

Utilities Element

GOALS:

1. To facilitate the development and maintenance of all utilities at the appropriate levels of service to accommodate the City of Bellevue's projected growth.
2. To facilitate the provision of reliable utility service in a way that balances the public's concerns about safety and health impacts of utility infrastructures, consumers' interest in paying no more than a fair and reasonable price for the utility's product, Bellevue's natural environment and the impacts that utility infrastructures may have on it, and the community's desire that utility projects be aesthetically compatible with surrounding land uses.
3. To process permits and approvals for utility facilities in a fair and timely manner and in accord with development regulations which encourage predictability.
4. To encourage new technology that improves utility services while balancing health and safety, economic, aesthetics, and environmental factors

OVERVIEW

The Utilities Element contains policies and maps that guide the siting of utility facilities in the city. The main purpose of this element is to ensure that Bellevue will have utility capacity to adequately serve the Land Use Plan. Policies also address the quality, reliability, safety and regulation of the services provided. Other policies address environmental impacts, facilities location and construction, economics, and aesthetics in design and landscaping.



Innovative design can help utilities complement the surrounding neighborhoods (Cherry Crest Reservoir).

The 1990 State Growth Management Act requires all comprehensive plans to contain a Utilities Element that “includes 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-(4)).

In Bellevue, as in many cities, utilities are provided by a combination of city-managed and non city-managed providers. Depending on their service, these are variously state regulated, federally licensed and/or municipally franchised providers.

City-managed utilities are sewer, water, storm and surface water, and solid waste.

Non city-managed utilities are electricity, natural gas, other petroleum gas, telephone, personal wireless services, and cable.

Non city-managed utilities providers include Puget Sound Energy (PSE) (electricity and natural gas) and providers of telephone services. These utilities are regulated by the state Washington Utilities and Transportation Commission (WUTC).

Personal wireless service providers serving Bellevue in the Seattle Major Trading Area are those licensed by the Federal Communications Commission (FCC) in the Radio Frequency Spectrum for wireless telecommunications service *and registered to do business in Bellevue*.

Cable services are provided under municipal franchise.

As the city considers requests for proposed utility facilities, particularly electric and telecommunications, a wide variety of factors are taken into consideration. These factors include health and safety, aesthetics, environmental impacts and economic factors. The following should guide consideration of these requests:

Ordinarily, the elimination or mitigation of known health or safety risks associated with a project should be given first priority. In particular cases, however, a severely negative impact of mitigation measures on the reliability of the service network, on the cost of service, or on environmental or aesthetic values may dictate the choice of a different option. In every case, cost is a factor that is to be considered, with particular attention to maintaining Bellevue’s viability as a regional employment center. However, costs should be weighed against a full consideration of benefits, both tangible and intangible, that may be derived from more “costly” options. In no case should it be automatically assumed that the “cheapest” option is the least costly on a “net” or long term basis or is the most desirable under these policies. Individual implementation issues arising under these policies should be resolved on a case-by-case basis in light of the considerations above.

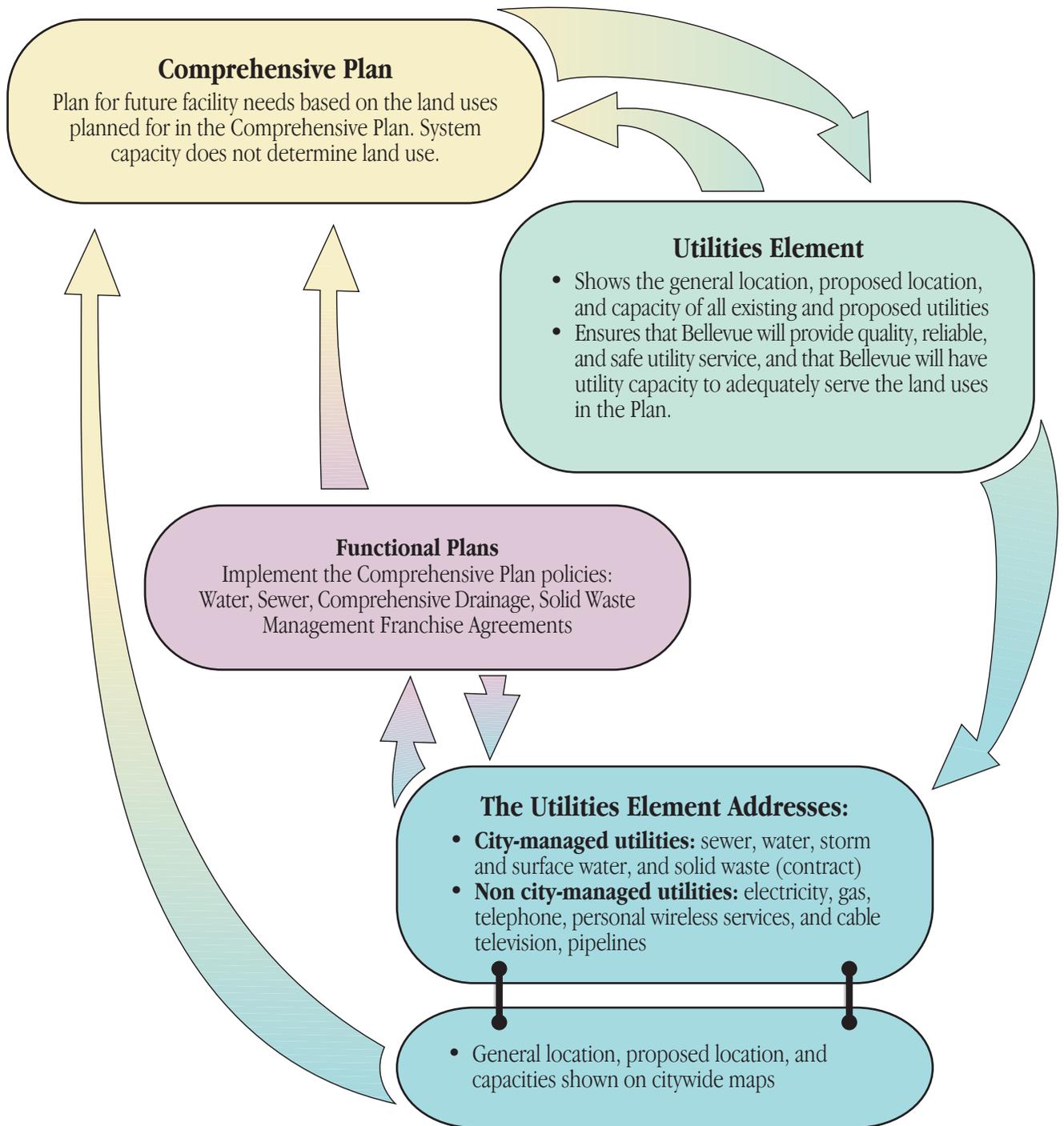
Section 704 of the Telecommunications Act of 1996 describes a federal role in siting of “personal wireless service” facilities. The Act frames the jurisdiction of state and local zoning authorities over the construction, modification, and placement of telecommunications facilities.

The policies in this element address current technology. The city recognizes that new and evolving wireless communication technologies are changing telecommunications service. The city encourages new technology that is consistent with a balancing of the costs and benefits discussed above. As technological changes occur, Bellevue will update the Utilities Element, ordinances, and city code Titles to remain consistent with federal and state law governing telecommunications.

Section 704(a)(7) of the 1996 Act recognizes the authority of state and local governments over decisions regarding siting of personal wireless service facilities, subject to certain limitations.

The objectives of Bellevue’s telecommunications regulations are to avoid unreasonable regulatory discrimination, to act on applications for personal wireless service facilities in a reasonable amount of time, and to demarcate regulation of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions.

Figure UT.1
How Utilities Provide Service Under the GMA



City-Managed Utilities

The City of Bellevue manages the Sewer, Water, and Storm and Surface Water Utilities, as well as the Solid Waste Management activities. The sewer and water utilities serve the city and several jurisdictions outside the city limits. They are enterprise operations which are self supporting and separate from the city General Fund.

The Sewer Utility operates, maintains, and extends the sewage collection system to respond to the needs of residents and commercial establishments. The collection system discharges into interceptors owned and operated by King County Metro which transport the sewage to the South Treatment Plant for treatment and eventual discharge into Puget Sound.



The city provides reliable water service for domestic and emergency use.

The Water Utility purchases water from the regional water provider, the Cascade Water Alliance.

Water is distributed through mains constructed, operated, and maintained by the water utility to residential, commercial, and industrial users.

The Storm and Surface Water Utility's operations include flood control, maintenance and enhancement of surface water quality, protection of sensitive areas, and public education.

Solid Waste Management activities include solid waste planning, promotion, and monitoring the performance of private contractors who carry out collection of solid waste, recyclables, yardwaste, and litter pick up. These services are financed through garbage rates which are set by the City Council. Unlike the other city-managed utilities, Solid Waste Management is not an enterprise organization. This function is funded from the General Fund and from a surcharge on collection rates.

POLICIES

General Utility System

POLICY UT-1. Utilize design and construction standards which are environmentally sensitive, safe, cost-effective, and appropriate.

POLICY UT-2. Manage utility systems effectively in order to provide reliable quality service.

POLICY UT-3. Ensure that the location, type, and size of all public facilities is determined and/or approved by the city.

POLICY UT-4. Base the extension and sizing of system components on the land use plan of the area. System capacity will not determine land use.

POLICY UT-5. Design, construct, and maintain facilities to minimize their impact on surrounding neighborhoods.

POLICY UT-6. Encourage the joint use of public facilities.

Discussion: The development of a storm and surface water detention area as passive recreation in a public park is an example of such joint use.

Intergovernmental Relations and Coordination

POLICY UT-7. Extend water and sewer utility service to unserved areas of the utility service area, including extensions into potential annexation areas, if the city's costs are reimbursed and provided that service will be extended only upon annexation to the city, or if extensions are consistent with local and regional land use and utility comprehensive plans.

POLICY UT-8. Recover all costs, including overhead costs, related to the extension of services, as well as the costs to maintain and operate these systems.

POLICY UT-9. Coordinate with other jurisdictions and governmental entities in the planning and implementation of multi-jurisdictional utility facility additions and improvements.

POLICY UT-10. Coordinate with the appropriate jurisdictions to ensure that utility facilities that are to be constructed in potential annexation areas are designed and built in accord with City of Bellevue standards.

Hazardous Waste

POLICY UT-11. Cooperate with other private and public agencies in the region to manage and control hazardous waste and moderate risk waste, including hazardous household substances.

POLICY UT-12. Educate the public in the proper handling and disposal of hazardous household waste and on the use of alternative products or practices which result in reducing the use and storage of hazardous materials in homes and businesses.

Discussion: Hazardous wastes should be properly disposed of according to procedures and standards set by federal, state, or regional agencies, such as those set forth in the King County-Seattle Local Hazardous Waste Management Plan.

POLICY UT-13. Provide for the safe and convenient disposal of hazardous household waste through a permanent and conveniently located collection facility for Bellevue residents.

Solid Waste

POLICY UT-14. Promote the recycling of solid waste materials by providing opportunities for convenient recycling and by developing educational materials on recycling, composting, and other waste reduction methods.

Discussion: Waste reduction and source separation are the city's preferred strategies for managing solid waste. Materials remaining after effective waste reduction and source separation should be handled in accordance with the King County Solid Waste Plan.

POLICY UT-15. Encourage and actively seek an effective regional approach to solid waste management.

POLICY UT-16. Utilize the public review process in the selection and approval of sites for any disposal facility.

Discussion: In this review, sensitivity to aesthetics, health effects, and environmental conditions should be studied and fully considered.

POLICY UT-17. Maintain a cost-effective and responsive solid waste collection system.

Discussion: In selecting the elements of a solid waste collection system, all the costs and long term factors such as disposal options, should be considered.

POLICY UT-18. Manage solid waste collection to minimize litter and neighborhood disruption.

POLICY UT-19. Provide uniform collection service to areas annexed to the city as soon as practicable.

Sewer Utility

POLICY UT-20. Require sewer connections for all new development, including single family plats, unless otherwise allowed by state or county regulations.

POLICY UT-21. Allow existing single family homes with septic systems to continue to utilize septic systems, providing there are no health or environmental problems.

Discussion: Homeowners are encouraged to connect to sewer systems where available. If existing septic systems pose health or environmental problems, homeowners should be required to connect to the sewer system if practicable.

Storm and Surface Water Utility

POLICY UT-22. Participate in regional watershed based efforts with the goals of achieving local watershed health and addressing Endangered Species Act issues, and strive to manage the city's storm and surface water system within a system wide, watershed based context.

POLICY UT-23. Manage the storm and surface water system in Bellevue to maintain a hydrologic balance in order to prevent property damage, protect water quality, provide for the safety and enjoyment of citizens, and preserve and enhance habitat and sensitive areas.



Bellevue's Utilities Department provides quality service at a reasonable cost while protecting the environment.

POLICY UT-24. Enforce surface water controls to protect surface water quality.

Discussion: Where septic system or underground storage tank removal/replacements pose a risk to surface water quality, include controls and programs to prevent contamination of surface water.

POLICY UT-25. Educate the public on water quality issues.

Water Utility

POLICY UT-26. Ensure a cost-effective water supply that meets the needs of the City of Bellevue.

Discussion: To accomplish this, the city participates in the Cascade Water Alliance, facilitating the development of a regional water supply system that effectively balances regional water resources and regional East King County water supply needs and provides equitable participation in ownership and management.

POLICY UT-27. Provide a water supply that meets all federal drinking water quality standards.

POLICY UT-28. Provide reliable water service for domestic use, fire flow protection, and emergencies.

POLICY UT-29. Promote conservation and the wise and efficient use of the public water supply and discourage the waste of this valuable resource.

Discussion: Bellevue will promote the efficient use of the public water supply to customers through education, technical assistance and incentive programs. Programs will be made available to customers locally or through the Cascade Water Alliance when programs are implemented by the Cascade partners throughout the Cascade Water Alliance.

POLICY UT-30. Improve the quality and quantity of the water supply of wellwater users by allowing access to the city water system as contained in the Water Comprehensive functional Plan, and provided that at least the fair share costs are paid by the benefiting parties.

POLICY UT-31. Serve as a role model for the community in the efficient use of water.

Non City-Managed Utilities

Authority

The Washington Utilities and Transportation Commission (WUTC) has the authority from longstanding state law to regulate the services and define the costs that a utility can recover, to ensure that the utility acts prudently and responsibly.

With the adoption of the 1990 Growth Management Act (GMA), current law now suggests that both the WUTC and Bellevue have jurisdiction over the activities of electric, gas, and telephone utilities within Bellevue's city limits.

The City of Bellevue has the authority to regulate land use and, under GMA, the requirement to consider the location of existing and proposed utilities and potential utility corridors in land use planning. The city must also plan for the adequate

provision of utilities consistent with the goals and objectives of its Comprehensive Plan, taking into consideration the public service obligation of the utility involved.

The City of Bellevue is entitled to reasonable compensation for use of its rights-of-way, and leases of city owned property, structures and conduits.

The Telecommunications Act of 1996 established new responsibilities for the Federal Communications Commission (FCC) in licensing of personal wireless communication service providers. The licenses allow the right to use a block or blocks of the Radio Frequency Spectrum to provide wireless communication services.

Section 704(a)(7) of the Act recognizes the authority of state and local governments over decisions regarding siting of personal wireless communication service facilities, subject to certain limitations.

Electrical Service

Puget Sound Energy (PSE) builds, operates, and maintains the electrical system serving the City of Bellevue. PSE is a private, investor-owned utility with the responsibility for providing service to over 750,000 customers in a nine county service area. The system serving Bellevue is part of a larger service area called the “Greater Bellevue Area” which is roughly an area between Lake Washington and Lake Sammamish. The area includes the entire cities of Bellevue, Beaux Arts, Medina, Hunts Point, Yarrow Point, and Clyde Hill. This area also includes portions of Kirkland and Redmond and small portions of unincorporated King County.

PSE imports electrical energy from generation sources in Canada, on the Columbia River, and from other generation sites inside and outside of PSE’s service territory.

Based on population and employment forecasts for the next 20-30 years as of 1993, PSE estimates that there will be a peak winter load of approximately 680 MVA (Mega or million volts amperes) in the Greater Bellevue Area. In comparison, the winter peak load in 1993 is 475 MVA. New facilities, including transmission lines and substations, may have to be constructed to meet this demand.

Natural Gas Service

PSE builds, operates, and maintains natural gas facilities serving the City of Bellevue. PSE is an investor-owned utility serving nearly 650,761 customers in five western Washington counties including King, Snohomish, Pierce, Thurston, and Lewis counties. There are approximately 30,697 customers within the City of Bellevue.

Natural gas is delivered to a regional distribution network via an interstate pipeline system. Northwest Pipeline Corporation owns and operates the regional network that supplies gas to the states of Washington, Oregon, and Idaho. The pipeline serving Bellevue consists of two pipelines running north and south, in an area east of Lake Sammamish. The Pacific Northwest receives natural gas from widely disparate regions of the United States and Canada.

Based on available population projections for the next 20 years as of 1993, PSE does not foresee a need for major new distribution facilities in Bellevue in the next 20 years.

Telecommunication Services

Telecommunications is the transmission of sound, images and/or data by wire, radio, optical cable, electromagnetic, or other similar means. Telecommunications include but are not limited to, telephone, personal wireless services, microwave, and cable.

Bellevue's central location and significant employment concentration will continue to attract new and evolving technologies in the field of telecommunications. The city supports increased availability of improved telecommunications services in Bellevue. The city encourages new telecommunications technology that balances the costs and benefits of the following factors: health and safety, aesthetics, environmental, and economic.

In most cases, these telecommunications services will use existing utility corridors, public rights-of-way and city owned properties other than right-of-way, and will be able to provide services to all parts of the city. Bellevue encourages the shared use of space consistent with the city's service mission for telecommunication infrastructure projects within the street right-of-way and for telecommunication infrastructure opportunities on city property other than street right-of-way.

Bellevue's infrastructure investment and aesthetic quality should be protected from unnecessary degradation caused by the construction of telecommunications infrastructure.

Telecommunication Service - Telephone

Approximately 80 percent of the telephone customers in the City of Bellevue are served by one provider. A second provider serves the northern portion of the city, serving approximately 20 percent of Bellevue's telephone customers. Additionally, local telephone service is now being offered by the cable companies. It is anticipated that additional upgraded telephone facilities will be needed to handle a growing demand for advanced telecommunications services.

Telecommunication Service – Personal Wireless

Personal wireless facility communication services use radio waves to transmit voice and/or data using the radio frequency spectrum. These services include but are not limited to commercial mobile services (e.g. cellular), unlicensed wireless services, and common carrier wireless exchange services.

Personal wireless facility communication services use ground-based directional receivers (antennae) which may be located on freestanding poles and towers or on buildings and structures. Each antenna has ancillary power and radio equipment.

This Element recognizes that providing personal wireless facility communication service involves adapting to changing technologies which may make current forms of receivers obsolete and removable.

Telecommunication Service – Cable

Multiple cable operators provide cable services in the City of Bellevue. This service provides broadcasting via a network of overhead and underground coaxial cables. At least one additional cable system upgrade is anticipated within the next seven to ten years.

POLICIES

General Non City-Managed Utilities

POLICY UT-32. Defer to the serving utility the implementation sequence of utility plan components.

POLICY UT-33. Coordinate with the appropriate jurisdictions and governmental entities in the planning and implementation of multi-jurisdictional utility facility additions and improvements.

POLICY UT-34. Require effective and timely coordination of all public and private utility trenching activities.

POLICY UT-35. For infrastructure projects within street public rights-of-way, assist in the coordination between telecommunications providers to ensure that all interested parties are given the opportunity to install facilities in common trenches.

POLICY UT-36. Limit the amount of disturbance to city infrastructure by encouraging co-location of telecommunications conduit in the public right-of-way.

POLICY UT-37. Routinely inform telecommunications companies authorized to provide services within Bellevue about the schedules for projects within the city's

Capital Investment Program which offer an opportunity to install telecommunications infrastructure during the construction of the city's projects.

POLICY UT-38. Require notification to the city prior to a utility's maintenance or removal of vegetation in city right-of-way.

POLICY UT-39. Require the undergrounding of all new electrical distribution and communication lines except that interim installation of new aerial facilities may be allowed if accompanied by a program to underground through coordination with the city and other utilities. Require the undergrounding of all existing electrical distribution and communication lines where a change in use or intensification of an existing use occurs, unless delayed installation is approved as part of a specific program to coordinate undergrounding of several utilities or in conjunction with an undergrounding program for several sites or when related to street improvements. Interim facilities should be limited to the aerial installation of a new line of 1/2" diameter or less.

POLICY UT-40. Require the reasonable screening and/or architecturally compatible integration of all new above ground utility facilities.

POLICY UT-41. Protect Bellevue's aesthetic quality and infrastructure investment from unnecessary degradation caused by the construction of telecommunication infrastructure.

POLICY UT-42. Encourage directional pruning of trees and phased replacement of improperly located vegetation planted in the right-of-way. Perform pruning and trimming of trees in an environmentally sensitive and aesthetically acceptable manner and according to professional arboricultural specifications and standards.

POLICY UT-43. Encourage consolidation on existing facilities where reasonably feasible and where such consolidation leads to fewer impacts than would construction of separate facilities.

Discussion: Examples of facilities which could be shared are towers, electrical, telephone and light poles, antenna, substation sites, trenches, and easements.

POLICY UT-44. Encourage the use of utility corridors as nonmotorized trails.

Discussion: The city and utility company should coordinate the acquisition, use, and enhancement of utility corridors for pedestrian, bicycle and equestrian trails and for wildlife corridors and habitat.

POLICY UT-45. Avoid, when reasonably possible, locating overhead lines in greenbelt and open spaces as identified in the Parks, Recreation, and Open Space Plan.

POLICY UT-46. Facilitate the conversion to cost-effective and environmentally sensitive alternative technologies and energy sources.

POLICY UT-47. Facilitate and encourage conservation of resources.

Discussion: Items the city should consider in implementing this policy include conserving the use of electric energy in its own facilities, and adopting practical and cost-effective energy building codes.

POLICY UT-48. Encourage cooperation with other jurisdictions in the planning and implementation of multi-jurisdictional utility facility additions and improvements. Decisions made regarding utility facilities shall be made in a manner consistent with, and complementary to, regional demand and resources, and shall reinforce an interconnected regional distribution network.

POLICY UT-49. Encourage communication among the city, the WUTC, and utilities regulated by the WUTC about the distribution of costs for existing and proposed utility facilities; especially requirements for the undergrounding of transmission, distribution, and communication lines exceeding statewide norms.

POLICY UT-50. Encourage system practices intended to minimize the number and duration of interruptions to customer service.

POLICY UT-51. Prior to seeking city approval for facilities, encourage utilities service providers to solicit community input on the siting of proposed facilities which may have a significant adverse impact on the surrounding community.

POLICY UT-52. Encourage utility providers to erect limited on-site signage on all sites purchased for future major utility facilities to indicate the utility's intended use of the site.

POLICY UT-53. Require all utility equipment support facilities to be aesthetically compatible with the area in which they are placed by using landscape screening and/or architecturally compatible details and integration.

POLICY UT-54. Support federal or state actions that would preserve local government authority to regulate time, manner and place of construction in the right-of-way.

Non City-Managed Utilities - Additional Wireless Facilities Policies

POLICY UT-55. Require the placement of personal wireless communication facilities in a manner that minimizes the adverse impacts on adjacent land uses.

POLICY UT-56. Encourage permit applicants to submit an area wide plan that demonstrates the lowest land use impacts consistent with telecommunication customer needs.

POLICY UT-57. Allow exchanges (“swaps”) between providers of permitted wireless communication facilities sites, to encourage industry cooperation and coordination.

POLICY UT-58. Require wireless equipment constructed in the public rights of way in residential areas to be under 30 inches high.

POLICY UT-59. Recognize that personal wireless communication facilities will be deployed in all areas of the city to provide coverage and capacity consistent with the changing use of wireless technology. Minimize the attendant impacts, particularly the visual impacts of, personal wireless communication facility towers, lattice towers and structures by utilizing criteria for the design and location of such facilities that appropriately balance the need for wireless services and the impacts of the necessary facilities.

Discussion: Remaining policies illustrate the techniques appropriate to balancing the need for wireless services and the impacts of the necessary facilities.

POLICY UT-60. Minimize visual impacts of personal wireless communication facilities by encouraging deployment in land use districts in the following preferred and descending order when possible, considering the provider’s coverage needs: 1) Nonresidential land use districts, except Transition Areas; 2) Transition Areas; 3) Multifamily (R-20 and R-30) districts; and 4) and Park sites and Residential districts.

POLICY UT-61. Minimize visual impacts of personal wireless communication facilities by encouraging system designs in the following preferred and descending order: 1) attached to public facility structures, building mounted, or integrated with utility poles, light standards, and signal supports; 2) co-located on utility poles, light standards, signal supports; and 3) free standing towers.

POLICY UT-62. Upgrade wireless communication facilities as improvements in telecommunications technology create smaller and less visually intrusive facilities by requiring removal of abandoned facilities.

POLICY UT-63. New freestanding facility towers and structures should only be considered when no feasible alternative exists or when visual intrusion is less than associated with placing the facility on an existing structure or building.

POLICY UT-64. Encourage the use of utility poles and towers on public rights of way to install wireless equipment compatible with other utility functions.

POLICY UT-65. Encourage the use of sites developed with utility facilities to install wireless equipment compatible with other utility functions.

POLICY UT-66. For infrastructure opportunities on city property, other than street rights-of-way, encourage the use of appropriate city owned properties for lease to install wireless communications equipment that is compatible with existing city uses of the sites and consistent with land use requirements.



Wireless facilities are sited to reduce the impacts of these necessary facilities.

POLICY UT-67. Encourage the co-location of telecommunications equipment on city sites which reduce total impact of antennas on the community.

Non City-Managed Utilities - Additional Electrical Facilities Policies

POLICY UT-68. Encourage the public to conserve electrical energy through public education.

POLICY UT-69. Encourage city and utility involvement with regional or statewide agencies when and if they are developing policies regarding exposure to electric and magnetic fields (EMF) or other utility issues.

POLICY UT-70. Review periodically, the state of scientific research on EMF and make changes to policies if the situation warrants.

POLICY UT-71. Require in the planning, siting, and construction of all electrical facilities, systems, lines, and substations that the electrical utility strike a reasonable

balance between potential health effects and the cost and impacts of mitigating those effects by taking reasonable cost-effective steps.

Additional Resources

- City of Bellevue Comprehensive Drainage Plan 1994
- City of Bellevue Comprehensive Wastewater Plan 2002
- City of Bellevue Water Comprehensive Plan 1998
- King County Solid Waste Management Plans
- Puget Sound Energy, Bellevue, Washington
- Local cable and broadband service providers
- Local wireless telecommunications service providers
- City of Bellevue: mapped wireless telecommunication facility sites with issued permits

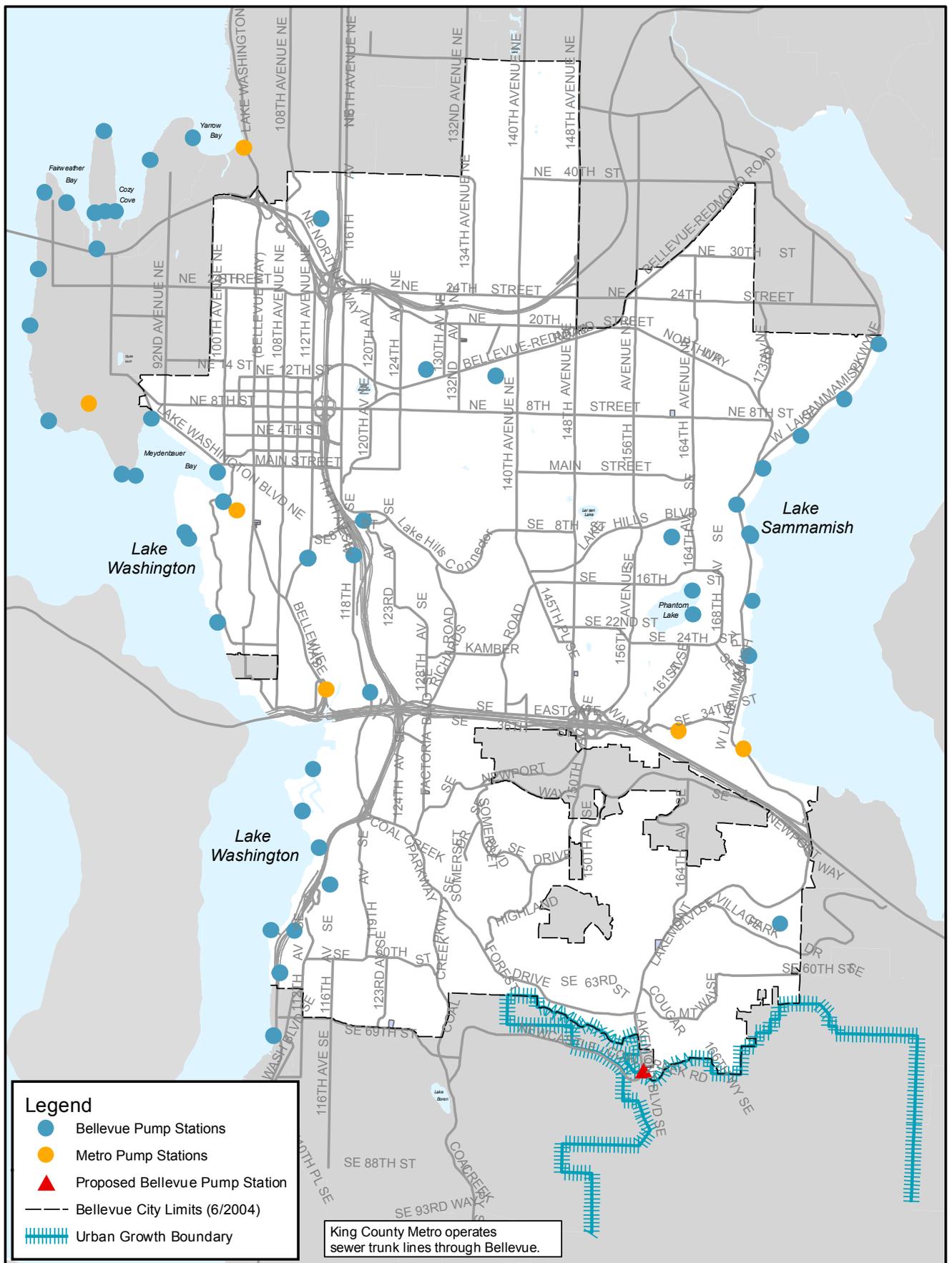


FIGURE UT.2
Major Sewer Facilities



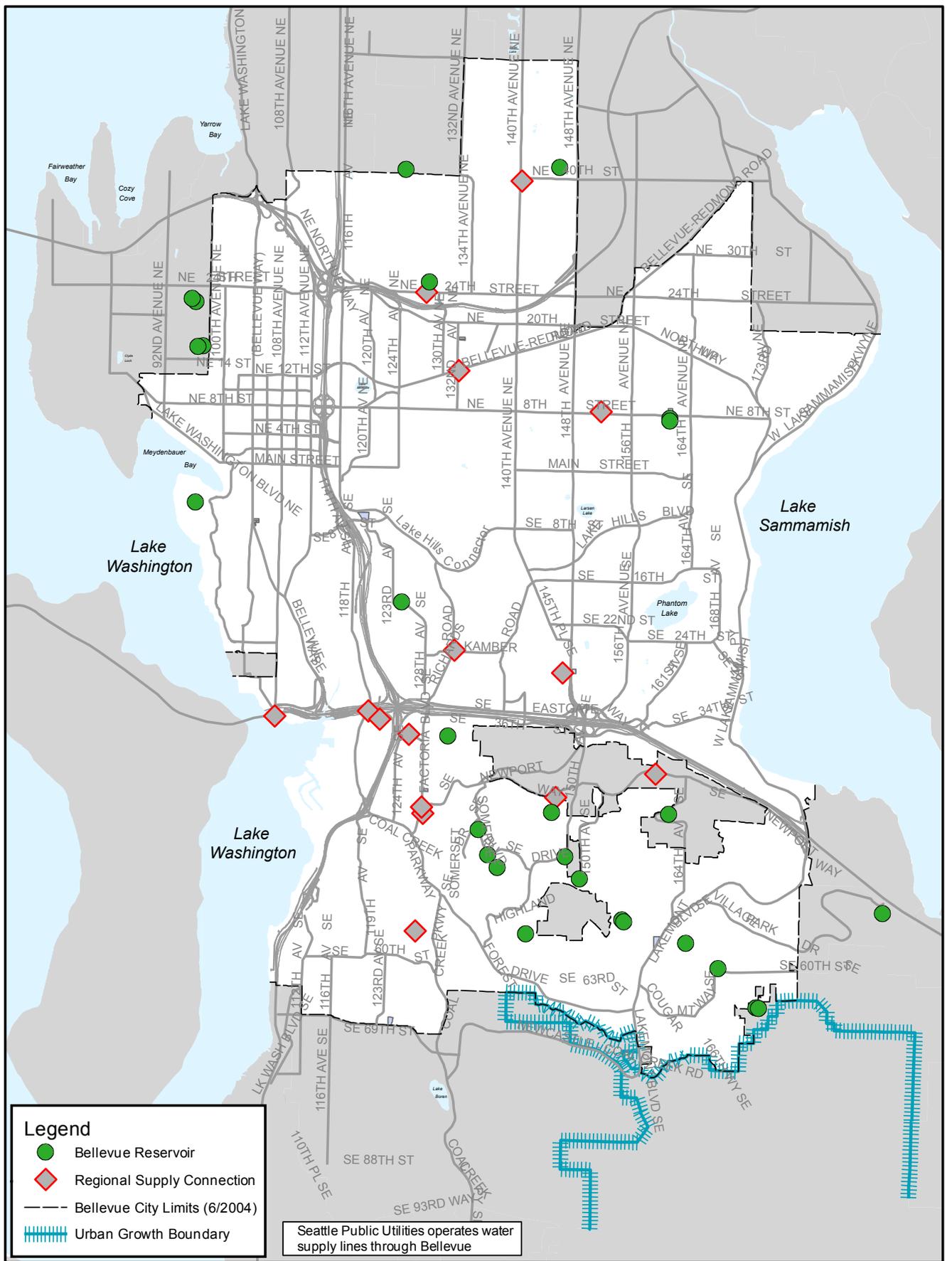


FIGURE UT.3
Major Water Facilities





FIGURE UT.4
Storm and Surface Water Facilities
and Drainage Basins



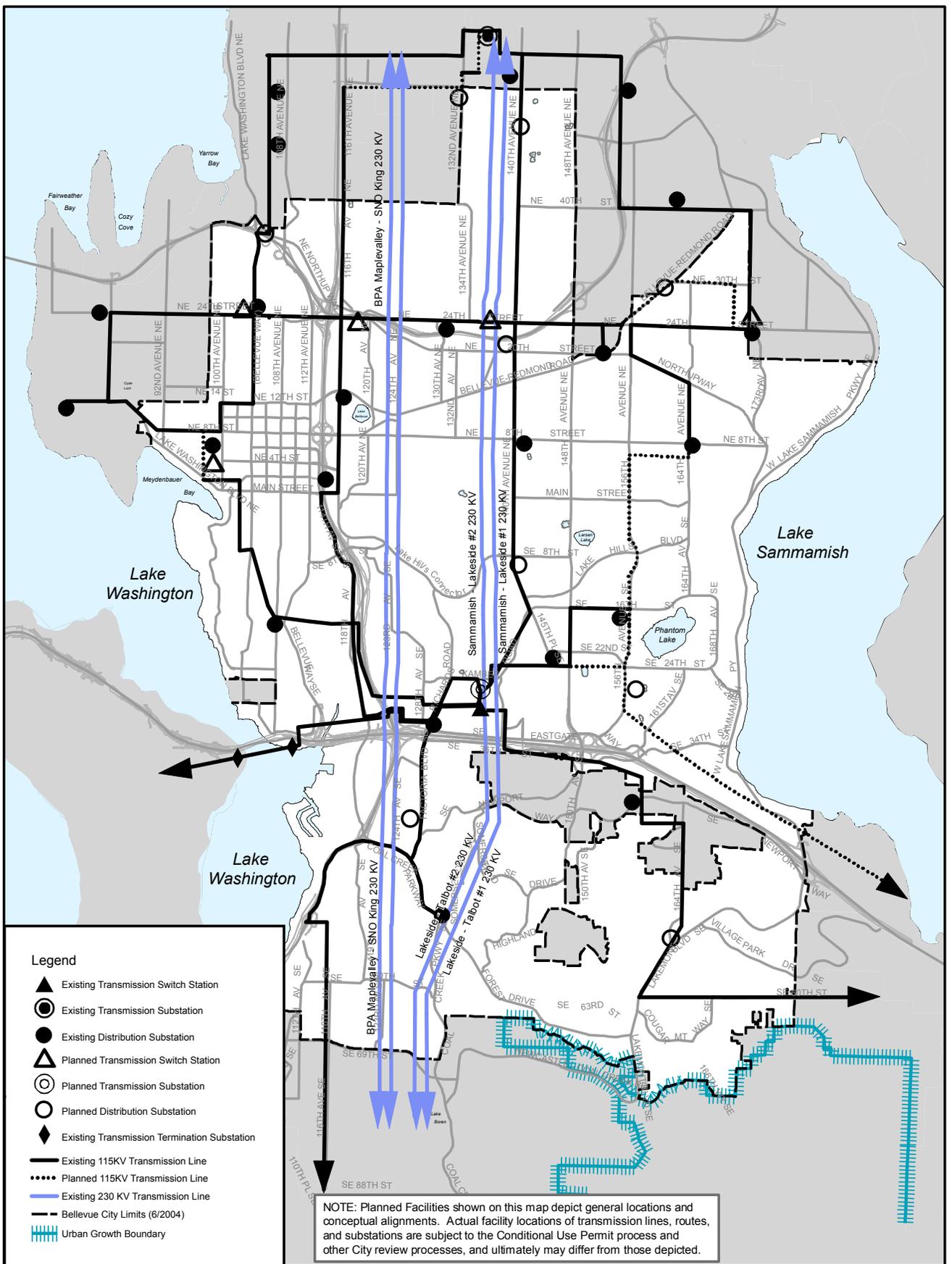


FIGURE UT.5
Electric Transmission Facilities

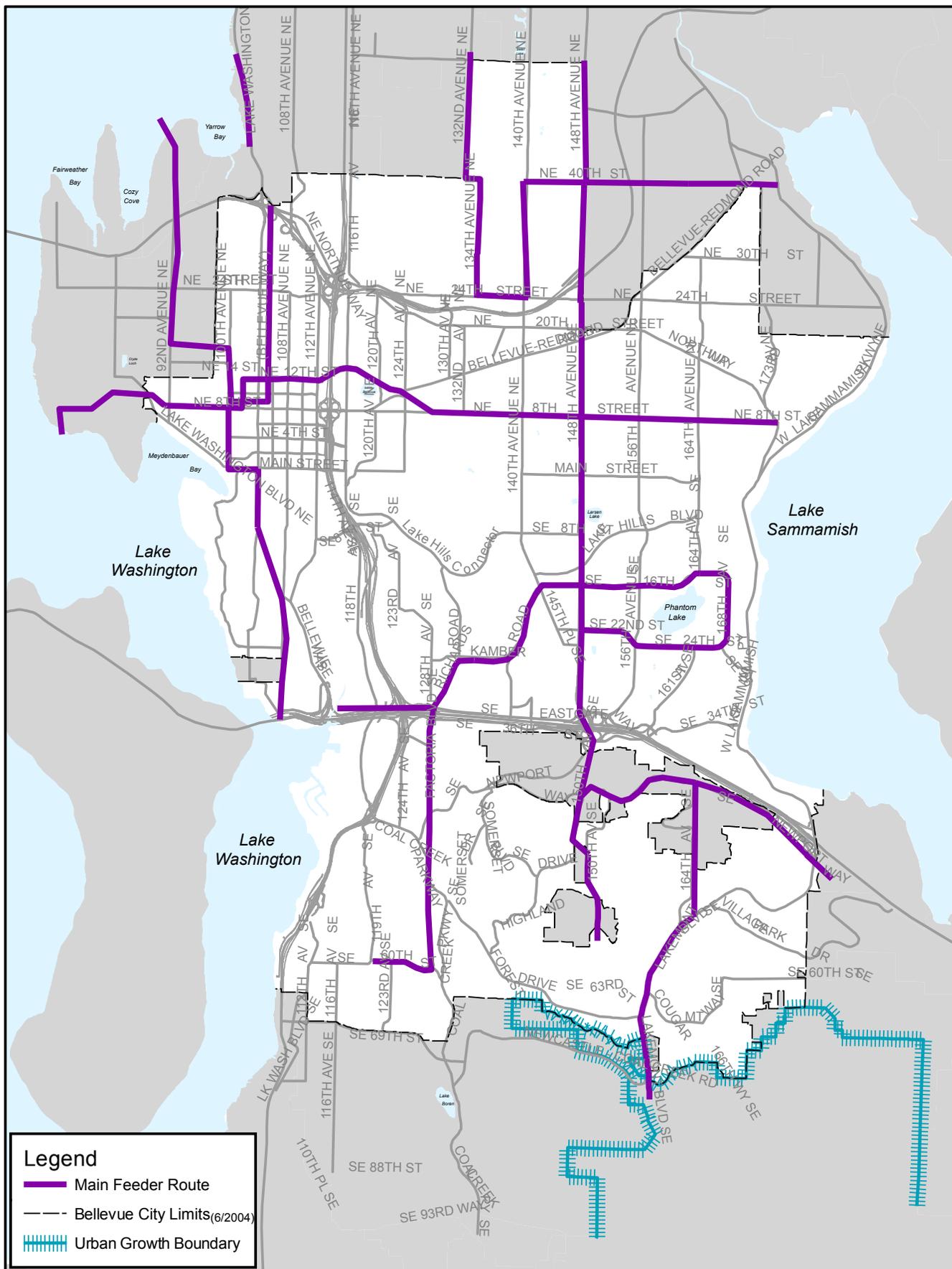


FIGURE UT.6
Telephone Transmission Lines



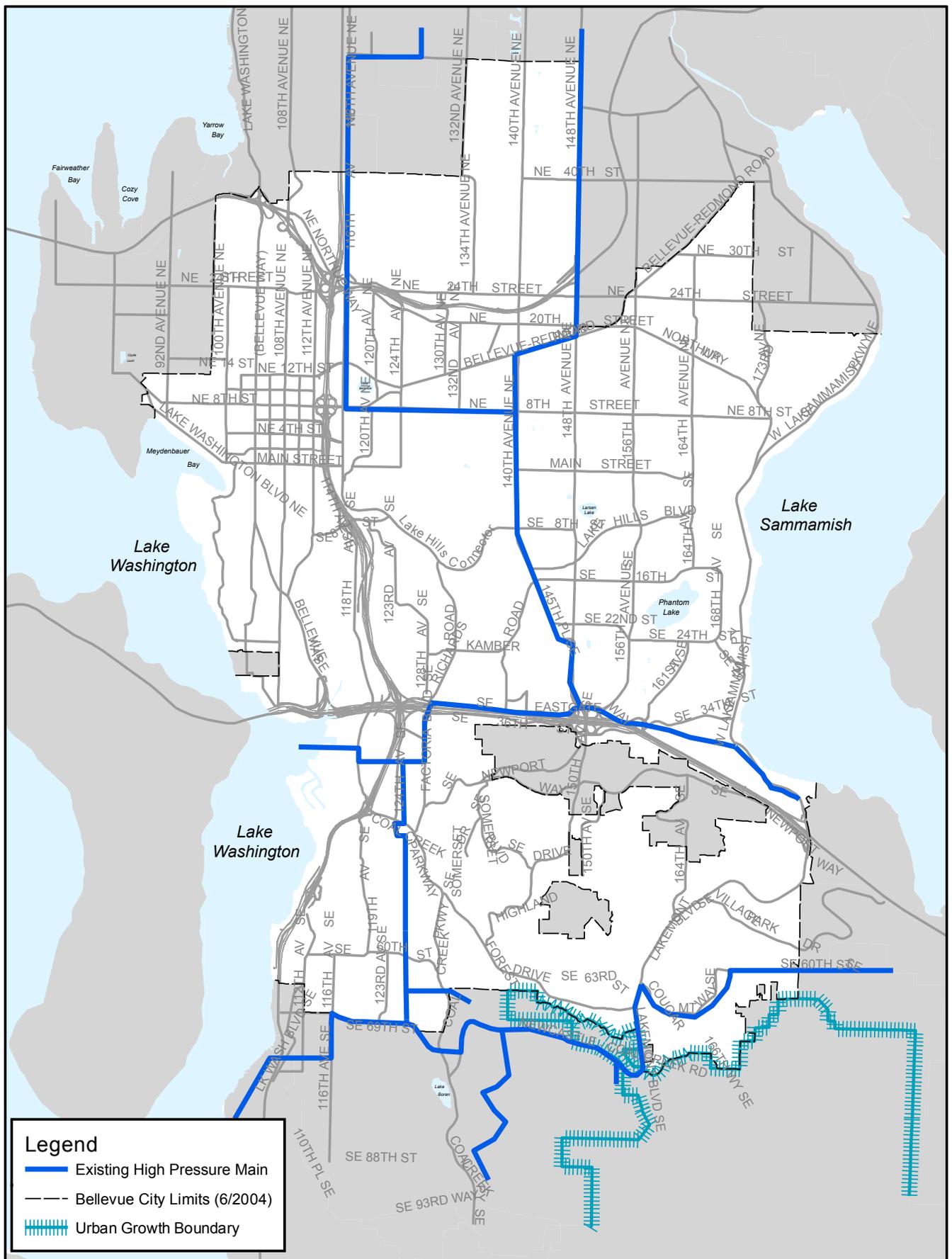


FIGURE UT.7
PSE Natural Gas Mains

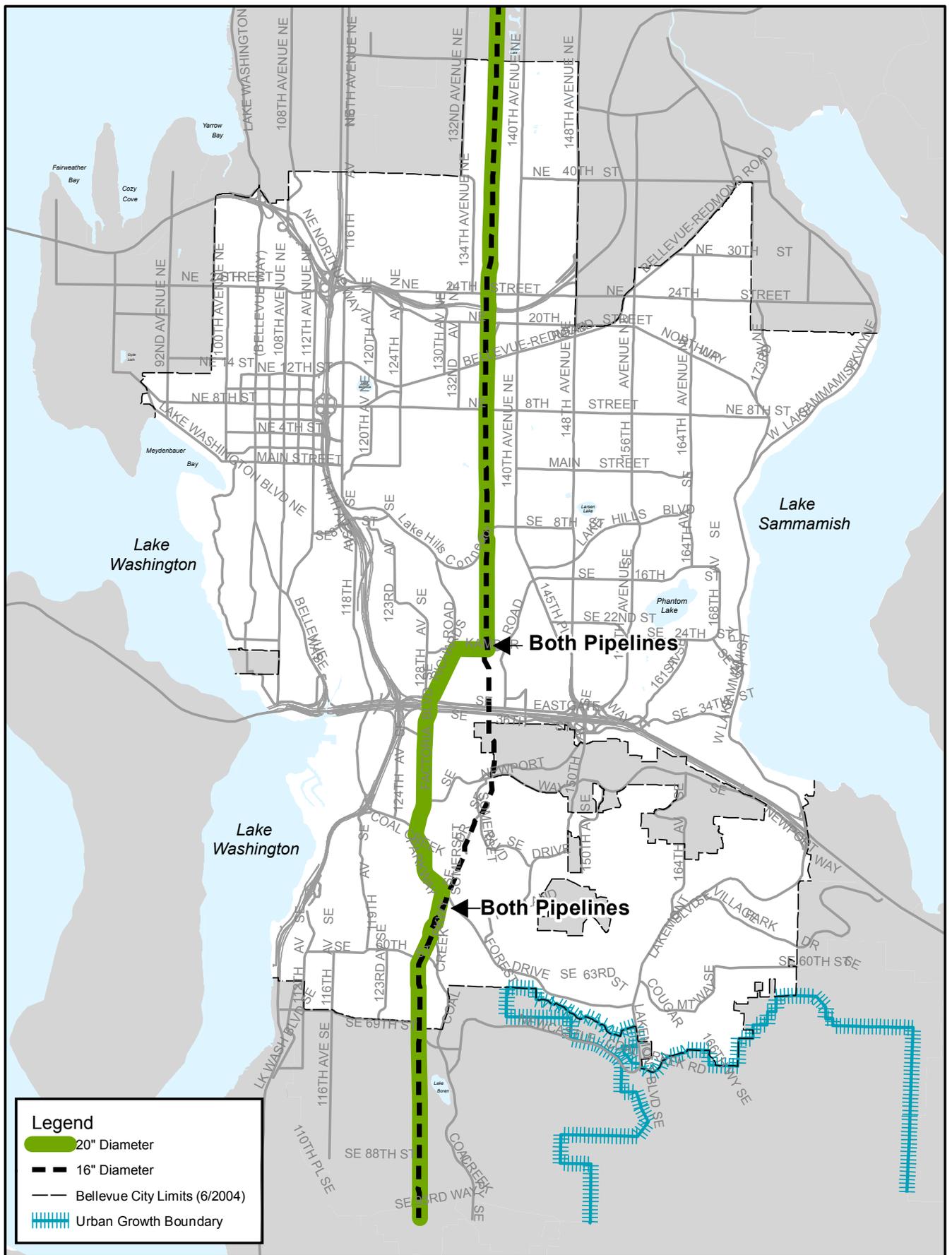


FIGURE UT.8

Olympic Pipe Line Company Transmission Pipelines

