



UTILITIES ELEMENT



UTILITIES ELEMENT

INTRODUCTION

Purpose

City residents rely on a number of basic services that help define their quality of life and maintain their health and well being. Water supply and sewage and solid waste disposal systems and the delivery of natural gas, electricity, and telecommunication services are considered “utilities.” These services are often taken for granted, yet without coordination and conscientious planning for future growth, service may be interrupted, inadequate, or prohibitively expensive. The Utilities Element addresses electricity, telecommunications (telephone, cable, internet), and natural gas provision as well as water, wastewater, and solid waste services. The Element also addresses conservation and recycling.

The utilities element is consistent with and supports other elements of the Comprehensive Plan. For example, by setting goals, policies and objectives for the provision of efficient and sustainable utilities to serve existing development and anticipated growth identified in the Land Use element. The importance of infrastructure efficiency and reliability, a focus on conservation, the reduction of fossil fuels and greenhouse gas emissions, and a shift to renewable energy sources is a focus of this element. The Utilities Element is consistent with the Climate Action Element for improving infrastructure resiliency to climate impacts for improving climate resiliency to climate impacts and reducing greenhouse gas emissions.

Growth Management Act Requirements

The Growth Management Act (GMA) has the goal of ensuring that those public facilities and services necessary to support development shall be adequate to serve the development at the time development is available for occupancy and use without decreasing current service levels below locally established minimum standards. A Utilities Element is required to address the general location, proposed location and capacity of existing and proposed utilities, including electrical lines, telecommunication lines, and natural gas lines.

VISION 2050

The overall vision in the multicounty planning policies (VISION 2050) is that public facilities and services will support the region’s growing communities in a coordinated, fair, efficient, and cost-effective manner. VISION 2050 emphasizes conservation measures and the use of renewable energy resources. Planning for the provision of telecommunication infrastructure to provide access to residents and businesses in all communities, especially underserved areas, also is emphasized.

Countywide Planning Policies

The King County Countywide Planning Policies (CPPs) include general policies to ensure adequate infrastructure for planned development within the King County Urban Growth Boundary. Growth is to be directed to centers and urbanized areas with existing infrastructure capacity.

CPP policies focus on providing utilities in an efficient and cost-effective manner. They support water conservation as a means to reduce future need, along with recycling and reuse of solid waste. The CPPs encourage investment in low-carbon, renewable, and alternative energy resources to help meet the County's long-term energy needs, reduce environmental impacts associated with traditional energy supplies, and increase community sustainability.

As in VISION 2050, the CPPs support equitable provision of telecommunication infrastructure and affordable, convenient, and reliable broadband internet access to businesses, and to households of all income levels, with a focus on underserved areas.

EXISTING CONDITIONS/FORECAST OF FUTURE NEEDS

Electricity

Puget Sound Energy (PSE) is a private utility providing electric and natural gas service to homes and businesses in the Puget Sound region and portions of Eastern Washington, covering 10 counties and approximately 6,000 square miles. PSE provides electrical power to more than 1.2 million electric customers throughout 8 counties. Within the City of Kenmore, PSE serves approximately 16,779 metered customers.

Existing Distribution System

To provide the City of Kenmore with electricity, PSE builds, operates, and maintains an extensive integrated electric system consisting of generating plants, transmission lines, substations, switching stations, sub-systems, overhead and underground distribution systems, attachments, appurtenances, and metering systems.

PSE generates approximately 46 percent of the electricity for its customers from its own generation plants—hydro, gas, coal, solar and wind. PSE currently has about 3,500 megawatts of power-generating capacity and purchases the rest of its power supply from a variety of other utilities, independent power producers and energy marketers across the western United States and Canada. In 2022, PSE provided 3,794,770 MWh of renewable energy produced from wind and hydropower facilities.

The PSE electric transmission facilities in City of Kenmore are important components of the electric energy delivery grid serving the city and Puget Sound region. As electricity reaches the City, the voltage is reduced and redistributed through lower-voltage transmission lines, distribution substations, overhead and underground distribution lines, smaller transformers, and to individual meters. PSE operates and maintains approximately 5.8 miles of 115 kilovolt (kV) high-voltage transmission lines, 1 switching station, 2 substations, 66 miles of overhead and 48 miles of underground 12kV distribution lines in Kenmore.

Regulatory Environment

PSE's operations and rates are governed by the Washington Utilities and Transportation Commission (WUTC). PSE electric utility operations and standards are further governed by the

Federal Energy Regulatory Commission (FERC), the National Electric Reliability Corporation (NERC), and the Western Electricity Coordinating Council (WECC). These respective agencies monitor, assess and enforce compliance and reliability standards for PSE. The residents of Kenmore and the region rely on the coordinated effort between PSE and the City for the adoption and enforcement of ordinances and/or codes to protect transmission and distribution line capacity and support federal and state compliance of safe, reliable, and environmentally sound operation of PSE's electric facilities. Routine utility maintenance work, including vegetation management, is required to maintain compliance with FERC, NERC, and WECC regulations.

Additionally, the Clean Electricity Transformation Act (CETA) became law in Washington State in 2019. CETA requires PSE to provide electricity free of greenhouse gas emissions by 2045. The UTC and Washington Department of Commerce (WDOC) adopted CETA implementation rules that require utilities to develop four-year plans known as Clean Energy Implementation Plans (CEIP) to outline plans for clean energy investments, equitable distribution of customer benefits, and 100% clean energy by 2045. The first CEIP covers the time period of 2022-2025 and was filed with the UTC on December 17, 2021. It includes programs and investments such as expanding energy efficiency efforts, deploying new technologies, installing localized sources of clean energy, and investing in renewable energy.

Planned Upgrades to System

Puget Sound Energy plans years in advance to ensure the supply and infrastructure necessary to deliver clean, safe and reliable energy. An IRP is a 20-plus year view of PSE's energy resource needs, which is developed through a planning process that evaluates how a range of potential future outcomes could affect PSE's ability to meet customers' electric and natural gas supply needs. The analysis considers policies, costs, economic conditions, physical energy systems, and future resource procurement. PSE's latest IRP was filed with the UTC on April 1, 2021 and is the foundation for PSE's first Clean Energy Implementation Plan (CEIP).

PSE will be systematically deploying smart grid technology at each level of infrastructure to enhance and automate monitoring, analysis, control and communications capabilities along its entire grid. Smart grid technologies can impact the electricity delivery chain from a power generating facility all the way to the end-use application of electrical energy inside a residence or place of business. The ultimate goals of smart grid are to enable PSE to offer more reliable and efficient energy service, and to provide customers with more control over their energy usage.

PSE's Customer Connected Solar Program provides information and resources to learn more about installing solar on a property and how to apply for interconnection and net metering with PSE. Net Metering, defined by PSE Rate Schedule 150, allows customer-generators to offset some or all of their electricity consumption with solar energy generation on an annual basis. Although this provides a modest portion of PSE's electrical supply portfolio, the number of customer-owned connections continues to increase every year. Currently, there are over 16,000 net metered solar customers in PSE's service territory. There are 128 net metered customers in Kenmore, one of which is Kenmore City Hall.

Specific transmission and substation construction that is anticipated in Kenmore in the next 10 years includes reconductoring of the existing Moorlands Inglewood transmission line that was built in the 1940s between the Moorlands and Inglewood substations in Kenmore. This 1.66-mile-

long line brings power to customers in Kenmore and is approaching its capacity limits, making it at risk of overloading during periods of high energy usage—putting customers at risk for power outages. The transmission line reconductoring is currently planned to go to construction in 2031. The new line, generally running along 84th Avenue NE, will include a high-capacity conductor, new poles, and associated equipment.

Two proposed substations (Spruce and Chickadee) may also serve Kenmore in the future but are not proposed for construction within the next 10 years. Two new transmission lines between Sammamish, Moorlands and Seattle City Light facilities may also serve Kenmore in the future but are not proposed for construction within the next 10 years.

Conversion to Underground Service

The cost of undergrounding of electric facilities is regulated by the Washington Utilities and Transportation Commission (WUTC). Underground installations by PSE must be done in accordance with the rates and tariffs on file with the WUTC.

Undergrounding may be two to four times the cost of installing overhead lines, plus the cost of trenching and hard surface restoration. The latter may result in costs up to 10 times the amount of overhead line installation. In addition, there are costs to the customer, particularly affecting commercial customers, for installing lines from the transformer to the meter at the building.

Challenges to undergrounding include environmental constraints such as wetlands and buffers, as well as the need for easements when large pad-mounted equipment such as transformers and switches cannot be accommodated in the right-of-way.

Energy Conservation Programs

Under the Energy Independence Act (EIA), utilities must pursue all conservation that is cost effective, reliable and feasible. PSE identifies the conservation potential over a 10-year period and sets two-year targets. For more than three decades PSE's energy efficiency programs have been the foundation of PSE's cost-effective energy resources, and this will continue. Energy conservation reduces the rate at which new facilities need to be built or upgraded. These programs include a wide variety of measures that result in a smaller amount of energy being used to do a given amount of work. Programs include retrofitting heating, ventilation and air conditioning (HVAC) systems, building weatherization, lighting upgrades and appliance upgrades.

PSE currently has several energy conservation programs for residential, commercial, and industrial customers. While these programs may change from year-to-year, current programs range from technical assistance and information to referrals and financial assistance. PSE has Energy Advisors to help direct customers to the various conservation programs currently available. For residential customers PSE offers a free, do-it-yourself home energy assessment as well as several free informational brochures on the various rebate and incentive programs. PSE also provides weatherization assistance for low-income customers.

Natural Gas

Natural gas utility service for the City of Kenmore also is provided by Puget Sound Energy (PSE). Currently, PSE provides natural gas to more than 900,000 customers, throughout 6 counties. Within the City of Kenmore, PSE serves 6,303 metered customers.

Existing Distribution System

PSE controls its gas-supply costs by acquiring gas, under contract, from a variety of gas producers and suppliers across the western United States and Canada. PSE purchases 100 percent of its natural gas supplies needed to serve its customers. A majority of the natural gas is obtained from producers and marketers in British Columbia and Alberta, and the rest comes from Rocky Mountain States. All the gas PSE acquires is transported into PSE's service area through large interstate pipelines owned and operated by Williams Northwest Pipeline. PSE buys and stores significant amounts of natural gas during the summer months, when wholesale gas prices and customer demand are low, and stores it either in the pipes themselves (via increased pressure) or in large underground facilities. PSE can then use reserves in winter when customer usage is highest, ensuring that a reliable and affordable supply of gas is available.

To provide the City of Kenmore and adjacent communities with natural gas, PSE builds, operates, and maintains an extensive system consisting of transmission and distribution natural gas mains, odorizing stations, pressure regulation stations, heaters, corrosion protection systems, above ground appurtenances, and metering systems. When PSE takes possession of the gas from its supplier, it is distributed to customers through PSE-owned natural gas mains and service lines. Currently within the City of Kenmore PSE operates and maintains: 16 miles of high pressure main, 6 District Regulators, and 97 miles of intermediate pressure main.

PSE receives natural gas transported by Williams Northwest Pipeline's 36" and 30" high pressure transmission mains at pressures ranging from 500 PSIG to 960 PSIG. The custody change and measurement of the natural gas occurs at locations known as Gate Stations. This is also typically where the gas is injected with the odorant mercaptan. Since natural gas is naturally odorless, this odorant is used so that leaks can be detected. The Gate Station is not only a place of custody transfer and measurement but is also a common location of pressure reduction through the use of "pressure regulators". Due to state requirements, the pressure is most commonly reduced to levels at or below 250 PSIG. This reduced pressure gas continues throughout PSE's high pressure supply system in steel mains ranging in diameter of 2" to 20" until it reaches various other pressure reducing locations.

In 2021, PSE launched a Renewable Natural Gas (RNG), program in which more than 4,700 customers lowered their carbon footprint by replacing a portion of their conventional natural gas usage with renewable natural gas. The renewable natural gas offered to customers is made from gas captured at a landfill - not from fossil fuels. Since launching RNG, PSE sold more than 92,000 therms of this cleaner alternative.

To safeguard against excessive pressures throughout the supply and distribution systems due to regulator failure, over-pressure protection is installed. This over-pressure protection will release gas to the atmosphere, enact secondary regulation, or completely shut off the supply of gas. To safeguard steel main against corrosion, PSE builds, operates, and maintains corrosion control mitigation systems to prevent damaged pipe as a result of corrosion.

Regulatory Environment

PSE's operations and rates are governed by the Washington Utilities and Transportation Commission (WUTC). PSE natural gas utility operations and standards are further regulated by the U.S. Department of Transportation (DOT), including the Pipeline and Hazardous Materials Administration (PHMSA). PHMSA's Pipeline Safety Enforcement Program is designed to monitor and enforce compliance with pipeline safety regulations. This includes confirmation that operators are meeting expectations for safe, reliable, and environmentally sound operation of PSE's pipeline infrastructure. PHMSA and the WUTC update pipeline standards and regulations on an ongoing basis to assure the utmost compliance with standards to ensure public safety. The residents within Kenmore rely on the coordinated effort between PSE and the City for the adoption and enforcement of ordinances and/or codes to support the safe, reliable, and environmentally sound construction, operation and maintenance of PSE's natural gas facilities.

Planned Upgrades to System

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To meet regional and City natural gas demand, PSE's delivery system is modified every year to address new or existing customer growth, load changes that require system reinforcement, rights-of-way improvements, and pipeline integrity issues. Ongoing system integrity work in Kenmore may include the replacement of DuPont manufactured polyethylene main and service piping and certain qualified steel wrapped intermediate pressure main and service piping. Ongoing pipe investigations throughout the city will determine the exact location of any DuPont pipe and qualified steel wrapped pipe to be replaced. In addition, ongoing investigation will determine locations where gas lines may have been cross bored through sewer lines, necessitating subsequent repairs. PSE also utilizes corrosion control mitigation systems to prevent pipe damage as well as annual monitoring schedules of those systems.

Energy Conservation Programs

Under the Energy Independence Act (EIA), utilities must pursue all conservation that is cost effective, reliable and feasible. PSE identifies the conservation potential over a 10-year period and sets two-year targets. For more than three decades PSE's energy efficiency programs have been the foundation of PSE's cost-effective energy resources, and this will continue. Energy conservation reduces the rate at which new facilities need to be built or upgraded. These programs include a wide variety of measures that result in a smaller amount of energy being used to do a given amount of work. Programs include retrofitting heating, ventilation and air conditioning (HVAC) systems, building weatherization, lighting upgrades and appliance upgrades.

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Hazardous Liquid Pipelines

According to the Northshore Fire District/Shoreline Fire Department, there are no hazardous liquid transmission pipelines located in Kenmore.

Telecommunications

Telecommunications services are regulated by several entities, including the Federal Communications Commission and the Washington Utilities and Transportation Commission. As these telecommunication entities frequently merge and often provide overlapping services, analysis of service by individual carrier is difficult.

Telephone

Telephone service is provided within the city by a number of providers—both landline and cellular. Carriers include New Cingular Wireless (formerly AT&T) and Verizon.

Cable

Cable service is provided within the city by Comcast and other providers, including Frontier and Wave. The City's franchise agreement with Comcast provides free cable service to City Hall, the Northshore Fire District headquarters, the Library, Northshore Utility District headquarters, Fire Station 54, the Police Precinct, and schools.

Internet

Internet services within the city also are provided by a number of private carriers, including Comcast and Ziply.

Local Water Service

Northshore Utility District (NUD) provides public water service to the entire City of Kenmore. As of December 28, 2022, approximately 7,836 NUD water service connections were located in the City of Kenmore 32% of the District's total of 24,653. NUD is organized as a special purpose district that has the authority to operate under Title 57 of the Revised Code of Washington (RCW).

The District owns and operates a water distribution and storage system. All water is purchased from Seattle Public Utilities (SPU) through connections to the Tolt Pipelines No. 1 and 2, and the Tolt Eastside Supply Line. The district has an additional connection to SPU at the Maple Leaf

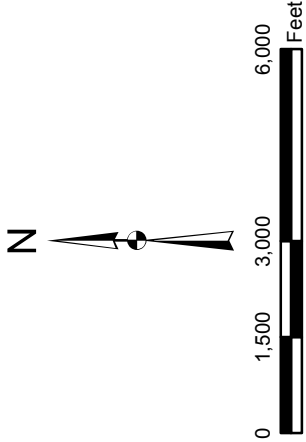
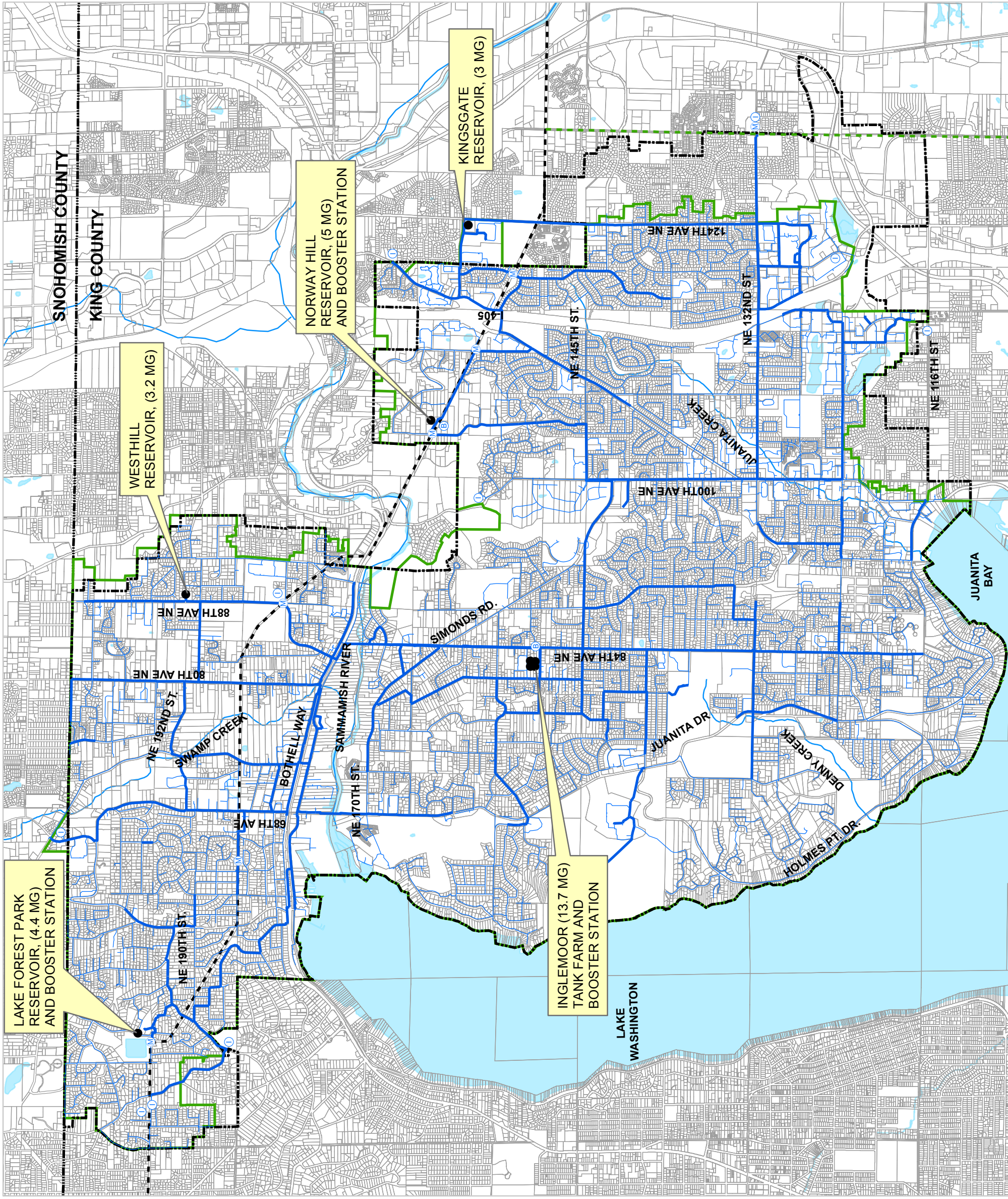
pipeline, used only in emergency situations. SPU is responsible for water quality treatment. The current water supply contract with SPU expires in 2062.

The current Comprehensive Water System Plan for the District was completed in 2017. This plan evaluates the existing system and its ability to meet anticipated requirements for water source, quality, transmission storage, and distribution for a twenty-year period (2016-2035) in accordance with the Growth Management Act. District population estimates for the planning period are based on the 2014 Transportation Analysis Zone (TAZ) projections provided by the Puget Sound Regional Council and Utility District staff determinations.

According to the Plan, the District has sufficient capacity in its existing storage and distribution system to meet growth needs to the 2035 planning horizon and beyond. The SPU contract water supply is sufficient to provide adequate water to the District to buildout, with the Plan indicating that average day and peak season demands at buildout are below the SPU supply contract amount. As a member of the Snohomish River Regional Water Authority, NUD holds a water right for the Snohomish River but is not currently withdrawing water under this water right. Although NUD has drilled a groundwater well in west Bothell, no water right was granted by the State and groundwater is not considered to be a viable water supply option for the district.

The 2017 plan includes a \$4.5 million six-year Capital Improvement Plan and a \$17.9 million 10-year plan. Projects include water supply source development, improvements to the distribution system, metering and telemetry improvements, and emergency preparedness. The majority of these projects constitute ongoing upgrades to the system.

Northshore Utility District's 2017 Water System Comprehensive Plan should be referred to directly for detailed information about the District and its facilities. **Figure U-1** shows existing water mains and reservoirs in the city of Kenmore.



- LEGEND:**
- RETAIL SERVICE AREA (INCLUDING RETAIL SERVICE AREA BY AGREEMENT)
 - CORPORATE BOUNDARY
 - COUNTY LINE
 - WATER MAINS UNDER 12-INCH DIAMETER
 - WATER MAINS 12-INCH DIAMETER & LARGER
 - SPU TOLT RIVER PIPELINES
 - SPU TESSL LINE
 - MASTER METER
 - RESERVOIR
 - INTERTIE LOCATIONS
 - BOOSTER STATIONS

Figure U-1

WATER SYSTEM PLAN

FIGURE 1-2
WATER SYSTEM BASEMAP

Gray & Osborne, Inc.
CONSULTING ENGINEERS

Regional Water Service

The Seattle Public Utilities Tolt Pipelines No. 1 and 2 cross the city of Kenmore from east to west, primarily along the NE 185th Street alignment. At 61st Avenue NE the pipeline alignment turns in a northwest direction to the western city boundary.

Several taps into the Tolt Pipeline exist within the city to provide service through Northshore Utility District.

Local Wastewater Service

Northshore Utility District (NUD) provides public sewer service to the entire city of Kenmore. As of December 28, 2022, 7,342 of NUD's 24,513 sewer service connections, or 30%, were in Kenmore. The district is organized as a special purpose district that has the authority to operate under Title 57 of the Revised Code of Washington (RCW).

The District owns and operates a wastewater collection system consisting of collection sewers, trunk sewers, lift stations, and force mains. Wastewater treatment is provided by King County Department of Natural Resources, Wastewater Treatment Division at the South Treatment Plant in Renton, at West Point Treatment Plant in Seattle, and at Brightwater Treatment Plant in Woodinville. The wastewater agreement with the County extends to 2056.

The current Comprehensive Wastewater System Plan for the District was completed in 2009, and an updated Capital Improvement Plan was adopted in 2018. In addition, the District has recently started the process to update the overall comprehensive plan with completion anticipated for 2024. The 2009 plan evaluates the existing collection system and identifies improvements needed to meet the needs of current and future sewer customers in light of changing regulatory requirements, population growth, development trends, and aging facilities for the time frame of 2006-2026. District population estimates for the planning period are based on the Transportation Analysis Zone (TAZ) projections provided by the Puget Sound Regional Council and Utility District staff determinations.

The Plan includes a policy of providing public sewer service to areas within its sewer service area. NUD published a Sewer System Buildout Catalog in 2006, with the goal to provide sewer service to the majority of parcels served by on-site septic systems within 8 years. As of January 4, 2023, there are approximately 265 parcels within the city of Kenmore that are served by on-site septic systems.

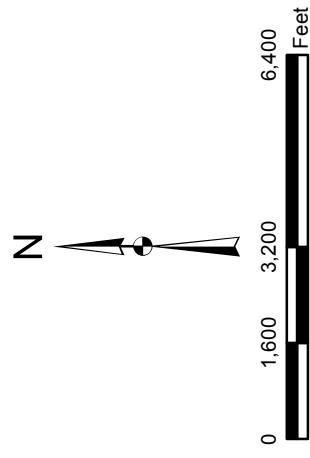
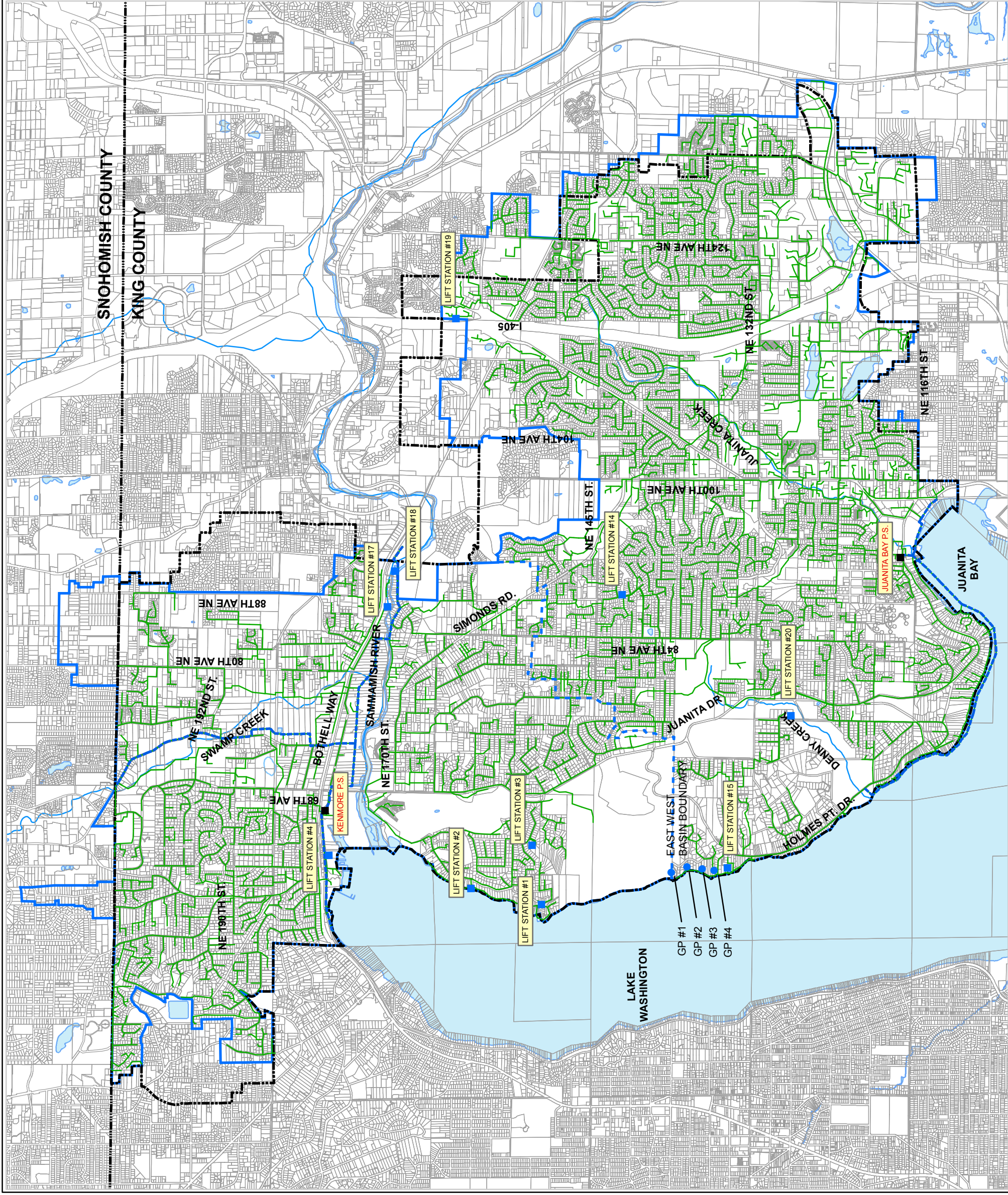
The 2018 Capital Improvement Plan recommends projects for the 2018-2027 time frame that include construction of new and supporting facilities, and upgrades as well as other improvements that will increase system efficiency. The plan includes a \$30 million ten-year capital improvement plan.

Northshore Utility District's 2009 Wastewater Comprehensive Plan should be referred to directly for detailed information about the District and its facilities. **Figure U-2** shows the existing District boundary and sewer service area, with some Kenmore facilities. Parcels that are currently on septic systems are shown on **Figure U-3**.

Regional Wastewater Facilities

King County Department of Natural Resources, Wastewater Treatment Division operates regional facilities within Kenmore. These include the Kenmore Pump Station/Logboom Regulator System, Swamp Creek Trunk, Swamp Creek Connector, and Kenmore Interceptor. Under normal operation, flow from the northern portions of the city in the 36-inch Swamp Creek Trunk is diverted at NE 192nd Street through the Swamp Creek Connector to the Brightwater Treatment Plant. Flows south of this diversion (and NE 192nd Street), enter the 72-inch Kenmore Interceptor and are conveyed to the Kenmore Pump Station. The Kenmore Pump Station/Logboom Regulator System controls flows in the Kenmore Interceptor lakeline, a 48-inch diameter, five-mile-long pipeline constructed in Lake Washington between Kenmore and Matthew's Beach. This system conveys sewage from the Kenmore area to Matthews Beach Pump Station and from there to the West Point Treatment Plant.

Through King County Wastewater Treatment Division planning programs and implemented projects as well as the Agreement for Sewage Disposal between King County and its component agencies, the necessary provisions are in place for treatment through the Comprehensive Plan's planning horizon.



LEGEND:

- SEWER SERVICE STUDY AREA BOUNDARY
CORPORATE BOUNDARY
GRINDER PUMPS
LIFT STATIONS
KCDNR LIFT STATIONS
SEWER MAINS
KCDNR INTERCEPTOR
COUNTY LINE
EAST WEST BASIN BOUNDARY

SOURCE: KING COUNTY GIS



Figure U-2

WATER SYSTEM PLAN

FIGURE 3-6
WASTEWATER SYSTEM



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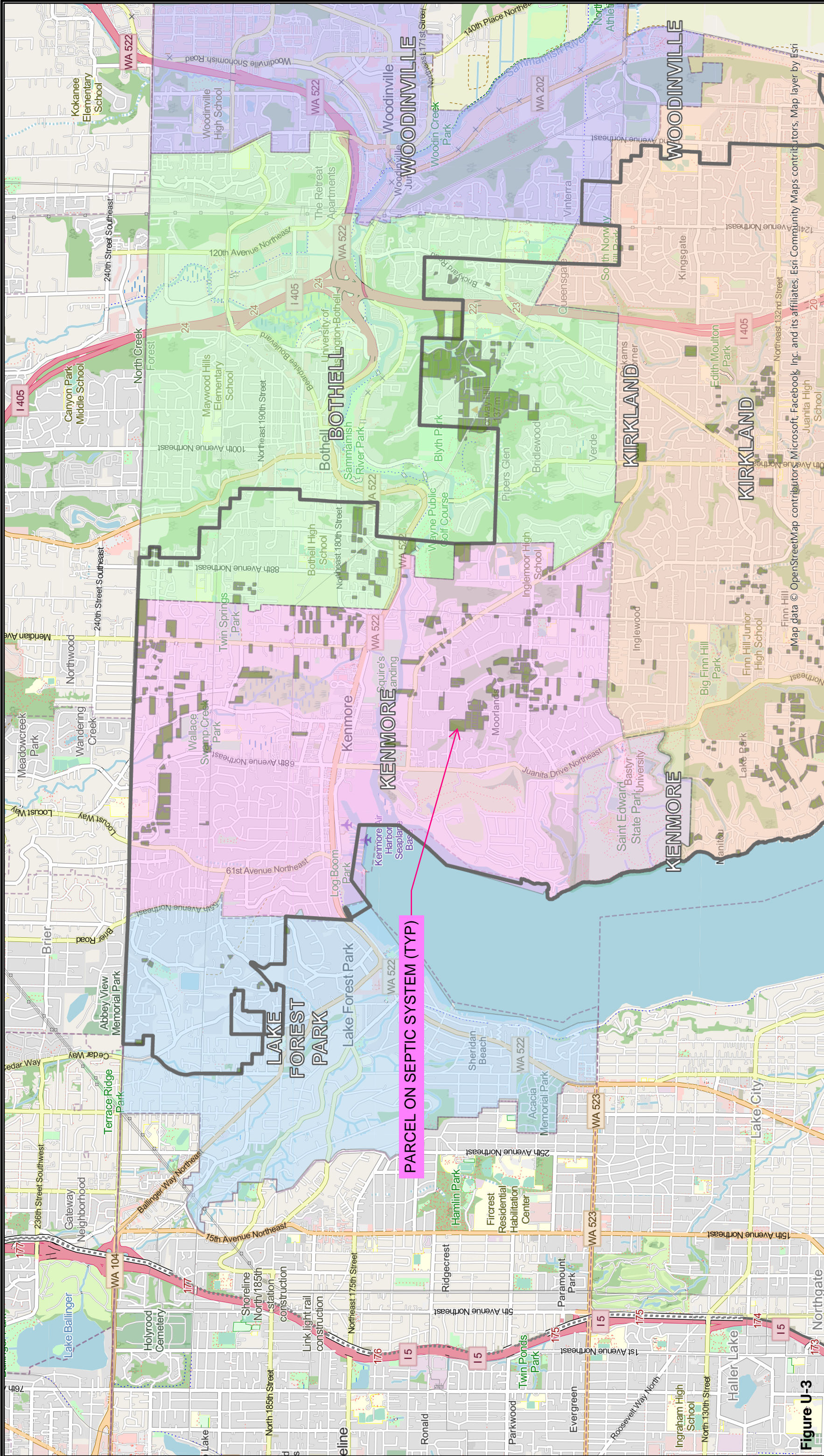


Figure U-3

Parcels on Septic System

1:36,000 1 inch = 3,000



Disclaimer:

Maps and information provided herein represent general geospatial information. The maps are not to be used as a substitute for site surveys or advice from a licensed professional. The information provided is "AS IS" and "WITH ALL FAULTS". The District disclaims all warranties, express or implied, related to accuracy, warranties of content and reliability of the information included. The District disclaims all liability and damages arising from the specific use, or misuse of the maps or information contained or referenced. The District reserves the right to change parameters and content without notice.

Northshore Utility District

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NUD NAV

Solid Waste

Coordination of Service

The King County Department of Natural Resources and Parks, Solid Waste Division, operates King County's transfer and disposal system comprised of a regional landfill, eight transfer stations, and two rural drop boxes for residential and non-residential self-haul customers and commercial haulers. Kenmore has an interlocal agreement with King County that guarantees the tonnage and associated revenue to allow the Solid Waste Division to operate the system through 2040.

Unincorporated areas of King County are served by private garbage collection companies which receive oversight through the Washington State Utilities and Transportation Commission (WUTC). When an area incorporates, it has the option to establish a franchise with a private hauler but is not required to do so. If a local jurisdiction enters into a franchise, the franchise regulations would supersede state regulations and the private hauler is no longer regulated by the State. The City of Kenmore has elected to allow the state to continue to regulate the private hauler serving the city. The City has no immediate plans to establish a franchise, but may wish to establish one at some point in the future. Republic Services is the garbage/recycling service provider to Kenmore.

Republic Services collects residential and commercial solid waste and recycling in the city. As of January 2023, the following services were provided:

Commercial	176 Garbage	21 Compost	117 Recycle
Multifamily	89 Garbage	11 Compost	91 Recycle
Residential	6259 Garbage	4469 Compost	6269 Recycle

General Waste Collection

The company collects solid waste on a weekly basis and then hauls garbage to the King County Houghton Transfer Station in Kirkland. Except for construction debris, which is recycled, refuse at the transfer station is trucked to the Cedar Hills Landfill.

The 2006 Solid Waste Transfer and Waste Export System Plan identified the need for a new "Northeast Lake Washington" transfer station in the northeast part of King County. The County currently is in the site selection and planning phase of a new recycling and transfer station (RTS). This new RTS could replace the Houghton Transfer Station and is currently referred to as NERT (Northeast Recycling and Transfer Station).

It is expected that the Cedar Hills Landfill will be operational until around 2040 based on current tonnage forecasts. The 2019 Comprehensive Solid Waste Management Plan explores the concept of using other technologies for waste disposal, rather than pursuit of additional landfill space once Cedar Hills is no longer operational. The County has recently selected a consultant and is working with them and other stakeholders to analyze which long-term disposal option is best to replace the Cedar Hills Regional Landfill once it is full.

Recycling

In Kenmore, recycling collection services are provided to single-family and multi-family residences, as well as to commercial customers with individual agreements. Commercial recycling and composting are not mandatory; however, a new Organics Management Law will require organics composting starting in 2024.

Recycling material is collected curbside every other week and taken to Republic Services Recycling in south Seattle. Yard waste also is collected every other week at curbside and taken to Cedar Grove Compost where it is composted then sold for use in gardens and flower beds.

Totals from 2022 annual data (averaged) show the following diversion percentages:

Residential	51.27%
Commercial	19.75%
Multifamily	26.41%

GOALS, OBJECTIVES, AND POLICIES

Following are the utility goals, objectives and policies.

GOAL U-1. ENSURE THAT ALL HOUSEHOLDS ARE SERVED OR CAN BE SERVED BY WATER AND SANITARY SEWER UTILITIES AT ACCEPTED SERVICE LEVELS.

OBJECTIVE U-1.1 **Coordinate with the Northshore Utility District, the King County Department of Natural Resources Wastewater Treatment Division, and the City of Seattle to ensure that sufficient sanitary sewer infrastructure and treatment, water supply, infrastructure, and fire flow are available or can be provided to all areas of the community to meet existing and future needs and to protect environmental quality.**

Policy U-1.1.1 Ensure City regulations allow for improvements and additions to water and sewer facilities as needed to accommodate growth and provide reliable service.

Policy U-1.1.2 Furnish regular updates of population, employment and development projections to the Northshore Utility District, King County and the City of Seattle in order to ensure appropriate services will be available as needed.

Policy U-1.1.3 Coordinate with the Northshore Utility District in the amendment and implementation of its Water System Plan and Wastewater System Plan in order to achieve shared goals and objectives of providing reliable, service to Kenmore citywide, and to ensure consistency with City's Comprehensive Plan.

Policy U-1.1.4 Coordinate with the Northshore Utility District and combined Northshore Fire District 16/Shoreline Fire Department to ensure adequate fire flow in all areas of the city.

Policy U-1.1.5 If an areawide water or sewer deficiency is identified, ensure that the applicable service providers remedy the deficiency through capital improvement programs and long-term funding strategies. If financing and level of service remedies cannot solve the deficiency, the City may change zoning to address the problem.

Policy U-1.1.6 Coordinate with the appropriate service providers to ensure water system plans include aggressive conservation and re-use measures, as well as development of new sources to support planned land uses with reliable service at minimum cost.

Policy U-1.1.7 In partnership with the City of Seattle, identify appropriate shared uses along the Tolt Pipeline in consideration of environmental features.

Policy U-1.1.8 Through memorandums of understanding or other methods, ensure the implementation of the County's Regional Wastewater Service Plan results

in full mitigation of siting, construction, and operational impacts of new or expanded facilities in Kenmore.

- Policy U-1.1.9 To address ground and surface water quality, ensure Northshore Utility District sewer plans require hook-ups to the sanitary sewer system in the case of septic system failures when reasonably available. Work with the Northshore Utility District to determine the circumstances under which hook-up would be appropriate. Determine if funding sources are available in the case of economic hardship.
- Policy U-1.1.10 Ensure new development is served by the public sanitary sewer system.
- Policy U-1.1.11 Encourage septic system owners to connect to the City wastewater system by offering incentives, cost-recovery mechanisms, pipe extensions and other tools.
- Policy U-1.1.12 Ensure that the implementation of the County's Regional Wastewater Service Plan and the Northshore Utility District's Wastewater System Plan minimizes failures, overflows, and contamination affecting the City's surface waters.

GOAL U-2. PROVIDE SOLID WASTE COLLECTION AND DISPOSAL SERVICES TO THE COMMUNITY CONSISTENT WITH SOLID WASTE MANAGEMENT PLANS.

OBJECTIVE U-2.1 Monitor the delivery of solid waste services provided by King County and waste handlers to ensure appropriate service levels are provided at a reasonable cost.

- Policy U-2.1.1 Support the planning of solid waste services, and the provision of disposal capacity on a regional basis.
- Policy U-2.1.2 Monitor the levels of solid waste service and costs currently provided to the Kenmore community through the Washington State Utilities and Transportation Commission's oversight of the local private hauler.
- Policy U-2.1.3 Coordinate with current service providers to ensure that waste pick-up and curb-side recycling services are reliable and provided regularly and consistently.
- Policy U-2.1.4 Coordinate with service providers to educate the Kenmore community about safe hazardous waste disposal.
- Policy U-2.1.5 Coordinate with service providers to provide educational materials to the Kenmore community which inform that waste burning is prohibited and identify appropriate solid waste services that are available.
- Policy U-2.1.5 Coordinate with service providers to educate the community about opportunities for increasing recycling, composting, sustainable consumption and zero waste.

GOAL U-3. ENSURE THAT PRIVATELY PROVIDED UTILITIES, INCLUDING ELECTRICITY, NATURAL GAS, CABLE TELEVISION, AND OTHER TELECOMMUNICATIONS, ARE AVAILABLE OR CAN BE PROVIDED TO SERVE THE COMMUNITY.

OBJECTIVE U-3.1 Ensure utility providers make improvements and additions to improve service and accommodate growth in a timely manner.

- Policy U-3.1.1 Ensure City regulations allow for improvements and additions to facilities as needed to accommodate growth, provide reliable and efficient service, and support economic development.
- Policy U-3.1.2 Furnish regular updates of population, employment, and development projections to private utilities and service providers in order to ensure appropriate services will be available as needed.
- Policy U-3.1.3 Require franchise agreements where necessary for private utility use of the City rights-of-ways.
- Policy U-3.1.4 Whenever possible, ensure that franchise agreements support the provision of excellent and efficient utility service to Kenmore customers.
- Policy U-3.1.5 Coordinate with other jurisdictions in the implementation of multi-jurisdictional electric facility additions and improvements.
- Policy U-3.1.6 Support the transition from the use of natural gas to the use of green and renewable energy sources.
- Policy U-3.1.7 Evaluate the advantage of transitioning from a private to publicly owned energy provider.
- Policy U-3.1.8 Encourage state of the art telecommunication services to mitigate the transportation impacts of development and growth through such means as telecommuting and videoconferencing.
- Policy U-3.1.9 Support cable television services that meet the cable-related needs and interests of all segments of the Kenmore community, taking into account the cost of meeting such needs and interests.
- Policy U-3.1.10 Support the relocation of utility poles to protect the public safety and to further the Comprehensive Plan goals and realization of the Vision Statement.

OBJECTIVE U-3.2 Coordinate the timing and location of utilities to minimize cost and disruption.

- Policy U-3.2.1 Strive to notify private utilities and service providers of construction work in the public rights-of-way which may affect their equipment. Encourage

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	coordination of public and private utility trenching activities for new construction and maintenance and repair of existing roads.
Policy U-3.2.2	Promote when reasonably feasible, co-location of new public and private utility distribution facilities in shared trenches and coordination of construction timing to minimize construction-related disruptions to the public and reduce the cost to the public of utility delivery.
Policy U-3.2.3	Encourage use of the Utility Notification Center (“Call Before You Dig”) prior to site construction or development,
OBJECTIVE U-3.3	Facilitate the provision of reliable utility service in a way that minimizes environmental and safety impacts while allowing for a fair and reasonable price for the utility’s product.
Policy U-3.3.1	Require utilities to define alternative routes to avoid impacts to environmentally sensitive areas where possible.
OBJECTIVE U-3.4	Encourage undergrounding of overhead utilities and co-location of utilities to reduce aesthetic impacts, minimize the need for pruning of trees and shrubs, and reduce power loss during severe weather events.
Policy U-3.4.1	To the extent feasible, require underground utility networks in new developments in the city.
Policy U-3.4.2	Where undergrounding is not presently feasible, require developers to take other measures to facilitate future undergrounding of aerial utilities.
Policy U-3.4.3	Wherever practical and feasible, encourage undergrounding of existing overhead utilities when significant work occurs in the right-of-way.
Policy U-3.4.4	Consider creating a funding mechanism for undergrounding of utilities on a continuing basis in developed areas.
Policy U-3.4.5	Minimize impacts of personal wireless services, telecommunication facilities, and towers on adjacent land uses through careful siting and design.
Policy U-3.4.6	Require communication facilities and poles, including cell or radio towers, to consider existing sites and co-locating prior to establishing new sites.
Policy U-3.4.7	Consider view corridors and aesthetics when reviewing utility pole or facility placement. Require undergrounding of utilities unless unfeasible or unreasonably costly.

GOAL U-4. ENCOURAGE RESOURCE AND ENERGY CONSERVATION.**OBJECTIVE U-4.1 Promote and support water conservation efforts.**

- Policy U-4.1.1 Support water conservation programs of the Northshore Utility District for residential, commercial and industrial users.
- Policy U-4.1.2 Consider and Implement water conservation principles when constructing, maintaining and improving City facilities and parks.
- Policy U-4.1.3 Promote the use of water conservation features in the design or rehabilitation of residential structures.
- Policy U-4.1.4 Support the installation of utility infrastructure to encourage the use of reclaimed water for irrigation.

OBJECTIVE U-4.2 Encourage increased solid waste reduction and recycling.

- Policy U-4.2.1 Support King County and waste-hauler programs for increased waste reduction, composting and recycling in accordance with the adopted King County Solid Waste Management Plan, and with any future City solid waste plans.
- Policy U-4.2.2 Support King County and waste-hauler programs to work with property owners of multi-family to begin recycling and composting.
- Policy U-4.2.3 Allow conditional use of alternative systems, such as composting toilets and greywater systems when potential benefits are clear and there is not risk to public or environmental health.

OBJECTIVE U-4.3 Promote and support energy conservation.

- Policy U-4.3.1 Continue to enforce State Energy Code requirements.
- Policy U-4.3.2 Review and update codes as necessary regarding solar energy and other alternative energy sources.
- Policy U-4.3.3 Establish standards for street widths, parking lots, and landscaping to moderate temperature, provide shade, and minimize impervious surfaces.
- Policy U-4.3.4 Promote higher density and infill developments that are located near major transportation and transit links.
- Policy U-4.3.5 Encourage the rehabilitation of existing buildings as an alternative to demolition, where appropriate, to encourage the conservation of energy, building materials, and historic preservation.

GOAL U-5 CONSIDER CLIMATE RISKS IN THE PLANNING AND OPERATIONS TO ENSURE IMPLEMENTATION OF RENEWABLE AND EFFICIENT ENERGY INFRASTRUCTURE

OBJECTIVE U-5.1 Promote renewable and efficient energy methods.

- Policy U-5.1.1 Kenmore, as a regional leader in sustainability, should continue to lead by example by reducing the city's carbon footprint. By reducing the city's output of greenhouse gases, this will help decrease the impacts of climate change and support the vision of a sustainable, resilient, inclusive, and healthy community.
- Policy U-5.1.2 The City should consider enrolling into Puget Sound Energy's Green Power program or similar program with a contracted energy provider which ensures that a portion of Kenmore's municipal electricity use is matched with clean renewable energy resources from the Northwest.
- Policy U-5.1.3 Promote installation of solar panels, heat pumps, or other renewable or energy efficient methods to further reduce greenhouse gas emissions reduction targets as identified in the City's Climate Action Plan (CAP).
- Policy U-5.1.4 The City should continue to replace its vehicle fleet with hybrid and electric vehicles to boost fuel efficiency and increase the number of electric charging stations at public facilities.
- Policy U-5.1.5 Update City codes and permitting processes to streamline installation of renewable energy infrastructure.
- Policy U-5.1.6 Conduct community education and outreach on renewable energies and their short- and long-term benefits.

OBJECTIVE U.5.2 Participate in regional efforts to increase renewable energy, both locally and at the state level.

- Policy U-5.2.1 Continue the partnership with King County Cities Climate Collaboration (K4C) to leverage the City's resources and partnerships to coordinate with and enhance local government climate and sustainability efforts.
- Policy U-5.2.2 Kenmore should build on existing state renewable energy commitments including the Washington State Renewable Portfolio Standard to partner with utilities, including contracted energy providers and other stakeholders on a Countywide commitment to renewable energy resources, including meeting energy demand through energy efficiency improvements and phasing out fossil fuel.
- Policy U-5.2.3 Collaborate with and encourage contracted energy providers to provide clean and renewable energy that meets the needs of existing and future development, and provides sustainable, highly reliable and energy efficient service for Kenmore residents and businesses.

Policy U-5.2.4 Promote renewable energy production facilities within the City.

Policy U-5.2.5 Participate in regional efforts that support the development of new and/or amended regulations to ensure the efficient and safe location of battery storage facilities.

IMPLEMENTATION STRATEGIES

The Utilities Element policies require commitments of City resources to prepare new regulations, review/amend existing regulations, create educational or incentive programs, or coordinate with jurisdictions, agencies and service providers.

- New or amended programs, rules, or regulations may be needed to address alternative and renewable energy sources, such as solar, or wind.
- New or amended programs, rules, or regulations may be needed to address increased conservation, recycling, composting, sustainable consumption, and zero waste
- Continue to review existing programs, rules and regulations to ensure they meet adopted policies.
- Coordinate and partner with agencies and service providers to ensure provision of efficient services, sustainable consumption, resiliency and protection of natural resources.
- Coordinate and partner with agencies and service providers to provide educational materials.

REFERENCES

King County Solid Waste Division, Department of Natural Resources and Parks (January 2023). Personal communication from Brian Halverson, Strategic Planning Manager, to Lauri Anderson, Principal Planner.

King County Wastewater Treatment Division, Department of Natural Resources and Parks (January 2023). Personal communication from Nicole L. Smith, Water Quality Planner/Project Manager, to Lauri Anderson, Principal Planner.

Northshore Fire District (January 2023). Personal communication from Matt Cowan, Fire Chief, Shoreline Fire Department, to Lauri Anderson, Principal Planner.

Northshore Utility District (January 2023). Personal communication from Stephen Dennehy, Engineering Director, to Lauri Anderson, Principal Planner.

Puget Sound Energy (January 2023). Personal communications from Patrick Robinson, Municipal Liaison to Lauri Anderson, Principal Planner.