



Utilities Element Supporting Analysis

BACKGROUND AND CONTEXT

The Utilities Element is based on estimates of existing and future demand for utility service. Where possible, current utility consumption trends are used to indicate likely future consumption. Some utilities, such as cellular telephones, are rapidly growing and morphing with changing technologies. Consequently, future demand is difficult to predict. In other instances, where utility providers are private corporations, specific information on utility consumption and demand are considered to be proprietary, and are therefore not disclosed.

The Utilities Element gauges the ability of existing and planned utility facilities to meet future demand. Generally, the current provision of utility services and the ability to meet future population demand in Shoreline are not hindered by any serious constraints.

This Supporting Analysis section presents basic information regarding the general location, proposed location, and capacity of all existing and proposed utilities, including electrical, natural gas, telephone, and cable. Water, wastewater, and stormwater utilities are discussed in the Capital Facilities Element. Further information is available from individual utilities, or in the planning documents of the various service districts.

The City of Shoreline does not own or manage most of its public utilities. The only City-owned utility is the Surface Water Utility, which is addressed in the Capital Facilities Element. Utilities addressed here and in the Capital Facilities Element have a broad impact on the future of the community. In many cases, utilities are needed to meet the basic needs of daily living and ensure health and safety. Utilities can also significantly enhance the quality of life in the community.

When considering the future provision of utility services, a number of issues must be considered: legal requirements, aesthetic and environmental impacts, administration, costs, and revenues. In order to address these issues, the community (through its utility providers) must identify the type and quality of utilities needed to serve local residents and determine how these services can best be provided.

EXISTING CONDITIONS

The City maintains a number of franchise agreements with utility providers, which allow for the existence of support facilities, such as cable, electrical wire, and natural gas pipe within the City's rights-of-way (streets). Non-City-managed utility services are controlled by franchise agreements between the utilities and the City. The status of the franchise agreements is noted in the listing of current providers.

Electrical Service

Electrical service is provided within the City of Shoreline by Seattle City Light. The City has a non-exclusive franchise agreement with Seattle City Light through January 31, 2014 (Ordinance #187).

Natural Gas Service

Puget Sound Energy provides natural gas service to the residents of the City of Shoreline. The City maintains a franchise agreement (Ordinance #308) with Puget Sound Energy through October 31, 2017.

Existing Natural Gas Service and Facilities

Puget Sound Energy is a power and natural gas utility serving King and four other Counties. Puget Sound Energy purchases gas from other regions and manages the distribution of natural gas to customers within its service area. This involves pressure regulation, and the development and maintenance of distribution lines.

Natural gas is currently supplied to most areas within the city through 136 miles of natural gas mains. Gas flows through the system under high pressure in the main located along 5th Avenue NE and along Fremont Avenue N from N 185th Street down to N 155th Street over to Dayton Avenue N, then down Dayton Avenue N to N 150th Street, over to Fremont Avenue N, down to N 145th Street.

As of December 2011, Puget Sound Energy serves approximately 11,556 customers in the City of Shoreline.

Washington State Utilities and Transportation Commission (WUTC) does not define natural gas as an essential service. Therefore, Puget Sound Energy is not required to provide services.

Planned Natural Gas Services and Facilities

Extension of service is based on individual requests and the results of a market analysis to determine if revenues from an extension will offset the cost of construction. Overall, Puget Sound Energy does not foresee any problems that would limit the supply of natural gas to the city in the future.

Telecommunications

As telecommunication technologies have evolved, convergence of these technologies has occurred, resulting in multiple communication services migrating into consolidated networks. This typically involves the convergence of previously distinct media, such as telephone, video, and data communications being transmitted over fiber optic or other infrastructure. This section describes both the current infrastructure used to provide telecommunication services in Shoreline, as well as future services and facilities (as they can best be described now, given the rapid changes in how telecommunication services are provided and regulated).

Existing Telephone Services and Facilities

Local telephone service in Shoreline (PSTN - Public Switched Telephone Network), also sometimes denoted by the acronym POTS (plain old telephone service), is provided by CenturyLink east of Meridian Avenue N and south of N 160 Street/NW Innis Arden Way, and by Frontier west of Meridian Avenue N and north of N 160 Street/NW Innis Arden Way. The City does not have franchise agreements with CenturyLink or Frontier for local telephone service.

CenturyLink and Frontier collectively provide telephone service to about 15,000 customers in the City of Shoreline. Of these 15,000 customers, 12,000 are residential and 3,000 are commercial. CenturyLink and Frontier do not provide estimates of local capacity due to the proprietary nature of this information.

In addition to the PTSN telephone service provided in Shoreline, Voice over Internet Protocol (VoIP) telephone service, also known as digital telephone service, is locally available. This service is provided by Comcast, which provides service throughout the entire city; CenturyLink (through their Digital Subscriber Line [DSL] internet service); and Frontier, which provides service in the same areas as their PSTN telephone service. VoIP telephone uses technology that allows phone calls to be made over an IP network, such as the Internet.

Finally, mobile (cellular) telephone services are widely available in Shoreline and are operated by many different cellular networks, including Verizon Wireless, AT&T Mobility, Sprint Nextell, and T-Mobile USA, among others. Mobile telephones make and receive telephone calls over a radio link by connecting to a cellular network provided by a mobile phone operator, allowing access to the public telephone network. All of Shoreline is serviced by multiple cellular networks, although some areas of Shoreline, particularly on in the western portion of the City, do not have reliable access to cellular networks.

Future Telephone Services and Facilities

Washington Utilities Trade Commission (WUTC) regulations require CenturyLink and Frontier to provide adequate PTSN telecommunications service on demand, and Section 480-120-086 of the Washington Administrative Code (WAC) requires CenturyLink and Frontier to maintain adequate personnel and equipment to handle reasonable demand and traffic. Because CenturyLink and Frontier provide service on demand, there are no limits to future capacity. Additionally, VoIP telephone service should only be restricted by bandwidth constraints on fiber optic networks that provide this digital service.

Existing Cable Television Service

Land-line Cable Television service is provided in the city by Comcast and Frontier. The City maintains franchise agreements with Comcast and Frontier for use of the City's rights-of-way to maintain and operate their cable network. The city is also served by two satellite Cable Television providers – Dish Network and Direct TV.

Comcast serves the entire city of Shoreline. Frontier serves the same area as their PTSN telephone network - west of Meridian Avenue N and north of N 160 Street/NW Innis Arden Way. Dish Network and Direct TV serve all of Shoreline, depending on the geography and satellite line-of-site access of individual properties.

Future Cable Television and Broadband Services and Facilities

Although the demand for cable television is likely to continue to increase as population grows, access to cable television in Shoreline is pervasive, and thus, growth in cable subscribers is likely to increase at the same pace as population growth. However, the demand for broadband services, whether they be cable television, VoIP telephone or data/internet services, is likely to continue to grow as networks are bolstered with additional bandwidth. This growth will most likely occur relative to data/internet service, as more content become accessible online, and as we continue to communicate and interact online. These broadband services can be provided over fiber optic networks, cable networks or DSL telephone networks.

Fiber Optic Facilities

The City maintains franchise agreements with Integra Telecom (Electric Lightwave) and AboveNet Communications for their fiber optic data networks in Shoreline. These fiber optic networks, which primarily serve commercial or institutional users, pass through Shoreline, but there are currently very few end users in Shoreline. Given that these

networks utilize City streets and rights-of-way, franchise agreements are required for these service providers. These franchise agreements expire on July 24, 2026 and September 9, 2021, respectively.

UTILITY ISSUES

Equitable Funding

Most utility services are financed by rates, which the customers pay directly to the providers. In some cases, taxes are used to support services provided by public entities. For example, Seattle City Light provides electricity to the community. Utility taxes are collected by the City of Seattle for these services; however, Seattle's utility tax revenues go into Seattle's general fund and do not directly support the operation of the utility. The utility taxes Shoreline residents pay to Seattle Public Utilities do not necessarily help maintain infrastructure and provide service within Shoreline.

The City has established goals to become a service provider of sewer and water services within Shoreline to ensure that taxes collected fund the maintenance and enhancement of infrastructure. In some situations, such as cable service, utility rates paid by customers to different providers for similar service is significantly different. These rate differentials may be the result of different capital improvement programs or administrative systems.

Environmental Impacts from Utility Improvements

When utility facilities are renovated, expanded, or created they have an impact on the community. One example of a utility project that could impact a community is the addition of transmission towers. Such infrastructure can have aesthetic impacts on neighborhoods, and a community must consider how it should address and mitigate such facilities.

Opportunities for Cooperation

The utilization of multiple providers to serve the utility and capital facility needs of the community raises a number of issues about coordination with the City and among service providers. Trenching activities can often be consolidated through coordination, reducing the cost and impact of these activities. In some cases, cooperative use of utility facilities can benefit the community. The use of the Seattle City Light right-of-way for a trail facility is an example of a beneficial cooperative arrangement.

Adequacy of Service

The community has a legitimate interest not only that utility services are available, but also in the quality of those services and the opportunities for enhancing those services. These concerns may include the unavailability of natural gas service, and the quality of television, internet, and/or telephone (including cellular) service.

The City may face difficulties in ensuring adequate services and facilities from providers it does not directly control. This issue can be addressed through contracts or interlocal agreements with individual agencies for services, or through the decision to have the City provide the service directly. Lack of infrastructure needed to provide these services may result in permitting delays or moratoriums if services are required for concurrency.


In order to ensure that the community receives service at the desired levels of service, the City may need to consider

changes to its service contracts, interlocal agreements, or possibly expand City services in order to serve existing and planned growth at desired levels, and meet concurrency requirements.

NON-CITY MANAGED CAPITAL FACILITIES PLANS

For capital facility plans from service providers other than the City of Shoreline, the reader is referred to the current comprehensive and/or capital facility plans of the responsible agencies.

General Facilities	Non-City Managed Facilities and Utilities
Historical Museum Public Schools Shoreline Center Shoreline School District Libraries King County Library District Postal Buildings U.S. Postal Service Public Housing King County Housing Authority Human Services Washington Department of Health Washington State Department of Social and Health Services (DSHS) Public Safety Fire Department No. King County Corrections King County District Court Washington State Patrol Community College Shoreline Community College Transportation King County Metro Community Transit Sound Transit Washington State Department of Transportation Land Reserves Washington Department of Natural Resources	Water Seattle Public Utilities Water Division Shoreline Water District Wastewater Highland Sewer District Solid Waste King County Solid Waste Division CleanScapes Electricity Seattle City Light Natural Gas Puget Sound Energy Telecommunications and Cable Comcast Electric Lightwave AboveNet Communications Frontier CenturyLink



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CITY OF
SHORELINE





City of Shoreline COMPREHENSIVE PLAN

Major Facility

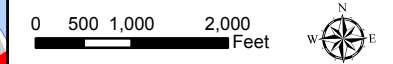
- Pressure Relief Valve
- Pump
- Stand Pipe
- Water Tank

Water Service

- NAME**
- Proposed Shoreline Water Utility Service
 - Shoreline Water District
 - Seattle Public Utilities
 - The Highlands
 - Olympic View Water District

Seattle Public Utilities (SPU) and Shoreline Water District Service Areas as displayed.

Only major facilities are displayed on this map. Source of data is Seattle Public Utilities (2012) and Shoreline Water District (2008). The map is subject to change, so please contact the corresponding utility district for up to date information.



This map is not an official map. No warranty is made concerning the accuracy, currency, or completeness of data depicted on this map.

Water Service

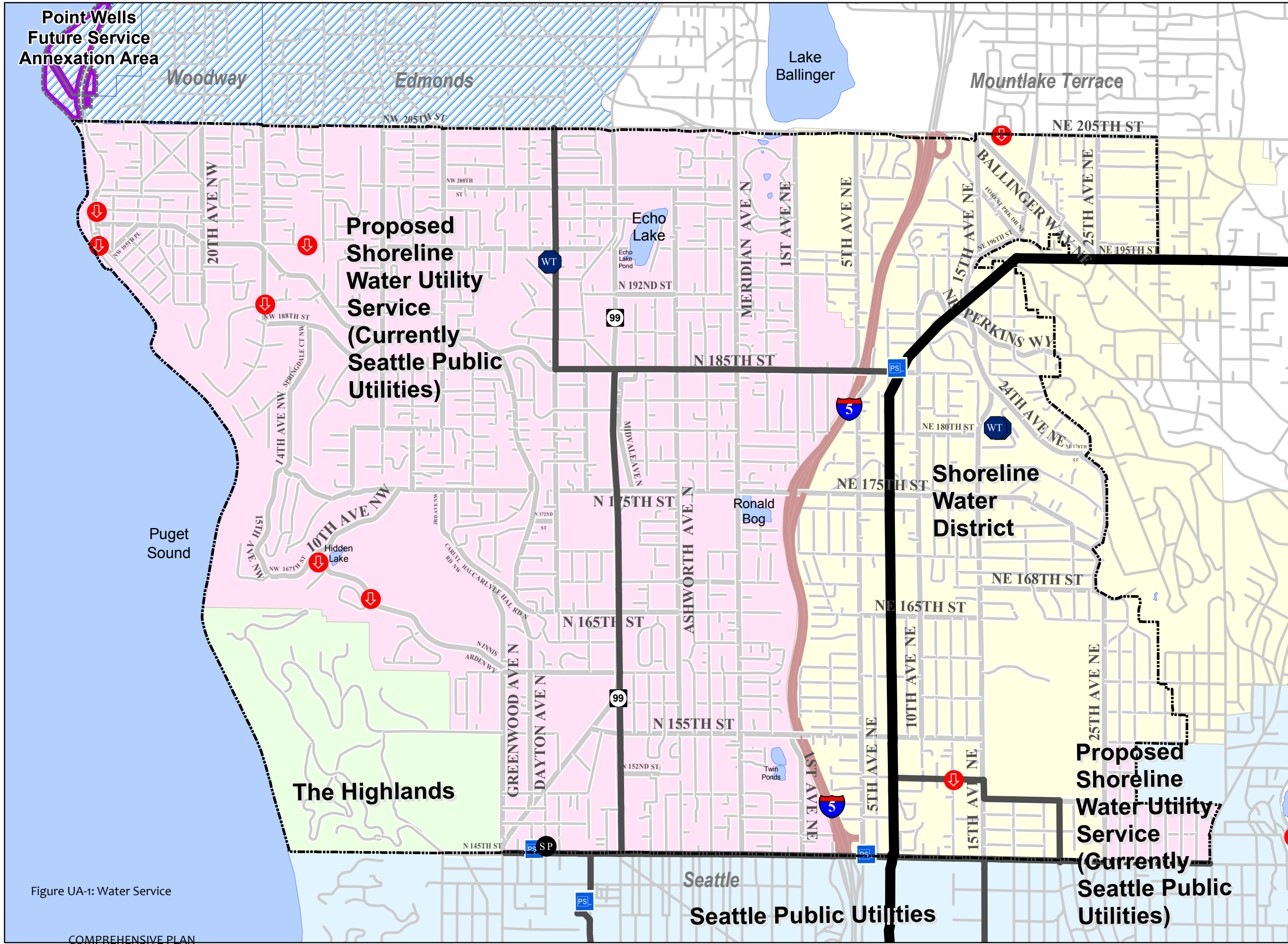
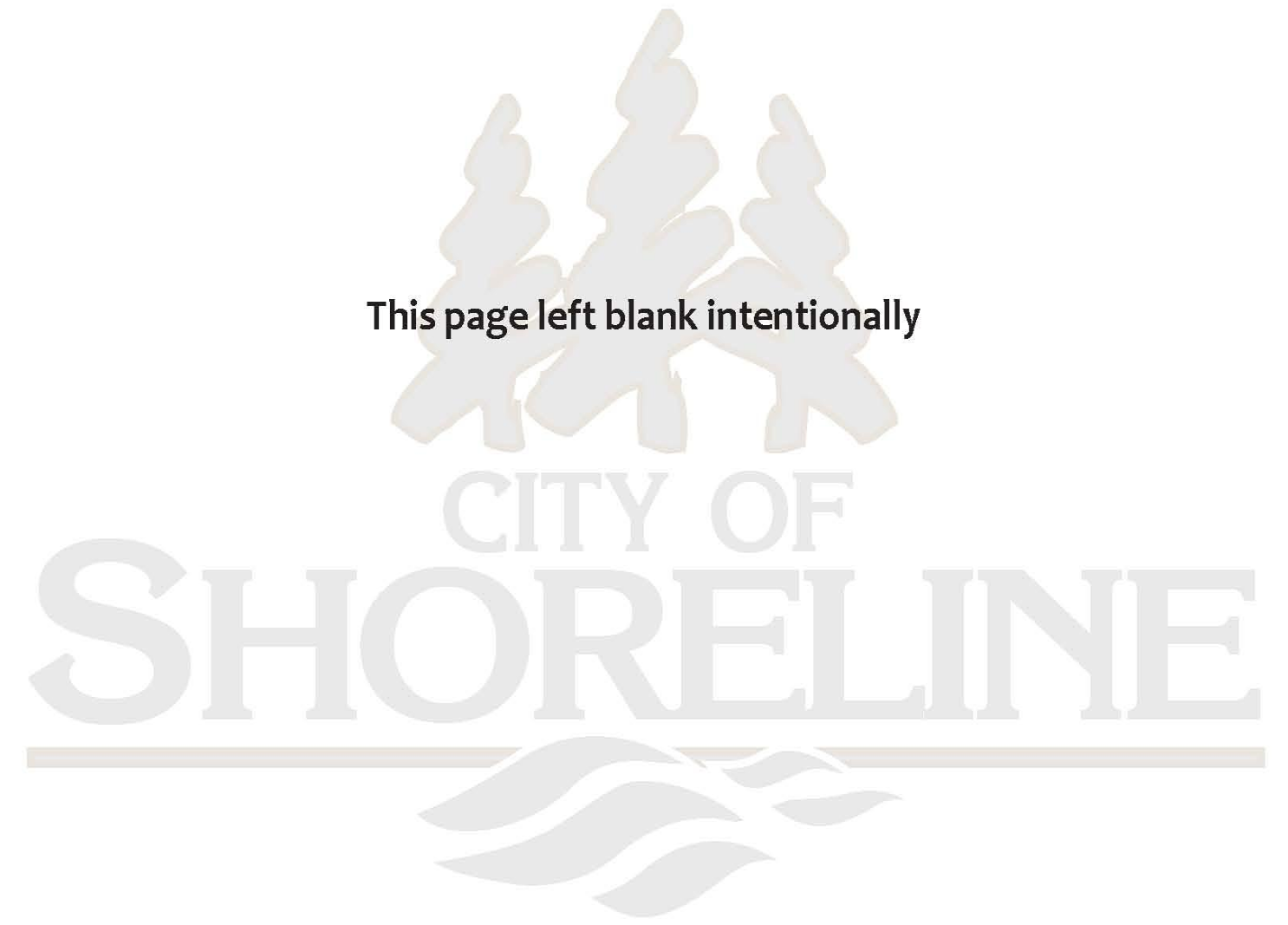
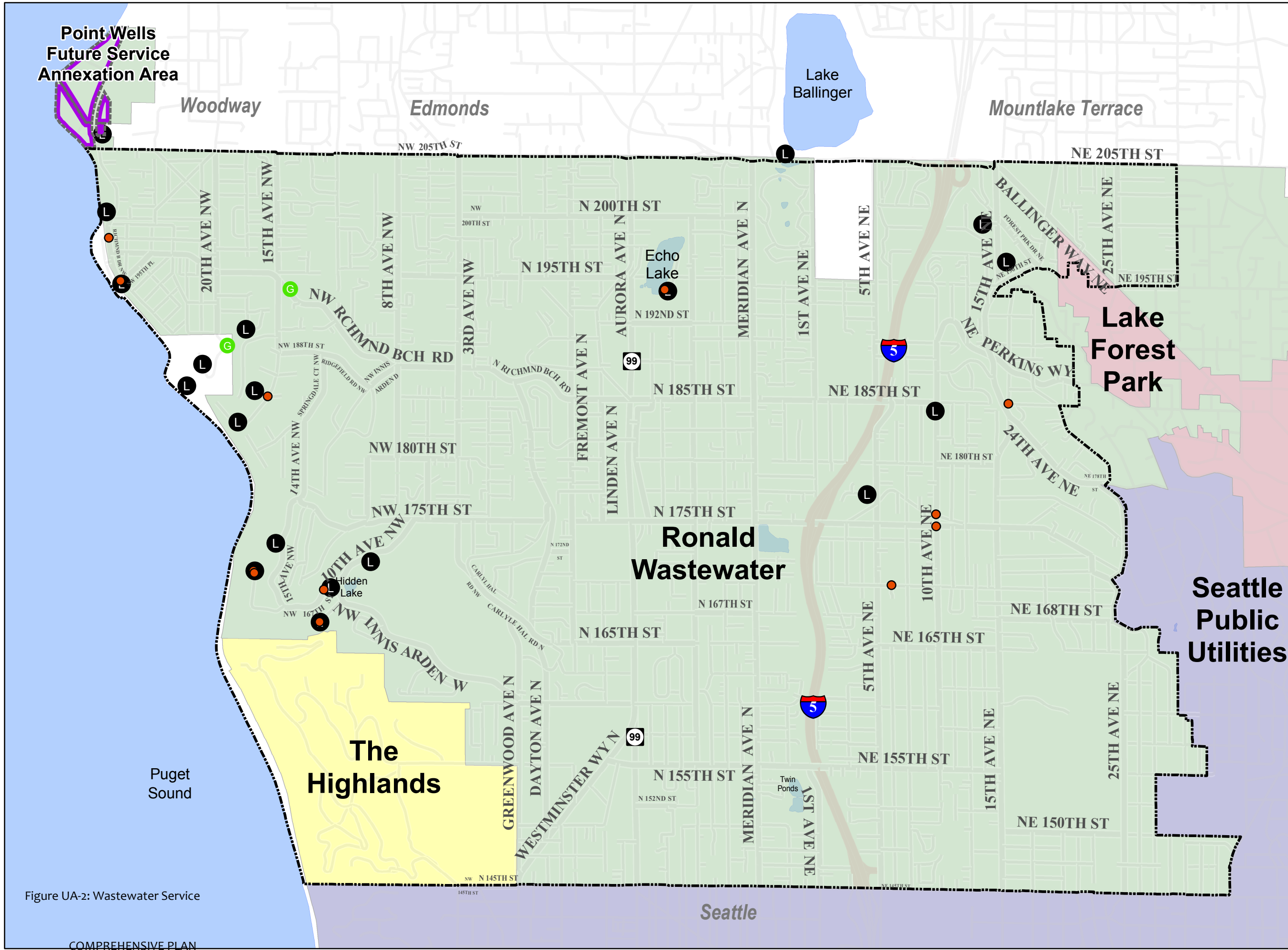


Figure UA-1: Water Service

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Major Facility

- Grinder pump
- L Lift station
- Overflow

Wastewater District

- Lake Forest Park
- Ronald Wastewater
- Seattle Public Utilities
- The Highlands

Source of facilities data is Ronald Wastewater District. The map is subject to change, so please contact Ronald Wastewater District for current facility information.



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Wastewater Service

Figure UA-2: Wastewater Service

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