

CITY OF TUKWILA

COMPREHENSIVE LAND USE PLAN

UTILITIES ELEMENT BACKGROUND REPORT

2015 GROWTH MANAGEMENT ACT

UPDATE to the COMPREHENSIVE PLAN

Planning Commission Draft

April 2013

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I INTRODUCTION AND SUMMARY

The State Growth Management Act (GMA) requires the City to include a Utilities Element within its Comprehensive Plan consisting of the general location, proposed location, and capacity of all existing and proposed utilities, including, but not limited to, electrical lines, telecommunication lines, and natural gas lines (RCW 36.70A.070). The Utilities Element is a framework to provide utility service and facilities that are efficient and predictable.

Guidelines for preparing the Utilities Element have been codified in the procedural criteria for preparing and adopting Comprehensive Plans and development regulations under the Growth Management Act. The Utilities element establishes a basis for decision-making that is consistent with Washington's Growth Management Act, the Puget Sound Regional Council's Vision 2040 and King County's Countywide Planning Policies, including targets for housing units and employment. These specific requirements are fulfilled by the Utilities Background Report, Comprehensive Sanitary Sewer Plan, Comprehensive Water Plan, and Comprehensive Surface Water Management Plan. These documents, along with the six-year Capital Improvement Program and the City of Tukwila budget, are adopted by reference in the Tukwila Comprehensive Plan. Individual districts and other utilities providers prepare and adopt their own planning documents.

The 2013 Utilities Element Background Report Supplement summarizes and updates conditions for City and non-City owned utilities. It includes a basic description of service providers, and indicates the most important service and situation changes since the 2004 Growth Management Act update. Service provider maps and maps that show the general location of facilities are shown in the Appendix.

The Utilities Background Report reviews the present supply of utility services and infrastructure. It summarizes existing facilities, services and capacity and describes the ability of the respective utility systems to meet the future levels and location of demand that result from Tukwila's forecast growth in employment and households.

The utility services that are considered include: sewer and water services, surface water management, solid waste, electricity, natural gas and telecommunications. The City of Tukwila and adjacent municipalities and special districts provide sewer and water services. Surface water management is provided exclusively by the City of Tukwila. The remaining utilities such as solid waste, electric power, natural gas and telecommunications are provided to residents and businesses through franchise agreements or via contract with the City.

Quantifying realistic future demand is necessary for planning infrastructure projects and providing different types of utility services to meet future needs with adequate supply and capacity. Estimates of future need are based on two basic factors: (1) the amount of employment and housing growth; and (2) the location of employment and housing growth. The forecast growth is determined by forecasts from the Washington Office of Financial Management, and growth targets allocated by King County's Countywide Planning Policies. The location of growth capacity is defined by the adopted land use map contained in Tukwila's Comprehensive Plan.

The City of Tukwila elected to be a designated regional growth center in 1995, and must prepare plans to accommodate its targets for 4,850 new housing units and 17,550 new jobs by 2031. It is anticipated that most of that household growth will occur in higher density housing within a developing Southcenter

neighborhood. Additional housing growth will occur along Tukwila International Boulevard in or near the Tukwila Village redevelopment project, in the vicinity of the light rail station at S. 154th Street, and in the Tukwila South area, annexed to Tukwila in 2010. New employment will primarily be dispersed among the Tukwila Urban Center, Manufacturing/Industrial Center and Tukwila South sub-areas.

II DESCRIPTION OF KEY ISSUES

Several key issues are considered in planning for utility needs.

- **Service Extensions.** Planned extensions of utility services are based on existing need or to accommodate planned growth or growth targets.
- **Coordination of Service Providers.** In addition to its own water, sanitary sewer and surface water utilities, Tukwila is served by three non-City sewer and five non-City water districts, which can complicate interjurisdictional coordination. The City-managed utilities must be coordinated with adjacent purveyors that provide utility services to portions of the City to correct deficiencies, solve utility problems and accommodate growth.
- **Concurrency and Implications for Growth.** Concurrency requires that utility projects, along with other capital facilities, be developed so that improvements are in place at the time they are needed to meet growth and to accommodate growth targets.
- **Environmental Sustainability.** Environmental protection and restoration efforts are required in utility planning, construction and operations to ensure that the quality of the natural environment and its contributions to human health and vitality are sustained, and the effects of climate change limited.

Environmental sustainability is a key priority for the region as expressed in King County's Countywide Planning Policies. This priority shall be implemented through utility planning and operations in Tukwila through a range of activities from conservation practices to low impact development methods

- **Residential Neighborhood and Sub-Area Vitality.** Utility investments affect neighborhood quality of life, and the ability to realize established visions for specific sub-areas.

Significant progress has been made in upgrading utilities in the residential neighborhoods since the Comprehensive Plan was adopted in 1995. Ensuring high quality utility service in neighborhoods remains a priority. Tukwila's Strategic Plan further emphasizes the importance of capital investment, including utilities, as a means to ensure that sub-areas reach their potential and can accommodate growth targets. These areas include Tukwila International Boulevard, the Southcenter/Tukwila Urban Center area and the Manufacturing/Industrial Center area along East Marginal Way. The high costs of undergrounding utilities must be addressed, as well as limiting the impacts of utilities on adjacent areas.

- **System Rehabilitation, Replacement and Retrofit.** Much of the City's utility infrastructure has reached or is near its life expectancy. Rehabilitation or replacement of these systems will be needed to ensure their continued reliability. Federal, state and, local requirements continue to change and require utility system improvements to comply with these requirements.

Much of Tukwila's infrastructure is 50+ years old, and requires planned and systematic replacement and/or upgrades to ensure reliability. Planned upgrades are addressed in Tukwila's water, sewer

and surface water system plans. Projects are scheduled and paid for through Tukwila's six-year Capital Improvement Program. Additional non-city utilities will be upgraded to address technological innovations, capacity constraints, and changed regulations.

III EXISTING CONDITIONS AND FUTURE NEEDS

City of Tukwila Water System

The City of Tukwila operates and maintains a water distribution system with approximately 40 miles of water mains. It supplies over 1.5 million gallons/day to the residential and commercial customers of Tukwila. Cascade Water Alliance provides the water that the City of Tukwila sells to customers with a contract that runs through 2064.

The water utility supplies both potable (drinking) water and water to fire hydrants. Although interconnected systems, these different services have different requirements.

Since the last Comprehensive Plan update in 2004, portions of the Allentown, Duwamish, Foster Point and Ryan Hill neighborhoods have received upgraded or new water systems. The City of Tukwila is using low-interest, long-term loans from the Public Works Trust Fund to finance the upgrade of water systems within the City. The City continues its efforts to improve the cross-connection program by requiring businesses to install a reduced-pressure backflow device to protect the water supply system when changing their plumbing systems.

Since 2004, the City of Tukwila Water Utility has completed the following significant projects to ensure that there is adequate capacity to meet growth targets:

- In 2007, the City installed a new 10" water line across the Green River Bridge between the Family Fun Center and Andover Park East to provide capacity for targeted growth.
- 2008—The City upgraded 1, 100 cubic foot water lines near S. 48th Street and Interurban Avenue South both to address anticipated growth, and to repair remaining damage from the 2001 earthquake.

Future projects

During the planning period, the City of Tukwila Water Utility will upsize its existing 12" water line to a 16" line in Andover Park East. It will construct a 2.5 million gallon reservoir to address potable water reserves per Washington Department of Health requirements, as well as fire pressure needs to provide capacity to serve growth targets, primarily for the Southcenter/Tukwila Urban Center area.

In addition, the Water Utility will meet the continued need for systematic maintenance and replacement as water mains reach the end of their useful lifetime. **(Figure 1—Water System)**

City of Tukwila Sanitary Sewer System

The City of Tukwila operates and maintains a sanitary sewer collection system with approximately 33 miles of gravity and force sewer mains, and nine lift stations. The lift stations pump approximately 60% of all sewage in the City (approximately 460 million gallons).

Since 2004, portions of Allentown, Foster Point and Duwamish neighborhoods received sanitary sewers. The City of Tukwila is using low-interest, long-term loans from the Public Works Trust Fund to finance installation of sewers in the unsewered areas. The annexation of Tukwila South has prompted additional maintenance in anticipation of growth. In 2012, Tukwila's Sewer Utility rebuilt a line in street running from Minkler Avenue South to South 204th. Side sewers will be provided by the developer when needed.

A boundary line adjustment with the Valley View Sewer District is in progress in the vicinity of 51st Avenue South and Southcenter Boulevard. This change will better accommodate the service areas and boundaries to the existing natural topography.

Future projects

In order to meet the needs for growth, as well as maintenance during the planning period, the City of Tukwila is proposing a new lift station near 65th Avenue South and Southcenter Boulevard to replace an existing sewer line that runs under I-405. In addition, portions of the sewers in the Tukwila Urban Center/Southcenter area will be relined since they are reaching the end of their design life. **(Figure 2—Sanitary Sewer System)**

City of Tukwila Surface Water Management System

The City currently owns, operates and maintains approximately the following surface water features:

FACILITY	TOTAL QUANTITY*
• Asphalt Berm	• 200 Linear Feet
• Ditches	• 1,000,000 Linear Feet
• Pipes	• 500,000 Linear Feet
• Catch Basins and Manholes	• 12,000 Each
• Outfalls	• 75
• Detention/Water Quality	• 19
• Pump Stations	• 4

* Actual quantities to be determined after GIS studies.

Changed Conditions

Since the 2004 update, significant regulatory changes have affected surface water management. This is primarily due to requirements from the implementation of the National Pollutant Discharge Elimination System (NPDES) Phase II permit. The Municipal Stormwater Permit was issued by the Washington State Department of Ecology in 2007. The NPDES, a federal requirement under the Clean Water Act, regulates storm/surface water and wastewater discharges to waters of the State. The permit requires that all affected municipalities create and implement a specified Stormwater Management Program (SWMP), which protects water quality by reducing the amount of “non-point” pollutants.

While developing the 2013 Comprehensive Surface Water Management Plan, staff evaluated existing field conditions, applicable regulations, and anticipated revisions to those regulations, in order to identify program improvements that should be implemented. The 2013 Comprehensive Surface Water Management Plan includes basin definitions, an inventory of fish blocking culverts, capital improvement projects, regulatory compliance evaluation, low-impact/no-impact development, and development restrictions. It divides the City into nine drainage basins and assesses current deficiencies. The plan emphasizes a greater importance on providing water quality and fish passage improvements. **(Figure 3—Surface Water System)**

Clean Water Act

The Clean Water Act regulates discharges of pollutants into the waters of the United States and regulates water quality standards for surface water. Major water bodies are classified by use according to State water quality standards. Each use has specific water quality criteria. The Green/Duwamish is the only surface water within the City's jurisdiction that has updated surface water quality standards. Tukwila must comply with Phase II of the National Pollutant Discharge Elimination System (NPDES) permit, and any Washington State Department of Ecology 303(d) listings for impaired water bodies.

Endangered Species Act (ESA) and Salmon Recovery Act

In 2000, Puget Sound Chinook salmon and the coastal Puget Sound bull trout were listed as threatened. The City implemented an ESA Screening checklist as part of the SEPA process to assess potential impacts to endangered species. In addition, the City serves on a committee from the local water resource inventory area (WRIA) which develops watershed projects addressing salmon habitat concerns. The City identified several capital improvement projects that are linked to the WRIA 9 salmon recovery efforts.

NON-TUKWILA WATER AND SEWER

Several adjacent, publically-owned water and sewer utilities operate within Tukwila.

Water District #125

Water District #125 serves a total of approximately 3,860 accounts in Tukwila. This includes approximately 1,670 residential water accounts, 1,940 business accounts and 250 non-residential (i.e. commercial/industrial and government/education) accounts. Per its 2011 Comprehensive Plan, Water District #125 foresees no problem in serving expected growth within its Tukwila service area. Staff indicate that some specific projects may require local infrastructure improvements, but basic facilities are in place.

The water system along Tukwila International Boulevard is fairly strong and is projected to accommodate most anticipated development during the planning period. Undersized water mains throughout the WD 125 service area are systematically being addressed by capital improvements as funds are available. A recent intertie project has provided increased backup for fire pressure in this area. This upgrade will facilitate anticipated redevelopment and growth. Should a specific development require higher fire flows than are available at the time, it would be the responsibility of the developer to make the necessary improvements to achieve the required flows.

A copy of Water District #125's most recent Comprehensive Plan (2011) provides a full evaluation of its existing system and its ability to meet the anticipated requirements for water source, quality, transmission, storage and distribution for the planning period. The Plan also includes a complete list of future water

system projects and how they will be financed. The Plan is available at the Water District #125 office located at 3460 S. 148th St., Tukwila, WA 98188.

Highline Water District

The Highline Water District serves approximately 550 accounts in Tukwila, including 100 non-residential (commercial, government, non-profit), and 450 residential. The Highline Water district provides the majority of water service in the Tukwila South area, annexed to Tukwila in 2010. The annexation significantly enlarged the area that Highline serves within the City of Tukwila municipal boundaries.

Two recent projects were constructed specifically to meet anticipated growth in the Tukwila South area during the planning period. They include:

- 2012--Through an Interlocal Agreement with Tukwila, Highline Water District completed the Southcenter Parkway Extension project. It includes the extension/relocation of the existing water mains along Frager Road from S. 180th St. and to S. 200th St as part of the new road construction. The existing 8,500 LF aging main was nearing the end of its useful design life and was upsized to serve future development in Tukwila South.
- 2011--The District constructed Orillia Road Water Main Improvements to serve the Tukwila South area. It included installation of: 1) two pressure-reducing valve stations to bring the high pressures along Southcenter Parkway to usable levels; and 2) a new water main along Orillia Road to provide adequate fire flows to future Tukwila South projects, and to close the gap to the Tukwila Intertie.

In general, the District's infrastructure is able to meet the water demands within its boundaries in the City of Tukwila. According to Highline's Comprehensive Plan, current requirements and future development needs can be adequately met through systematic capital projects. Highline Water District will continue its robust district-wide approach to replacing aging water mains, including some in Tukwila. A copy of the current Comprehensive Plan with specific projects is available from the Highline Water District office at 23828 30th Avenue South, Kent, WA 98032.

City of Seattle

Seattle Public Utilities (Water) provide service to the northern portion of the City including industrial connections along East Marginal Way South in Tukwila's Manufacturing/Industrial Center. The area is built out, and no major projects are planned.

City of Renton Water Utility

The Renton Water Utility services a small eastern portion of Tukwila in the southeast portion area on the eastern edge of the Tukwila Urban Center.

Water District #20

Water District #20 serves several properties on the western boundary of the city, between Military Road and Tukwila International Boulevard.

Valley View Sewer District

The Valley View Sewer District is located generally south of Seattle, with a service area that includes part of Seattle, as well as portions of the cities of Burien, SeaTac, Tukwila, and unincorporated King County. It provides sanitary sewer service to the central and western portions of Tukwila. Presently, Valley View has

agreements with the City which allow it to operate and maintain sewer facilities within Tukwila. In 2007, the Valley View Sewer District changed its name from Val Vue Sewer District. The District neither owns nor maintains wastewater treatment facilities; its flows are treated through contracted relationships with the King County Wastewater Treatment Division, Southwest Suburban Sewer District and Midway Sewer District.

Valley View serves approximately 8,000 connections in total. It has 170 commercial accounts and 1,909 residential accounts, for a total of 2,079 connections in Tukwila.

Growth

As of 2013, the Valley View Sewer District is preparing to exchange a portion of its territory with the City of Tukwila sewer utility immediately west of I-5 in the vicinity of S. 144th and S. 151st Streets in order better to serve the area based on its sloping topography.

Valley View's Comprehensive Plan indicates that projected development within the service area is limited to that associated with infill development over the short term, and redevelopment over the longer term. An increase in multi-family and commercial uses is anticipated.

During the planning period, several construction projects are scheduled to extend sewer service to currently unsewered areas in Tukwila. The current Capital Improvement Program includes new sewer construction in the following areas during the planning period: 1) Riverton Crest (project N-3) at Military Road and S. 140th Street, planned for 2017, and 2) the Tukwila Loop Sewer Main (project N-13) located near 158th Street, east of 42nd Avenue South, planned for 2022. Additional projects will be carried out in coming years, and include continued sewer rehabilitation and replacement. Revenue sources for financing capital expenses include rates, utility local improvement districts, bonds, grants and loans.

City of Seattle

Seattle Public Utilities (Sewer) provide service to the very northwest tip of the City of Tukwila in the vicinity of 16th Avenue South, in the Manufacturing/Industrial Center.

City of Renton

The City of Renton serves a small eastern portion of the Tukwila Urban Center with sewer service. This area is generally located between West Valley Highway and the Renton border from approximately S. 160th and S. 180th Street.

Additional Utilities Not Owned by the City of Tukwila

Solid Waste and Recycling

Collection, transport and disposal of solid waste in Tukwila is guided by the King County Comprehensive Solid Waste Management Plan, the Seattle-King County Local Hazardous Waste Management Plan, and the Washington State Solid Waste Management Plan. Through a competitive process, the City awarded a seven-year contract in 2011 to Waste Management Inc. to provide solid waste, recycling and compostables collection for residential, multi-family and commercial customers. The contract provides for comprehensive solid waste and recycling program and competitive rates for the City. The cost of recycling service for Tukwila residents and businesses is embedded in the respective garbage rates.

Tukwila has adopted the King County Comprehensive Solid Waste Management Plan and the Solid Waste Interlocal Agreement (ILA). These guiding documents form the basis for the City's solid waste, recycling and waste reduction programs. Approximately 75% of Tukwila households and virtually all businesses subscribe to solid waste and/or recycling services. This is a significant improvement since the 2004 Comprehensive Plan update. The remaining 25% self-haul primarily to King County's Bow Lake transfer station in Tukwila, to surrounding transfer stations and other private yard debris facilities. The City has considered implementing universal/mandatory garbage collection for Tukwila residents but residential garbage collection remains voluntary. This issue will be considered again during the planning period.

Through the ILA provisions garbage collected in the City of Tukwila goes primarily to the Bow Lake Transfer Station, located at South 188th Street and Orillia Road. Bow Lake Transfer Station has undergone a major \$44 million renovation since 2010, and is scheduled to be fully operational by the end of 2013. The Bow Lake Transfer Station handles more than a third of the County's solid waste and will have the capability to accommodate garbage, recyclables and yard waste debris. With newly installed compactors, and facility expansion, Bow Lake is well equipped to accommodate future growth in the region and facilitate disposal options when Cedar Hills Landfill reaches full capacity in 2025. Garbage is ultimately trucked and disposed of in King County's Cedar Hills Regional Landfill.

Allied Waste/Republic will continue providing solid waste, recycling and yard waste collection through their Washington Utilities and Transportation Commission certificates for recently-annexed areas in the City including the Tukwila South area. During 2013, the City started the negotiation process for a new franchise agreement with Allied Republic.

Telecommunications

Telecommunications services include both switched and dedicated voice, data, video, and other communication services delivered over the telephone and cable network on various mediums, including, but not limited to, wire, fiber optic, or radio wave. Either regulated or non-regulated companies may provide these services. Cable service includes communication, information and entertainment services delivered over the cable system whether those services are provided in video, voice or data form. Telecommunication services follow growth and have capacity to match whatever growth occurs in Tukwila. With new technologies, telecommunications utilities project virtually limitless capacity within the planning horizon.

Through partnerships with franchised telecommunications companies, and completion of capital projects, the City has a robust conduit infrastructure that would enable and facilitate future fiber optic connectivity projects benefitting the City, its residents and business, and project partners.

The City participates in a connectivity consortium consisting of cities, and other public partners that would construct and maintain a regional fiber-optic telecommunications system. This fiber-optic system would provide system redundancies, and enhance communications networks, and emergency operations. At some point during the planning period, the telecommunications network will be updated to fiber optic but the exact schedule and locations are not available.

Cable and Satellite Television

The City of Tukwila has a non-exclusive franchise agreement with Comcast Corporation to construct, operate, and maintain a cable system in compliance with the Federal Communications Commission

(FCC) regulations. Comcast's network provides high-definition television capacity and high-speed internet access through cable modems, and includes coaxial and fiber optic cabling systems deployed underground and overhead using utility poles leased from power and telephone companies. Future growth is most likely occur relative to data/internet service, as more content become accessible online. These broadband services can be provided over fiber optic networks, cable networks or DSL telephone networks.

Satellite television competes directly with cable television by delivering hundreds of channels directly to mini-dishes installed in homes and businesses throughout Tukwila.

Wireline and Wireless Communications

Multiple companies offer telecommunications services in Tukwila including integrated voice and data, and voice over internet telephony (VoIP) technology. Century Link, the Incumbent Local Exchange Carrier (ILEC) is now joined by several Competitive Local Exchange Carriers (CLECs) in providing more communications service options to Tukwila residents and businesses.

Since Washington Utilities Trade Commission (WUTC) regulations require CenturyLink to provide adequate PTSN telecommunications service on demand, there are no limits to future capacity, although demand for land lines is declining. Additionally, VoIP telephone service should only be restricted by bandwidth constraints on fiber optic networks that provide this digital service.

Electric Utilities

Tukwila's electricity is provided by Puget Power and Seattle City Light. Electric utilities in Tukwila share what is described as an "integrated regional electric system." Regardless of ownership, the elements of the system are designed and operated to work in a complementary manner. The elements include transmission lines, substations and generation facilities. Seattle City Light and Puget Power continually consider means to expand supply and upgrade equipment since the law requires them to serve all customers requesting service. Current capital facilities plans and six year finance plans which include complete project information are available from Seattle City Light and Puget Sound Energy. **(Figure 4 – Electricity Providers)**

Puget Sound Energy

Puget Sound Energy (PSE) is an investor-owned, private utility that is regulated by the Washington Utilities and Transportation Commission (WUTC). It provides electric service to over 900,000 metered customers within the company's 4,500 square mile service territory. This territory encompasses nine counties in western and central Washington. PSE provides electrical service to approximately 3,800 customers in Tukwila who are located generally south of South 160th Street, including the Urban Center.

Puget Sound Energy builds, operates and maintains an extensive electric system consisting of generating plants, transmission lines, distribution systems and substations. It is a hydroelectric-based company purchasing about 40 percent of its power from utilities that own five large hydro facilities on the Columbia River. Six Puget Sound Energy-owned hydroelectric plants, located on the Nooksack, Baker, Snoqualmie, White and Puyallup Rivers, add to the hydro base on the west side of the Cascades. Other Puget Sound Energy owned or partly owned sources include four coal-fired plants (in Centralia, Washington, and Colstrip, Montana), and six gas- and oil-fired plants.

Within Tukwila, Puget Sound Energy owns and maintains transmission lines which bring generating facilities to principal substations. The Talbot-O'Brien transmission lines serves Tukwila and the surrounding area with 230 kilovolt (kV) high-voltage transmission lines that run north-south within the Interurban Corridor, moving bulk power from transmission stations in Renton and Kent. Both of those stations generally supply electrical energy to the southern half of King County, an area much larger than the City of Tukwila. Several 115 kV transmission lines and a number of neighborhood distribution substations are located within the city, and deliver electrical energy to other neighborhood substations in communities adjacent to Tukwila.

PSE's Integrated Resource Plan (IRP) details how the utility will serve future needs during the planning period. The current plan details the energy resources needed to reliably meet customers' wintertime, peak-hour electric demand over the next 20 years. The plan, which will be updated in spring 2013, forecasted that PSE would have to acquire approximately 4,200 megawatts of new power-supply capacity by 2031. This resource need is driven mainly by expiring purchased-power contracts and expected population and economic growth in the Puget Sound Region. The IRP suggests that roughly half of the utility's long-term electric resource need can be met by energy efficiency and additional wind-power supply. The rest of PSE's gap in long-term power resources is likely to be met most economically with added natural gas-fired resources.

Future Projects

Specific construction that is anticipated for Tukwila includes the following:

- 2013--New 115 kV transmission line between the future Briscoe Park Substation and the existing Boeing Aerospace Substation.
- 2014--Replacement of the existing 115 kV underground cable between the Nelsen and Tukwila Cable Stations. The existing cable was installed in 1974, and the new cable will increase reliability and capacity.
- Near term--Vegetation management within the 230 kV transmission line corridor, for NERC compliance.
- Future—
 - Improve Briscoe Park Substation, located in the center of the Tukwila South development, providing increased capacity and reliability in the area.
 - Enlarge the existing Renton Junction Substation, providing increased capacity and reliability in the area.
 - Build a 115 kV underground cable connecting the existing Nelsen Cable Station and Renton Junction Substation, to facilitate expansion of Renton Junction Substation.
 - Build a 115 kV transmission line connecting the existing Southcenter Substation and the future Briscoe Park Substation. This future line would either be overhead or underground and would provide increased capacity and reliability.
 - Build a Substation near Southcenter Boulevard and South 180th Street to provide increased capacity and reliability in the area.
 - Rebuild the existing 115 kV transmission line that runs east from the existing Nelsen Cable Station with a larger conductor.

Seattle City Light

Seattle City Light (SCL) is the City of Seattle-owned electrical utility. Its total service area covers approximately 131 square miles, including all of Seattle and some portions of incorporated and unincorporated King County to the north and south of Seattle. Seattle City Light serves the northern portion of Tukwila, including the Manufacturing/Industrial Center (MIC) via franchise agreements. According to 2011 data, SCL has approximately 5,700 residential and 1,000 commercial customers in Tukwila.

Both a retailer and wholesaler of electric power, [nearly half of customers' electric needs are met from hydropower dams owned and operated by City Light; most of the remaining power needs are met by hydropower purchased from the Bonneville Power Administration and investments in renewable and conservation resources.](#) The largest facilities are the hydro-generating plants of the Boundary Dam in Pend Oreille County and the Skagit Project on the Skagit River.

Seattle City Light owns and maintains approximately 649 miles of transmission lines which transmit power from the Skagit and Cedar Falls generating facilities to 14 principal substations. Power is distributed from these principal substations via high voltage feeder lines to numerous smaller distribution substations or pole-mounted transformers

Seattle City Light (SCL) is a municipally owned utility provides service to customers in the City of Seattle, portions of unincorporated King County, and via franchise agreements to several King County cities including the northern portion of Tukwila.

SCL's 2012 Integrated Resource Plan (IRP) outlines how the utility will meet anticipated customer needs over the next 20 years. According to the IRP, Seattle City Light is likely to meet the energy needs of Seattle and Tukwila through 2022 with ongoing conservation programs, seasonal market purchases, and existing power contract flexibility. Conservation programs will continue as the resource of choice, that is lower cost, flexible, advantageous for economic development, and with minimal environmental impacts. After 2022 and through 2031, energy needs will be met by additional power from renewable resources including landfill gas, new hydro efficiencies, waste wood biomass, and wind resources.

SCL owns and maintains transmission lines which bring power from the Skagit and Cedar Falls generating facilities to a number of principal substations. Power is distributed from these principal substations via high-voltage feeder lines to smaller distribution substations or pole transformers. These reduce voltage to usable levels for customers.

Tukwila is served both from Seattle City Light's Duwamish Substation in Tukwila and from the Creston-Nelson Substation in Seattle. Distribution feeders from Duwamish and Creston-Nelson deliver energy to the area's customers.

Future Projects

To maintain current infrastructure and increase transmission reliability, SCL plans to build new feeders from the Duwamish Substation. The timing of the new feeders will be dependent on the demand schedules of large power customers. SCL will replace existing H-frame structures with taller poles in order to maintain reliability of the Creston-Duwamish transmission line and to augment distribution capacity from the Creston Substation.

Natural Gas

Puget Sound Energy, an investor-owned utility, builds, operates and maintains natural gas facilities serving Tukwila. 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. PSE builds, operates and maintains natural gas facilities serving about serves over 750,000 gas customers in six counties, including approximately 3,400 customers in Tukwila.

Per its 20-year Integrated Resource Plan (IRP), no major gas main improvement projects are planned for Tukwila at this time. Puget Sound Energy covers virtually all of Tukwila with their main distribution lines. Overall, the utility foresees no difficulties in meeting future demand during the planning period. No major improvement projects are planned at this time. **(Figure 5—Natural Gas Provider)**

IV APPENDIX

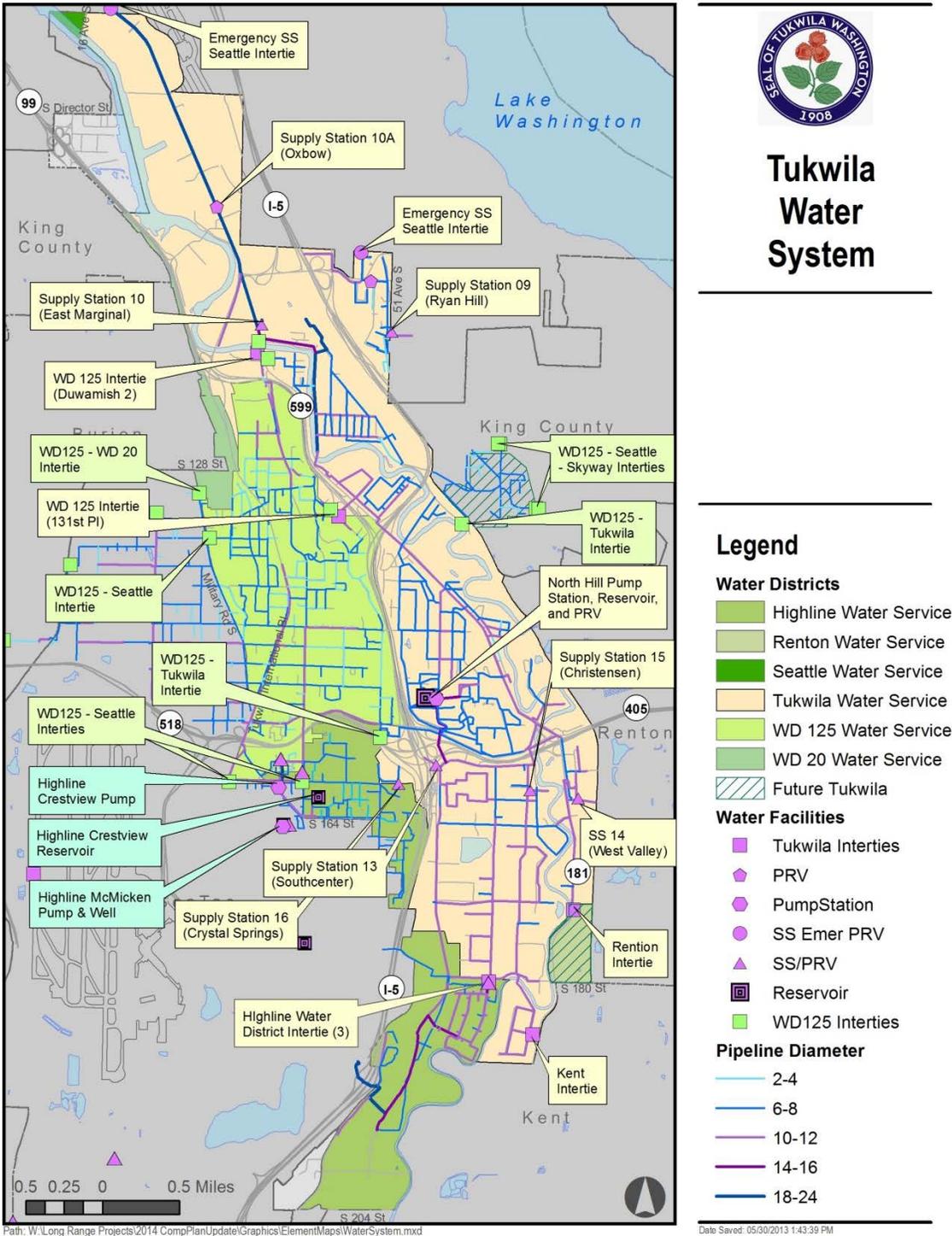
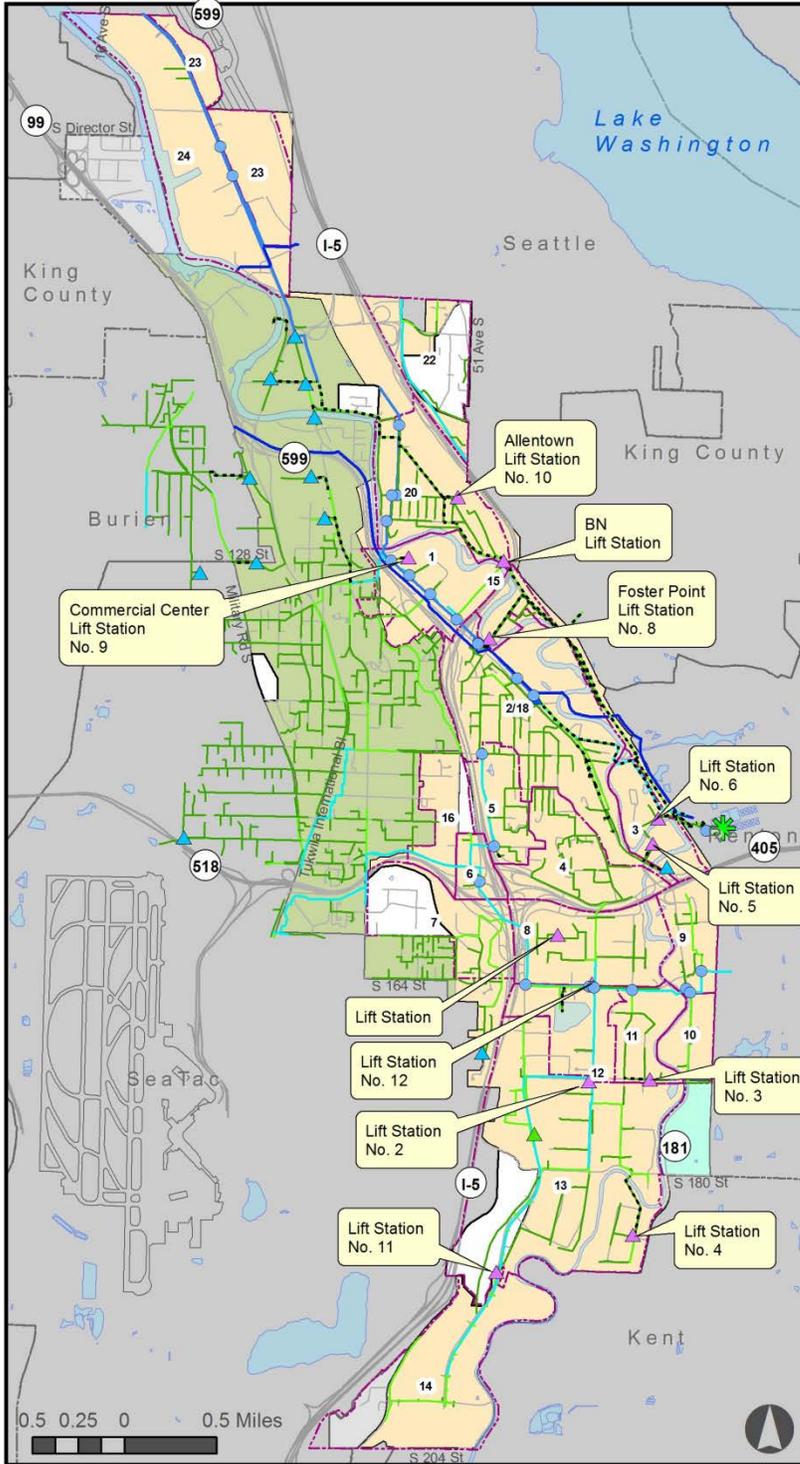


Figure 1



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Tukwila Sewer System

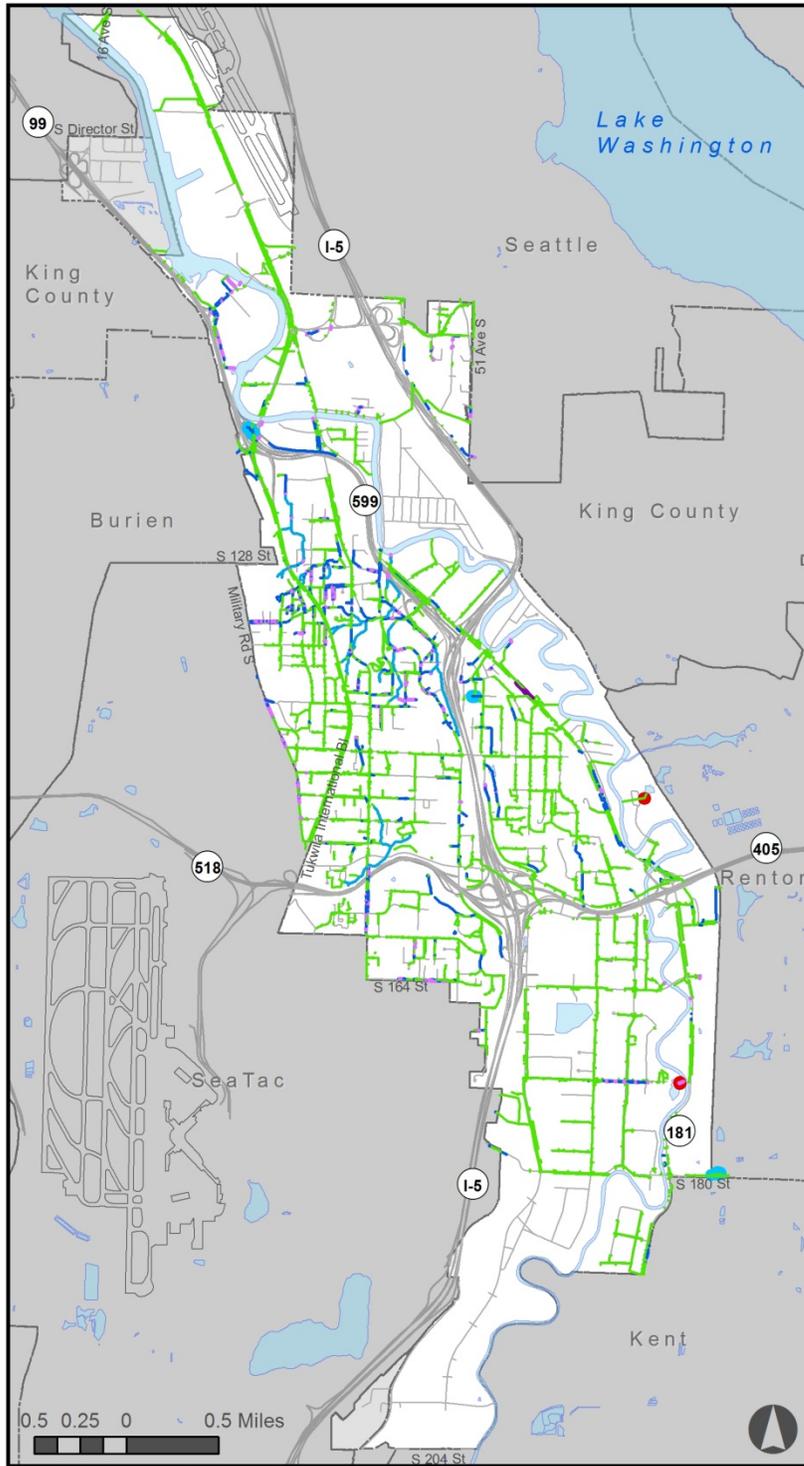
Edit to show ValVue/Tukwila Bound

Legend

- KC Interties
- Lift Stations**
- ▲ Metro
- ▲ Other
- ▲ Private
- ▲ Tukwila
- PipeType**
- Force Main
- Pipeline Diameter**
- 8" and Smaller
- 10-12"
- 14-36"
- 38-54"
- 56-96"
- ✱ KC Treatment Plant
- ▭ Drainage Basins
- SewerService**
- No Sewer
- Renton Sewer
- Seattle Sewer
- Tukwila Sewer
- Valley View Sewer

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Figure 2



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Surface Water Facilities

Pertert is surveying Tukwila South so we won't have info for a few months

Legend

- Closed Pipe
- Culvert
- Ditch
- Stream
- Trench Drain
- Detention Ponds
- Pump Stations
- Waterbodies

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Figure 3

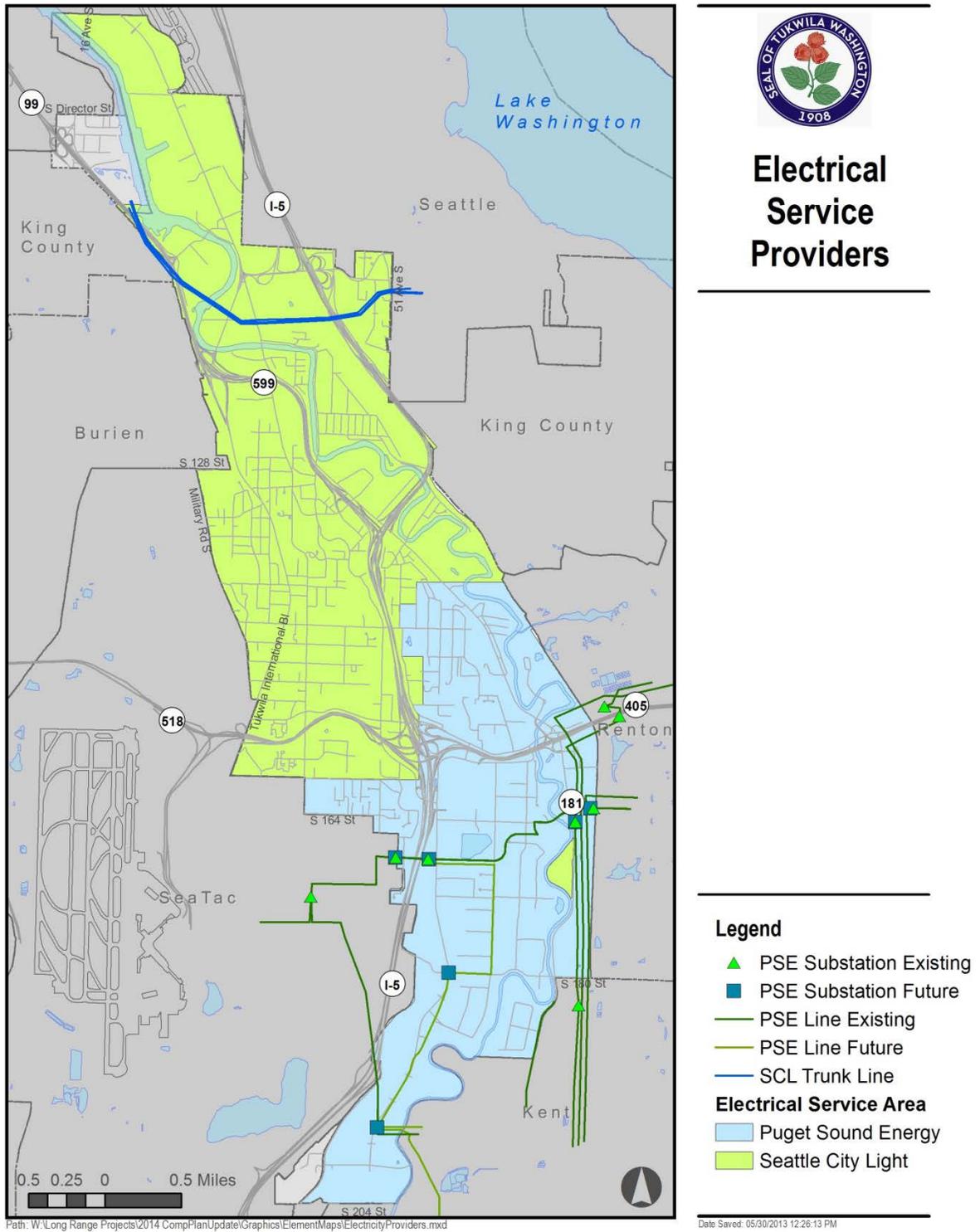
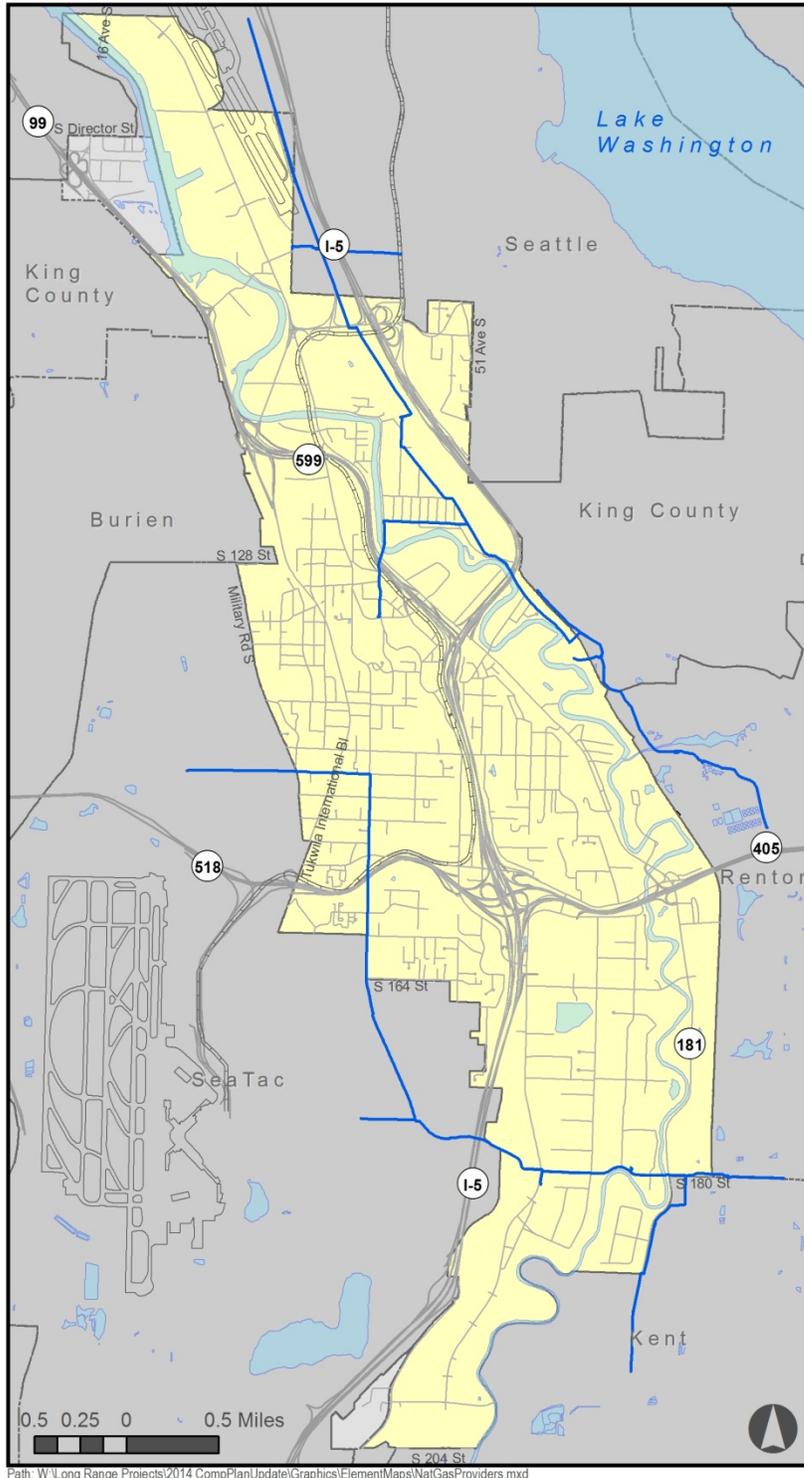


Figure 4



Path: W:\Long Range Projects\2014 CompPlanUpdate\Graphics\ElementMaps\NatGasProviders.mxd



Natural Gas Provider

Legend

- High Pressure Lines
- PSE Service Area

Date Saved: 05/30/2013 1:09:54 PM

Figure 5