

## CHAPTER SEVEN -- UTILITIES

### I. INTRODUCTION

**Growth Management Act:** The Growth Management Act (GMA) requires that local comprehensive plans include a utilities element. According to the Act, the utilities element shall, at minimum, consist 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."

In addition, the State guidelines for implementing the GMA (Chapter 365-195 WAC) state that policies should be adopted which call for:

1. Joint use of transportation rights-of-way and utility corridors, where possible;
2. Timely and effective notification of interested utilities of road construction, and of maintenance and upgrades of existing roads to facilitate coordination of public and private utility trenching activities; and
3. Consideration of utility permits simultaneously with the proposals requesting service and, when possible, approval of utility permits when the project to be served is approved.

**County-Wide Planning Policies:** The adopted County-Wide Planning Policies includes the following policy related to private utilities:

"Thurston County and cities and towns will...provide capacity to accommodate planned growth by: assuring that each jurisdiction will have adequate capacity in...public and private utilities...to serve growth that is planned for in adopted local comprehensive plans."

**Regulatory Authority:** The primary regulatory agency for most private utilities in Washington State is the Washington Utilities and Transportation Commission (WUTC), a state agency. The WUTC ensures that safe and reliable service is provided to customers at reasonable rates. The Commission regulates the rates and charges, services, facilities, and practices of most of Washington's investor-owned gas, electric and telecommunication utilities.

As defined by the WUTC, some utilities are considered a critical service, namely electricity and standard telephone, and must be provided "upon demand". In order to fulfill public service obligations, these utility providers must plan to extend or add to their facilities when needed. On the other hand, natural gas is not considered a necessity, but rather a utility of convenience. All utilities regulated by the WUTC are prohibited from passing the cost of new construction onto the existing rate base.

Federal agencies also play a role in regulating some of these private utilities. For example, the Federal Communications Commission (FCC) regulates telecommunications.

The Federal Telecommunications Act of 1996 was the first major overhaul of the nation's telecommunications laws since the original Communications Act of 1934. The Act recognizes emerging and converging telecommunications technologies, and sets a policy to encourage future development. To help achieve this, the Act bars local regulations that have the effect of prohibiting the siting of telecommunication facilities such as cellular telephone towers, or discriminating among service providers. Balancing this goal however, the Act specifically leaves in place the authority that local zoning authorities have over the placement of cellular telephone facilities (also called Wireless Communication Facilities in Thurston County's Zoning Ordinances). In addition, the Act states that the Federal Communications Commission (FCC) shall regulate cellular telephone facilities regarding radio frequency radiation. As long as the operators of those facilities comply with the applicable FCC regulations, state and local governments are preempted from taking action based on radio frequency emissions.

The purpose of the telecommunications policies in this chapter are to: (i) protect the public health, safety, and welfare; (ii) protect property values; and (iii) minimize visual impact while furthering the development of enhanced telecommunication services in the County. The goals of the County's telecommunication policies and regulations are to: (i) enhance the ability of wireless communication service providers to provide such services throughout the County quickly, effectively, and efficiently; (ii) encourage wireless communication providers to co-locate on new and existing tower sites; (iii) encourage wireless communication providers to locate towers and antennas, to the extent possible, in areas where the adverse impact to County residents is minimal; and (iv) encourage wireless communication providers to configure towers and antennas in a way that minimizes any significant adverse visual impact.

In addition, the Federal Energy Regulatory Commission (FERC), an independent commission within the U.S. Department of Energy, sets rates and charges for the transportation and sale of natural gas, and for the transportation of oil by pipeline, for the transmission and sale of electricity, and the licensing of hydroelectric power projects.

Local government, too, has a role in regulating for certain private utilities, such as franchise agreements with cable companies. However, the effort behind meeting Growth Management Act requirements is not primarily regulatory, rather it is to promote coordination and cooperation between jurisdictions and utility providers.

Virtually all land uses require one or more of the private utilities discussed in this Chapter. Local land use decisions drive the need for new or expanded utility facilities. In other words, private utilities follow growth. Expansion of the utility systems is a function of the demand for reliable service that people, their land uses, and activities place on the systems.

In Thurston County, private utilities are currently provided by the following companies:

Electricity:	Puget Sound Energy
Natural Gas:	Puget Sound Energy
Standard Telephone:	Tenino Telephone Company
	Qwest Communications
	YCOM Networks
Cellular Telephone:	Various Providers
Cable:	Comcast

The Bonneville Power Administration (BPA), a power marketing agency of the U.S. Federal Government, owns and operates the principle high voltage transmission lines serving the Puget Sound region. In addition, Williams Pipeline Corporation ("Williams") owns and operates an extensive interstate pipeline system which provides natural gas to the region. Both BPA transmission lines and "Williams" pipelines run through Thurston County as shown on Map M-44.

For county-owned and operated utilities, more elaborate information than could be included in this plan is available in the individual plans for each utility (water, sewer, solid waste, stormwater, etc.). See Appendix C for a list of those plans. Additional information on future projects regarding these utilities is found in the most recently adopted capital facilities plan.

## II. EXISTING FACILITIES

In order to meet the GMA requirement that existing utility facilities be identified, the following list is provided. In addition, Map M-44 shows existing electrical and natural gas facilities, while Map M-45 shows existing telecommunications service.

### A. Electricity:

Utility Provider: **Puget Sound Energy**

Existing electrical facilities are both listed below and illustrated on Map M-44. For more details on these existing Puget Sound Energy facilities, please see the Thurston County Growth Management Act Draft Electrical Facilities Plan prepared by Puget Sound Energy, which is the source for the following summary inventory of existing electrical facilities for the unincorporated county as of 2004.

1. Generation Facilities: None
2. Transmission Switching Stations: None
3. Transmission Substation: St. Clair
4. Distribution Substations:
  - a. Griffin
  - b. Mottman

- c. Friendly Grove
  - d. Pleasant Glade
  - e. Luhr Beach
  - f. Tanglewilde
  - h. Southwick
  - i. Patterson
  - j. McAllister Springs
  - k. Longmire
  - l. Rochester
  - m. Chambers
  - n. Olympic Vail Pipeline
  - o. Yelm
5. Transmission Lines (230kV): None
6. Transmission Lines (115kV):
- a. Olympia-West Olympia #1 & 2
  - b. BPA Olympia-Olympia #1 & 2
  - c. Tono-Olympia
  - d. Olympia-Airport
  - e. Olympia-St. Clair #1 & 2
  - f. White River-St Clair
  - g. Blumaer-St. Clair
  - h. Electron Heights-Blumaer
  - i. Rochester-Blumaer Tie
  - j. Tono-Blumaer
7. Transmission Lines (Below 115kV):
- a. Plum Street-Pleasant Glade (55kV)
  - b. St. Clair-Pleasant Glade (55kV)
  - c. St Clair-Fern Hill (55kV)

## B. Natural Gas:

Utility Provider: **Puget Sound Energy**

Existing natural gas facilities as of 2004 are both listed below and illustrated on Map M-44. For more details on natural gas facilities, please contact the company.

1. Gate Stations:
- a. West Olympia Gate Station
  - b. Littlerock Road Gate Station

- c. Olympia Town Border Station
  - d. Yelm Town Border Station
  - e. Yelm Gate Station
  - f. Rainier Gate Station
2. District Regulators: There are approximately 20 district regulators in the unincorporated area.
  3. High pressure supply lines provide gas to areas through the district regulators. There are approximately 230,000 feet of combined 8", 6", 4", and 2" high pressure supply lines serving the entire Thurston County area. Together these lines are capable of supplying approximately 2 million cubic feet per hour to Thurston County.
  4. Distribution mains are fed from the district regulators and are typically 8, 6, 4, 2, and 1¼ inch in diameter lines. There are approximately 750 miles of distribution main in all of Thurston County.
  5. Individual residential service lines are typically 5/8" in diameter. Individual commercial and industrial service lines are typically 1¼" or 2" in diameter.

**C. Standard Telephone:**

Utility Provider: **Qwest Communications** Telephone Company

There are three Qwest Communications central switching offices (CO) serving Thurston County. One is located in the unincorporated county, and the other two are located in Olympia and Lacey. The three CO's work together to provide service to that part of the unincorporated area that is part of Qwest's territory. From the switching stations are main cable routes, branch feeder routes and local loops that provide dial tone.

Utility Provider: **Tenino Telephone Company**

Tenino Telephone Company has one switching station located at company headquarters in Tenino. The company serves not only the City of Tenino but also part of the unincorporated county around the city.

Utility Provider: **YCOM Networks**

YCOM Networks has one switching station located at company headquarters in Yelm. The company serves part of the unincorporated county as well as the City of Yelm.

**D. Cellular Telephone:**

Since passage of the Federal Telecommunications Act of 1996, there has been rapid growth in the number of cellular telephone antennas in the unincorporated County. The location of the existing sites as of August 2004 are shown on Map 45. For up-to-date information please see Thurston Geodata's website at <http://www.geodata.org> for current locations of cellular structures.

Together these antennas provide cellular telephone service for the county. The cellular phone system consists of a series of these low-powered antennas in a honeycomb pattern of "cells" that invisibly blanket the service area. Each cell site has an effective signal radius of only a few miles depending on terrain and capacity demand. As a caller drives from one cell to another, the call is automatically handed off to another cell by a central computer. This central computer also connects the cellular phone transmission with the local telephone company system that completes the call.

**E. Cable:**

Utility Provider: **Comcast Cable**

Cable television in Thurston County is served by Comcast. Coaxial cable is the primary method of transporting signals from the headend to individual house service drops.

**F. County-Owned and/or Operated Facilities:**

For up-to-date information please see Thurston Geodata's website at <http://www.geodata.org> for current locations of county-owned or operated facilities. Please also see the most currently adopted version of the capital facilities plan.

**III. PROPOSED FACILITIES**

The GMA requires that the utility element show proposed utility facilities. There is great variability in the level of detail provided for future utility facilities. This is because some utilities, like Puget Sound Energy, have done extensive future planning while others have done much less. Proposed electrical facilities are both listed below and illustrated on Map M-44. All other proposed utility facilities are listed in this section but are not mapped.

**A. Electricity:**

Utility Provider: **Puget Sound Energy**

The following list is a summary of Puget Sound Energy proposed facilities to the year 2014 for the unincorporated county. For more details on these proposed facilities, please see the Thurston County Growth Management Act Draft Electrical Facilities Plan prepared by the company in 1992, which is the source for the following planned improvements. Inclusion of this reference to the plan indicates general schematic, not site specific, approval of future facilities and acknowledges planning being done by Puget Sound Energy to provide service for anticipated growth. Due to Puget Sound Energy's resource limitations, an update of the plan was not possible during the 2004 update of the County's Comprehensive Plan.

1. System Improvements in Progress:
  - a. TCL Southwest-St. Clair 230 kV Line
  - b. Southwest-St. Clair 230 kV Line
  - c. Christopher 230 kV Development
  
2. Future Transmission Improvements:
  - a. North Olympia 55 kV Conversion
  - b. Pleasant Glade Transmission Substation
  - c. Hoffman Transmission Station
  - d. Spurgeon Transmission Substation
  - e. Yelm Transmission Station
  - f. Thurston 230 kV Plan
  - g. St. Clair-Spurgeon 115 kV Rebuild
  - h. BPA Olympia-Spurgeon 230 kV Line
  - i. Frederickson-St. Clair & Tono 230 kV Project
  - j. Tono-Spurgeon 230 kV Line
  - k. South Seattle-Olympia System Reinforcement, BPA
  - l. St. Clair-BPA Olympia 230 kV line
  - m. 230 kV line from BPA Olympia to the proposed Spurgeon Substation Site
  - n. Olympia-Shelton 500 kV line
  
3. Future Distribution Substations:
  - a. Rainier View
  - b. Spurgeon
  - c. Fort Eaton
  - d. Libby
  - e. Ayers

- f. Offut
- g. Littlerock

**B. Natural Gas:**

Utility Provider: Puget Sound Energy

Tentative future projects planned for 2004-2014:

- a. A proposed 8" high-pressure line from Fort Lewis to Olympia.
- b. A potential 12 miles of 8" high-pressure line from Olympia to Lacey.
- c. A potential 3 miles of 12" high-pressure line from south Thurston County to Lacey.
- d. Install 6" intermediate pressure (IP) line along Rainier Road from Fir Tree Road northwesterly to Chambers Road and Yelm Highway.
- e. Replace existing 2" IP with 8" IP main along Fir Tree Road from Rainier Road westerly to Countrywood Drive.
- f. Replace existing 4" IP with 8" IP main along Littlerock Road from Littlerock Gate Station (90 LN) northerly to "C" Street.
- g. Rebuild Littlerock Gate Station.

**C. Standard Telephone:**

Utility Provider: **Qwest Communications**

Qwest Communications operates a broadband telecommunications network capable of providing video, data and voice communications service. The network carries these multimedia signals over a mix of optical fiber, coaxial cable and copper wire. It is also equipped with sophisticated electronic equipment that makes it easier to diagnose and fix problems. Qwest states that it currently provides telecommunications service to a major portion of Thurston County and does not expect difficulties in continuing to provide that service to the future residents over the next 20 years.

Utility Provider: **Tenino Telephone Company**

Utility Provider: **YCOM Networks**

Tenino Telephone Company and YCOM Networks both state that within their service areas they can increase capacity indefinitely and do not foresee any problems in providing telephone service to customers in their areas over the next 20 years. It is not anticipated that these service boundaries will change in the foreseeable future.

**D. Cellular Telephone:**

Unlike other utilities, the cellular telephone industry does not plan facilities far into the future and analyzes market demand to determine expansions into new service areas. There are multiple cellular telephone providers in Thurston County, each of which will be proposing to add new antenna sites over the coming years.

**E. Cable:**

Utility Provider: **Comcast**

Comcast works closely with other utility companies and the county to stay informed on proposed developments so that cable can be part of developers' plans. Each year, company engineers assess the need for system expansion based on telephone inquiries, permitting data from the county and technological advances in distribution equipment.

**F. County-Owned and/or Operated Facilities:**

For proposed projects for county-owned and operated utility facilities please see the most recent adopted version of the capital facilities plan.

**IV. GOALS, OBJECTIVES, AND POLICIES**

**GOAL 1:** TO FACILITATE PRIVATE UTILITY SERVICES AT THE APPROPRIATE LEVELS TO ACCOMMODATE THE DEMAND ASSOCIATED WITH CURRENT AND FUTURE LAND USES. SUCH SERVICES SHOULD BE PROVIDED IN A MANNER THAT MAXIMIZES PUBLIC SAFETY AND MINIMIZES POTENTIAL ADVERSE ENVIRONMENTAL IMPACTS.

**OBJECTIVE A:** The county should maintain current information on the existing and proposed facilities of private utilities.

**POLICIES:**

1. Expansion and improvement of private utility systems should be recognized primarily as the responsibility of the private utility providing the corresponding service. The county should generally participate in the development of, and rely upon, plans prepared by each utility undertaking facility and capital improvement planning.
2. The county should maintain current information in the Comprehensive Plan on the future plans of private utility providers and as new information from private utility providers becomes available.
3. The county should maintain copies of utility providers' long-range system improvement plans and make them available as public information.

4. The county should encourage Puget Sound Energy to update the Thurston County Growth Management Act Electrical Facilities Plan on a regular basis.

**OBJECTIVE B:** The county should promote the joint use of transportation rights-of-way and other utility corridors.

**POLICIES:**

1. The county should promote, wherever feasible, the co-location of new utility distribution and communication facilities when doing so is consistent with utility industry practices and national electrical and other codes. Examples of facilities which could be shared are trenches, transportation rights-of-way, towers, poles, and antennas.
2. The county should provide timely and effective notice to all affected private utilities of road construction, including the maintenance and repair of existing roads, in order to promote the joint planning and coordination of public and private utility trenching activities.
3. The county should review county standards and procedures to ensure that they support joint use of transportation rights-of-way and utility corridors.
4. The county should standardize locations for utilities within road rights-of-way when feasible.

**OBJECTIVE C:** The county should coordinate with the cities and towns throughout the county on private utility planning.

**POLICIES:**

1. The county should coordinate on an ongoing basis with the cities and towns on private utility planning to ensure consistency in long-range plans and regulations to promote efficient and effective provision of utility services.
2. The county should coordinate with the cities and towns in the planning of multi-jurisdictional private utility facility improvements.
3. The county should encourage decisions made regarding private utility facilities to be consistent with and complementary to regional demand and resources, and should reinforce an interconnected regional distribution network.

**OBJECTIVE D:** The County should coordinate with private utility providers.

**POLICIES:**

1. The county should coordinate on an ongoing basis planning activities with private utility providers to ensure consistency between the facilities' plans of private utilities and the long-range plans and regulations of the County.
2. The county should seek input from private utility providers when developing new plans, regulations and procedures which affect private utility service and

activities, such as street excavation, street obstructions, and fee schedule revisions.

**OBJECTIVE E:** Potential adverse impacts of utility facilities should be minimized.

**POLICIES:**

1. The county should encourage utility facilities such as electric substations, natural gas gate stations, wireless communication facilities (cellular telephone towers), and telephone switching stations be designed to minimize aesthetic and other impacts on surrounding land uses. Landscaped screening, buffers, setbacks, and other design and siting techniques should be used to accomplish this objective. The extent of these requirements depend on the adjacent land uses and zoning.
2. The county should encourage the location of private utility facilities near compatible land uses as defined in the county's Special Use standards.
3. The county should encourage telecommunication providers to use existing structures, such as existing towers and buildings, where feasible.
4. The county should encourage that community input is solicited prior to county approval of private utility facilities which may significantly impact the surrounding community.
5. In order to minimize adverse impacts on water quality and human health, the County should continue to review, through the existing permitting process (a) the management, spraying and clearing of vegetation in utility corridors and in the sanitary control portions of public right-of-way corridors, and (b) the new construction and expansion of lines.
6. The county should encourage that utility corridors on public lands are made available for recreational use when such use does not negatively impact adjacent land uses, and does not pose a public health or safety hazard, or result in property damage on adjacent lands.
7. If federal laws on electromagnetic fields change, the County should review its policies and regulations accordingly.

**GOAL 2:** PROVIDE FOR STORMWATER MANAGEMENT IN A MANNER THAT PROTECTS ENVIRONMENTAL QUALITY AND AVOIDS INCREASING THE RISK OF DAMAGE FROM NATURAL HAZARDS.

**OBJECTIVE:** To provide for stormwater management in a manner that protects receiving waters and avoids exacerbating natural hazards, consistent with state law.

**POLICIES:**

1. The county should maintain or improve the quantity and quality of water entering wetlands, groundwater, streams and ponds so it mimics natural conditions as closely as possible. The county should require that stormwater is managed so it does not

- significantly increase the frequency and duration of peak stream flows, diminish summer flows, or elevate instream water temperatures outside of the range necessary to sustain dependent fish, generate sediment or pollutants damaging to fish or shellfish, or otherwise degrade water quality.
2. The county should minimize stormwater runoff from existing development and require new development to limit runoff to predevelopment conditions, except where stormwater infiltration would increase groundwater flooding or landslide risk, and avoid altering natural drainage systems to prevent increases in peak stormwater runoff, flooding, stream degradation, and water quality degradation.
  3. The county should encourage use of pervious paving (such as lattice block pavers or other alternatives) to the maximum extent possible for low volume, off-street parking and in other lightly used areas.
  4. The county should consider adopting “low impact development” standards that reduce impervious surfaces and attempt to mimic natural hydrologic functions for use in areas that are sensitive to stormwater impacts.
  5. The county should require that stormwater from new development adjacent to steep slopes and unstable soils are controlled such that the potential for slope failure is reduced or at least not increased.
  6. The county should require that land use activities and septic tank effluent not generate polluted stormwater runoff that degrades surface or groundwater, including shellfish harvest areas.
  7. The county should address the cumulative impacts of existing and planned future land and resource uses within drainage basins when managing stormwater.
  8. Site plans and construction, forest and agricultural practices should be designed and conducted to prevent on-site and off-site erosion and sedimentation during and after the activity, particularly in close proximity to anadromous fish streams, shellfish beds, and water bodies used as a drinking water source and in areas draining to such locations. Runoff also should be routed and sufficiently diffused or controlled so that the flows do not create channels or erosion.
  9. The county should take steps to ensure that stormwater systems are adequately maintained in order to protect surface and groundwater quality, especially in areas that drain to shellfish beds, anadromous fish streams, or water bodies used as a drinking water source.
  10. The county should provide education and technical assistance in a comprehensive, regional manner to promote understanding of the connections between ground and surface waters, and the watershed boundary transcendence over jurisdictional boundaries.

11. The county should provide support for implementing the stormwater management program and consider the expansion of similar program efforts in the southern portion of the county.
12. The county should review and update ongoing water resource plans on a regular basis.
13. The county should determine the desired level of stormwater management activity as well as alternative permanent funding sources for planning, public information and education, monitoring, maintenance, capital improvements, reserves and regulation. As a priority, primary sources of stormwater pollution should be identified and funds provided for ongoing efforts within county government to correct polluted runoff problems as they are identified.
14. The county should encourage the Thurston Conservation District Board to continue their voluntary efforts regarding education, conservation planning, and use of best management practices on existing farms, golf courses, parks, schools, individual residences and other facilities that use pesticides and fertilizers, to reduce these and other contaminants in stormwater runoff.
15. The county should evaluate the potential for creating problems for existing development or increasing the risk for slope failure as a result of infiltrating stormwater in areas with seasonally saturated soil conditions.
16. The county should evaluate and amend as necessary the Drainage Design and Erosion Control Manual to address alternatives to infiltration in areas adjacent to steep unstable slopes to reduce the potential for slope failure in order to protect public safety and property.
17. The county should address pollution problems associated with failing septic systems.

**GOAL 3:** PROVIDE FOR THE MANAGEMENT OF SOLID WASTE AND HAZARDOUS WASTES ON A COUNTY-WIDE BASIS, INCLUDING PLANNING FOR FACILITIES AND SERVICES.

**POLICIES:**

1. The county should require that handling and disposal of solid and hazardous waste be done in ways that minimize land, air and water pollution and protect public health.
2. The county should undertake strategies for dealing with solid wastes in the following order: waste reduction, recycling, energy recovery, and disposal.
3. The county should continually explore new approaches for waste reduction, recycling, energy recovery, and methods of disposing of solid wastes.

4. The county should continue to implement programs recommended in the county's Moderate Risk Waste Plan to provide for safe disposal of household and small business hazardous wastes outside of landfills.
5. The county should seek practical solutions to problems of illegal dumping.
6. The county should require that dredging and disposal of sediments be done in a manner that does not pose serious health risk to humans or result in adverse effects to water and land resources, including biological organisms.
7. The county should require that all facilities which store, process or use hazardous materials or generate or treat hazardous wastes in their operations be sited in compliance with state and local laws, best management practices for the protection of groundwater, surface waters, and air quality and be periodically monitored for compliance with such laws and practices.
8. The county should implement and update the county Moderate Risk Waste Plan.
9. The county should maintain and update the county Solid Waste Management Plan.
10. The county should support and enhance all waste reduction and recycling efforts.
11. The county should continue to seek opportunities for better disposal or recycling of tires and better enforcement of illegal disposal of tires.
12. The county should act as the coordinating entity in the upland disposal of clean and contaminated dredge sediments, under the authority of Article 5 of the Sanitary Code.
13. The county should revise the Zoning Code to ensure consistency with the adopted Moderate Risk Waste Plan, the Northern Thurston County Ground Water Management Plan, the Critical Areas Ordinance and the Comprehensive Plan's policies.
14. The county should encourage through education and technical assistance the use of safer, less hazardous products and the reduction of hazardous materials.
15. The county should consult with the appropriate regional transportation planning agencies and neighboring jurisdictions prior to establishing prohibitions for commercial hazardous materials transport.