Chapter 10. Utilities

10.1 Plan Context

The Utilities Chapter contains policies and maps that guide the siting of utility facilities in the city. The main purpose of this chapter is to ensure that Poulsbo will have utilities to adequately serve the Land Use Plan. Policies also address the quality, reliability, safety and regulation of the services provided.

The Growth Management Act requires all comprehensive plans to contain a Utilities Element that "includes the general location, proposed locations, 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 Poulsbo, 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 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) (electrical), Cascade Natural Gas (natural gas), and providers of telephone services. The Washington Utilities and Transportation Commission (WUTC) regulate these utilities.

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

Cable services are provided under municipal franchise.

10.2 Goals and Policies

CITY-MANAGED UTILITIES

The City of Poulsbo manages the Sewer, Water, and Storm Water Utilities, as well as Solid Waste management activities. These utilities are enterprise operations that are self-supporting and separate from the city General Fund. Detailed descriptions and assessment of City-managed utilities are included in Section 2 Capital Facility Plan.

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 Kitsap County, which transport the sewage to the Central Kitsap Waste Water Treatment Plant.

The Water Utility operates, maintains and distributes water through mains constructed, operated and maintained by the City to residential and commercial users.

The Storm Water Utility's operation includes flood control, maintenance and enhancement of surface water quality, and public education.

Solid Waste management activities include the collection of solid waste, recyclables, and yard waste.

GOAL UT-1

Provide the development and maintenance of all city-managed utilities at the appropriate levels of service to accommodate the City of Poulsbo's projected growth.

Policy UT-1.1

*The City shall adopt design and construction standards for all City-managed **utilities**. The City shall review their utility construction standards at a minimum of every five years to ensure the City's standards remain contemporary and relevant to the changing needs of the city.*

Policy UT-1.2

It is the City's policy not to hold itself as a public utility and therefore generally requires that properties annex to the city limits before City public utilities are to be extended. There may be circumstances, however, that the City may decide, at its sole and absolute discretion, to allow extension of utility service to property prior to annexation. The Poulsbo Municipal Code establishes the procedures and policies for utility extensions prior to annexation.

Policy UT-1.3

Require sewer and water connections for all new development be to City construction standards.

Policy UT-1.4

Allow existing single family homes with working septic systems and private wells to continue to utilize these facilities, providing there are no health or environmental problems.

City's 4th Avenue water tanks

Policy UT-1.5

All new water and sewer mains shall be installed in public right-of-way, and the use of private easements for such locations shall be avoided as much as possible.

Policy UT-1.6

Sewers intended to serve new development shall be gravity, unless topography or technical design reasons prevent obtaining gravity flow. In those specific cases where gravity flow cannot be achieved, lift stations may be considered by the City.

Policy UT-1.7

Provide a water supply that meets all federal and Washington State Department of Health drinking water quality standards.

Policy UT-1.8

Provide reliable water service for domestic use, fire flow protection and emergencies.

Anderson Parkway stormwater filterra

Policy UT-1.9

Develop and implement a proactive water use efficiency and conservation program, based upon the goals and recommendations set forth in the most current water system functional plan. Any such efficiency and conservation program shall identify incentives for water conservation.

Policy UT-1.10

Ensure water quality is maintained by requiring all new water systems to be looped as much as possible.

Policy UT-1.11

*Manage the storm water system in Poulsbo to ~~maintain a hydrologic balance in order to~~ **protect public safety**, prevent **public and private** property damage, protect water quality **and aquatic habitat**, and provide for the safety and enjoyment of citizens.*

Policy UT-1.12

The City shall complete and implement the necessary programs, projects and maintenance ***measures*** *that satisfy the Washington State Department of Ecology Phase II NPDES requirements.*

Policy UT-1.13

Maintain a cost-effective and responsive solid waste collection system. Require garbage pick-ups to be located on public streets.

Policy UT-1.14

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

Policy UT-1.15

Continue participating in Kitsap County's solid waste management planning to ensure a regional approach to solid waste management.

Kitsap County's Poulsbo Recycle Center located on Viking Avenue

NON CITY-MANAGED UTILITIES

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

Electrical Service

Puget Sound Energy (PSE) is a private utility providing electric and natural gas service to homes and businesses in Puget Sound region, covering 10 counties and approximately 6,000 square miles. PSE's regional and local electric planning efforts are integrated and centered on providing safe, dependable, and efficient energy service.

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) that monitor, assess, and enforce compliance and reliability standards.

The residents of City of Poulsbo and region rely on the coordinated effort between PSE and City for the adoption and enforcement of 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 work and vegetation management is required to maintain compliance with these FERC, NERC, and WECC regulations.

In order for PSE to meet regulatory requirements, to provide dependable and cost effective service, PSE updates and files an Integrated Resource Plan (IRP) with the WUTC every two years. This Integrated Resource Plan (IRP or plan) presents a long-term forecast of the lowest reasonable cost combination of resources necessary to meet the needs of PSE's customers over the next 20 years. The current plan, which was filed on November 30, 2015, details both the energy supply and transmission resources needed to reliably meet customers' wintertime, peak-hour electric demand over the next 20 years. The plan, which was updated in the fall of 2015, forecasted that PSE would have to acquire approximately 275 megawatts of firm, dispatchable generation (most likely natural gas plants) in the next 7 years. 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 more than half of the utility's long-term electric resource need can be met by energy efficiency and the renewal of transmission contracts. This reduces the need down to 2,200 MW by 2033. The rest of PSE's gap in long-term power resources, the IPR stated is likely to be met most economically with added natural gas-fired resources.

PSE generates approximately 46 percent of the electricity for its customers' from its own power plants; hydro, thermal, and wind. PSE currently has about 3,000 megawatts of power-generating capacity, and purchase 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.

PSE's Renewable Energy Advantage Program (REAP) encourages the growth of renewable electricity production in its service area in support of WAC 458-20-273 through payments to the customer for energy produced. Currently, there are approximately 1,500 small customer-owned generation facilities. The vast majority of these are solar panel installations. Although this provides a very small portion of PSE's electrical supply portfolio, the number of customer-owned installations increases every year. This voluntary set of rules allows Washington state utilities the option of participating in an incentive program for eligible customers who use solar PV, wind or anaerobic digesters to generate their own electricity. The incentives are available to individuals, business within the City to generate electricity on its own property.

To provide the City 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.

Electricity provided by PSE to the City is often produced elsewhere and is interconnected to Northwest's regional transmission grid through an extensive network of transmission facilities providing bulk transmission service to meet the demands of electricity customers within the region's eight states. The PSE electric transmission facilities in City of Poulsbo are important components of the electric energy delivery grid serving the 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 will be prudently and 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 Serwold substation at Lincoln Avenue

Within the City of Poulsbo, PSE operates and maintains: ~3.8 miles of 115 kilovolt (kV) high-voltage transmission lines, 2 substations (Poulsbo sub on Viking Way and Serwold sub on Lincoln Rd.), ~28.7 miles of overhead and ~53.4 underground 12.5kV distribution lines, and approximately 3,976 metered customers.

To meet regional and citywide electric demand, new transmission lines and substations may need to be constructed, in addition, existing facilities will need to be maintained and possibly rebuilt to serve current and future demand. Specific transmission and substation construction that is anticipated in the City of Poulsbo in the next 10 years includes a possible fourth transmission tie from the south to the Foss Corner switching station that may go through city limits.

~~Puget Sound Energy (PSE) builds, operates and maintains the electrical utility system serving the City of Poulsbo. PSE is an investor-owned utility with the responsibility for providing service to over 1,630,000 metered customers within the company's 6,000 square mile service territory, including Kitsap County.~~

~~PSE imports electrical energy from generation sources primarily from hydrogenerating stations along the mid-Columbia River and from Canada. PSE's goals are to meet future customer needs for electrical service, enhance system reliability and maintain safe facilities.~~

~~PSE has divided Kitsap County into two subareas – north and south – for purposes of electric facilities planning. The North Kitsap subarea is defined by the shoreline with Sinclair Inlet as the southern border to Hood Canal as the northern border. The South Kitsap subarea is defined by the shorelines, the county-line to the south, and Sinclair Inlet as the northern border.~~

~~The North and South subareas receive power from a network of 115kV transmission lines interconnecting transmission sources in South Kitsap County to transmission switching stations in Central and North Kitsap County. The Poulsbo area is served by two parallel 115kV transmission lines that carry power from the Bremerton Substation and the Valley Junction~~

~~Substation north of Silverdale to the Foss Corner Substation northeast of Poulsbo between Bond Road and Stottlemeyer Road NE.~~

~~An 115kV transmission line is located in Viking Way NW, which leads into a distribution station near Liberty Road. The line continues to the north end of the City, where it crosses along north of Liberty Bay and down Lindvig Way to Bond Road NE, feeding into the Foss Corner Substation. The 115kV line continues down the eastern perimeter of the City, following Stottlemeyer Road NE down NE Lincoln Drive and cutting through to Noll Road NE. The line eventually cuts back across Liberty Bay's Southern end to connect the transmission lines with the U.S. Navy Keyport and South Keyport Distribution Stations.~~

~~PSE's long-range plans are based on electrical growth projections anticipated in the planning period. PSE uses state, regional and local population and employment forecasts, as well as recent growth patterns. This data, in conjunction with the company's projections of conservation, retail rates and any know short term large load additions or deletions, form PSE's forecast of energy and peak loads.~~

~~PSE's future electrical facilities plan is based on an estimated normal peak winter load. PSE plans to construction additional transmission and distribution facilities to meet demand. At this time, no new electrical facilities have been identified for the Poulsbo city limits or urban growth area.~~

Natural Gas

Cascade Natural Gas (CNG) builds, operates and maintains the natural gas facilities serving the City of Poulsbo. CNG is responsible for the installation of services for new construction, as well as the conversion from electricity or oil to natural gas.

The Pacific Northwest receives natural gas from various regions of the United States and Canada. Natural gas is transported through the states of Washington, Oregon and Idaho via a network of interstate transmission pipelines owned and operated by Northwest Pipeline Corporation.

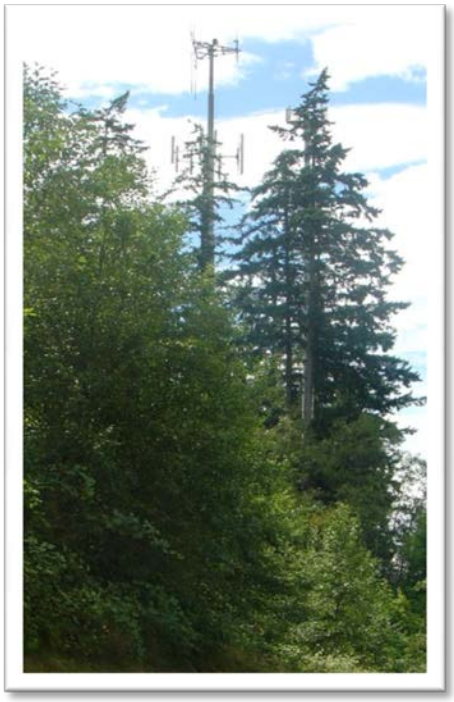
The location, capacity and timing of improvements within CNG's service area depends primarily on opportunities for expansion and the location of city growth. There are usually several alternative routes possible when connecting to the existing system. The ultimate route will depend on right-of-way, environmental impacts, and the additional opportunity to install mains concurrent with new development, or other underground infrastructure improvements.

Telecommunication Services

Telecommunication 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.

In most cases, these telecommunication services will use existing utility corridors, public rights-of-way and city owned properties other than rights-of-way, and will be able to provide services to all parts of the city. Poulsbo encourages the shared use of facilities.

Telephone: In addition to service offered by established telephone providers, cable companies also now offer local telephone service. It is anticipated that additional upgraded telephone facilities will be needed to handle a growing demand for telecommunication services.



Wireless communication facilities located on 4th Avenue

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) that may be located on freestanding poles and towers or on buildings and structures. Each antenna has ancillary power and radio equipment. Poulsbo recognizes that providing personal wireless facility communication service involves adapting to changing technologies that may make current forms of receivers obsolete and removable.

Cable: At this time, one cable operator provides cable services in the City of Poulsbo. This service provides broadcasting via a network of overhead and underground coaxial cables.

GOAL UT-2

Encourage provision of non-City managed utilities, facilities and services that meet the needs of the City and accommodate future population and economic growth.

Policy UT-2.1

Work with providers to appropriately site new utility facilities to maintain a reliable level of service and accommodate growth. Provide data and population projections to assist providers in their utility planning.

Policy UT-2.2

Ensure the City's Comprehensive Plan and development regulations are consistent with and does not impair the fulfillment of public service obligations imposed upon utility providers by federal and state law. Work with utility providers to review local regulatory barriers for alternative and renewable energy sources and, if any are found, remove these barriers.

Policy UT-2.3

Ensure reasonable access to rights-of-way for all providers consistent with federal and state laws. Require notification to the city prior to a utility's maintenance or removal of vegetation in city right-of-way.

Policy UT-2.4

Ensure that utilities are provided consistent with applicable rules, regulations and prudent utility practices.

GOAL UT-3

Locate utilities to minimize impacts on public health and safety, the surrounding development, the environment and interference with other public facilities.

Policy UT-3.1

Place utility facilities along public rights-of-way and encourage underground distribution lines in accordance with state rules and regulations.

Policy UT-3.2

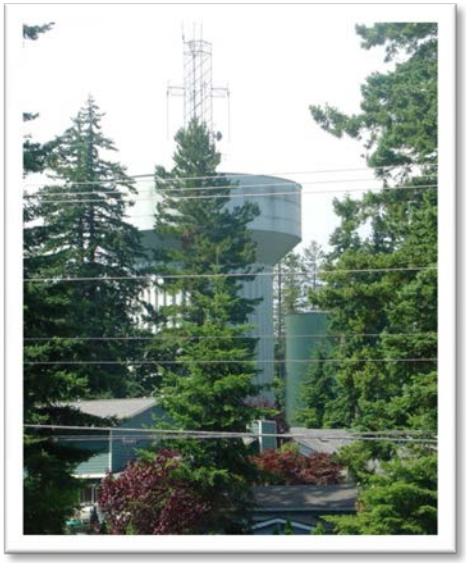
Coordinate the design and timing of installation and repair of utilities with street improvements whenever possible.

Policy UT-3.3

Protect the City's rights-of-way from unnecessary damage and interference, and ensure restoration to pre-construction condition or better.

Policy UT-3.4

Minimize siting impacts of personal wireless telecommunication facilities by identifying development standards addressing appropriate permitting, locational priorities, visual impact, screening standards, and others as applicable, all within the regulations of applicable federal law.



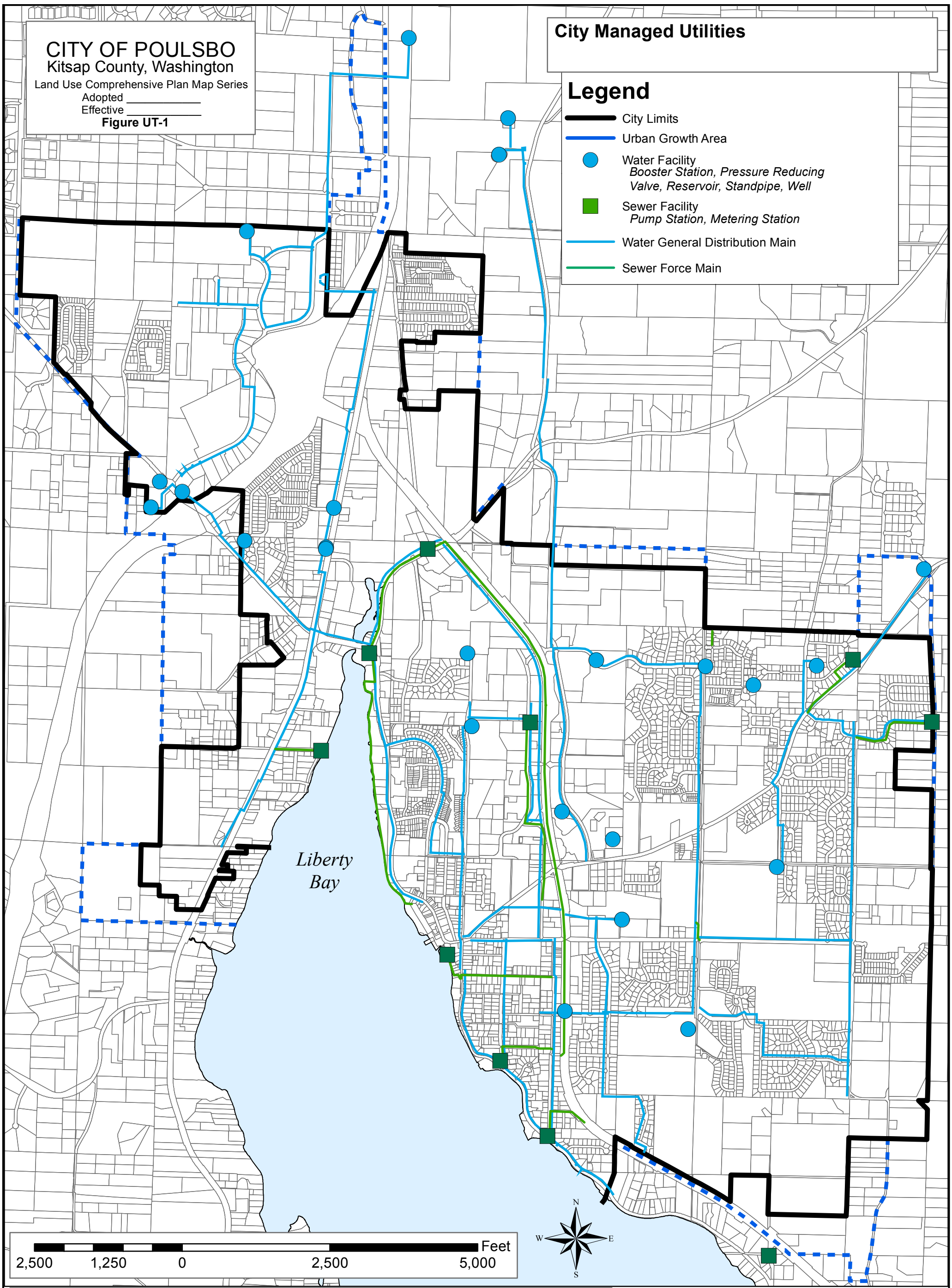
City's water tank at Lincoln Avenue

Policy UT-3.5

Minimize visual impacts of personal wireless telecommunication facilities by establishing location priorities. Placement for new personal wireless telecommunication facilities shall be in the following priority: 1) Co-locate on existing telecommunication facilities; 2) Co-locate antennas within rights-of-ways and existing structures (power poles, buildings, water towers); 3) Non-residential zoning districts; 4) Residential zoning districts.

Policy UT-3.6

Wireless telecommunication facilities shall be camouflaged by employing the best available technology. This may be accomplished by use of compatible materials, location, color, stealth technologies, and/or other strategies to achieve minimum visibility of the facility as viewed from public streets or residential properties.



Infrastructure Map Series Primary Map Sources and Original Scales:
Major Water Facilities compiled using the Water System Plan, October 2007, from the City of Poulsbo Public Works Department
Major Sewer Facilities compiled using the Comprehensive Sanitary Sewer Plan, September 2008, from the City of Poulsbo Public Works Department
Kitsap County Assessor's Tax Maps 1:12,000 (Kitsap County IT, GIS Division)
* Note: Detailed water and sewer system mapping is in functional plans included as Appendix B.

This infrastructure map series is intended for general infrastructure planning. These maps are schematic representations of physical features, infrastructure and land ownership boundaries. The map information was derived from available public records and existing sources, not from surveys. Studies may be necessary with project review to verify information.

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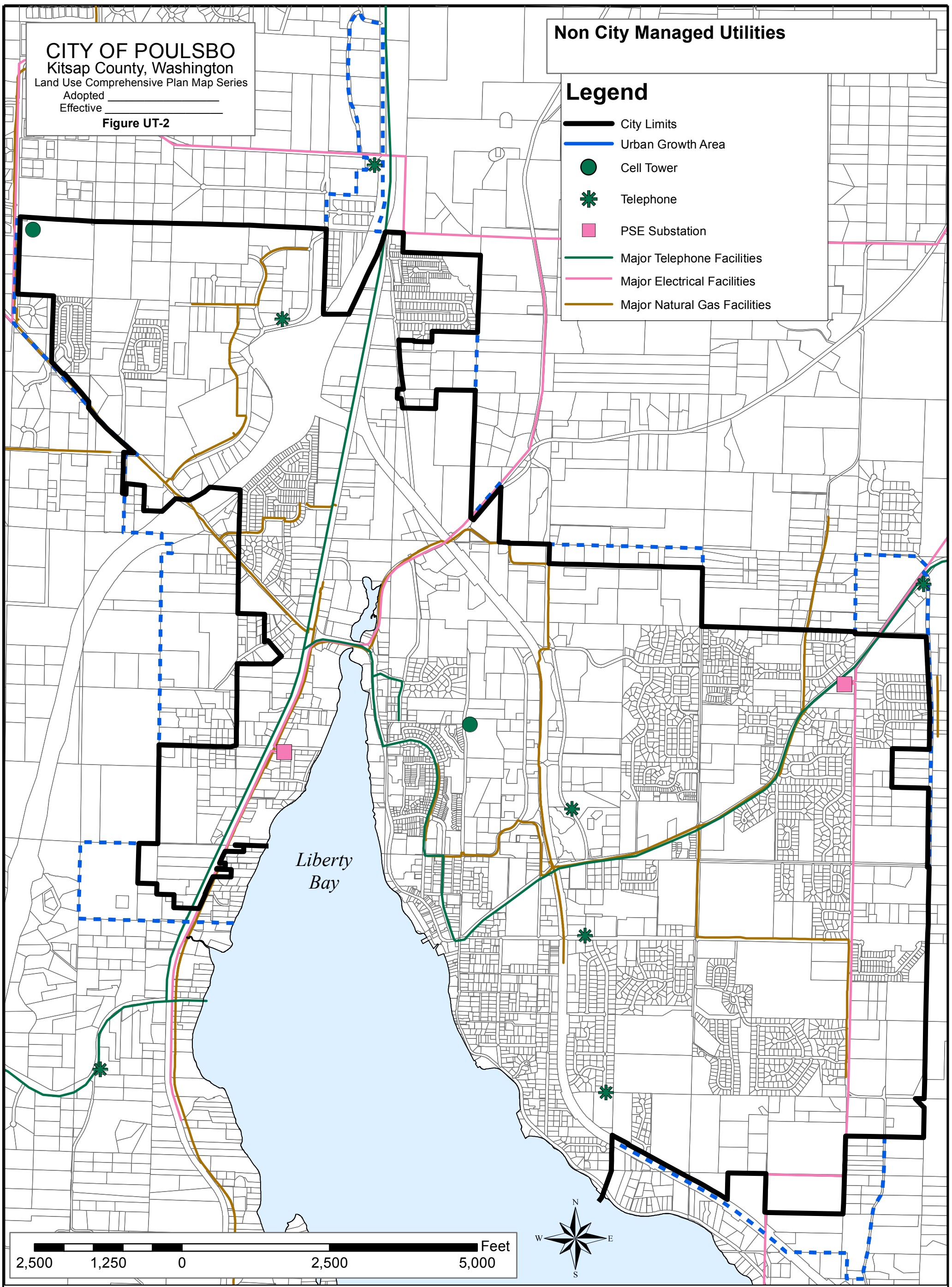

Infrastructure Map Series Primary Map Sources and Original Scales:
Locations of natural gas facilities compiled using information from Cascade Natural Gas
Locations of electric facilities compiled using information from Puget Sound Energy
Locations of telephone facilities compiled using information from Sprint
Kitsap County Assessor's Tax Maps 1:12,000 (Kitsap County IT, GIS Division)
* Note: Detailed mapping is maintained by individual utilities and questions should be directed to appropriate provider.

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