

# 9.0 UTILITIES ELEMENT

## 9.1 Introduction

Covington continues to grow through more concentrated development or annexations, and new development is located within designated areas. In this way, the City will achieve its adopted vision of a community composed of attractive residential, commercial and industrial neighborhoods.

As new development occurs, additional utility infrastructure must be provided. It is the intent of the Utilities Chapter to ensure adequate provision of utilities within the City and Urban Growth Area. The Utilities policies support the Land Use and Capital Facilities Chapters so that the necessary utilities facilities are approved and funded for the proposed land uses. It is important that utilities are provided to these facilities in an economical fashion. Policies in this chapter are meant to promote the availability of affordable utilities.

During the 20 year planning horizon of the Comprehensive Plan, changes will occur in the way utilities are provided. Changes in technology will in turn change the way Covington citizens will live. As utility industries and available technology changes, it is important to make sure that all Covington citizens continue to have access to the basic utility services. It is important for Covington businesses to be supported by the changes in the utility industries in order to remain competitive regionally.

This chapter addresses the existing condition, the potential for change in utilities and known future changes within the 20 year planning horizon.

## 9.2 Existing Conditions

### 9.2.1 Water

#### King County Water District 111

King County Water District 111 was formed in the mid-1960s. Until the early 1980s, when the District developed its own independent water supply, the City of Kent was the sole provider of water for the District (King County Water District 1997). By 1990 the District owned eight production wells, six of which are

still actively used. One well is capped for future use, and the other is not used due to impacts on other well fields.

In 1985 South King County, including the area of Water District 111 was declared a "Critical Water Supply Service Area" by the King County Council at the request of the South King County Regional Water Association and by its individual members. In response to the declaration, in 1989, the districts in the region completed a "South King County Coordinated Water System Plan." Water District 111 is a member of the Association and remains active in local and state associations of special purpose districts.

In the 1980s and 1990s the District has experienced a growth rate which exceeds the projected target rates for the area.

In 1996 the District entered into Interlocal Agreement No. 1 with the City of Auburn to provide additional supply.

In 1996 the District and Covington Water District entered into Interlocal Agreement No. 2 with the City of Auburn. This agreement allows each District to purchase 2.5 MGD from the City of Auburn.

In 1996 the Department of Ecology denied the Districts application for water rights for two of its existing wells and one future well. As a result the District has water rights to four wells and will place three wells in emergency backup status when the Interlocal Agreement with Auburn is operational.

Other water districts surround Water District 111 on each side. They are Soos Creek Water and Sewer District, Covington Water District, and the Cities of Auburn and Kent. A small portion of the City of Covington is located within the District 111 Boundary.

Water District 111 operates over 55 miles of waterlines ranging in size from 4-inch to 16-inch diameter some of which is new and some of which is over 25 years old. They own seven deep well pump stations, one intertie pump station, and one emergency booster station. In addition they own two reservoirs, a 2-MG steel standpipe, and a 0.15-MG steel elevated reservoir. At the beginning of 1997 the District served 3,853 water meters, a number of which are within the City of Covington.

The District has six intertie agreements with four other districts. The interties with Soos Creek Water and Sewer District, Covington Water District and three with the City of Kent are emergency interties used solely as an emergency interim supply. The intertie with the City of Auburn provides 2.5 MGD of full time supply to the District.

- Water service for the Northeast Service Area, including 156 acres (36 residential lots) is consistent with long range City of Covington comprehensive plan for the area.

### **Covington Water District**

The Covington Water District shown in Figure 9.1 is located in southeast King County east of the cities of Kent and Auburn. It was known as King County Water District 105 until 1988 (City of Covington 1994).

Its planning area is approximately 53 square miles and in November 1999 it had a population of approximately 28,658 with about 11,463 service connections. The planning area was defined in the 1989 South King County Coordinated Water System Plan (CWSP). The majority of the City of Covington is contained within the Covington Water District's Boundary.

Several smaller water purveyors exist inside the Covington Water District CWSP Boundary. Systems within the District's planning boundary include Cherokee Bay Community Club, Water District 94 and the Ravensdale Water Supply Company. There are a number of other small community water systems within the District's boundary.

The water system serving Covington Water District is supplied primarily by groundwater. Wells from two well fields, at 222nd Place and at Witte Road, provide the majority of the District's water. A small portion of water is pumped by the District from a separate well in Ravensdale and sold to the Ravensdale Water Supply Company. In addition the District receives up to 2.5 MGD of interruptible water from the City of Auburn.

The 222nd Place well field consists of six wells, five of which are being used for production and one is used for observation. The Witte Road well field has five wells, four for production, and one for observation.

Covington Water District has water rights for the 222nd Place, Witte Road Well Fields, and the Ravensdale Well.

Since 1990 the District has applied for additional water rights to six new wells. The Department of Ecology has not issued permits or certificates for any of these applications.

In 1994 the DOE issued a policy statement which indicated that new water rights would not be a high priority in the near future. The DOE had specific concerns about the Soos Creek Basin, in which most of the Covington Water District service area lies. While the Basin had been closed for several years to new surface water withdrawals, in 1994 the DOE also closed it to future

groundwater withdrawals. This limited the District's short term water supply options causing the District's Board of Commissioners to declare a limited moratorium on issuance of water availability letters. The moratorium was lifted October 1, 1997 when Seattle and a majority of its purveyors agreed to back up the City of Auburn interruptible supply to CWD.

The District owns seven steel storage reservoirs with a capacity of 18 MG. In addition the District has approximately 206 miles of waterline ranging in size from 4-inch to 18-inch diameter. Due to differences in elevation, the District requires the use of eight pressure reducing stations, serving seven pressure zones.

The District uses an automated telemetry control system to monitor and control its water distribution system.

The District has three interties with the Cedar River Water and Sewer District, one with the City of Kent, and one with Water District 111. In 1996 the Covington Water District and Water District 111 entered into Interlocal Agreement No. 2 with the City of Auburn. This agreement allows each District to purchase up to 2.5 MGD from the City of Auburn. Since this water is interruptible it can not be used for growth.

In addition the District signed an agreement with the City of Tacoma for the purchase of wholesale water. The water will be part of the Second Supply Project, which includes storage, from the Howard Hanson Dam. Tacoma is in the Environmental and Permitting process, and the water is expected to be available in 2004.

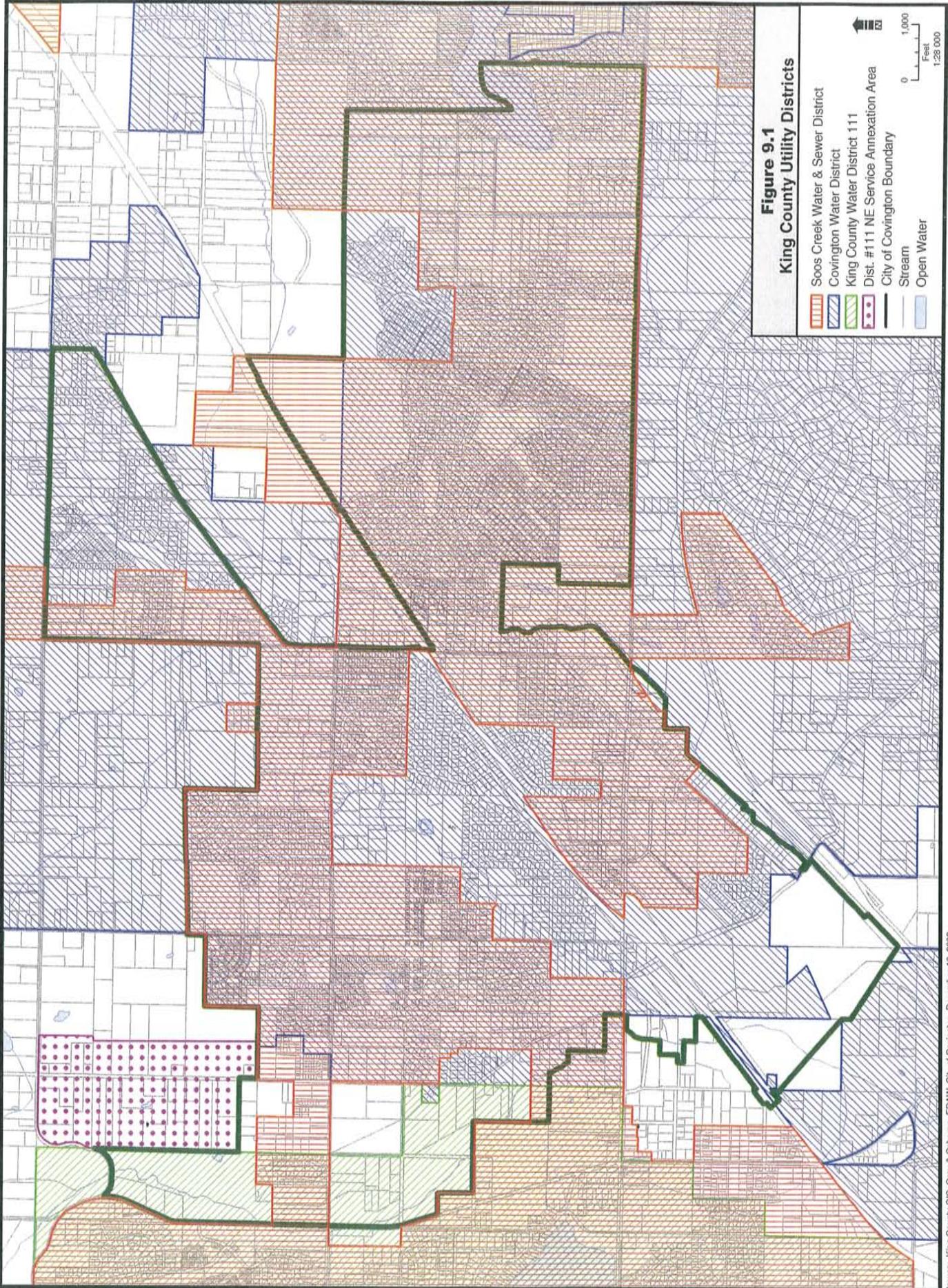
- Water for some local residents is also provided from wells including Class B water systems. The Ham Water District is one such system serving fewer than eight users, from a wellhead located on the northwest corner of Matson School site.

## **9.2.2 Sanitary Sewer Service**

### **Soos Creek Water and Sewer District**

Soos Creek Water and Sewer District is located in southeastern King County and covers an area of approximately 28 square miles (King County 1996). The City of Covington is located completely within the sewer planning area of the District, however City of Covington is only a small portion of the Soos Creek Water/Sewer District's service area.

The District's wastewater is treated by King County Department of Natural Resources – Water Pollution Control Division's (formerly known as METRO) treatment plant in Renton. Some of this flow



**Figure 9.1**  
**King County Utility Districts**

-  Soos Creek Water & Sewer District
-  Covington Water District
-  King County Water District 111
-  Dist. #111 NE Service Annexation Area
-  City of Covington Boundary
-  Stream
-  Open Water

is delivered through flow facilities of other utilities. Wastewater is discharged from the District at ten locations. There are six tie-ins to the Cedar River Water and Sewer District, one to the City of Renton, one to the City of Kent, and two directly to King County trunk lines.

The 1994 King County Comprehensive Plan eliminated the use of Local Service Areas (LSA) and established the Urban Growth Area (UGA). The UGA is now the area that can be potentially sewerred consistent with King County land use and policies. The UGA contains the capacity to accommodate growth for 20 years. The UGA can be amended only once every ten years. Most of the District's existing service area and future planning area is within the UGA and the majority of the sewer service area has been designated a Full Service Area in the 1994 King County Comprehensive Plan. The District, however, does not currently provide sewer service to all of the residents within its boundaries. Many are served by on-site septic systems and will not be required to hookup to public sewers until the on-site systems fail or there is a health or pollution problem.

The District serves approximately 19,200 family residential sewer connections and 4,200 commercial customers.

The District maintains approximately 350 miles of gravity sewer, 18.5 miles of force mains, and 24 lift stations. There are approximately 4 miles of King County gravity trunk line within the District. The District monitors and controls the operation of its system with the use of a telemetry system. All lift stations have automatic controls and consist of a minimum of two pumps.

- Maps showing the boundaries of the Soos Creek Water and Sewer District are on file in City Hall.

### **King County Wastewater Treatment Division**

As of 1993 King County was serving approximately 651,000 residential customer equivalents. In addition King County was operating 3 treatment plants, 39 pump stations, 17 regular stations, 3 outfall control stations, and 2 siphon level monitoring stations. King County also maintains and controls approximately 212 miles of large diameter pipelines, 31 miles of force mains, and 7 miles of siphons. In 2003, the Brightwater plant is planned to meet long term regional need in the north King County and south Snohomish County area for disposal and treatment needs.

- Source of Information 1994 King County Comprehensive Plan.

### **9.2.3 Solid Waste**

Solid waste utility services are provided to the City of Covington at three (3) levels. The King County Solid Waste Division provides solid waste disposal services (i.e., operation of the landfills and transportation of the wastes from transfer stations to the landfills). Franchise haulers collect garbage and refuse in the City and transport it to transfer stations. Non-franchised haulers collect food waste, compostable green yard materials, animal waste and other recyclable materials.

#### **Disposal**

The Solid Waste Division operates one regional landfill, one rural landfill, and two drop box facilities.

The Cedar Hills Regional landfill receives 97 percent of the municipal waste generated in King County. The landfill has remaining capacity of 38 million tons based on existing permit conditions (date unknown). A study in 1987 proposed permit modifications to increase the remaining capacity from 26 to 38 million tons (King County 1992). The expected life of the landfill ranges from the year 2008 to the year 2036 depending on decisions regarding the intensity of use of the existing landfill site and the effects of the County's waste reduction and recycling programs. In addition, King County is currently studying solid waste to electricity options that would affect collection, transfer and disposal costs and routes, if feasible. City of Covington is studying mandatory solid waste disposal for all city residents and plans to review the solid waste franchise hauler in 2004.

#### **Transfer Stations**

The Solid Waste Division operates seven transfer stations where solid waste is transferred from a local carrier to the County for disposal in the County's landfill (King County 1994).

Except for the new Enumclaw Transfer Station, existing King County transfer stations lack capacity for projected waste quantities.

The Algona transfer station serves the City of Covington for franchise solid waste (garbage) disposal and has a capacity for 350 tons per day.

#### **Non-Franchise Solid Waste Firms**

Several solid waste stream components are not included in the typical franchise agreement for most of the daily garbage referred to as solid waste. Food grade recycling (fats, oils, grease) from restaurants, food processors and grocery operations are normally

taken to Baker Commodities facility in Tukwila, Washington. Animal waste, clean green yard waste and other putrescibles are hauled to private commercial licensed biosolids compost operations located in Covington, Cedar Grove landfill site in Cedar River valley or other nearby facilities. Recycled metals, appliances and other building materials are taken by private commercial firms located in Covington and Cedar river valley area. The plan relies on the non-franchised facilities and arrangements and facilities to continue to meet the needs of the solid waste industry as essential public facilities, as defined under GMA.

### **Collection**

Under the Solid Waste Management and Recovery Act (Revised Code of Washington 70.95), local governments are given primary responsibility for solid waste handling. Cities and towns have the option of writing their own solid waste plans or coordinating with the counties in the development of a county or regional plan. The City of Covington has coordinated with King County to provide solid waste planning.

Garbage and refuse companies are certified and regulated by the Washington Utilities and Transportation Commission (Revised Code of Washington 81.77). The provisions of the Revised Code of Washington 81.77 do not apply to cities or towns that undertake their own garbage collection. Cities and towns may allow the Washington Utilities and Transportation Commission franchise haulers to collect in their jurisdiction or they may select one of the following options:

1. Enter into a contract with private haulers (who are not required to hold a Washington Utilities and Transportation Commission certificate of necessity or a franchise in the area)
2. Issue licenses for the collection of solid waste (Washington Utilities and Transportation Commission certificates are augmented by city licenses, giving the city more regulatory control)
3. Operate their own collection system

Garbage and refuse collection service in the City of Covington is provided by Rabanco a Washington Utilities and Transportation Commission certified franchise hauler.

### **9.2.4 Surface Water Management**

The Covington Master Drainage Planning Area is located in south central King County. It is approximately 5 miles southeast of the City of Kent where SR 516 intersects with SR 18. The boundaries were developed from the Soos Creek Community Plan and roughly

consist of SE 252nd Street to the north, 164th Avenue SE to the west, 180th Avenue SE to the east, and Jenkins Creek to the south.

The planning area is totally within the limits of the City of Covington, and lies within the Little Soos and Jenkins Creek subbasins to the Soos Creek Basin. Little Soos and Jenkins creeks are both major tributaries to Soos Creek and flow through the planning area from northeast to southwest. Both tributaries join Soos Creek shortly after flowing through the planning area.

The planning area is approximately 55 percent developed to a level of single family residential or greater. Projected development will create an additional 100 to 500 acres of commercial, high-density residential, institutional, and single family residential use with interspersed areas of Neighborhood Commercial and Community Commercial within the city limit area.

The anticipated increase in population in City of Covington over the next 20 years, and the resultant increase in impervious surfaces may lead to minor measurable degradation of water quality parameters, some erosion, and some loss of natural habitat for fish and wildlife. The potential for major flooding will continue to be low. Point-source pollution such as industrial tank leaks and development activities have the potential to impact natural resources, unless managed by development regulations, public education and awareness programs, critical aquifer recharge area regulations, stream buffers and other protective designations under the adopted comprehensive plan. In addition to point sources, the non-point sources of stormwater pollution from streets, parking lots, commercial areas, lawns and failing septic systems can potentially lead to habitat degradation, unless the City of Covington is supplied with the planned regional stormwater facilities and water quality enhancement features that have been planned and budgeted.

### **9.2.5 Electricity**

Electrical power is supplied to the City of Covington by Puget Sound Energy (PSE) from generation and transmission facilities owned and operated by various entities, including the Bonneville Power Administration (BPA).

#### **Bonneville Power Administration**

BPA owns and operates most of the higher voltage transmission lines and substations in the Pacific Northwest. It uses these facilities to market power generated at federally operated hydroelectric facilities and a Washington Public Power Supply System nuclear power plant. BPA substations within King County include Maple Valley, Covington, Raver, and Echo Lake.

BPA Western Washington indicates that BPA has no plans in the foreseeable future to make any major changes to the Covington Substation. Several years ago, BPA purchased a parcel of land adjacent to their existing facilities to construct a maintenance facility. However, BPA does not plan on constructing the maintenance facility within the next five years. The proposed Covington - Berrydale 230kv line will extend into BPA's Covington Substation, currently near completion of the environmental review process. There is a third 500 kV bank under discussion for the Covington substation, as well as breakers in need of replacement on existing property. BPA is using the vacant portions of the site for allowable lease uses, such as a soil processing operation, while preserving the site for a future maintenance facility or other BPA needs.

Bonneville Power Administration background information is presented in the following documents:

- Puget Sound Electric Utilities Task Force, Regional Growth Management Act Inter-Utility Report, November 1992;
- U.S. Department of Energy, Bonneville Power Administration, Draft Office of Engineering 10 Year Plan 1992-2002, Portland, Oregon, May 1992; and
- U.S. Department of Energy, Bonneville Power Administration, 1992 Resource Program, 10 Year Plan, Draft II, Portland, Oregon, May 1992.

### **Puget Sound Energy**

Puget Sound Energy's Facility and Resource plans for electrical service and natural gas are presented in the following documents:

- King County Draft Growth Management Act Electrical Facilities Plan, Puget Sound Energy, February 1993; and
- Integrated Resource Plan 1992-1993, Puget Sound Energy Company.

### **Electrical Service**

PSE will need to expand both distribution and transmission facilities to meet the continuing load growth in the Covington Area. There are currently four substations located within the City of Covington, with a new one planned. Currently the area is served by the Soos Creek Substation, located at 27120 Soos Creek Drive SE, and the Pipe Lake Substation, located at 27117 204 Avenue SE. A third substation (Jenkins Substation) may be needed near the intersection of Highway 18 and 180th SE, which is roughly

halfway between the two existing substations in the center of the Covington expansion area. A future substation may also be needed south side of Covington in the future. A new 230 kV transmission line will be needed to meet the area load growth between PSE's Berrydale Transmission Substation, located at 24810 148th SE, and the BPA Covington Substation. This will be built on the right-of-way currently occupied by PSE's 115 kV line to Pipe Lake Substation. The existing 115 kV line will need to be relocated off of this corridor to public right-of-way, most likely 156/160 Avenue SE from SE 248th to Kent Kangley Road. A second new 115 kV line will be needed to serve the proposed Jenkins Substation. This would originate at Berrydale Substation, head east along existing PSE right-of-way to 180th Avenue SE, and head south along 180th SE to the Kent Kangley Road via the new 180th Avenue SE extension tying into the existing 115 kV line to Pipe Lake Substation. When this is completed, the 115 kV line between 160th Avenue SE and 180th Avenue SE along Kent Kangley Road can be removed. The 115 kV line along 156th/160th SE from Berrydale will continue south along 152 SE and Kent – Black Diamond Road to serve the future substation on the south side of Covington, and other future substations further south.

The street along 180th Avenue SE corridor from SE 240th Street through Wax Road, to approximately SE 280<sup>th</sup>, is scheduled to be improved as part of the City's adopted capital facility plans. This will include placement of underground service for the existing PSE 12 kV system. It has been discussed with the City that after the 180th Avenue SE corridor 12 kV underground is done that the overhead 115 kV transmission line to serve Jenkins substation will be constructed with poles and conductors from SE 248th to Kent Kangley Road.

## **9.2.6 Natural Gas**

### **Customer And Growth Information**

PSE supplies natural gas to six Western Washington counties, including King County. As of May 31, 2003, PSE provides natural gas service to more than 631,474 customers. For comprehensive planning purposes, natural gas is not considered an essential municipal service. Therefore, PSE is not mandated by state or local law to provide natural gas service. Extension of natural gas service is based on request and the results of a market analysis to determine if revenues from an extension will offset the cost of construction.

According to the PSE rate department, the average house (using natural gas for both heat and hot water) consumes about 1,000

therms per year. Ten therms equals approximately one "mcf" (thousand cubic feet) of gas so 1,000 therms per house equals approximately 100,000 cubic feet of gas per household per year.

When planning the size of new gas mains, PSE uses a saturation model which assumes all new households will use natural gas since 99 percent of new homes constructed where builders have the choice are using natural gas. All new residential developments in the larger subdivisions (10 lots or more) feature natural gas service.

PSE forecasts customer additions using a forecast analysis calculation based on PSE's revenue report, which is generated by town tax codes established in the Exception Billings Department and based on historical customer counts.

It is estimated that PSE currently serves 3,942 customers within the City of Covington. This data was compiled via cycle, district, and route service reports.

### **Existing Distribution System**

Natural gas is supplied to the City of Covington from Williams (formerly Northwest) Pipeline Corporation through the Covington Gate Station.

PSE natural gas supply mains (measuring 16", 12", 8", 6", and 4" in diameter) transport gas from the gate stations to District Regulators. The supply main pipe material is typically wrapped steel (STW). There is approximately 1.16 miles of future supply main located in the Covington city limits.

District Regulators reduce supply main pressures from transmission pressures to typical distribution operating pressures of 25 to 60 psig. There is one District Regulator located within the Covington city limits.

Distribution mains are fed from the district regulators. These typically are 8", 6", 4", 2", and 1-1/4" diameter pipe lines. The distribution pipe material typically is polyethylene or STW. PSE has 52 miles of main serving within the City of Covington.

Individual residential service lines are fed by distribution mains and are typically 5/8" in diameter. Individual commercial and industrial service lines are typically 1-1/4" or 2" in diameter.

### **Future Facility Construction**

Minimum pressure delivery through distribution pressure mains from a design standard is approximately 15 psig. If design pressures fall below 15 psig, there are several methods of increasing the pressure in the line, including:

- Looping the distribution and/or supply lines to provide an alternative route for the gas to travel to an area needing additional supply. This method often involves construction of supply mains, district regulators, and distribution mains;
- Installing mains parallel to existing mains to supplement supply of natural gas to a particular service area; and
- Replacing/upsizing existing pipelines to increase volume.

There are three types of construction:

- New or replacement of existing facilities due to an increase in capacity requirements due to new building construction and conversion from alternate fuel;
- Main replacement to facilitate improved maintenance of facility; and
- Replacement or relocation of facilities due to municipal and state projects.

PSE makes an effort to coordinate construction work with approved municipal projects in order to minimize cost and impacts to surrounding community. Due to franchise agreement with the City of Covington, PSE is required to relocate existing facilities.

The following major projects are anticipated between now and the year 2013 to serve customers in the city of Covington:

*Planned for 2003:*

6" PE main extension from Highway 18 west to 160 Avenue SE.

*Tentative future projects:*

No known projects at this time.

Due to the growing popularity of natural gas in the Covington and surrounding areas, PSE will continually evaluate the necessity of the above listed projects and alternatives. Changes in project route, construction schedule, and detail could occur as each proposal is dependent on permits, budgets and WUTC cooperation.

### **9.2.7 Street Light Utility**

A municipal utility chartered to own, operate, and maintain street lighting is under consideration. If created, this utility would be responsible for lighting on public rights-of-ways and on qualifying private roads, and easements that provide public access and are used by emergency response vehicles and personnel.

### 9.2.8 Telecommunications

Telecommunications is the transmission of sound, images and 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 television. Qwest, General Telephone, Electrical Light Wave, and Pacific Telecommunications provide telephone service within King County. Cellular One and Qwest Cellular provide cellular phone service in King County. Cable services include communications, information and entertainment services delivered over the cable system. Comcast, and Viacom, provide cable service within the City of Covington portion of King County. All of the existing telecommunications franchises are under study in 2003. Changes to existing franchises are required within 5 years of initial municipal incorporation (King County 1994).

- Non-franchise telecommunications utilities represent a growing need to track and coordinate new technology and service providers in Covington, to encourage franchise agreements where required.
- Covington's strategic location at the crossroads at two (2) state highways creates the need to be a regional leader in telecommunications infrastructure development for business communications demand.

## 9.3 Trends and Projections

### 9.3.1 Water

#### King County Water District 111

##### *Projected Land Use*

The King County Water District (District) and its planning area are within the Cities of Kent, Covington, Auburn, and unincorporated King County. It is expected that the cities will annex all of the adjacent urban areas within 20 years. The County and the Cities, through their Potential Annexation Area (PAA) process, have designated which urban unincorporated areas will be annexed into which city.

The City of Auburn PAA would impact the very southern portion of the District. The City of Kent would be responsible for most of the remaining portions of the District. The City of Covington will affect a small area in the northeastern corner of the District. The District does not anticipate much change in the land use and zoning than is already designated by the current jurisdictions.

### *Projected Population*

To formulate population figures, there were several data sources available. They included the 1995 population forecasts by the PSRC, population targets in the 1994 King County Comprehensive plan, and the District's ability to calculate population and residential capacity based on existing units being served and on zoning.

The population (residential) capacity data was calculated using a Geographic Information System (GIS) parcel based analysis. The residential capacity was calculated using the maximum number of housing units per acre allowed under the existing zoning. The land capacity reflects recently adopted changes to the 1994 King County Zoning Code. The purpose of this calculation is to estimate total residential capacity at eventual build out given today's factors. These residential capacity figures were used to plan facilities.

### *Annual Average Daily Demand*

- The District adopted 300 gpd/unit as a parameter for Annual Average Daily Demand planning when their 1994 Water Conservation Plan Amendment was prepared.
- The District adopted 650 gpd/unit as a Peak Daily Demand when their 1994 Water Conservation Plan Amendment was prepared. This is substantially less than the 800gpd/unit recommended by the WSDOH planning guidelines. However, the District feels that the lower number is justified by historical data.

### *Comprehensive Plan.*

- Based upon the existing land use and available land within the District, the saturation population for the District is projected at 11,617 living units or approximately 33,500 people.

### *Immediate Planning Decisions*

- Until the District realizes par status with the City of Auburn, they will be subject to incremental curtailments to their 2.5 MGD Auburn Supply. The District has decided to allow 8,000 total units to be connected to the system until it achieves the par status with the City of Auburn or, the District secures additional water supplies. Accordingly, the District will initiate a moratorium on new water availability certificates once the total of the existing water customers

and issued water availability certificates reaches a total of 8,000 units.

- Continued planning efforts will be on going for the District to secure additional water supply. They include:
- Negotiations with the City of Auburn to solidify approximately 0.5 MGD of water supply for the portion of the District's service area which will ultimately be served by the City of Auburn.
- Manage customer use so that the District achieves a maximum daily peak use of 550 gpd/unit.
- Study the feasibility of developing additional ground water sources near Well No. 9.
- Study the feasibility of ground water recharge with off-peak season water.
- The City of Auburn should be able to supply Water District 111 and Covington Water District past year 2035 before the City will need to incrementally curtail their supply.
- Water District #111 has adopted a Comprehensive Plan Amendment to acknowledge possible future water supply from the City of Tacoma's second pipeline supply project, in addition to proven groundwater supply resources.

### **Covington Water District**

Covington Water District (CWD) has experienced rapid growth since 1980. Although rapid growth is expected to continue the actual magnitude, density, and location of growth will be controlled by land-use policies. King County governs land use policies for the area adjacent to City of Covington.

The pattern of growth in the urban areas served by the CWD will determine the demands of the water system. Water service to rural areas, however, is often more affected by water quality regulations.

This portion of the Utilities Element is based on adopted Covington Water District projections, for lands within that district, including portions of City of Covington. Currently, King County adopts countywide land use and zoning maps as the basis for utility district plans, yet King County discontinued to provide updates of community plans as subareas, due to annexations and incorporations creating fiscal constraints from reduced property tax base. This trend may require utility districts to become more self reliant and/or more dependent on cities for any next population updates, at the utility district level. The two community plans referenced in the Utilities Element partially rely on PSRC

population projections to estimate future water demand yet are now outdated.

Table 9.1 compares the best available PSRC year 2020 population projections to the 1995 projections to provide one indication of the amount of change in perception about future population that has occurred in 5 years, for Soos Creek Water/Sewer District lands, including most of the City of Covington.

**Table 9.1: Comparison of Projections for Population, Soos Creek Water/Sewer District, 1995 and 2000.**

FAZ	Soos Creek Water District	1995 PSRC Population Projection for 2020	2000 PSRC Population Projection for 2020	Percent Change
3310	Black Diamond / Lake Sawyer	6509	15,877	
3320*	Covington / Timberlane	20145	25,173	
3425	Lake Heights	7953	17,929	
3427*	Lake Meridian	13150	18,593	
		47,757	77,572	62.4%

Note: \*Covington FAZs

Any future updates to the comprehensive plans adopted by water and sewer districts need to be periodically incorporated into the City of Covington Utilities Element in order to adjust and reset water and sewer demand projections appropriately so that utilities capital project needs can be accurately assessed. The update process takes place through ongoing intergovernmental agency coordination and agency reviews of available draft planning documents.

The land use and zoning in CWD is governed by the Soos Creek Community Plan (SCCP) and by the Tahoma/Raven Heights Community Plan (T/RHCP). The zoning adopted by these two Community Plans incorporate the Urban Growth Area recommended by the Growth Management Planning Council.

The western part of the CWD, approximately 55 percent, is located in the Soos Creek Community Planning Area while the Tahoma/Raven Heights Community Plan covers the eastern part of the CWD. In general, the existing Urban Growth Boundary and land use definitions describe the northwest portion of the CWD as urban and commercial, and the south and southwest portions as rural.

Approximately 11 percent of the CWD planning area is agricultural and forest production resource land. Approximately 68 percent of the Covington service area is rural under the recommended King County Comprehensive Plan. Areas that are outside the UGA and are designated rural by the King County Comprehensive plan are designated to be permanently rural, although the local need for some changes in the UGA boundary limits is developing.

The UGA is a permanent designation that applies to about 21 percent of the Covington planning area. All future urban growth is to be within the UGA and is to be accommodated by phasing development to achieve increasing population densities.

#### *Population Projections*

- Population estimates for recent years and projections through the year 2020 were developed through several sources. The 1990 census counts and the number of water service connections from the CED accounting records are primary sources of information. Population forecasts from the Puget Sound Regional Council were also used.
- The 1990 population was calculated to be 25,564. Dividing this number by the actual number of CWD service connections (8,787) shows 2.91 persons per household. This is consistent with household densities in the south King County region reported in various references.

### **9.3.2 Sewer**

#### **Growth Projections**

##### *Soos Creek Water and Sewer District*

Tables 9.2 and 9.3 show the Soos Creek Sewer District population forecast based on data from both the PSRC and the King County Comprehensive Plan.

- The residential capacity was calculated using the maximum number of housing units per acre allowed under the existing zoning. The final residential capacity figure was converted to population using a household size of 3.0.
- At the time the population was projected, the Soos Creek Community Planning Area had approximately 2,970 acres zoned urban reserve. The King County Preliminary Draft Soos Creek Urban Reserve Zoning Report was used as a basis for calculating residential capacity for those parcels with urban reserve zoning.

**Table 9.2: Soos Creek Sewer District Population Forecast Based on 1995 PSRC Data**

Population Forecast	1990	2000	2001	2010	2015
Today's Boundary	58,225	67,962	68,525	73,914	79,213
API	Base	1.56%	0.83%	0.85%	1.40%
Planning Area	54,503	63,828	64,400	69,887	74,919
API	Base	1.60%	0.90%	0.91%	1.40%

**Table 9.3: Soos Creek Sewer District Population Forecast Based on 1994 King County Comprehensive Plan**

Population Forecast	1990	2000	2001	2010	2015
Total	58,225	66,842	67,771	76,734	82,216
Planning Area	54,503	62,571	63,441	71,833	76,966
API	Base	1.39%	1.39%	1.39%	1.39%

*King County Wastewater Treatment Division*

- Comprehensive system planning studies are currently underway to identify capital facilities to meet future needs. The planning effort is concentrated in four areas: future wastewater treatment and conveyance system needs; combined sewer overflow facilities; biosolids treatment and utilization; and water reclamation and reuse. At the conclusion of these planning efforts in 1995, the King County Council is expected to adopt amendments to the Comprehensive Plan and approve specific projects for implementation. Capital projects that result from these planning efforts will determine the greatest portion of the capital program for 1998 and beyond.

**Demand***Soos Creek Water and Sewer District*

- Existing flows to the Kent Cascade Interceptor (KCI) which flows into King County Water Pollution Control Department (WPCD) trunk line are approximately 4,500 gpm (6,480,000 gpd). By year 2015 it is projected that the flows to the KCI will be 9,100 gpm (13,104,000 gpd). Total build-out is planned for the year 2040 with an anticipated flow of 13,200 gpm (19,008,000 gpd). The ultimate build out flows will require a new connection to the WCPD.
- The District is currently in the process of updating the adopted Sewer Comprehensive Plan, to be compiled in 2004. No new information is available at this time.

*King County Wastewater Treatment Division*

See discussion under “Growth Projections” above.

**Capital Improvements***Soos Creek Water and Sewer District*

- The Soos Creek Water and Sewer District Comprehensive Plan identifies numerous capital projects, some of which are located within the City of Covington.

*King County Wastewater Treatment Division*

See discussion under “Growth Projections” above.

**9.3.3 Solid Waste****Disposal**

The King County 1992 Comprehensive Solid Waste Management Plan contains both low and high growth scenarios for franchised solid waste generation over a 22-year planning period (1988-2010). The annual growth rates are 2.4 percent (low) and 6.5 percent (high). These annual growth rates assume a more moderate rate of growth than had occurred during the previous 5-year period (1983-1987). During this time the annual growth rate averaged 8.5 percent. The County’s landfill capacity is sufficient to provide for the population growth scenarios during the remaining 10 years of the 22 year planning period.

In 1988, King County adopted a goal of reducing the disposed waste stream by 65 percent by the year 2000 through waste reduction and recycling. The 1988 goal was achieved, and the goal extended the useful life of the Cedar Hills Regional Landfill through the year 2019.

With the exception of the new Enumclaw Transfer Station, existing King County transfer stations lack capacity for projected waste quantities. According to the 1992 Comprehensive Solid Waste Management Plan, the Algona Transfer Station, which serves the Covington area, already operates over or near capacity.

Another measure of transfer station capacity is customer service capacity (i.e., the number of vehicles that can be accommodated at a given facility without unacceptable impacts, such as off-site queuing). The Algona Transfer Station has already exceeded vehicle traffic capacity. Alternatives for alleviating this problem were proposed in the 1992 Comprehensive Solid Waste Management Plan.

The 1992 Comprehensive Solid Waste Management Plan includes future capital costs for the Cedar Hills Regional Landfill.

According to the 1992 Plan, available landfill capacity at Cedar Hills will meet disposal needs through the duration of the plan. Other options such as a new regional landfill or out-of-county disposal should be considered for longer term needs.

### **Transfer Stations**

As population grows, the transfer facility capacity and locations will need to be expanded to accommodate expanded franchise solid waste collections. The 1994 King County Comprehensive Plan Technical Appendix A describes the following new or expanded projects (capital costs were not included in either of the documents reviewed for this background report):

- A transfer/recycling station replacement project is underway to replace the Factoria Transfer Station.
- Siting for a new transfer/recycling station to replace the Algona Transfer Station to begin in 1998. To date the siting of a new station is on hold due to budget constraints.

The 1992 Comprehensive Solid Waste Management Plan identified types of revenue, which could finance these projects, but a specific financing plan was not presented.

### **Collection**

According to the 1992 Comprehensive Solid Waste Management Plan, access to franchised refuse collection appears to be adequate countywide. Historically, haulers have been able to adjust to increases in waste generation without difficulty.

Meeting the collection needs in areas of projected high growth (i.e., southeast King County) will require additional investment in equipment and service levels by the haulers. Most of the growth is occurring in established urban and suburban areas. Increased densities in these areas will concentrate the collection routes, making them more cost effective.

#### **9.3.4 Surface Water Management**

The adopted City of Covington Storm Water Comprehensive Plan (CSWCP) dated April 2002 consists of four major areas:

1. Surface water management facility and system recommendations
2. Pollutant and runoff source control recommendations

3. Sensitive resource protection recommendations
4. Recommended programs and policies to ensure compliance with NPDES Phase II permit requirements

The CSWCP recommends a capital improvement program of up to \$4 million (Table 9.4). The projects were identified based on a review of existing documents, hydraulic modeling, information generated by residents and city staff regarding problem areas and previously approved storm drainage related projects. The projects include construction projects for repair of storm drainage systems installed by previous development activity and to accommodate new development, provide drainage and water quality treatment for roadway construction projects, to provide topographic mapping of the entire drainage area and to study the feasibility of regional water quality and detention facilities. Annual operating costs are estimated to be approximately \$400,000.

**Table 9.4: Estimated Costs for Implementation**

<b>SURFACE WATER FACILITY RECOMMENDATIONS</b>	
Capital Improvements	\$4,500,000
Regional Stormwater Facility Feasibility Study	\$100,000
Maintenance (Annual Cost)	\$335,000
<b>RESOURCE PROTECTION MEASURES</b>	
Interlocal Agreements (WRIA 9, Hydrilla removal, river restoration)	\$16,800
Education Program	\$9,500
Long-Term Monitoring Program (Annual cost)	\$6,000
<b>TOTAL COST RANGES</b>	
One Time Costs	\$4,600,000
Annual Costs	\$368,000

<sup>1</sup> Program recommended in CSWCP, 2002 through 2013.

### Surface Water Facility Recommendations

- The King County Surface Water Design Manual (1998) requires Level 1 flow control for most of the city. King County is preparing an update to the 1998 Surface Water Design Manual to achieve compliance with the Endangered Species Act goals and achieve equivalency with the Department of Ecology Stormwater Management Manual for Western Washington, 2001. The new manual is expected to be in effect by the 4th quarter of 2004. Most areas of the City of Covington will continue to be required to meet the Level 1 flow control standard which matches existing site condition, as defined in the King County Surface Water Design Manual, 2- and 10-year peaks. Flow control requirements increase in Conservation Flow Control areas and if the project site discharges to a conveyance system with nuisance problems, or severe erosion or flooding problems. In addition, water quality

treatment methods must be applied to meet the basic water quality goal of 80 percent removal of total suspended solids. Water quality facilities include wetponds, combined detention/wetponds, biofiltration swales, filter strips, and sand filters. In the future, the concept of strategic placement of regional stormwater detention and treatment facilities serving several subdivisions, similar to the facilities located at The Reserve plat and the Kentwood Family church site, will be used more frequently throughout the City to minimize City funded maintenance costs and provide enhanced performance of water quality treatment.

- The CSWCP recommended capital facility improvements including drainage improvements for both existing and proposed roadways, drainage ditch repair or replacement, stream channel improvements, and orthophoto mapping.
- The City Comprehensive Plan goals and policies support the incorporation of regional stormwater treatment/detention/infiltration facilities where feasible. The CSWCP recommends the preparation of a study to determine the feasibility, design criteria and costs for regional stormwater treatment/detention/infiltration facilities in the City.
- The CSWCP recommended expansion of the water quality monitoring program conducted by King County to include metals analysis.

### **Source Control Recommendations**

- The NPDES Phase II regulations require the City to have a stormwater education program in place. The CSWCP recommended that the City coordinate with King County on the development and implementation of an education program.
- Provide residents with information regarding residential best management practices to encourage proper disposal of hazardous wastes and residential building site erosion control.
- Develop and implement an educational program for commercial and industrial best management practices.
- Prohibit by ordinance certain activities with increased groundwater contamination risks.

- Require sanitary sewer connection of existing commercial and residential development and transition away from existing septic systems.
- Investigate and eliminate illicit connections to the storm drainage system.
- Develop and implement enforcement actions for non-compliance with stormwater regulations.
- Encourage site design that minimizes impervious area and reduces connectivity of site runoff with the public stormwater conveyance system.
- Encourage infiltration where soils allow sufficient infiltration rates and provide protection of groundwater resources. Continue participation in the WRIA 9 watershed planning effort.
- Continue participation in the Hydrilla eradication program in Pipe Lake.
- Continue participation in the ecosystem restoration program for the Green and Duwamish Rivers.
- Meet NPDES Phase II requirements.
- Require compost material added to mass graded sites or stockpiling and retention of native site soil for new residential subdivisions, to encourage infiltration and minimize water use for landscape plantings.
- Implementation of Critical Aquifer Protection measures under Chapter 20.70
- Require wetland and stream water balance for preservation of existing hydrology near sensitive area sites, though roof drains or infiltration trenches.

### **Resource Protection Measures**

- Construct stream enhancement projects to improve fish habitat and passage in Jenkins Creek, Little Soos Creek, and Soos Creek (Table 9.5).
- Require development controls to prevent degradation of adjacent streams and wetlands.
- Enhance stream steward and public education program.
- Provide buffer/native growth requirements for stream corridors and wetlands.
- Incorporate long-term basin resource monitoring program.

**Table 9.5: Improvement Recommendations\***

<b>UPPER SOOS BASIN: Big Soos Creek and its tributaries north of RM 4.6</b>	
<b>5417</b>	Raising SE 256th Street bridge and the road elevation at 148th Avenue SE. Estimated cost: \$230,000
<b>5451</b>	Restore in stream habitat diversity. Estimated cost: \$10,000
<b>5452</b>	Restore in stream habitat diversity. Estimated cost: \$10,000
<b>5482</b>	Restore natural channels and improve water quality Estimated cost: \$178,000
<b>LITTLE SOOS BASIN: Little Soos Creek and its tributaries</b>	
<b>5416</b>	Enlarge Little Soos channel and culvert between RM 0.6 and 1.0 Estimated Cost: \$404,000
<b>5481</b>	Remove debris and revegetate the banks of Tributary 0092 at RM 1.7 Estimated Cost: \$55,000
<b>JENKINS BASIN: Jenkins Creek and its tributaries</b>	
<b>2651</b>	Install a cobble ford for utility vehicles Estimated cost: \$25,000
<b>2653</b>	Improve in stream habitat diversity Estimated cost: \$19,700
<b>2655</b>	Improve fish passage Estimated cost: \$30,000
<b>2668</b>	Limit livestock access to streams and provide limited watering access Estimated cost: \$6,000
<b>2669</b>	Limit livestock access to streams and provide limited watering access Estimated cost: \$1,500
<b>2670</b>	Stabilize and revegetate stream banks Estimated cost: \$15,000

\* From Soos Creek Basin Plan and Final Environmental Impact Statement, King County Surface Water Management Division

## Electricity

### *Bonneville Power Administration*

Projects identified for potential upgrades or new construction are presented in the documents referenced in the Electricity Section above. BPA plans an intertie proposal that is in the NEPA/SEPA review process in 2003, affecting City of Covington corridors and Covington BPA facility. See Figure 9.3 for existing and proposed electrical transmission corridors.

### *Puget Sound Energy*

PSE studied the energy usage of customers and the ensuing load placed on the system by each new resident and new employee. Based on this, Puget Sound Energy projects its electrical load to double over the next 30 years. Facilities anticipated to meet this demand include about 80 new substations, numerous upgrades to existing distribution and transmission stations, and new and upgraded transmission lines. The City of Covington and PSE have identified the major new substations that enable service changes, such as the underground service to enable removal of overhead primary service lines from the north side of SR-516, between Wax

Road and SR-18. See Figure 9.2 for the planned substation locations.

## **Natural Gas**

### *Puget Sound Energy*

PSE forecasts a 61 percent growth in the number of customers by the year 2012. PSE used estimates of expected population and employment from the Washington State OFM, BPA, and the Northwest Power Planning Council to develop a range of estimates for the forecast.

This growth is estimated to result in a 40 percent increase in natural gas demand. As of the early 1990s most new residential construction uses gas space heating rather than electric heat because of the price advantage of gas. The price advantage, and therefore a preference for gas heat over electric heat, is expected to continue.

According to Technical Appendix A of the King County Comprehensive Plan, Puget Sound Energy has planned for, or acquired, gas supply and pipeline capacity to meet the current demand and estimated growth demand, as well as maintain adequate reserve capacity, for the next 20 years.

There are several natural gas projects underway to expand the system and several more are planned. The goals of expansion are to loop the pipeline to provide alternate direction of supply to parallel existing lines to supplement the supply and to increase existing pipelines to increase the volume.

Future demand will be met by:

- Acquiring additional supplies outside the region
- Increasing storage capacity
- Improving the distribution system
- Conservation and other measures to reduce demand

## **Telecommunications**

The City supports increased availability of improved telecommunications services in Covington. Telecommunications service is driven primarily by customer demand so system capacity must be evaluated on a regular basis to insure that new facilities are installed in a timely manner to meet demand. The City should promote new technological advances while still considering the implications of continued availability of basic communication services to all people. The Telecommunications network is

gradually being updated to fiber optic, but according to the Technical Appendix A of the King County Comprehensive Plan, the exact schedule and locations are not available.

Effective telecommunication services are critical to all citizens in several ways. They promote and enhance individual information exchange, a strong regional economy and public information, such as delivering emergency services, education and citizen involvement.

Telecommunication services are regulated by the Federal Communications Commission and the Washington Utilities and Transportation Commission. Covington has some regulatory authority of telecommunications services through franchise agreements and the development approval process.

In most cases these telecommunication services will use existing utility corridors, public rights-of-way, and City-owned properties other than right-of-way. Covington 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.

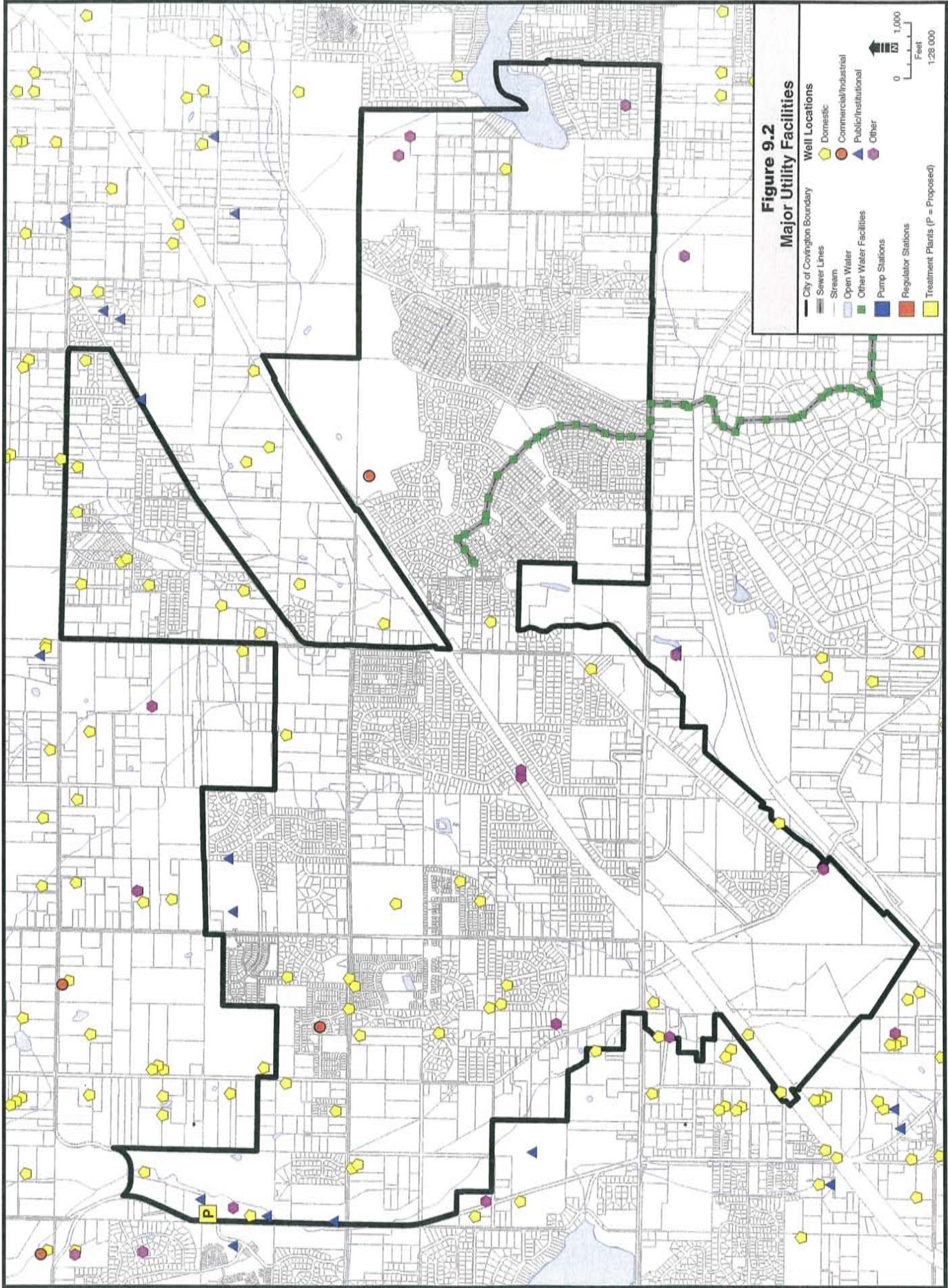
Providers of new wireless communication facilities within the City and its potential Annexation Areas should demonstrate through area-wide service planning the lowest impacts consistent with telecommunications customer needs.

### **9.3.5 Planning Implications**

Future development in the City of Covington will be dependent on the availability of adequate utilities and services. Since the utilities and services described in this Chapter (i.e. water, sewer, solid waste, electricity, natural gas, and telecommunications) are provided by special purpose districts, King County, or private companies, the City must ensure that its growth plans are consistent with these outside provider's abilities and plans. The City must avoid proceeding in a manner that the provider's of utility services cannot support.

In the future, the City may decide to provide some utilities or services now provided by others or to switch to other service providers where feasible. The City should develop criteria to assess when a change of providers is warranted or when the City is able to better provide the utilities or services needed.

Finally, the City should structure its plans for growth to minimize the cost of providing additional services and maximize the existing utility capacity. Issues to consider include planning for greater



density in areas with surplus sewer capacity, exploring programs that will conserve utility services, such as recycling solid waste, and seeking alternative and creative methods of providing services in cases where the outside providers are unable to meet the City's needs.

If the City requires concurrency or adequate public facilities for water and sewer to meet growth projections, it must work closely with the other providers of these public facilities to assure that adequate water and sewer are available to serve development that will be approved by the City.

## **9.4 Summary of Countywide Planning Policies for Utilities**

### **9.4.1 King County**

The Countywide planning policy regarding siting of capital facilities (i.e., Chapter VII of the King County Growth Management Planning Council's Countywide Planning Policies, adopted July 6, 1992) ensures that capital facilities of a countywide or statewide nature be located to support the countywide land use pattern, economic activities and minimize public costs. These facility types include, but are not limited to, utility and transportation corridors, airports, waste water treatment plants, solid waste landfills, higher education facilities, correctional facilities, in-patient treatment facilities and energy-generating facilities. The Growth Management Planning Council will establish an interjurisdictional process, by which facilities of a countywide or statewide nature will be prioritized, coordinated, planned and sited.

Chapter VI of the King County Growth Management Planning Council's Countywide Planning Policies ("Contiguous and Orderly Development and Provision of Urban Services to Such Development") provides guidelines which require that the planning and financing of services are coordinated and phased among jurisdictions to (1) ensure that development within urban areas is provided with a full range of urban services (using, as guidelines, the definitions of "public services", "public facilities" and "urban governmental services" in Revised Code of Washington 36.70A.), (2) ensure that infrastructure improvements are not provided in such a way as to undermine the countywide development process, and (3) protect natural resources.

In addition, the Countywide policies call for (1) regional coordination of the water supply, (2) the provision of urban water and sewer systems, as opposed to wells and septic tanks, in the urban areas identified for growth in the next ten years, and (3) consideration of decentralized and other treatment technologies

and wastewater reclamation and reuse as alternatives to expansion of the King County Wastewater Treatment centralized system, when planning for future sewage collection and treatment demand.

## 9.5 Goals and Policies

- UTG 1.0 To enhance the efficiency and quality of service from public and private utility providers through the coordination of fire / emergency, utility, land use, and transportation planning so that utilities and facilities including water, sewer, surface water, solid waste, electricity, natural gas, telecommunications, cable television, and satellite transmission are available or can be provided to serve in a manner which is fiscally and environmentally responsible, aesthetically acceptable to the community, and safe for nearby residents.
- UTP 1.1 Facility plans for non-City-owned utilities should reflect and support City of Covington's Land Use Plan.*
- UTP 1.2 Notify utility providers of potential inconsistencies between their system plans and the City's Comprehensive Plan. Require franchise agreements with all utility providers, where allowable by law.*
- UTP 1.3 Work with utility providers to find acceptable solutions when inconsistencies exist.*
- UTP 1.4 Work with utility providers to ensure that resources are available to support the land uses, including consideration of alternatives to new facilities and alternative locations for the new facilities.*
- UTP 1.5 Indicate the general location of existing and proposed major components of the electric system on Urban Growth Area resource plan maps.*
- UTP 1.6 Allow utility facilities as a permitted use where appropriate to ensure that land is available for the siting of such facilities.*
- UTP 1.7 Base the extension and sizing of public facilities upon the City's Land Use Plan. In those cases where engineering standards are in excess of the requirements for the*

*immediate development, but are required to meet established levels of service for proposed uses and future needs, the excess capacity shall not be a reason to allow growth out of sequence with the City's Land Use Plan.*

*UTP 1.8 Coordinate and seek to cooperate with other jurisdictions when transmission facility additions or improvements cross jurisdictional boundaries.*

*UTP 1.9 Regulate construction of utilities within sensitive areas in accordance with the Sensitive Areas Regulations.*

*UTP 1.10 Encourage the joint use of utility corridors consistent with limitations of applicable law and prudent utility practice and, where possible, in conjunction with non-motorized and recreational uses.*

*UTP 1.11 Coordinate public road design, construction and maintenance projects with utility design, construction and maintenance.*

*UTP 1.12 Require utility providers to design, locate, and construct facilities within publicly owned properties and rights-of-way when possible to reasonably minimize significant, individual, and cumulative adverse impacts to the environment and to protect environmentally sensitive areas.*

*Requirements should include the following:*

- a. Locate sewer lines and use construction methods and materials to prevent or minimize the risk of spillage into watercourses and water bodies.*
- b. Locate utility corridors in existing cleared areas, when possible.*
- c. Locate utility facilities and corridors outside of wetlands, when possible.*
- d. Minimize sewer and water line crossings of fish-bearing watercourses, when possible.*
- e. Use bio-stabilization, riprap, or other innovative engineering techniques to*

*prevent erosion where lines may need to follow steep slopes.*

*f. Minimize corridor width.*

*UTP 1.13 Require the undergrounding of all new electrical distribution and telecommunication 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.*

*UTP 1.14 Require the undergrounding of all existing electrical distribution and telecommunications lines where a change in 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.*

*UTP 1.15 Coordinate street re-paving efforts with utility providers to prevent excavation of newly paved street and trail surfaces by prohibition of excavation of new pavement for utility projects for a period of the first 5 years after new paving.*

*UTP 1.16 Encourage cooperation with other jurisdictions in the planning and implementation of 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.*

*UTP 1.17 Recognize the electrical facilities document known as the Puget Sound Energy Company's "King County Growth Management Act Electrical Facilities Plan," February 1993 including maps of existing, in-progress, and proposed facilities, recognizing:*

- a. *Electric utilities have State-regulated “public service obligations;”*
- b. *The State’s Procedural Criteria for utilities elements of comprehensive plans;*
- c. *The Growth Management Act requirements for including the location and capacity of existing and proposed electrical lines in utilities elements; and*
- d. *The need for timely inter-jurisdictional coordination in the planning and provision of electrical service.*

*UTP 1.18 The City will work with natural gas providers with transmission pipelines within municipal boundaries to address pipeline safety and natural disaster emergency response issues.*

**UTG 2.0** Require applicants for land use or construction permit approval to provide a certificate of water availability from the water utility provider or Seattle/King County Health Department if a private water system is to be used, as well as certification of fire flow and ability to maintain response time for fire & emergency level of service.

*UTP 2.1 Require connection to the applicable Water District water system for all new development permitted by the City.*

*UTP 2.2 Encourage the hookup to the municipal water system for those properties on existing private well systems.*

*UTP 2.3 Update building codes and plumbing codes to require water-conservation devices for new construction.*

*UTP 2.4 Encourage and support conservation strategies aimed at reducing average annual and peak day water use. These can include such strategies as:*

- a. *Billing rate structures that provide incentive for conservation.*
- b. *No retribution (increase in fees) if less water is used when restrictions are imposed.*

- c. *Wastewater reclamation for irrigation use.*
- d. *Public education and the use of appropriate signage where beneficial.*
- e. *Use of drought-tolerant plantings and native vegetation in City landscaping.*
- f. *Use of rainwater for irrigation through on-site capture and storage.*

*UTP 2.5 Special purpose districts and other public agencies shall prepare functional plans (such as the Covington Water District Comprehensive Water System Plan, King County Water District #111 Water System Comprehensive Plan, Soos Creek Water and Sewer District Sewer Comprehensive Plan) which should be considered by the City of Covington. These functional plans shall identify facility and service needs and define ways to fund these consistent with the City of Covington Comprehensive Plan.*

*UTP 2.6 Functional plans for facilities and services should:*

- a. *Be consistent with the City of Covington Comprehensive Plan;*
- b. *Define required service levels;*
- c. *Provide standards for location, design and operation of public facilities and services;*
- d. *Specify adequate, stable and equitable methods for paying for public facilities and services;*
- e. *Be the basis for scheduling needed facilities and services through capital improvement programs; and*
- f. *Plan for maintenance of existing facilities.*

*UTP 2.7 Recognize the drainage facilities documents known as the Soos Creek Basin Plan, Tahoma-Raven Heights Basin Plan, and the Covington Comprehensive Stormwater*

*Management Plan as part of this Comprehensive Plan.*

- UTP 2.8 Require adequate water flow for fire fighting operations with any new development proposals.*
- UTP 2.9 Provide a system of looped water mains coupled with adequate water storage capacity sufficient to support planned downtown redevelopment.*
- UTP 2.10 Allow single-family residential fire sprinkler systems to be supplied by domestic water meters with adequate backflow prevention, without additional meter charges for meters up to one inch in diameter as a fire prevention incentive.*
- UTG 3.0 Require applicants for land use or construction permit approval to provide a certificate of sewer availability from the sewer utility provider or Seattle/King County Health Department if a private sanitary sewer system is to be used.
- UTP 3.1 Encourage conversion from on-site wastewater disposal systems as sewer lines become available.*
- UTP 3.2 Sewer lines will be extended along the full extent of properties to serve adjacent property for new developments as they occur.*
- UTP 3.3 Support a regional approach to wastewater treatment for transmission and treatment of Covington's wastewater.*
- UTP 3.4 If on-site wastewater disposal system failures occur, septic tank management and/or alternative methods of sewage disposal should first be considered. If these alternatives are not feasible, sewer service shall be extended to serve only the specific problem area that has experienced failure but may be sized to serve future areas where disposal system failure might occur.*
- UTP 3.5 The City should routinely inform private and public utilities authorized to provide services within the City about the schedules for projects within the City's Capital*

*Investment Program which offer an opportunity to install utility infrastructure during or before the construction of City projects.*

UTG 4.0 A Green River watershed approach should be taken to surface water management, with responsibility shared among affected jurisdictions. This approach should emphasize prevention of water quality degradation through education programs and implementation of BMPs to reduce pollution entering surface waters.

*UTP 4.1 Work with private property owners and the other public agencies to undertake joint planning, financing and development of regional storm water detention and flood control projects to mitigate run-off impacts on streams, rivers and their ecosystems, and reduce damage to adjoining properties.*

*UTP 4.2 Follow a regional strategy that preserves and supplements, as necessary, the natural drainage ways and other natural storm water systems to minimize run-off impacts from development.*

*UTP 4.3 Allow storm water retention/detention facilities to be used as partial fulfillment of open space requirements when acceptable as recreational property. In determining the degree to which this is allowed, consideration will be given to the nature of the development. Where the development is more urban or non-residential, a greater percentage may be allowed for fulfillment, up to a maximum of 50% credit for required open space.*

*UTP 4.4 Design, install and maintain storm water facilities such that water quantity and water quality discharges meet the requirements of the City adopted design manual, the King County Surface Water Design Manual.*

*UTP 4.5 Encourage infiltration and recharge in areas where appropriate in the design of storm water management facilities.*

- UTP 4.6 Retain open channel drainage systems, natural or man-made, and encourage new open channel systems when feasible.*
- UTP 4.7 Design and construct storm water management systems to minimize adverse impacts to natural watercourses and ground water aquifers.*
- UTP 4.8 Establish and enforce Municipal Stormwater Utility standards to address methods to control run-off during construction to limit erosion, siltation, sedimentation, and stream channel scouring.*
- UTP 4.9 Work with state and regional agencies to develop and implement policies in the King County Stormwater Management Manual (1998 Edition).*
- UTP 4.10 Develop and implement stormwater management plans for each sub-basin within city limits.*
- UTP 4.11 Work with state and regional agencies to implement policies in the Covington Storm Water Comprehensive Plan Element and any subsequent plans that may be developed for the basins in the Covington area.*
- UTP 4.12 Continue to use and officially adopt the King County Surface Water Design Manual, and any amendments as approved by the City Council, or other manual consistent with the State Department of Ecology's Stormwater Technical Manual.*
- UTP 4.13 Implement a strategy that involves development of regional storm water management facilities that provide integration of storm water treatment, detention and/or infiltration with open space or recreational opportunities as the preferred method of storm water management.*
- UTG 5.0** Provide incentive programs to encourage recycling of materials with a goal of 100% participation. If incentive programs fail to reach reasonable reductions in waste, consider mandatory recycling programs to the extent allowable by State law.

- UTP 5.1 Establish public education programs on solid waste management, including recycling opportunities, ways to reduce solid and chemical waste, and related environmental issues.*
- UTP 5.2 Establish waste reduction/recycling programs for City departments and encourage procurement of recycled-content products by the City.*
- UTP 5.3 Support and provide recycling events and opportunities throughout the community.*
- UTP 5.4 The City supports and will work with the County to implement the recycling objectives of the King County Comprehensive Solid Waste Management Plan. The City should support solid waste recycling through education, public outreach, special events and promotions, and coordination with franchised solid waste haulers.*
- UTP 5.5 Move toward mandatory curbside collection of solid waste including recyclables and yard waste.*
- UTG 6.0** Encourage reduced energy consumption, conservation, the use of renewable technologies, and energy responsible land use decisions.
- UTP 6.1 Consider cost-effective energy conservation technologies including, but not limited to, site plans, construction methods and materials, and landscaping in land use policies and development regulations. Such technologies for methods and materials shall also promote practices that do not compromise human health conditions when occupied or used, reduce the need for future additional utility distribution facilities, and leave options for increasing conservation technologies in the future.*
- UTP 6.2 Coordinate with the current electrical provider when considering land use designations or new development in the vicinity of proposed facilities locations that might affect the suitability of the designated*

*areas for location of facilities or the need for electrical facilities.*

- UTP 6.3 Support the availability of telecommunications systems and telecommuting to facilitate communication between and among members of the public, public institutions, and business as a means to mitigate the transportation impact of development and growth.*
- UTP 6.4 Require the underground installation of new utility distribution lines where reasonably feasible and not a health or safety concern, and encourage underground placement of existing distribution lines as streets are widened and/or areas are redeveloped through such tools as local improvement districts, consistent with Washington Utilities and Transportation Commission tariffs.*
- UTP 6.5 Devote resources to encourage and enforce the Washington State Energy Code during the building permit process.*
- UTP 6.6 Ensure that utility purveyors limit disturbance to vegetation within major electrical utility transmission corridors to that necessary for safety and maintenance of transmission lines, and adhere to all applicable ordinances.*
- a. Encourage pruning of trees to direct growth away from utility lines.*
  - b. Encourage phased replacement of vegetation located improperly in the right-of-way.*
  - c. Encourage pruning of trees in an aesthetic manner to the extent possible and according to the professional arboricultural specifications and standards.*
  - d. Encourage the selection of tree species that can withstand wind and are compatible with utility lines.*

**UTG 7.0** Telecommunication technologies are converging so rapidly that the policy on widespread availability of

cable should extend to other formats and systems to the extent other formats are consistent with state and federal regulations

*UTP 7.1 Covington should promote the widespread availability of telecommunication systems to enhance communication between members of the public, public institutions, and business.*

*UTP 7.2 Long-term planning for telecommunication construction, reconstruction, and facility improvements should include provisions to ensure the system's capacity, design, and equipment will allow users to take advantage of innovations in uses, service and technology.*

*UTP 7.3 Telecommunication companies and the City should coordinate activities when facilities are being installed or road construction projects are scheduled. Multiple use of telecommunication facilities and co-location should be encouraged where feasible and consistent with service quality and access.*

*UTP 7.4 Long-term planning for telecommunication systems should provide for uninterrupted service during natural disasters.*

*UTP 7.5 Treat attached cellular base antennae as other building or rooftop appurtenances.*

*UTP 7.6 Undergrounding of new telecommunication infrastructure should be required, but allowances may be made to providers to share the use of existing above-ground utility infrastructure with other utilities, where possible, to facilitate new services.*

*UTP 7.7 Multiple telecommunication providers should use common antennae structures where possible without reducing quality of service.*

*UTP 7.8 When private telecommunication equipment is mounted on public owned buildings or facilities the City should evaluate whether the City interests are better served by lease income or by trade of in kind service from the private provider.*

- UTP 7.9 When utilities are being installed on public property the City should evaluate whether spare conduit for future City telecommunications use should be installed at the same time. The spare conduit could be used for City expansion of services or leaseback to private companies. While trenches are being dug the installation of spare conduit will eliminate the need for disruptions to roadways and other public properties during future expansion.*
- UTP 7.10 Encourage developers to install telecommunications conduit within all new developments. There should be enough conduits either in size or number to provide for all existing and additional future telecommunication needs. The conduit is to provide access to all homes or buildings and extend a sufficient distance to eliminate the need for future trenching through asphalt or cement concrete pavement within City right-of-way.*
- UTP 7.11 For infrastructure projects within City right-of-way, the City should assist in coordination between telecommunication providers to ensure that all interested parties are given the opportunity to install facilities in common trenches.*
- UTP 7.12 Limit the amount of disturbance to City infrastructure by encouraging co-location of telecommunication conduits in the right-of-way.*
- UTP 7.13 The City should routinely inform telecommunication companies authorized to provide services within the City 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.*
- UTP 7.14 The City should require the placement of personal wireless telecommunication facilities in a manner that minimizes the adverse impact on adjacent land uses.*

*UTP 7.15 The City should encourage permit applicants to submit an area wide plan that demonstrates the lowest land use impacts consistent with telecommunication customer needs.*

*UTP 7.16 All wireless telecommunication facilities shall comply with City of Covington Ordinance No. 110 98 adopted by the City Council December 1, 1998, and all amendments thereafter.*

**UTG 8.0** Establish a municipal street light utility within City of Covington city limits.

*UTP 8.1 Study feasibility in 2003 & 2004 as next steps to form a municipal street light utility to own, operate and maintain street lighting on public right of way and on selected qualifying private right of way or easements that serves the public interest, such as fire/emergency or police response access.*

*UTP 8.2 Implement a municipal street light utility, as funding becomes available, if feasible.*

*UTP 8.3 Develop and maintain a municipal street lighting system as a city utility to improve public safety.*