

11. Utilities

This Utilities Element has been developed in accordance with Section 36.70A.070 of the Growth Management Act to address utility services in the city of Forks and the adjacent urban growth area.

The Utilities Element specifically considers the general location, proposed location, and capacity of all existing and proposed utilities, including, but not limited to, electrical lines, telecommunication lines, water and sewer facilities. This element also identifies general utility corridors.

The city of Forks and Clallam County recognize that planning for utilities is the primary responsibility of the utility providers. However, this Utilities Element incorporates plans prepared by the providers in order to identify ways of improving the quality and delivery of services provided in the city the Forks UGA.

Federal and state laws/regulations

Washington Utilities & Transportation Commission (WUTC) - utility services are regulated in Washington State by the Washington Utilities and Transportation Commission WUTC. The WUTC, composed of 3 members appointed by the governor, is empowered to regulate utilities (including, but not limited to, electrical, gas, irrigation, telecommunication, and private water companies). State law (WAC 480-120) regulates the rates and charges, services, facilities, and practices of specific utilities. Any change in customer charges or service provision policy requires WUTC approval.

Federal Energy Regulatory Commission

Federal Energy Regulatory Commission (FERC) - is an independent 5-member commission within the US Department of Energy. FERC establishes rates and charges for the interstate transportation and sale of natural gas, for the transmission and sale of electricity, and the licensing of hydroelectric power projects. In addition, the Commission establishes rates or

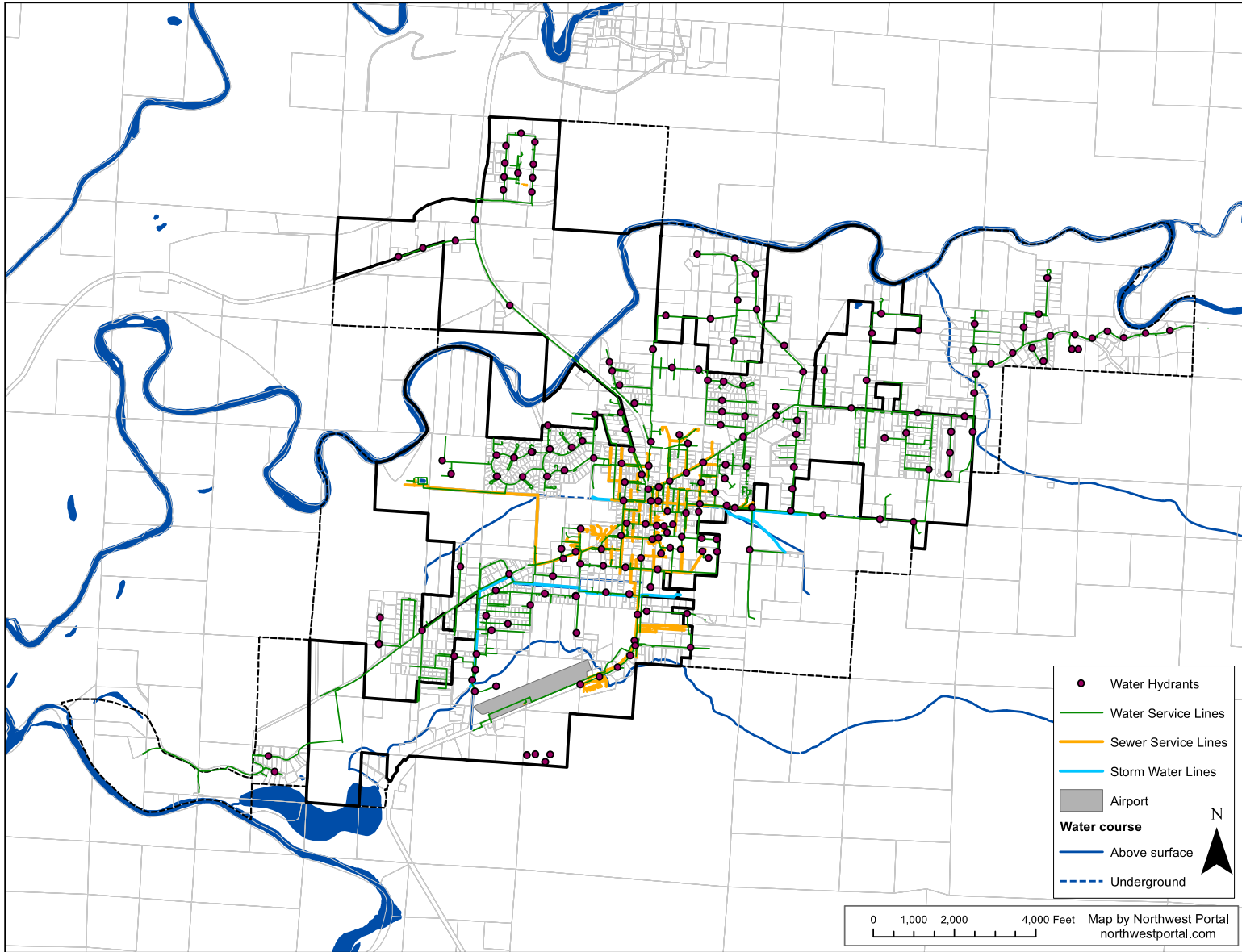
charges for the interstate transportation of oil by pipeline. Federal Safe Drinking Water Act of 1974 (1986 amended) This legislation established 2 classifications of water quality standards:

- **Primary contaminants** - are directly related to public health such as bacterial, turbidity, inorganic chemicals, trace organics, or radionuclides. When water sampling determines the presence of primary contaminants exceeds permitted maximum level, immediate corrective action is required.
- **Secondary contaminants** - impair the aesthetic qualities of the water and do not endanger the public's health. In 1986, the Act was amended and required utilities to test for an additional 83 contaminants. The City Forks participates in such testing and annually sends out a notice to all of its water customer information on the test results.

1991 Washington State Clean Air Act Amendments - the passage of the Washington State Clean Air Act in 1991 indicates a state intent to promote the diversification of fuel sources for motor vehicles to reduce atmospheric emissions and reliance on gasoline for strategic reasons. The Act requires 30% of newly purchased state government vehicle fleets to be fueled by alternative fuel by July 1992, (increasing by 5% each year). The Act # also encourages the development of natural gas vehicle refueling stations.

Water

The ability to provide water, via the City of Forks' water supply system was a critical factor in determining the Forks UGA boundaries. Prior to 1953, Forks Prairie was provided water by the Forks Water Company, a private company that obtained water by extraction from Elk Creek. In 1953, the Town of Forks took over water supply responsibilities and currently the City of



Forks provides water services to all areas within the Forks UGA.

The Forks UGA is supplied water ~~through the use of~~ **from** 5 wells that are associated with 2 fields believed to be supplied by the same aquifer. All 5 wells were installed prior to 1980. Water from the wells is chlorinated and fluoridated and has continually met or exceeded state and federal water purity standards.

The working capacity available to the Forks UGA is 1,445 gallons per minute (gpm) and the **Forks town limits** City's water supply system is at 60% operational capacity. Efforts in the late 1990s to locate another aquifer in the area near the industrial park proved ~~to be~~ unsuccessful.

Water from the wells is stored in 3 water tank reservoirs. 2 reservoirs, totaling 900,000 gallons, are over 35 years old, while the 1,000,000-gallon reservoir is more than 25 years old. ~~The City~~ **Forks** has protected and enhanced the reservoirs to ensure this critical infrastructure remains available to the community. Sufficient land is available for expansion.

The current water supply system includes over 22 miles of pipeline. ~~The City's~~ **Forks** water distribution system is maintained and regularly upgraded by the ~~City's~~ **Forks** Public Works Department in accordance with the Forks Water System Plan (**WSP**).

The quality of the water provided by Forks is good and the service meets present needs and those projected for the next 20 years. The maximum capacity for the Forks Water System is 1,390 gallons per minute (gpm) as determined by ~~the City of~~ Forks Comprehensive Water System Plan (**WSP**). According to 1987 statistics cited in the Water Plan, there are 2.75 persons per connection.

The Washington State Department of Social and Health Services (**DSHS**) recommended daily connection usage rate is 800 gallons per day. The projected population for **2045** of ~~-----6,234~~ persons in the Forks UGA would require ~~-----1,259~~ gallons per minute which is below the 1,390 gallon per minute capacity of the existing water

system.

Wastewater disposal facilities

~~Prior to 1985, all houses in the Forks UGA operated sewer disposal systems using septic tanks. In 1973 and 1977, a referendum to create a utility district develop a sewer treatment plant were defeated. However, in 1985, a utility district was created in a smaller section of the Forks UGA centered around the downtown area prompted by the 1982 state ban of new on-site septic systems. The district through grants and levies commissioned the building of a sewer treatment facility that began operation in 1986.~~

The \$3,800,000 Forks **wastewater treatment plan (WWTP)** facility **built in 1986** utilized a system of "rapid infiltration" using a large lagoon to aerate the wastewater and 8 earthen basins to absorb the treated effluent into the ground. The system incorporated some unusual and innovative features that include long-term extended aeration treatment, single sludge nitrification/gentrification, rapid infiltration of wastewater effluent, and permanent on-site land application of waste sludge to second growth timber.

~~Up until 2002, the City received numerous awards for this innovative system. However,~~ In 2002, the Washington State Department of Ecology (DOE) notified **Forks** ~~the City~~ that the previous system was no longer an acceptable means of treating bio-solid waste. ~~The City,~~ **Forks** utilizing reserve funds pursued an innovative biosolid screw press built in Japan. ~~The City~~ **Forks** obtained a license to operate a Class A biosolid treatment facility built around the innovative screw press which was the first such operation in the State of Washington.

The current system operates at about 67% of built capacity. However, there are areas of the Forks UGA that do not have access to the existing sewer system. Efforts to expand the system have thus far been limited to small additions. A significant hurdle to expanding the system to other parts of the

City and UGA are the high costs in materials and with initial connection assessments.

Future expansion will require the un-serviced areas to form a utility district, and ~~the City of Forks~~ **Forks** will need to obtain additional outside agency funds with which to extend the sewer system.

There are no plans to increase the capacity of the sewage treatment plant although additional land to the west and southwest of the current facility has been designated as open space limited access, providing **Forks** ~~the city~~, upon acquiring ownership, with the ability to expand the current facility if required. ~~A bond was proposed for added sewage treatment capacity and was rejected by the voters.~~

Stormwater facilities

~~The City's~~ **Forks** stormwater system is composed of a network of public and private facilities that include wetlands and drainage ways, publicly owned ditches, culverts, and swales. Current facilities are inadequate to handle substantial increases in stormwater drainage associated with increased development.

Electric utility

During the 1940's, ~~the City of Forks~~ received some electrical power from a locally owned diesel generator. In the mid-1950s a transmission line was built to serve the western end of Clallam County and the Public Utilities District (PUD) Number 1 of Clallam County (~~District~~) has been serving the Forks UGA since then.

The current source of electrical power supplied to the **Forks** UGA is from purchases from the Bonneville Power Administration (BPA), as well as secondary power markets when power suppliers began selling on the open market energy to power distributors. While ~~the current agreements with Clallam County PUD and BPA Bonneville Power Administration~~ restrict the amount that can be purchased from other sources, it is expected that these restrictions will be loosened, if not eliminated, in the future.

Electricity is primarily generated from hydroelectric facilities located along the Columbia River and delivered through the regional and local transmission system.

According to the PUD, there is ample capacity to meet existing demand for the Forks UGA over the next 20 years. The **PUD District** has a long history of cooperating with ~~the City of Forks~~ regarding distribution improvements and upgrades.

The ~~District's~~ **PUDs** electrical facilities of less than 69,000 volts (69 kV) are distribution facilities of 69,000 volts (69 kV) or more are transmission facilities. The Forks UGA is serviced by 4 distribution substation facilities located in 1) the industrial area in the northern section of the Forks UGA; 2) at a site on the north side of Calawah Way near the intersection with 5th Avenue NE; and 3) and 2 substations located near the corners of "E" Street SW and 5th Avenue SW.

The Forks UGA is fully served by these substations with distribution lines that extend service to all residential, commercial, and public customers. The District's 69kV transmission lines serve the 4 distribution substations for the Forks UGA.

The PUD, with funds from BPA, completed a ~~aggressive~~ conservation program that funded customer cost-effective energy improvements including the addition of insulation, energy- efficient windows, lighting, and heating units.

~~The City~~ **Forks** is participating in research efforts that could produce small quantities of electricity that could remove facilities from the PUD grid during BPA's peak load periods thereby reducing PUD costs. ~~The City~~ **Forks** will continue to work closely with ~~the~~ PUD to find ways to conserve electrical usage.

Telephone Telecommunications

Telecommunication services began with Forks first having telephone services in 1908. Television services were accessible in the 1960s, but to address both quality and potential offerings, a local cable company provided cable subscription services in the 2000s when Millennium Digital. While Lumens/CenturyLink, formerly known as CenturyTel, is the current incumbent exchange carrier, many people utilize internet, satellite, cellphone services from a variety of providers for their telecommunication and media services traditionally provided by television and cable providers. The availability of those services in Forks began with the project described below.

The City of Forks has had telephone services since 1908. CenturyTel is the current service provider for Forks and the remainder of western Clallam and Jefferson Counties.

In 1999, a group worked collectively with CenturyTel on a telecommunication system that would expand uses while attracting potential business clients needing access to broadband-based data services. The Forks Integrated Community Network (ICN) began **was initiated** at the zenith of the telecommunications industrial boom of the late 1990s. While the boom turned to bust, the ICN effort continued to pursue a modernized digital infrastructure for Forks and ultimately a digital fiber optic loop around the Olympic Peninsula connecting CenturyTel to the Qwest system.

~~The philosophy of ICN was the concept that "one's area code should not limit one's educational, recreational, business or health care opportunities" – a slogan paraphrased from an educational goal of Alaska's Kenai Peninsula.~~

~~The effort to develop the necessary infrastructure associated with broadband applications, as well as the necessary skill sets within the community to utilize those applications, have been vigorously pursued – many times in a collaborative fashion between various entities. A detailed review and discussion of the ICN process can be found in, From Timber to Technology: A Community's Efforts to Bridge the Digital Divide, written by Julie Steinkopf Rice as part of a US Department of Housing and Urban Development (HUD) Economic Development Initiative Grant the City received.~~

ICN efforts resulted in the deployment of broadband services in the Forks UGA in 2001, **an** upgrade of the main telecommunications infrastructure along the western Olympic Peninsula, **the** creation of a redundant digital distribution network, and ~~ensuring~~ the ability to meet demand for literally hundreds of phone lines. Since the telecommunications industry is required to provide service on demand, CenturyTel has indicated there is capacity for **Forks the City** and UGA.

Currently both CenturyLink and Fatbeam Fiber have fiber optic systems within portions of Forks. There is also access, predominately for public entities, via the Northwest Open Access Network (NoaNet) in conjunction with Clallam County PUD. CresCom Wifi is an independent, locally owned provider of telecommunication services with various means of delivering those services to their customers.

Television

~~Television service has been provided to the City of Forks since at least 1966. In the late 1990s, cable/television services become problematic as prices increased for the services provided by Millennium Digital.~~

~~Millennium Digital is unregulated by the City of Forks. Millennium disconnected over 120 customers located just outside the Forks UGA in 2003 and customer satisfaction was a concern. Millennium Digital's distribution network is microwave-based transmissions via a satellite network, a system that is antiquated and that could contribute to customer dissatisfaction. It is difficult to determine the number of households that have television services by cable or by the increasing use of small satellite dishes. At one time over 80% of the households within the Forks UGA subscribed to cable services.~~

Goals and policies

UTIL Goal 1 - Assure Forks residents receive ample, quality, and

reliable utility services at cost effective rates.

UTIL Policy 1.1 - Pursue technologies and materials that reduce Forks the City's consumption of electricity within its own facilities.

UTIL Policy 1.2 - Work with and coordinate the deployment of infrastructure with land development in the Forks UGA.

UTIL Policy 1.3 - Ensure a straightforward means of permitting essential distribution systems exists while protecting the public's interest in knowing the activities occurring within Forks their neighborhoods.

UTIL Policy 1.4 - Recognize that utilities providers have an obligation to serve and provide the same level of service to all customers.

UTIL Policy 1.5 - Work with service providers to improve the coverage of wireless communication opportunities including high-speed Internet access within the Forks UGA.

UTIL Policy 1.6 - Work with Clallam County PUD #1 to expand service and reliability.

