extended to serve most of the Urban Growth Area.



Olympia crew members maintaining the sewer system to ensure proper functioning.

All wastewater collected by Olympia is conveyed to LOTT-owned transmission mains and treatment facilities for treatment and disposal. Treatment and disposal is managed by the [LOTT Clean Water Alliance](#) , which is a partnership of the cities of Lacey, Olympia, Tumwater and Thurston County.

Wastewater Utility activities are guided by the [Wastewater Management Plan](#) . The [LOTT Clean Water Alliance](#)  developed and actively manages its own Plan, known as the [Wastewater Resource Management Plan](#) , which it updates every year. The Plan addresses the treatment and disposal needs for all of its partners.

The Wastewater Utility coordinates a number of activities with the [LOTT Clean Water Alliance](#) , including maintenance, condition assessments, and pre-treatment program efforts. These activities are all required under the National Pollution Discharge Elimination System (NPDES) Permit, which covers both the City's wastewater collection system and LOTT-owned facilities. This shared responsibility requires continuous communication between the two entities, at both the operation and planning levels.





Installing a deep sewer maintenance hole on Henderson Boulevard as part of a planned capital improvement project.

The Wastewater Utility faces the following key challenges over the next 20 years:


- **Maintaining existing infrastructure.** More than half of the City's wastewater infrastructure has passed its design life or is susceptible to corrosion. Given the need to protect public health, repair and replacement of failing sewer systems typically cannot be deferred.
- **Reducing septic systems.** Many septic systems, especially in older parts of the City, are beyond or approaching their design life. This presents the potential for failure, and a risk to public and environmental health. The Washington State Department of Ecology's Dissolved Oxygen Water Quality Improvement Report and Implementation Plan for Budd Inlet includes Priority Implementation Actions related to converting septic systems to sewer.
- **STEP Systems.** The use of Septic Tank Effluent Pump (STEP) systems present ongoing challenges, including high lifecycle costs, odor control and corrosion damage to other sewer infrastructure.
- **Fats, Oils and Grease.** Significant utility staff time is spent on tasks associated with Fats, Oils and Grease (FOG), including educating customers on proper disposal methods, responding to wastewater system blockages and coordinating with LOTT.

## Goals and Policies

**GU8 The wastewater collection system is designed and**

**operated so as to minimize long term costs, provide sufficient capacity for projected demand, promote equity, and protect the natural environment.**

**PU8.1** Extend the wastewater gravity collection system through both public and private development projects.

**PU8.2** Prohibit new community and individual septic systems within City limits, except when specifically allowed by the [Olympia Municipal Code](#) .

**PU8.3** Encourage septic system owners to connect to the City wastewater system by offering incentives, cost-recovery mechanisms, pipe extensions and other tools.

**PU8.4** Prioritize future septic to sewer conversion projects in coordination with Thurston County in support of the Priority Implementation Actions in the Budd Inlet Dissolved Oxygen Water Quality Improvement Report and Implementation Plan.

**PU8.5** Limit and ultimately phase-out the use of individual STEP systems for development.

**PU8.6** Prohibit new individual STEP systems, except when specially allowed by the Olympia Municipal Code.

**PU8.7** Require the conversion of septic systems to the City-owned wastewater collection system upon septic system failure or building use change, whenever feasible.

**PU8.8** Separate combined wastewater/stormwater pipes in conjunction with stormwater and road improvements or residential repairs, when economically feasible.

**PU8.9** Evaluate the capacity and structural integrity of aging wastewater facilities and maintain, repair or replace as needed.

## **Rainfall, Runoff and Surface Water**



The mission of the Storm and Surface Water Utility is to provide services that minimize flooding, maintain or improve water quality, and protect or enhance aquatic habitat. Goals and policies that protect water quality and aquatic habitat on a Citywide scale are located in the [Natural Environment](#) chapter. This Utility leverages opportunities to protect our 'built' landscape from flooding while

enhancing water quality and aquatic habitat.



Porous pavement, bioretention and constructed wetlands demonstrate stormwater options for low impact development at Yaeger Park.

The Storm and Surface Water Utility maintains more than 166 miles of underground pipe, more than 7,600 storm drains, and 98 stormwater ponds that filter stormwater runoff from roads and rooftops before it reaches our streams and Budd Inlet. The "surface water" for which Olympia's Storm and Surface Water Utility shares responsibility includes nine streams within the City, four lakes, four large wetlands, and about six miles of marine shoreline.

The Stormwater Utility is guided by the [Storm and Surface Water Plan](#)  which outlines its challenges, goals, implementation tools and financial implications. Increasingly, this Utility is affected by state and federal regulatory requirements such as the [Western Washington Phase II Municipal Stormwater Permit](#) . Additionally, the Stormwater Utility is a participant in Olympia's efforts to address sea level rise and implement the Olympia Sea Level Rise Response Plan. (See the Climate chapter for sea level rise goals and policies.)



Kayakers in Budd Inlet as seen from Percival Landing.



Olympia's growth and urbanization continues to place increasing demands on our natural systems. Major challenges facing the Storm and Surface Water Utility in upcoming years include:

- **Managing the impact of increasing stormwater runoff.** The cumulative impacts additional of paving, development and non-point pollution sources will increase pollutants in streams and Puget Sound, decrease infiltration to groundwater, and reduce habitat. Impacts from increased rainfall intensity as a result of climate change will exasperate the difficulty of managing stormwater.
- **Preparing for sea level rise.** We will need to continue to support the coordinated effort to protect our downtown from the flooding that resulted from the completion of the 2019 Olympia Sea Level Rise Response Plan including responding to tidal flooding events.
- **Keeping up with new technology.** As innovative approaches to treating and controlling stormwater rapidly evolve, the Storm and Surface Water Utility must evaluate the effectiveness and long-term implications of new technologies, while also managing risks associated with potential failures.
- **All water has value.** A City-wide approach (including the development community) will be required for the integrated management of all water systems, including stormwater. Taking such an approach will have positive implications for Olympia's long-term sustainability.
- **Increasing regulatory requirements.** To discharge stormwater into "waters of the United States" the City must obtain and meet requirements of its current National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Discharge Permit (Permit). With each NPDES permit reissuance, the permit requirements are expanded, resulting in new policy, programs, reporting, documentation, and training responsibilities. This has resulted in significantly less discretionary staff time and budget available for other aspects of the Utility's work. Meeting growing permit requirements is a shared City-wide responsibility that requires substantial Utility staff time to coordinate with limited number of resources.

## Goals and Policies

**GU9 The frequency and severity of flooding are managed and hazards are eliminated, except during major storm events.**

**PU9.1** Improve stormwater systems in areas that are vulnerable to flooding.

**PU9.2** Emphasize the importance of emergency preparedness.

**PU9.3** Evaluate the structural integrity of aging stormwater pipes and repair as needed.

**PU9.4** Inventory and inspect other City-owned stormwater infrastructure and perform maintenance as needed.

**PU9.5** Provide technical assistance to private stormwater system owners and ensure they maintain their private stormwater systems.

**PU9.6** Prioritize solutions to flooding that serves overburdened neighborhoods.

**GU10 The Utility considers the interrelationship and complexity of its three missions to manage flooding, improve water quality and protect and enhance aquatic habitat in its decisions and involves other City departments in this effort.**

**PU10.1** Develop a priority ranking system for capital projects that balances the Utility's three missions: flooding, water quality and habitat. Equity will be part of the ranking criteria.

**PU10.2** Plan and implement programs and actions that can effectively achieve equitable stormwater management, urban forestry, open space and water quality objectives.

**PU10.3** Complete and maintain watershed or basin plans for all areas of the City to guide management and prioritization. Address water quality, habitat, stormwater runoff, flooding issues, and service equity.

**PU10.4** Consider a program of retrofitting existing streetscapes with water quality and quantity stormwater system improvements to minimize pollution from roadway runoff to natural drainage systems and the waters of Puget Sound.

**PU10.5** Effectively manage the City's existing municipal separate storm sewer system in a manner that manages flooding, improves water quality and protects the natural environment.

**PU10.6** Implement a Capital Improvement Program that maintains and improves the municipal separate storm sewer system in a manner that enhances and protects the City's natural environment, mitigates flooding problems,

improves water quality, promotes a reliable and safe transportation network and provides the community a safe and healthy place for living, working and recreating.

**PU10.7** Foster City partnerships with public, private, and non-profit agencies and groups and encourage them to help identify and evaluate new low impact development and green infrastructure approaches. Note: Pulled from the current Natural Environment chapter.

**PU10.8** Increase the use of low impact and green infrastructure methods through education, technical assistance, incentives, regulations, and grants. Note: Pulled from the current Natural Environment chapter.

**PU10.9** Prioritize Utility land purchases when there are opportunities to make connections between healthy systems; for example, land parcels in a stream corridor; those that facilitate future water quality retrofits or protect existing aquatic ecological function. Note: Pulled from the current Natural Environment chapter.

**PU10.10** Improve programs and management strategies designed to prevent and reduce contamination of roadway runoff and other sources of stormwater. Note: Pulled from the current Natural Environment chapter.

**PU10.11** Investigate the role Community-Based Public-Private Partnerships could play to incentivize investments in stormwater solutions that ensure community co-benefits including, but not limited to, water quality and habitat improvements.

**PU10.12** Investigate the feasibility of developing an in-lieu mitigation program that involves the restoration, establishment, enhancement and/or preservation of aquatic resources and results in stormwater management.

### **GU11 City departments work collaboratively to maintain and document compliance with the Municipal Stormwater Permit.**

**PU11.1** The Utility effectively communicates and coordinates the complex City-wide responsibilities of the Municipal Stormwater Permit to other City departments.

**PU 11.2** The Utility reviews development plans to ensure compliance with the Municipal Stormwater Permit.

**PU 11.3.** The Utility manages the compilation of essential City-wide documentation required for Municipal Stormwater Permit report submissions.

# Managing Waste ReSources – Garbage, Recycle, Organics

Olympia's Waste ReSources Utility provides municipally operated solid waste collection, disposal, and diversion services, including education and outreach. The Utility is responsible for ensuring that all of the City's waste is properly managed.

Waste materials are generated as part of our daily life and activities through purchase, use, and discard of goods and food scraps. These discards are collected, disposed and managed to protect public and environmental health, and preservation of natural resources through recycling and composting.

Consumption of goods helps support a national economy based on extracting resources, manufacturing and distributing products; a system that encourages excessive waste and does not take into account the full environmental and social costs of this activity. The result is increasing depletion of natural resources, increasing greenhouse gas emissions, and deteriorating air and water pollution - all of which are environmentally unsustainable and costly to society.

Olympians can help solve these problems through a variety of regional and local actions that seek to reduce the amount of waste generated, and increase the amount recycled, composted, and recovered for reuse.

In June 2006, the Olympia City Council adopted a Zero Waste Resolution, which gave rise to a new strategic and operational six-year plan - [Olympia's Waste ReSources Plan](#). The Plan provides a road map for the utility's collection and waste prevention programs. It is updated every six to seven years.

In the next 20 years, the utility will face the following challenges and opportunities:

- **Reduce sources of waste.** The whole life cycle of a product must be considered as we find ways to reduce waste in both "upstream" production and distribution processes and "downstream" consumer

choices and waste management practices.

- **Respond to an ever-evolving waste stream.** Continue adapting to changes in packaging, markets, materials, product recyclability, and composability.
- **Optimizing the diversion and collection system.** Continue to increase the portion of waste that is recycled or composted, while maintaining quality and efficient operations.
- **Adapting to greater population density.** Continue to provide efficient and effective collection services to a greater number of higher density single-family, multi-family and mixed-use type properties.



## Goals and Policies

### **GU12 Solid waste is managed as a resource to provide environmental, economic, and social benefits.**

**PU12.1** Reduce waste and encourage recycling through the City's purchasing, recycling and disposal policies.

**PU12.2** Follow the solid waste management hierarchy established in federal and state legislation, which sets waste reduction as the highest priority management option, followed by reuse, recycling/composting and responsible disposal.

**PU12.3** Expand, when practical and feasible, the City's recycling, composting and waste reduction programs to maximize the diversion of material from disposal into remanufacture and reuse.

**PU12.4** Support the goals and policies of the Thurston County Solid Waste Management Plan (add hyperlink).

**PU12.5** Support state legislation that is designed to improve/increase recycling and composting, increase reuse and repair, reduce natural resource consumption, and reduce household hazardous waste and harmful chemicals.

**PU12.6** Maintain and update the Waste ReSources Management Plan, Engineering Design and Development Standards, and Olympia Municipal Code to



ensure sanitary conditions are realized, solid waste collection operations are safe and efficient, and waste prevention and diversion are optimized.

**GU13 Solid waste is managed in a responsible and cost-effective manner.**

**PU13.1** Encourage and promote waste reduction and recycling, including exploring new methods and technologies.

**PU13.2** Manage waste as locally as possible to reduce transfer and disposal costs.

**PU13.3** Use technology to create and maintain efficient and effective routing and collection programs.

**GU14 Environmental impacts caused by solid waste management are minimal.**

**PU14.1** Handle and dispose of solid waste in ways that minimize land, air and water pollution and protect public health.

**PU14.2** Continue to work toward reducing the utility's carbon footprint as technology becomes available and is financially viable.

**PU14.3** Work cooperatively with Thurston County to ensure that the operations of the Thurston County Waste and Recovery Center (WARC) are in compliance with state and federal regulations, and are responsibly managed.

## **Coordination with Private Utilities**

**NOTE: THE UTILITY ADVISORY COMMITTEE SUBCOMMITTEE AND THE UTILITY ADVISORY COMMITTEE DID NOT REVIEW THIS SECTION OF THE UTILITIES CHAPTER – COMMUNITY PLANNING AND DEVELOPMENT IS RESPONSIBLE FOR OUTREACH TO PRIVATE UTILITIES – CHANGES MAY BE RECOMMENDED IN THE FUTURE AS THE OUTREACH TO PRIVATE UTILITIES IS COMPLETED**

Most private utilities are regulated at the state level by the Washington Utilities and Transportation Commission (WUTC), which ensures that customers receive safe and reliable service at reasonable rates. The Commission regulates the rates and charges, services, facilities and practices of most of Washington's investor-owned gas, electric and telecommunication utilities.

Growth in residential, commercial, or industrial development often requires expanded utility services. Because of this, City land use decisions that affect both density and the location of new development will drive new private utility needs.

In Olympia, private utilities provide these services:

- **Electricity:** Puget Sound Energy (PSE) is the only provider of electricity to Olympia and its Urban Growth Area. PSE is an investor-owned utility providing electricity to nine western and central Washington counties.
- **Natural Gas:** PSE is also the only natural gas provider to Olympia and its Urban Growth Area. PSE serves natural gas customers in six western and central Washington counties.
- **Standard Telephone Service:** The only provider of standard telephone service in Olympia and its Urban Growth Area is CenturyLink Communications International, Inc. (CenturyLink). CenturyLink is an investor-owned corporation offering local telecommunication services to customers in 14 states. It also provides broadband data and voice (including long-distance) communications services outside their local service area, as well as globally.
- **Telecommunications and Cellular Telephone Service:** Many new telecommunication providers have entered the market and offer options that have created a very competitive environment. These factors make it difficult to accurately assess how future telecommunications will be provided.
- **Cable Services and Programming:** Comcast is the only cable provider serving Olympia. Properties that lie within the UGA are covered under Thurston County's franchise. Currently, cable companies are not regulated by the state, but by local governments and the FCC. Comcast has a 10-year non-exclusive franchise agreement to use public right-of-way to provide cable services within the Olympia city limits. This agreement was adopted by the City Council in 2009.

## Goals and Policies

### **GU15 Cooperation and coordination exists among jurisdictions and private utility providers.**

**PU15.1** Coordinate utility planning activities with the private utility providers. The City will work with the private utilities to achieve consistency between their facility plans and the City's regulations and long-range plans.

**PU15.2** Share information, when requested, with private utilities on current and projected figures for population, employment, development, and utility service demand.

**PU15.3** Process permits and approvals for private utility facilities in a fair and timely manner, and in accordance with development regulations that foster predictability.


**PU15.4** Ask for input from the private utilities when developing policies that will affect their service and activities, such as street excavation, street obstructions, and fees.

**PU15.5** Maintain agreements, where appropriate, with private utilities, updating them as needed to adapt to changing needs and plans.

**PU15.6** Olympia and Thurston County will coordinate with each other and with the cities of Lacey and Tumwater to create consistent utility regulations and long-range plans that promote efficient and effective utility services.

**PU15.7** Olympia and Thurston County will coordinate with each other and with the cities of Lacey and Tumwater when private, multijurisdictional utility additions and improvements are being planned.

**PU15.8** Regarding private utility facilities, make decisions that are consistent and complementary to regional demand and resources and that reinforce an interconnected regional distribution network.

**PU15.9** Olympia and Thurston County will coordinate with each other and the cities of Lacey and Tumwater on emergency management related to utility services by following the [Natural Hazards Mitigation Plan for the Thurston Region](#) .

**GU16 Private utilities are located underground to protect public health, safety and welfare, and to create a more reliable utility system.**

**PU16.1** Place new private utility distribution lines underground wherever practicable. This should be based on sound engineering judgment, on consideration of health and safety, and in accordance with the regulations and tariffs of the Washington Utilities Transportation Commission and the City's Engineering Development and Design Standards.

**PU16.2** Encourage placing existing private utility distribution lines underground,

in accordance with the regulations and tariffs of the Washington Utilities Transportation Commission and the City's Engineering Development and Design Standards.

**PU16.3** Coordinate the undergrounding of both new and existing private utility lines consistent with policies PU 3.1 and PU 3.2.

**PU16.4** Apply utility undergrounding requirements to all private development projects.

**PU16.5** Develop and maintain a management plan, consistent with the [Olympia Municipal Code](#) and the Engineering Development and Design Standards, for underground and overhead utilities as part of the City's franchise agreements. The management plan also must address undergrounding of the City's aerial facilities, as well as other franchise utilities. (See OMC telecommunications [Chapter 11](#) regarding permitting and leasing)

#### **GU17 Private utility facilities will be located in the same area.**

**PU17.1** Promote 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. (See policy PU3.6 that recommends a guidance drawing showing utility locations.)

**PU17.2** Give private utilities timely notice when road construction is planned, to coordinate utility trenching work.

#### **GU18 Adverse impacts of above-ground utility facilities such as sub stations and cellular towers on surrounding land uses are minimized.**

**PU18.1** Locate private utility facilities near compatible adjacent land uses. City regulations will specify that approval of new private utility facilities shall be reasonably compatible with the development of the surrounding properties.

**PU18.2** Ensure that the City's zoning code includes standards that ensure that new private utility facilities are coordinated and integrated with surrounding land uses so they are reasonably compatible with the natural and built environment. These regulatory standards should also support facility design which minimizes the visual intrusion of facilities in all areas.

**PU18.3** Encourage telecommunication utilities to use existing structures, such as existing towers and buildings, where a new installation will not conflict with height restrictions.

**GU19 Every resident and business in Olympia has access to affordable cable television and Internet services.**

**PU19.1** Encourage cable services to incorporate their latest features and improvements for their Olympia-area customers as they become technologically and economically feasible.

**PU19.2** Seek to ensure that any cable franchisee serving the Olympia area provides a high quality of customer service, signal transmission, and programming variety.

**GU20 Communications between public buildings reflect advances in cable technology.**

**PU20.1** Ensure cable service to major public buildings allows programs to originate there, as well as to be received there.

**GU21 Public educational institutions and governments can air programming on designated channels on the cable system.**

**PU21.1** Ensure that cable service includes no fewer than four local access channels, which are responsibly and fairly administered in the public interest.

**GU22 The City should make provisions in its policies, regulations and Engineering Development and Design Standards for a fiber optic conduit system as part of its municipal infrastructure.**





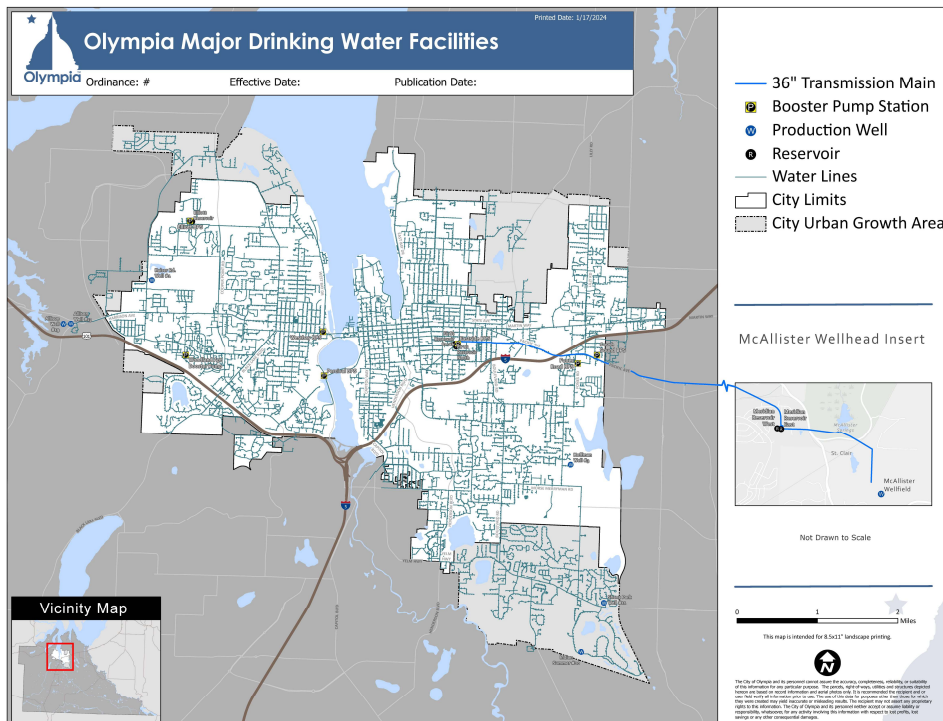
# Appendix A: Utilities Inventory and Future Needs

## City-Owned Utilities

### Drinking Water

#### Inventory

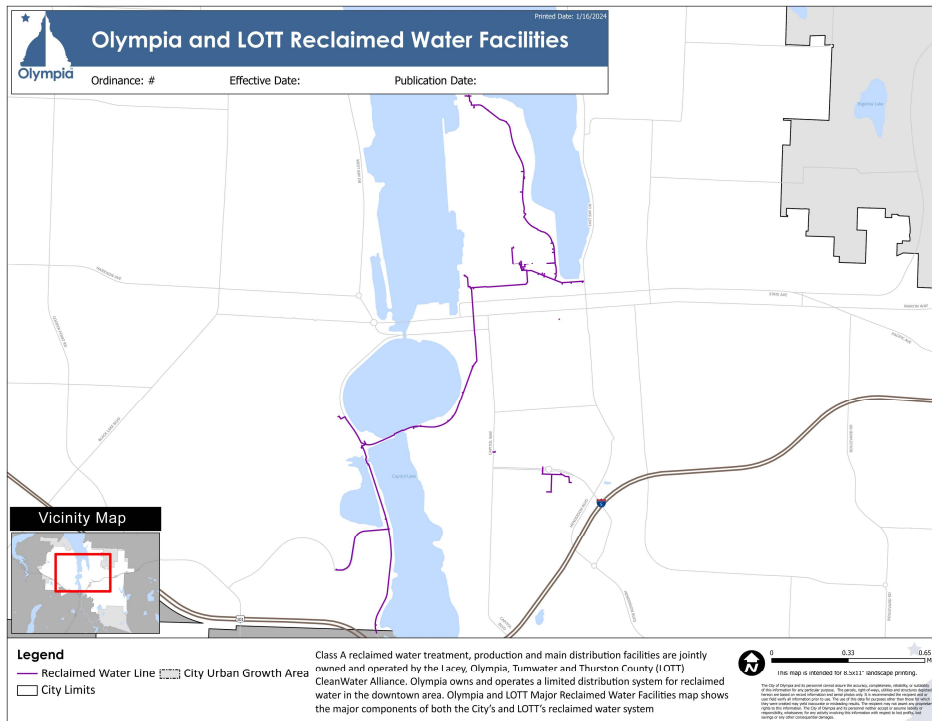
A network of wells, pumps, reservoirs and transmission lines supplies water to Olympia's customers. The McAllister Wellfield's three deep wells provide the majority of drinking water for the City. A 36-inch transmission main moves water from the McAllister Wellfield to the Meridian reservoirs, and then on a nine-mile journey into reservoirs at Fir Street. From there, it is pumped and piped throughout the City. The rest of the City's drinking water is provided by five wells (two wells at Allison Springs, and one each at Indian Summer, Shana Park, and Hoffman). Additionally, the City has one emergency well (Kaiser). The map below shows the major components of Olympia's water system.



#### Olympia Major Drinking Water Facilities

Class A reclaimed water treatment, production and main distribution facilities are jointly owned and operated by the Lacey, Olympia, Tumwater and Thurston

County (LOTT) Clean Water Alliance. Olympia owns and operates a limited distribution system for reclaimed water in the downtown area. Olympia and LOTT Major Reclaimed Water Facilities map shows the major components of both the City's and LOTT's reclaimed water system.



## Olympia and LOTT Major Reclaimed Water Facilities

### Existing Capacity

Olympia's water service area boundary map generally follows the Urban Growth Area. Policies related to providing service to this area are defined in Washington's Municipal Water Law, the North Thurston County Coordinated [Water System Plan](#), and [Olympia's Water System Plan](#) and municipal code. Olympia has adequate water rights reserved to supply customers within the service area for a minimum of 50 years. The Utility's Conservation program will also help extend Olympia's water supply.

Every six years, the Utility must update its Water System Plan for approval by the Washington State Department of Health. Water system planning regulations require the Utility to conduct a detailed analysis of its water right, water source, water storage and water distribution system capacity against current and future growth projections. The Water System Plan must also include a six and 20-year capital improvement program that includes any needed projects to address current and projected future capacity limitations. The Utility then seeks budget authority for required projects through the annual capital facility plan

development and budget approval process. Through the development of the latest Water System Plan, no capacity limitations requiring immediate action were identified. See the Water System Plan for additional detailed capacity information.

### **Future Facilities**

Future needs for drinking water will be met by:

- Developing new water sources.
- Repairing and replacing deteriorating pipes, pumps and reservoirs.
- Developing new transmission, distribution and storage facilities to serve the growing community.

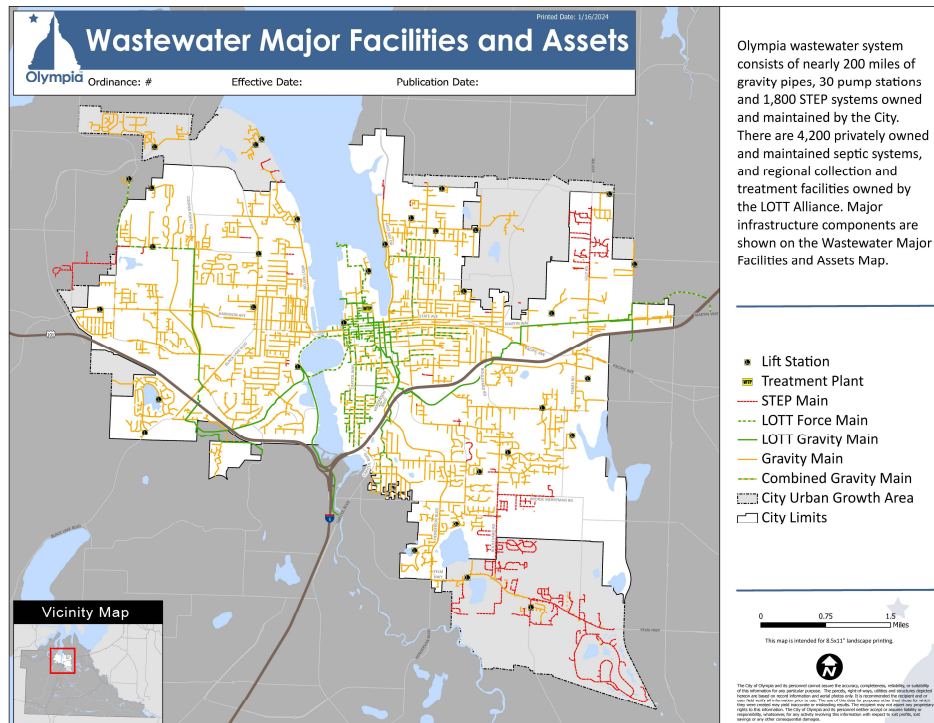
General facilities charges, which are paid by developers, will fund growth-related improvements. Other improvements will be financed through utility rates, often using bonds and low interest loans.

The Capital Improvement Program to meet forecasted 6-to-20-year needs is included in the Water System Plan, and revised and updated as might be needed in the City's most recently adopted Capital Facilities Plan.

## **Wastewater**

### **Inventory**

Within Olympia and its Urban Growth Area, the wastewater system consists of nearly 200 miles of gravity pipes, 31 pump stations and 1,800 STEP systems owned and maintained by the City. There are 4,200 privately owned and maintained septic systems, and regional collection and treatment facilities owned by the LOTT Alliance. Major infrastructure components are shown on the [Wastewater Major Facilities and Assets map](#) below. The way the wastewater system is planned and managed has a major impact on the City's ability to accomplish its land use, environmental, economic development, and growth-management goals.



## Wastewater Major Facilities and Assets map

### Existing Capacity


Utility staff, with the assistance of consulting engineers, analyze the capacity of the wastewater infrastructure, principally pipes and pumps, using a computer model as a component of the development of the Utility's management plan, last updated in 2019. The circa 2019 model was designed to simulate a 10-year peak hour storm event and estimated wastewater flows based on the current and projected population, land use and inflow and infiltration entering the sewer system.

### Future Facilities



Computer analysis completed with the 2019 Wastewater Management indicates that, the City's wastewater system has seven areas with anticipated risk of flooding, prioritized into four tiers based upon risk of flooding and confidence in the projections. The tiers range from "high risk of flooding and high confidence in projections (plan for action within 10 years)" to "moderate risk of flooding, low confidence in data (long-range monitoring". The high risk of flooding capacity limitations identified in the 2019 Wastewater Management Plan include a section of pipe along the 4<sup>th</sup> Ave bridge and along Jefferson Street SE and have been incorporated into the Utility's short-term capital facilities plan. Additionally, Wastewater Utility staff monitors and manages existing and future flows, tracks the new for long term improvements and plans for



future construction projects before reaching capacity, including those areas identified in the 2019 Wastewater Management Plan as potential areas of risk.

The [LOTT Clean Water Alliance](#)  [Wastewater Resource Management Plan](#)  addresses future capacity and treatment upgrades to the regional system.

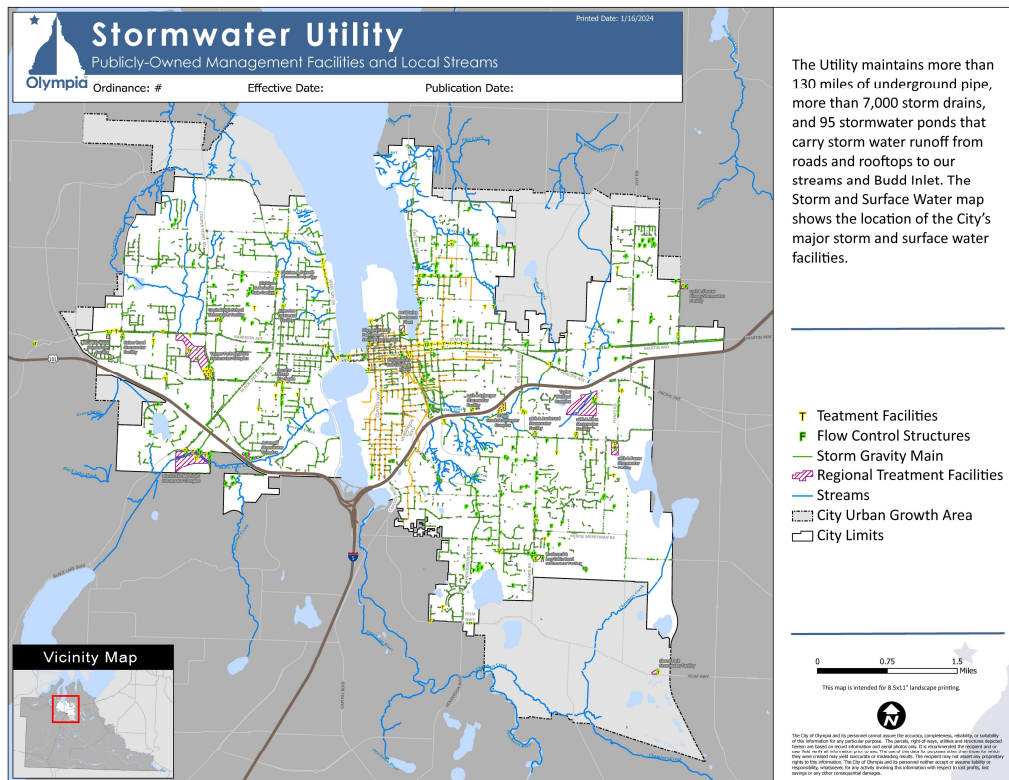
When infrastructure improvements are needed due to new development, future users of the new facilities repay the City through general facilities charges, latecomer fees or other potential cost recovery tools.

The Capital Improvement Program to meet forecasted 6- to 20-year needs is included in the [Wastewater Management Plan](#) , and revised and updated as may be needed in the City's most recently adopted [Capital Facilities Plan](#) .

## **Storm and Surface Water Utility**

### **Inventory**

The Utility maintains more than 160 miles of underground pipe, more than 7,600 storm drains, and 98 stormwater ponds that carry storm water runoff from roads and rooftops to our streams and Budd Inlet. The [Storm and Surface Water map](#) shows the location of the City's major storm and surface water facilities. In addition to Olympia's public stormwater infrastructure, the Utility provides technical assistance and performs maintenance inspections on privately-owned stormwater systems throughout the City. A variety of small areas are still served by a combined sanitary/stormwater sewer, which routes flows to the LOTT treatment plant.



## Publicly-Owned Stormwater Management Facilities and Local Streams map

### Existing Capacity

For the most part, historical flooding problems have been corrected over the past couple of decades. Now, flooding problems are typically smaller in scale and easier to address than in the past. The Utility manages a pipe televising program to assess the condition of underground infrastructure and to schedule maintenance and repairs before serious problems develop.

Many of the older areas of the City were built before stormwater treatment was required. The Utility looks for opportunities to retrofit stormwater treatment in these areas when feasible.

### Future Facilities

Olympia's Stormwater Drainage Manual requires new development to infiltrate stormwater onsite whenever possible. The need for existing stormwater facility upgrades or repairs is assessed by the Utility annually as part of the [Capital Facilities Plan](#) update process.

## Waste Resources

## **Inventory**

The Waste ReSources Utility provides solid waste collection service to single and multi-family households, commercial and industrial customers, and all other customers within the city limits. The Waste ReSources Utility also maintains and services litter receptacles in the downtown core, operates a Saturday Drop-off site for yard waste, scrap metal, and recycling, in addition to providing cardboard and glass drop-off 24/7 at the same location. Two other glass-only drop-off sites are located at Yauger Park and Concrete Recyclers.

Olympia does not own or operate any solid waste handling facilities outside of the customer convenience locations mentioned above. Olympia relies on its public and private partners for waste disposal, recycling and composting facilities.

All solid waste container inventory (carts, dumpsters, drop-boxes, and litter receptacles) are city-owned. New and replacement containers are paid for through the utility's operating budget. The Waste ReSources Utility owns and maintains nearly 44,000 containers with the vast majority in service and only a small portion, roughly 3 to 5 percent in reserve.

The Waste ReSources has two core programs – Collections and Waste Prevention:

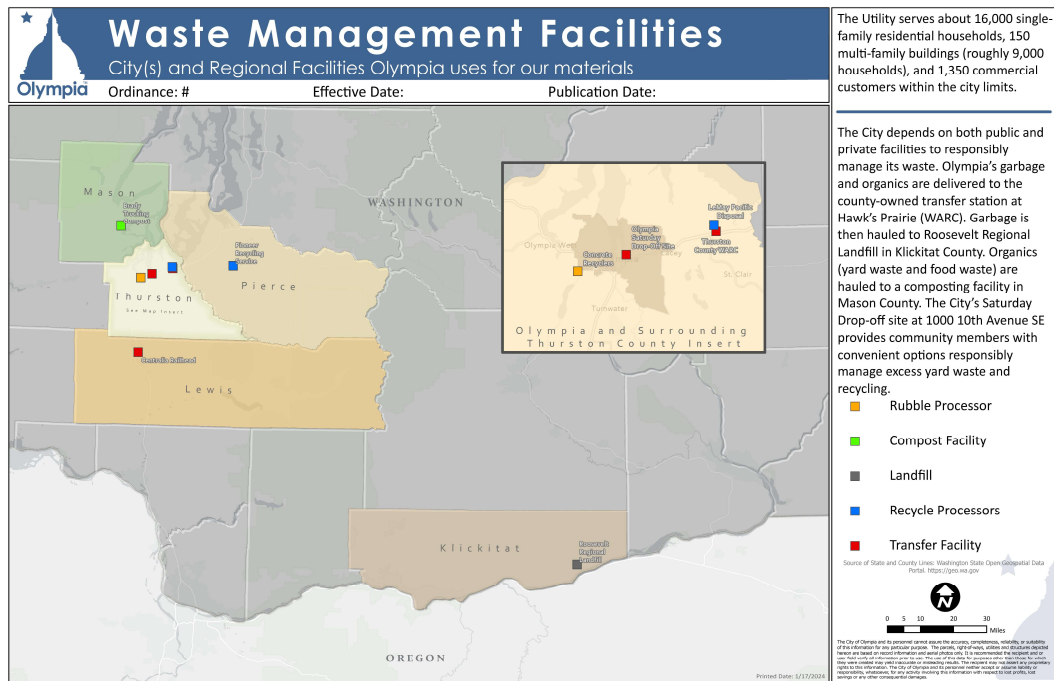
1. The Collections program provides solid waste collection services inside the city limits, designs routes, and manages equipment and container needs.
2. The Waste Prevention and Reduction program is responsible for updating its waste management plan, development review, developing and implementing waste prevention and recycling programs.

## **Existing Capacity**

The Waste ReSources Utility serves about 16,000 single-family residential households, 150 multi-family buildings (roughly 9,000 households), and 1,350 commercial customers within the city limits. The Utility manages and adapts to growth through its budgeting process, compliment of staff, equipment, containers, and route design, solid waste management plan and operational policies and procedures.

If the City annexes the southeast area Urban Growth Area (UGA), which has over 3,000 households, the Waste ReSources will need to immediately begin planning to assume collection from the private hauler in 10 years, which is the transition period. Planning will include setting funding aside for additional containers and trucks.

The map below shows the City's and regional facilities the City uses for our materials.



## Waste Management Facilities

### Future Facilities

The City depends on both public and private facilities to responsibly manage its waste: Olympia's garbage and organics are delivered to the county-owned transfer station at Hawk's Prairie. Garbage is then hauled to Roosevelt Regional Landfill in Klickitat County. Organics (yard waste and food waste) are hauled to a composting facility in Mason County. The Waste ReSources Utility's Saturday Drop-off site at 1000 10<sup>th</sup> Avenue SE provides community members with convenient options responsibly manage excess yard waste and recycling.

The City is in the process of developing a new Operations Center for the Waste ReSources Utility, which will include a shop for maintaining the City's heavy duty fleet. The site is located off of Carpenter Road NE Lacey UGA on city-owned land. As the project progresses to the 30 and 90 percent design phases, the Utility will continue to evaluate whether the site can support a recycle transfer operation, which would greatly improve the City's position in working with recycle sorting facilities and composting operations. The Carpenter Road project is included in the most recent update of the Capital Facilities Plan.

## **Description & Inventory of Private Utilities Serving Olympia**

**Note: COMMUNITY PLANNING AND  
DEVELOPMENT IS RESPONSIBLE FOR  
UPDATING THIS SECTION PENDING INPUT  
FROM PRIVATE UTILITIES**

### **Electricity and Natural Gas**

Unlike some other private utilities, providers of electricity such as Puget Sound Energy (PSE) must provide electricity upon demand and in accordance with "tariffs" on file with the Washington Utilities and Trade Commission (WUTC). To fulfill its public service obligations, PSE must plan to extend or add to its facilities when needed.

However, this obligation does not apply to the delivery of natural gas, as it is considered a convenience, rather than a necessity, as electricity is. PSE natural gas service is a demand-driven utility and, as such, is prohibited from passing on the cost of new construction to existing customers. Instead, it installs natural gas service for new construction and when customers convert from electricity or oil to natural gas. PSE owns and operates all electrical transmission and distribution stations, as well as the transmission and distribution lines within the City of Olympia. The map below shows existing and proposed major PSE electric and natural gas facilities, but does not show distribution lines.





## **Standard Telephone Service**

As regulated by the WUTC, standard telephone service is considered a necessity. Therefore, CenturyLink Communications International, Inc. (CenturyLink, formerly Quest and AT&T) must provide phone facilities on demand. As communities grow, its facilities are upgraded to ensure adequate service levels and to offer new services.

Standard telephone service has four primary components: central switching offices (two are located in Olympia), main cable routes, branch feeder routes, and local loops. All these components work together to provide a dial tone to every subscriber.

CenturyLink also maintains a broadband telecommunications network over a mix of optical fiber, coaxial cable and copper wire. CenturyLink has said that it plans to continue serving the Olympia area.

## **Cable Services**

Comcast, Inc. is Olympia's sole cable service provider, and its receiver site also serves surrounding communities. The two key components of the cable system are a receiver site – a tower that picks up air and satellite signals - and a fiber-to-the-node cable system. The cable television system is fed directly by coaxial and fiber-optic cable from the receiver site to Comcast's Olympia subscribers.

Cities and counties may grant franchises to cable companies that allow them to locate their lines in the public rights-of-way. In exchange, local governments may require cable companies to provide certain services. Olympia's franchise agreement requires Comcast to:

- Provide service throughout the City, and install the cable underground for all new construction.
- Meet minimum standards for the number of channels provided, variety of programming, quality of customer service, and technical quality of signal transmission.
- Provide a public access studio and facilities that allow programming to originate from a number of public facilities identified by the City.
- Provide free cable service to City buildings.
- Provide financial support for local access television equipment.




Federal law allows local government to charge a franchise fee for use of the Right-of-Way, currently no more than 5% of gross revenue.

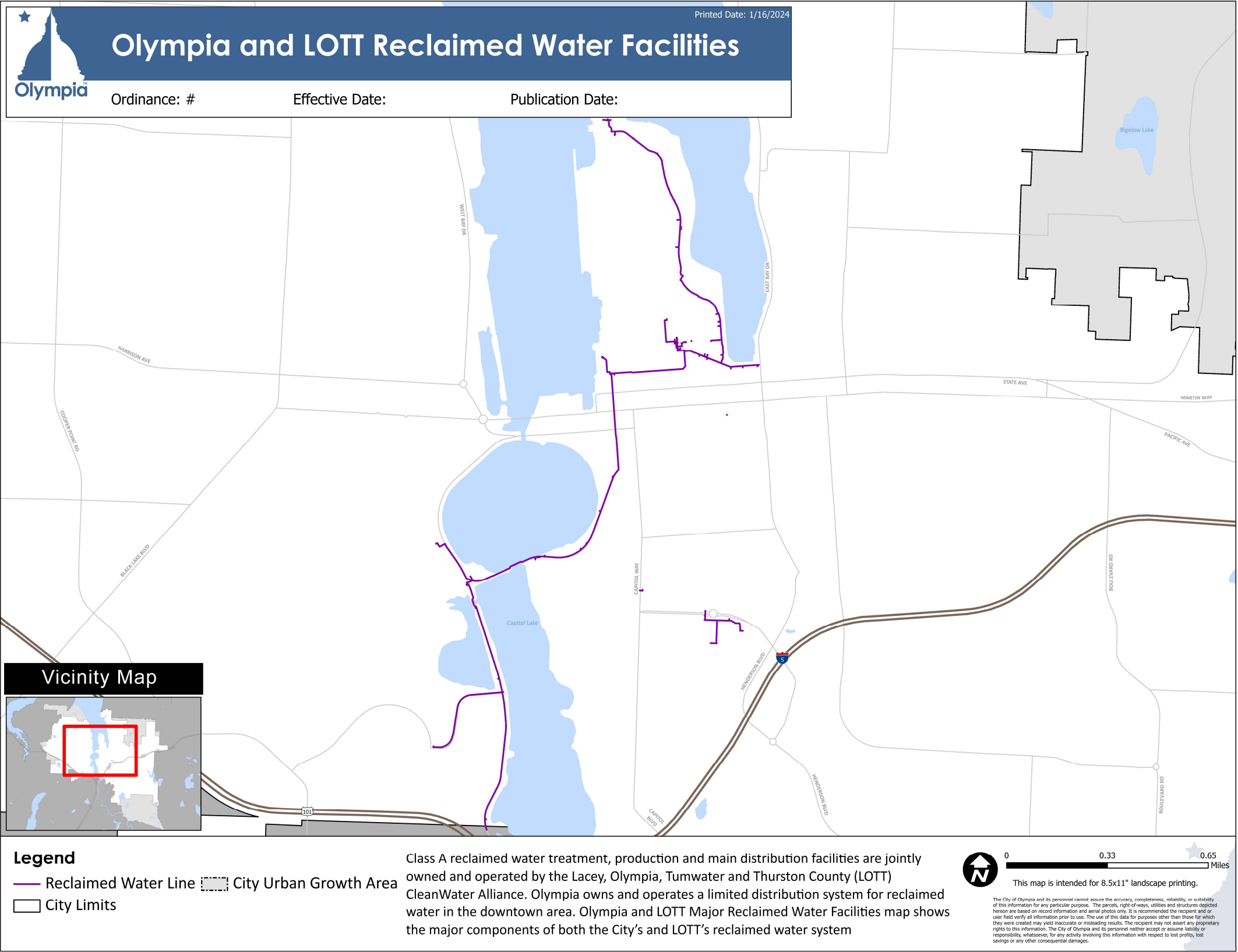
In the Olympia area, the "public access studio and facilities" requirement in the franchise is administered by Thurston Community Television (TCTV), a non-profit organization -- on behalf of Olympia, Lacey, Tumwater, and Thurston County.

The City has an annual contract with TCTV for specific government, education, and public television access purposes. Comcast leases the TCTV studio to the City for \$1 per year and makes an additional cash contribution for local access capital purposes.

Each year, Comcast engineers assess whether it needs to expand its Olympia system so it can continue to provide cable hook-ups to customers as demand rises. At this time, the City is adequately served and expects that will continue for at least the next 20 years.

## For More Information

- [1996 North Thurston Coordinated Water System Plan](#)  This document outlines the policies and procedures for providing coordinated drinking water services to the North Thurston urban area.
- [1990 General Sewerage Plan for Thurston County](#)  This document outlines the plan for providing sewer services to the unincorporated Urban Growth Areas within Thurston County.
- Thurston County's [Hazard Mitigation Plan](#)  is a cooperative local government effort to identify and prioritize ways the region can protect itself from its natural vulnerability to hazards such as storms, landslides, earthquakes and flooding.
- Current and past technical analyses and reports regarding sea level rise in Olympia can be reviewed on the City's Sea Level Rise webpage.










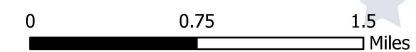




Publication Date:



-  Treatment Facilities
-  Flow Control Structures
-  Storm Gravity Main
-  Regional Treatment Facilities
-  Streams
-  City Urban Growth Area
-  City Limits



This map is intended for 8.5x11" landscape printing.



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