

CAPITAL FACILITIES & UTILITIES ELEMENT

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INTRODUCTION

The 1990 State Growth Management Act requires all comprehensive plans to contain a Utilities Element that “includes the general location, proposed location, and capacity of all existing and proposed utilities, including but not limited to electrical lines, telecommunication lines, and natural gas lines” (RCW 36.a.070-(4)). The main purpose of the utility element is to ensure that development within the City of Lynnwood has adequate utility capacity to support the Land Use Plan. This section also emphasizes the quality, reliability, safety and regulation of the services provided.

Capital Facilities and Utilities protect the public health and safety and help maintain a high quality of life in Lynnwood. In Lynnwood, as in many cities, utilities are provided by a combination of city-managed and non-city-managed providers. Depending on their service, these are variously state-regulated, federally-licensed and/or municipally-franchised providers.

City-managed utilities are sewer, water, storm and surface water, and solid waste. Non-city-managed utilities are electricity, gas, telephone, personal wireless services, and cable television. Non-city-managed utilities providers include Puget Sound Energy (PSE) (electricity and gas), US West Communications (telephone), and GTE Northwest Incorporated (telephone). These utilities are regulated by the state Washington Utilities and Transportation Commission (WUTC).

Personal wireless service providers serving Lynnwood in the Seattle Major Trading Area are those licensed by the Federal Communications Commission (FCC) in the Radio Frequency Spectrum for wireless telecommunications service and regulated to do business in Lynnwood. Cable television services are provided by TeleCommunications Incorporated (TCI) under municipal franchise.

Usually these services are invisible to City residents and businesses; they draw attention only when they are not available. Providing these services depends on building and maintaining major capital facilities. Each of these services requires extensive networks of pipes, wires or other major conveyance systems. Constructing and improving these capital facilities requires long lead times and substantial investments of public or private funds. The service capacity provided by new and expanded facilities are required to be available when new development is occupied in order keep service levels above minimum acceptable standards.

This Element identifies the existing and projected levels and types of capital facilities and utilities. Underlying this discussion is the City's intent to maintain acceptable levels of service for City-provided utility services and to work with other providers to insure that service capacity keeps pace with new development. For City owned utility services this Element describes existing conditions, facilities and service levels, projects service demands from new development, states minimum acceptable service level standards, and presents goals, objectives and policies for providing facilities and services to meet these standards. Capital Facilities data, plans and policies relating to Parks and Recreation, and Transportation are found in their respective elements of the Comprehensive Plan.

For services provided by other providers, it describes existing conditions, facilities and service levels, projects service demands from new development, and presents goals, objectives and policies for cooperating with the service provider(s) to help ensure that facilities and services meet level of service standards that may be set by the provider. This element also includes a 20 year Capital Facilities Plan that delineates the capital projects, (streets, parks and recreation, water, sewer and surface water utilities, municipal buildings and police and fire service facilities) that are needed for current and future municipal utility services and capital facilities.

Changing environmental regulations, especially those anticipated by the Endangered Species Act (ESA) and the National Pollutant Discharge Elimination System (NPDES) Phase 2 for cities with populations less than 100,000, will be placing increased demands upon utilities. For example, stormwater management will be held to a much higher water quality and procedural standards. The water and sewer utilities may also have to make procedural changes in response to the ESA, such as increased maintenance monitoring and reporting.

This Element has been coordinated with other Elements of this Plan and with other City planning documents. The Land Use Element presents the growth requiring new utility facilities and services. The City's annual budget includes funding for construction of new or expanded City-owned facilities. It also provides funding and staffing for operation of these facilities. The City has also adopted functional plans for each City owned utility service, namely sewer, water, and stormwater management. These plans are briefly described elsewhere in this Element. Each functional plan should be consulted for more detailed information related to each City owned utility.

In addition, other service providers have adopted capital facilities and service operations for other agencies and private companies are programmed by those agencies and/or companies. These plans are also briefly described herein.

PLANNING CONTEXT

Growth Management Act:

The following state planning goals are most relevant to the Capital Facilities and Utilities Element of the Comprehensive Plan:

Urban Growth: Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner.

Public Facilities and Services: Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.

This Element is consistent with these goals because it plans for providing adequate public facilities and services for new development in Lynnwood, concurrent with the availability of such development, and it establishes minimum service level standards and goals, objectives and policies to insure that new facilities are provided in a cost-efficient manner. The Capital Facilities Plan identifies facility improvements that will be needed to provide expanded services and the scheduling and financing for those improvements.

Economic Considerations:

Lynnwood's development policy is that new development will pay for the portion of facility improvements related to its demand on the system. These improvements to the City's utility systems allow for a more equitable distribution of costs and help to keep rates lower.

In cases where one development occurs prior to another and is not adjacent to existing infrastructure, the new development may have to extend utilities across the frontage of another undeveloped site and incur the cost of such extensions. Lynnwood has some mechanisms of reimbursement, such as a latecomers agreement, to provide a mechanism for fair share financing in such cases. The original developer would be reimbursed for costs associated with the portion of the extension that is later used by another developer.

In limited cases, and with City Council approval, the City allows extensions of utilities outside of the city limits. Because general rates should not be used to fund and operate systems outside of the City boundaries, differential rates and/or connections fees are established to ensure that City residents are not subsidizing service outside of City boundaries.

County-wide Planning Policies:

The County-wide Planning Policies call for the orderly provision of public services and utilities concurrent with new development, so that minimum acceptable service levels are maintained. The goals, objectives and policies of this Element are consistent with those policies because the City intends to manage its services and cooperate with other service providers to ensure that services are provided concurrent with new development.

PLANNING BY SERVICE PROVIDERS

The complex arrangement of public service providers, private service providers, and regulatory agencies results in a complicated planning process for service and utility facilities. Three different types of service providers serve the City:

- **City Owned Utilities:** (sewer, water, surface water utilities, parks and recreation, police and fire service);
- **Private Owned Utilities:** (gas, telephone); and,
- **Utilities Owned by other agencies:** (electricity, schools, solid waste landfill).

While the City has direct control over services that it provides directly, there is no formal connection between the City and either the private companies (second group) or the other agencies (third group). The City must closely coordinate their efforts at both the technical and policy levels. In addition, regional, state and federal agencies oversee many of these services, either directly or in connection with environmental protection programs, and they impose minimum service levels or other requirements that service providers must meet.

Sewer:

The City adopted a Comprehensive Sewer Plan in February, 1999 that provides planning direction for management and maintenance of the sewage treatment system. This plan provides for compliance with discharge requirements and limitations imposed by the State Department of Ecology under the National Pollution Discharge Elimination System and the federal Clean Water Act. The federal Environmental Protection Agency and Puget Sound Air Pollution Control District regulate air pollutant emissions from incinerating sewage sludge.

Water:

The City has a draft *Water System Comprehensive Plan Update* (2000) that includes an evaluation of the existing water system, incorporates anticipated growth, and presents a plan for water system improvements. This Update projects needed improvements through 2020, consistent with rules and regulations for public water systems from the state Board of Health. The federal Safe Drinking Water Act and state Department of Health require water providers to meet safety standards. The draft is scheduled for approval in the fall of 2000.

Stormwater Runoff Management:

The requirement to manage stormwater runoff has local, state, and federal laws that do and will apply. The listing of the Puget Sound Chinook Salmon and Bull Trout as threatened under the Endangered Species Act (ESA) will necessitate the City to review and revise the ordinances that apply to stormwater runoff management. The full impacts of the ESA will not be clearly understood until 2002, or later, and so the City will not be revising ordinances until after that time.

The National Pollution Discharge Elimination System (NPDES) laws that govern stormwater runoff in cities under 100,000 population are also being finalized and will apply to Lynnwood in approximately the year 2002. The City has revised its *Comprehensive Flood and Drainage*

Management Plan (1998) reflecting changes in regulations, as well as incorporating new data and information collected since the original plans were prepared. Although not yet officially adopted by the City, in anticipation of requirements from the ESA, for developments, the City recommends the use of the *Stormwater Management Manual for Puget Sound*, as prepared by the State Department of Ecology. The Puget Sound Water Quality Action Team also has adopted requirements for stormwater management.

Parks and Recreation:

The City regularly prepares and adopts a Parks Plan in compliance with IAC guidelines for parks planning, recreation programming and grant eligibility purposes. Consistency is maintained between the Parks Plan and Parks & Recreation Element of the Comprehensive Plan, which is updated annually.

Transportation:

The City annually prepares and adopts a six-year Transportation Improvement Plan (TIP). This plan lists street and non-motorized projects, and revenue sources. This plan is prepared for transportation project scheduling, prioritization and grant eligibility purposes.

Electricity:

The Snohomish County Public Utility District (PUD) No.1 provides electricity service in Lynnwood. There are no unplanned for facility needs at this time.

Natural Gas:

Washington Natural Gas (WNG) provided Lynnwood with natural gas until recently. They have changed to Puget Sound Energy (PSE), who now provides service for Lynnwood.

Solid Waste Landfill:

The Washington Solid Waste Management Recycling and Recovery Act (RCW 70.95) requires each county, in association with its cities and towns, to prepare a 20-year comprehensive solid waste management plan (CSWMP) and to update the plan at least every 5 years. Snohomish County is the solid waste management planning authority for all jurisdictions in this County with the exception of the City of Everett. The County's Solid Waste Plan Update was adopted by the County, Lynnwood and other participating jurisdictions in February 1990. The CSWMP must be extended to show the long-range needs 20 years into the future. A revised 6-year construction and capital acquisition plan must be included.

Projections for future solid waste generation within the City of Lynnwood are based on a Snohomish County Solid Waste Management Division report entitled *1995-2015 Snohomish County Small Area Waste Projections Under Existing-Condition*.

Schools:

The *Edmonds School District Capital Facilities Plan* has been developed. This plan helps the district determine when new schools will be needed, and what funds may be available for these facilities.

Library:

Lynnwood's library is located in the Civic Center at 19200 – 44th Avenue W. The facility was recently expanded and includes more than 87,000 items in its collection. The library is a member of the Sno-Isle Regional System, allowing members to borrow materials from 18 other libraries in Snohomish and Island Counties.

Telecommunication Services:

Verizon provides telephone service for Lynnwood and their facilities are adequate for the foreseeable future.

SUMMARY OF ISSUES

Based on the service and facility needs identified in the preceding sections, the following major issues for capital facilities and utilities face the City.

Sewer:

The Sewer Utility operates, maintains, and extends the sewage collection system service the needs of residents and commercial establishments. The collection system discharges to the City owned waste water treatment plant which is located on the shores of Puget Sound and surrounded by the City of Edmonds.

Flows through the waste water treatment plant are expected to increase to 6.5 million gallons per day which is well within the design capacity of the existing facility. The sludge incinerator is expected to require extensive maintenance or replacement within the next five to ten years.

The system does not require any extensive improvements to meet the expected growth within the utility's service area which is generally the existing City boundaries. Any increase in development density may require localized improvements, but the overall system capacity would be sufficient. Future emphasis will focus on maintaining the existing infrastructure, incorporating technology to optimize the existing system, and complying with any new regulatory requirements.

Water:

The Water Utility purchases water from the Alderwood Water District. Water is distributed through mains constructed, operated, and maintained by the water utility to residential, commercial, and industrial users.

The City has been able to control peak water flows by managing the use and recharge of the existing water tanks for supplemental flow. Peak flows at full build out are calculated to be 7.52 million gallons per day (MGD) which is less than the system capacity and the 10 MGD flow in the whole sale water agreement with the Alderwood Water District.

The system is currently sized to provide for the expected growth within the utility's service area which is generally the existing City boundaries. Any increase in development density may require localized improvements, but the overall system capacity would be sufficient. Future emphasis will focus on maintaining the existing infrastructure, incorporating technology to optimize the existing system, and complying with any new regulatory requirements.

Stormwater Runoff Management:

Responding to and meeting the requirements of the Endangered Species Act (ESA) and meeting the requirements of the National Pollutant Discharge Elimination System (NPDES) Phase 2 will be the major issues facing the City over the next few years. The implications that these issues have to stormwater runoff management include changes to ordinances and development standards as well as changes to how the City maintains its infrastructure.

Eliminating existing flooding problems may require increasing the capacity of existing stormwater facilities or constructing new facilities (for example, new detention basins such as the North Scriber Regional Detention Facility, which was constructed during 2000). The ESA and NPDES requirements will require modification to our existing Best Management Practices (BMPs) and our design standards and policies.

Parks and Recreation:

See the Parks, Recreation and Open Space Element.

Transportation:

See the Transportation Element.

Other Services and Utilities:

Continuing to cooperate and coordinate facility planning and construction so that new or expanded services are provided concurrent with new development.

SEWER

The City of Lynnwood is responsible for providing sewer service to its residents, and the maintenance and operation of the treatment plant and the collection and transmission systems. The City's wastewater treatment plant was converted to secondary treatment in 1992, increasing the plant's capacity to an average annual flow of 7.4 million gallons per day (MGD). Additional improvements to the wastewater treatment plant were completed in 1998. These were replacement of the treatment plant out fall, sludge handling improvements, addition of a bar screen, and extensive odor control improvements. These improvements were identified in the January 1996 Wastewater Facilities Plan Amendment to the 1998 Wastewater Treatment Facilities Plan.

The following analysis is based on information contained in the City's Comprehensive Sewer Plan (February 1999). Technical data and information has also been collected from documents revised or created since the 1995 City of Lynnwood Comprehensive Plan. These include the 1998 Comprehensive Sewer Plan, and the 1996 Wastewater Facilities Plan Amendment. These documents serve as a reference and background information for this city comprehensive plan.

Collection System:

The Lynnwood sewer service area is divided into four major drainage basins: Swamp Creek, Scriber Creek, McAleer Creek, and Browns Bay. These basins are further divided into 17 unit sub-basins. The sewage collection system is for sanitary sewage only; storm water discharges into the system are not allowed.

The majority of the collection system was installed prior to 1975. Additions to the original system have been numerous, particularly in recent years during annexation to and development the northern and eastern parts of the City. Four small lift stations (No. 4, 7, 8 and 14) serve local areas in the system; these lift stations (LS) were constructed after the original sewer system and installed. The collection system is relatively new being less than forty years of age as of this writing. However winter time storms sometime inundate the system and hydraulic overloads occur in some areas of the system. The effects of these are lessened by bypass pumping. The long term solution is for the elimination of infiltration/inflow into the system, either by replacing pipeline sections or repairing specific locations in others. The success of these programs will be monitored. Replacing entire runs of pipelines is avoided at this time, pending the success of the removal of infiltration/inflow.

Transmission System:

The components for the transmission system were installed with the original system and originally included two lift stations (LS Nos. 10 and 12), a force main and gravity trunk sewer from LS NO. 10 to LS No. 12, and a second force main and gravity trunk sewer system from LS No. 12 to the treatment plant. In 1993, LS No. 10 was extensively refurbished at the existing site, and a new force main which bypassed LS No. 12 was installed to the gravity main in 76th Avenue W. LS No. 12 was also modified and updated during 1993.

LS No. 10 receives flow from the Scriber Creek and Swamp Creek drainage basins. Flow received at LS No. 10 are pumped through a 24-inch diameter force main to a gravity sewer

trunk line that leads to the treatment plant. The capacity of the force main is approximately 8.5 MGD at the maximum velocity of 8 feet per second (fps).

Flows received at LS No. 12 are pumped through an 18-inch diameter force main to a 24-inch diameter gravity line that leads to the wastewater treatment plant. At the maximum recommended velocity of 8 fps, the flow capacity of the force main is approximately 9.1 MGD. The 24-inch gravity trunk line also receives tributary flows from Edmonds and the Browns Bay Drainage basin at several points along the alignment.

Current transmission capacity generally meets the needs of the City. Isolated areas are subject to surcharging due to heavy infiltration during larger storm events.

Treatment Plant:

The City's wastewater treatment plant upgrade was completed in 1992. The project upgraded the existing primary treatment plant to a secondary treatment plant utilizing the activated sludge process and incineration for solids handling. The plant design parameters were to handle an average annual flow of 7.4 million gallons per day (MGD) and an influent biochemical oxygen demand (BOD) of 15,120 lbs/day for the design year 2010. The maximum month average flow is not to exceed 7.4 MGD. The report assumed projected population for the City of Lynnwood is 44,700 people and a total population equivalent of 52,080 for the service area, which includes a portion of Edmonds, and all commercial contributions. The plant produces an effluent at or below the discharge limitations set by the Washington Department of Ecology (DOE).

The treatment plant currently operates under a National Pollution Discharge Elimination System (NPDES) permit issued by the Department of Ecology. Limitations under the permit are listed under "Level of Service Standards," below.

When either the actual flow or waste load reaches 85 percent of the design capacity or when the projected increases would reach design capacity within five years, whichever occurs first, the City is required to submit to the Department of Ecology a plan and a schedule for continuing to maintain capacity at the facility sufficient to achieve the effluent limitations and other conditions of the NPDES permit.

In 1998 a review of the capacity and the Biological Oxygen Demand on the plant were reviewed and a new permit applied for. The hydraulic capacity remained at 7.4 mgd but the BOD was raised to 15,120 pounds per day. The permit was approved in January of 1998 and the plant is now below the 85% threshold.

The plant capacity was evaluated in 1995 and a report was issued in January 1996 that identified capacity limits or "bottlenecks" in the system. Also identified were plant systems in need of replacement or modification. Since the publication of the January 1996 Wastewater Facilities Plan Amendment, all of the improvements have been implemented. These include: Replacement of the existing corrugated metal out fall pipe with a new HDPE (thick plastic) pipe; installation of a self cleaning bar screen; retrofitting the sludge handling system. This was an extensive improvement requiring the installation of a new clarifier, pumps, and piping. In addition the odor control system has been completely revamped since 1996 adding additional capacity for treatment plant air emissions. The incinerator capacity for sludge burning was also improved during these modifications. With these improvements the Department of Ecology issued the current City of Lynnwood NPDES operating permit; allowing for an increase of BOD and total suspended solids increases of 17% over previous

permitted levels. Hydraulic capacity was not increased, but neither was it originally identified as being within 85% of design capacity as identified above.

Demand Forecasts:

Based on the growth anticipated in this Plan, average annual flows are projected to increase from the current 5.30 MGD for 1990 to 6.50 MGD at build out (2018). This projected flow would not exceed the design flow capacity of the plant.

An analysis of BOD loadings based on a population of 43,601 results in a projected average BOD loading of 10,629 lbs/day with the growth anticipated in this Plan. This projected BOD loading is below the current DOW permit limitation of 15,120 lbs/day and below the 85% design capacity, which would trigger a design review.

Level of Service and Design Standards:

Treatment plant, pipe connection size and flow rate are all levels of service standards for the sewer system.

Flows:

- 70 gallons per day per capital

Pipes:

- 8" minimum diameter
- 6" side sewer connection

Treatment Plant:

- Waste Loadings: Unknown
- Average flow for the maximum month – 7.4 MGD;
- Biochemical Oxygen Demand (5 day) (BOD₅) loading for maximum month – 15,120 lbs/day;
- Influent total suspended solids (TSS) – 15,120 lbs/day.
- Effluent limitations: (Monthly Average)
 - CBOD₅ -(25) mg/L, 1,543 lbs/day
 - TSS – 30 mg/L, 1,851 lbs/day
 - Fecal Coliform Bacteria – 200/100 mL
 - Chlorine – 318 ug/L (7.16 lb/day) [daily maximum –834 ug/L]
 - CBOD₅ – 25 mg/L, 1,534 lbs/day
 - TSS – 30 mg/L, 1,851 lbs/day
 - Fecal Coliform Bacteria – 200/100 mL
 - Chlorine – 318 ug/L (7.16 lbs/day) [daily maximum – 834 ug/L]
- Effluent limitations: (Weekly Average)
 - CBOD₅ – 40 mg/L, 2,469 lbs/day
 - TSS – 45 mg/L, 2,777 lbs/day
 - Fecal Coliform Bacteria – 400/100 mL
 - pH shall not be outside the range of 6.0 to 9.0

The NPDES permit also sets limits for effluent concentrations. The monthly average effluent concentration limitations for CBOD₅ shall not exceed 25 mg/L or 15 percent of the influent concentration; the monthly average effluent concentration limitations for TSS (total suspended solids) shall not exceed 30 mg/L or 15 percent of the influent concentration. Additional design standards relating to level of service are found in the Capital Facilities Plan provided (HD).

Needs Assessment:

Improvements to sledge handling capabilities in 1999 allowed the increase in our NPDES permit to 15120 lbs/day for both BOD and TSS. This should allow the facility to remain in compliance with existing codes through 2018.

WATER

Inventory and Existing Conditions:

1. Supply:

Lynnwood receives its potable water supply from the watershed around the headwaters of the Sultan River. The City of Everett supplies water via pipelines to regional purveyors in south Snohomish County. The Alderwood Water District (AWD) purchases water from Everett and resells it to the City of Lynnwood.

The City of Lynnwood water service area includes all of the area within the corporate city limits, which now totals approximately 4,900 acres, except the Spruce Hills development on Spruce Way at 172nd Street SW, and approximately 15 acres between SR-99 and 48th Avenue West at 168th Street SW which are served by the AWD (a total of 474 acres). AWD also services the area of Lynnwood east of I-5 and south of I-405, and they have a major transmission line running down 36th Ave W from 184th St to Alderwood Mall Boulevard.

In 1978, the City of Lynnwood and the AWD entered into an agreement for water supply. The 1978 agreement provides for the delivery of "peak day water" needed by the City. Peak day water is the 24-hour average flow rate for any maximum usage day during a calendar year. An amendment to the agreement in 1980 extended the terms of the agreement to September 20, 2010, coinciding with the expiration date of the Alderwood Service District's agreement with Everett.

2. Pressure Zones:

There are four pressure zones that distribute water within the City of Lynnwood -- the 573, 635, 680 and 724 zones. The City serves the 573, 635 and 680 pressure zones, while the 724 pressure zone is served by the AWD.

The 724 zone serves an area approximately from 168th Street SW to 172nd Street SW and from Spruce Way to 36th Avenue W. Water and storage for this pressure zone is supplied from Alderwood Water District's 2.0 million gallon (MG) reservoir located one mile north of 168th Street SW near 35th Avenue W. Static water pressure in the area ranges from 50 psi to 80 psi. Service is provided from a 12" water loop with 8" distribution lines into the residential areas. A pump station containing 3 pumps capable of 1.4 million gallons per day (MGD) fills the storage tank.

The 680 zone serves the area between 188th St. SW on the south and 179th St. SW on the north and several blocks east and west of 40th Ave. W. This new pressure zone was created in 2000 with the placement of a new booster pump next to the two water tanks at 40th Ave. W. and 185th St. SW. These tanks serve the 573 zone. This new zone provides pressures in the area of 65 psi.

The 635 zone serves an area approximately from 196th Street SW to 172nd Street SW and from 40th Avenue/Spruce Way to 36th Avenue W. North of 172nd Street SW the westerly boundary moves west to Highway 99. Water is supplied through the city's master meter at 168th Street SW and Spruce Way. The water is supplied from the Alderwood Water District's reservoirs totaling 76 MG. Service is provided from 10" and 12" mains feeding 8" distribution lines. Static pressure in the area is 35 psi to 90 psi. The City currently requires the

installation of individual booster pumps for new construction within those areas affected by low water pressure.

The 573 zone serves the remainder of the city. The water is supplied through the City's master meter and goes through the pressure reducing station located at Spruce Way and 173rd Street SW. Water is stored in the City's two reservoirs totaling 5.7 MG located at 40th Avenue W and 185th Street SW. Static water pressure in the area ranges from 60 psi to 100 psi.

Generalized Existing Potable Water System:

1. Transmission and Distribution System:

The primary water transmission main for the City is a 24" concrete cylinder pipe that runs along 35th Avenue W and Spruce Way from AWD's terminal storage facilities at 153rd Street SW to the intersection of 164th Street SW and Spruce Way. A pressure-reducing valve (PRV) vault, located at 173rd Street SW and Spruce Way, on the 24" main reduces the pressure of the incoming supply from Alderwood to feed the City's supply lines. Two transmission mains (a 16" line and an 18" line) split off at the termination of the 24" main. The 16" main supplies water to the northwestern portion of the City and the 18" main supplies the City's storage reservoirs. A 24" main runs from the storage reservoirs and connects to a combination of 18", 16" and 12" mains that distribute water to the remaining portions of the City.

A second PRV station, located at 196th Street SW and 40th Avenue W, provides a secondary means of supplying the 573 pressure zone when the main PRV is out of service or when there are high demands on this zone. If the main PRV were out of service for an extended period, the secondary PRV would be unable to meet the demand in the 573 pressure zone. The distribution system off the second PRV consists of looped 6" through 12" water mains.

2. Storage:

The City has a total of 5.77 million gallons (MG) storage capacity with two reservoirs located at 185th Street and 40th Avenue W. Both reservoirs are in the 573 pressure zone. In 1995, the total required storage (fire, equalizing, and emergency) for the 573 pressure zone was 9.13 MG; this represents a storage deficit of 3.36 MG.

Storage for the 635 and 724 pressure zones is provided by the AWD; at this time, no formal agreement exists between the City and the AWD regarding storage within these pressure zones.

The City's 1998 Water System Comprehensive Plan Update recommends the emergency storage minimum be based on the Washington State's Department of Health's *Waterworks Standards, April 1996*. *The 1998 Water System Update used this criterion to show that 11.56 MG are needed*. The same analysis shows that when the AWD storage is factored in the City has 14.89 MB available for a surplus of 3.33 MG. The AWD, however, has determined that they have no surplus of storage for Lynnwood's use at this time. The City is currently negotiating with AWD over the use of AWD storage to satisfy the State Health Department standards.

3. Demand Forecasts:

Residential, commercial, and industrial growth associated with the City's land use alternatives would increase consumptive uses and would place increased demands on existing water supplies and facilities. Estimated total average and peak daily demand in 2012 at full development based on the 1998 Water System Plan are 4.42 MGD and 7.52 MGD, respectively (based on a 2012 population of 35,550).

Estimates for this Plan are based on an average daily demand of 124.38 gallons per capita per day and are taken from the City's 1998 Water System Comprehensive Plan Update. Estimates do not reflect conservation measures, and are assumed to be conservative on the high side. Actual water demand would depend on household size, employment, the type of land uses that develop (particularly industrial uses), implementation of water conservation measures, and other factors.

4. Future Supply:

The Sultan River watershed has the capacity to supply the current and projected future demands for the City of Everett and its service area, which includes the City of Lynnwood.

5. Future Storage:

The Water Supply Plan Update projects water storage requirements for the 573 pressure zone as 9.13 MG by the year 2012. The required storage for this pressure zone includes: fire flow storage of 2.16 MG, equivalent to 6,000 gpm for 6 hours (the fire flow requirement for Alderwood Mall); emergency storage equivalent to the maximum day demand (6069 MGD); and equalizing storage equivalent of 0.25 MGD.

6. Level of Service Standards:

Fire flow, equalizing, and emergency storage are required to be provided by the City of Lynnwood by terms set in the agreement with the Alderwood Water District.

7. Fire Flows and Water Storage:

- Commercial:
6,000 gpm; storage for a 6-hour supply (2.16 million gallons)
- Multi-Family:
3,000 gpm; storage for a 3-hour supply (0.54 million gallons)
- Residential:
1,000 gpm; storage for a 2-hour supply (5.3 million gallons)
- Emergency Storage:
800 gallons per connection (5.3 million gallons)

8. Fire Hydrants:

- Commercial Area - one hydrant every 330 feet
- Residential Area - one hydrant every 600 feet

9. Distribution System:

- 8" minimum pipe size

- 30 pounds per square inch minimum
- Maximum velocity of 8 feet per second

10. Consumption:

- The average daily demand is approximately 125 gallons per capita per day.

Needs Assessment:

In order to meet increased demands, existing facilities would have to be expanded. The City of Lynnwood Water System Comprehensive Plan Update contains a list of recommended improvements that were developed to meet the projected requirements of the City's water system. It is anticipated that once all the identified improvements have been completed, there would be sufficient capacity to serve the projected population.

While water pressure generally ranges from 30 psi to 100 psi, during periods of high use the pressure in the 635 zone can fall below the minimum of 30 psi due to falling water tank elevations and increased head loss due to velocity in the mains. Future water system improvements should resolve low pressure problems.

STORMWATER RUNOFF MANAGEMENT

Inventory and Existing Conditions:

1. Existing Drainage Basins:

The City of Lynnwood's drainage system consists of Scriber Creek, its two primary tributaries (Popular Creek and Golde Creek), Meadowdale Pond, Swamp Creek, Hall's Lake, Hall's Creek, and an unnamed creek flowing west into Perrinville in Edmonds. The entire drainage system has approximately 4200 catch basins and manholes, 130,000 feet of storm lines, 48,000 feet of ditches, 20 detention ponds, underground detention tanks, and several miles of streams.

2. Stormwater Runoff Management Requirements:

The Puget Sound Water Quality Management Plan requires all counties and cities within the Puget Sound drainage basin to adopt ordinances to control runoff from new development and redevelopment. At a minimum, ordinances must address:

- control of off-site water quality and quantity impacts;
- use of infiltration where appropriate;
- source control Best Management Practices (BMPs);
- effective treatment using BMPs of the storm size and frequency as specified in the *Stormwater Management Manual for the Puget Sound Basin* for proposed development;
- erosion and sedimentation control; and
- protection of stream channels and wetlands.

Stormwater programs must also include operation and maintenance programs for public and private stormwater systems; programs to educate citizens about stormwater and its effects on water quality, flooding, fish/wildlife habitat, and to discourage dumping into storm drains;

coordination with provisions of GMA; and basin planning (as part of a comprehensive water quality protection program).

The City of Lynnwood currently recommends drainage standards for new developments to adhere to stormwater requirements contained in the Department of Ecology's *Stormwater Management Manual for the Puget Sound Basin*. In addition, the City is working on an ordinance to adopt regulations that meet DOE requirements. The ordinance will not be finalized until the impacts resulting from the Endangered Species Act are known, sometime in 2002.

The National Pollution Discharge Elimination System (NPDES) Phase 2 is federal law, administered by the Environmental Protection Agency, requiring stormwater management programs to meet minimum water quality requirements. Requirements would include ordinances, mapping, discharge characterization, source identification, and public education. These laws are currently being revised to apply to cities, such as Lynnwood, that have populations less than 100,000. The NPDES requirements are very similar to those under the Puget Sound Water Quality Management Plan.

The listing of several fish species by federal agencies under the Endangered Species Act (ESA) will have far-reaching implications on Lynnwood's stormwater requirements. The City's response to the ESA will undoubtedly include ordinances and programmatic requirements that will overlap with the requirements of the Puget Sound Water Quality Management Plan and NPDES. There may be requirements of the ESA, however, that go far beyond those requirements. These could include things such as stricter maintenance standards, monitoring, interjurisdictional participation, habitat enhancement and acquisition. In addition, the City will also be assessing other programmatic changes to both protect us from liability under the ESA, as well as to protect and even enhance the habitat of the protected species.

Demand Forecasts:

Future conversion of open space to residential, commercial, and industrial development would result in increased volumes and peak flow rates of stormwater runoff. In general, the greater the level of development, the greater the increase in impervious surfaces and stormwater runoff. It is also anticipated that regulatory requirements of ESA, NPDES, and the Puget Sound Water Quality Management Plan will create extreme demands on stormwater runoff management.

Level of Service Standards:

Drainage improvements on private and public land must be designed and constructed to reduce or prevent run-off, promote water quality, and provide adequate protection of natural habitat.

Generalized Existing Stormwater Management System

1. Sizing and Capacity of Conveyance Systems:

- Systems on private property must be designed to pass the 25-year storm. No minimum size requirements.
- Public systems in right-of-way or in city easements must be designed to pass the 25-year storm, or 12" minimum. 8" may be used if run is less than 50' from a curb inlet.

2. Detention System Requirements:

- Design for detention of impervious surfaces greater than 5,000 square feet, pursuant to the Department of Ecology's *Stormwater Management Manual for the Puget Sound Basin*.

3. Water Quality Requirements:

- Water quality facilities, such as biofiltration swales, two-celled ponds, and wet vaults, are required of new development and redevelopment, pursuant to the Department of Ecology's *Stormwater Management Manual for the Puget Sound Basin*.

Needs Assessment:

Localized, temporary flooding has been a problem in areas of the City due to increased development and insufficient culvert and detention capacity. Flooding also occurs as a result of ditches becoming clogged, debris plugging the inlets to catch basins and pipes backing up. Other problems result from surface runoff to infiltration systems causing system levels to rise.

Water quality problems resulting from the effects of urban development are common in urban cities such as Lynnwood. Pollutants of concern include chemicals, petroleum products, solid wastes, and silts from development projects. Pollutants in the surface water system degrade the natural habitat of Lynnwood's streams and lakes.

Fish habitat problems also result from urban development and are common in the City. These problems include erosive flows in streams, channelization, damage from poor water quality, and migration blockages from culverts and pipes.

ELECTRICITY

Inventory and Existing Conditions:

The Snohomish County PUD provides electrical service in Lynnwood. The PUD receives power from the Bonneville Power Administration's (BPA) distribution system through a cooperative agreement. The PUD also operates its own generating sources. The PUD maintains several 115 kilovolt (kV) lines and 230 kV lines in Snohomish County.

Power is distributed by 115 kV lines from BPA's SnoKing station to six distribution substations where it is transformed from 115 kV down to 12.5 kV and distributed to Lynnwood and surrounding areas. The existing 115 kV line will be at 70 percent capacity within 5 years.

The PUD is completing a 20-year plan to identify capital projects. The plan is based on several factors: peak demand during the winter peak utility, energy forecasts, land use permits, zoning, and historical data. This information is then broken down into 7-year forecasts for capital improvements. As the provider of electricity services to the City, the PUD will determine the timing, place and manner of providing new or expanded facilities.

In 2005, the PUD plans to upgrade the existing Alderwood Substation, including the addition of distribution circuits.

ENERGY DEMAND	
LAND USE	ANNUAL ENERGY USE (KWH/GSF/YEAR)
Single Family Residence	5.7
Multi-family Residence	3.6
Retail	19
Office	23
Manufacturing	Varies

Demand Forecasts:

Future development under this Plan will result in energy consumption increases. Although energy conservation efforts help to curb energy demands, certain uses inherently consume more energy than others do. The Energy Demand Table shows average annual energy consumption for urban land uses.

The PUD states that there would be adequate power to supply the future population that is projected for the Lynnwood. The PUD states that it has the ability and capital to buy additional power and/or build its own power resources.

Source:
Bonneville Power Administration, 1993.

Needs Assessment:

The PUD has identified no facility needs for electricity service in addition to those already planned by the PUD.

NATURAL GAS

Inventory and Existing Conditions

Puget Sound Energy (PSE) provides natural gas service to Lynnwood. Natural gas is supplied to the Lynnwood area through two supply mains owned and operated by the Williams Company that together are known as the North Seattle Lateral.

As of July 2000, there were approximately 10,482 natural gas customers in Lynnwood and the surrounding Urban Growth Areas. These customers are served through PSE’s distribution system which consists of the following components:

Gas Supply Mains: These are generally larger diameter (8” and over) steel wrapped mains designed to operate at higher pressure (100 psig to 250 psig) to deliver natural gas from the supply source to pressure reducing stations (district regulators).

Pressure Reducing Stations: These are located at various locations throughout the system to reduce pressure to a standard distribution operating pressure of approximately 60 psig.

Distribution Mains: Distribution mains are fed from District Regulators. These mains vary in size (usually less than 8” in diameter) and the pipe material is typically polyethylene.

Demand Forecasts

The average energy use for residential customers is 50 cubic feet per hour during winter heating months. Energy use from office, commercial and industrial development varies. New hookups will trend similar to residential and commercial growth within the city, since the majority of new developers request natural gas service.

Needs Assessment

There are four types of typical projects that PSE could have in the Lynnwood area:

- System reinforcement required to supplement existing system and improve reliability.
- New installation due to new customers or conversions from an alternate fuel.
- Main replacement projects to improve system reliability.
- Replacement or relocation of facilities due to municipal and state improvement projects.

At this time there is one long-term system reinforcement project under review in Lynnwood. PSE's 10 year plans call for adding additional supply main to improve pressure and link the existing 16" systems on the east and west sides of south Lynnwood. Timing of this project is dependent on load and/or customer growth within the service area. The project route will be reviewed with the City of Lynnwood early in the planning stages.

SCHOOLS

Inventory and Existing Conditions

The City of Lynnwood lies within the Edmonds School District. The Edmonds School District covers approximately 36 square miles of southwest Snohomish County. The District boundaries encompass the cities of Brier, Edmonds, Lynnwood, and Mountlake Terrace, the town of Woodway and unincorporated Snohomish County. The Edmonds School District's student enrollment for fall 1999 was 21,509. Since 1996, student enrollment in grades K-6 decreased by 3.15%. In grades 7-8 enrollment increased 3.35%, and in grades 9-12 enrollment increased by 9.75%. Between 1996 and 1999 total District enrollment increased by 1.65%. The District has 23 elementary schools, 4 middle schools, and 5 high schools. The City of Lynnwood contains 12 of the elementary, middle and high schools belonging to the District, plus the District's administration offices and the maintenance and transportation buildings.

Within the City of Lynnwood, there are 7 elementary schools (Beverly, Cedar Valley, College Place, Lynndale, Lynnwood Intermediate, Meadowdale, and Spruce Primary), 2 middle schools (College Place and Meadowdale Middle), and 3 high schools (Lynnwood High, Meadowdale High, and Scriber Lake High). The location of public schools within the City of Lynnwood is shown on the map of **Existing Public Buildings**.

Planned Improvements

In 2002 voters rejected Capital Construction funding for remodeling, rebuilding and renovating schools and building systems. Construction projects that are planned but not funded are summarized in the table below.

CONSTRUCTION PROJECTS PROPOSED BUT NOT FUNDED			
Project	Estimated Completion date	Student capacity change*	Estimated project cost (2002\$)
Lynnwood High School	2006	341	\$59.5
Scriber Lake Alternative H.S.	2006	Unknown	\$15.9 million
Small Works Projects	2006	N.A.	\$12.6 million
Inflationary Adjustment	N.A.	N.A.	\$22 million
TOTAL	N.A.	Unknown	\$110 million

Source: Edmonds School District Capital Facilities Plan (2002-2007)

* Based on District's Educational Facility Standards

Demand Forecasts

SPI Enrollment Projections:

Enrollment projections are generated annually by the Superintendent of Public Instruction (SPI) using a 6-year forecast period. SPI uses the cohort survival methodology for projecting student enrollment for grades 1 through 12. Kindergarten enrollment is projected based on a least squares linear regression analysis of actual kindergarten enrollment over the previous six years. This methodology assumes enrollment trends that have occurred over the previous six years will likely continue through the next six years. By the end of the 6-year forecast (2005), no additional classroom capacity will be required.

Needs Assessment

The School District currently owns enough school sites to accommodate student housing needs through the year 2005. By the year 2020, the District is expected to have unhoused students at all grade levels. Current funded construction projects will not provide adequate capacity to house all of the projected high school students through the year 2020. In order to accommodate projected new students for 2020, the District would have to construct approximately 110 elementary classrooms, 34 middle school classrooms, and 70 high school classrooms. To provide for these students, the District would have to buy additional property for new schools. The District feels it should have adequate undeveloped sites for future construction needs.

PUBLIC LIBRARY

Inventory and Existing Conditions

The Lynnwood Library is the flagship of the Sno-Isle library system. At approximately 26,000 square feet in size and with nearly 180,000 items in its collection, it has the highest circulation of all Sno-Isle branches. The first three months in 2000 saw a circulation total of

167,360 items, representing 13.38% of the total percent circulation for 21 Sno-Isle branches. A 1996 survey indicated that 73% of Lynnwood residents hold a library card.

The Library offers many electronic databases that can be used in a search for materials. Some of these resources are: several magazine databases; a general encyclopedia online; a biographical resource; a health reference; and two business databases with investment and company information.

The Lynnwood library includes:

- The System Reference Center: A reference collection of over 10,500 books that is especially useful to business people and those looking for education, career, and job opportunities. Reference professionals also assist with Internet and database searches.
- The Career Reference Center: Reference and circulating books on choosing a career, writing resumes, etc. Two computers are available to aid in career assessment.
- Inter Library Loan Services: For items not owned by Sno-Isle, there is a computerized listing of more than 40 million library materials all over the country, most of which can be obtained for Lynnwood Library patrons.
- Business Indexes and Databases: Experian Real Estate Database, General Business File ASAP, Investex, Reference USA, Small Business Legal Pro, Stat-USA, and Wall Street Journal.
- Children's Programs: In addition to the children's collection, the library offers many programs for children – from toddlers to school age, including storytimes, puppet shows, movies, craft programs and a summer reading club.

A remodeling of the Library was completed in 1999. The remodeling resulted in a doubling of the size of the Library. The additional space allows for an expansion of children's and adult services. The functional service life of the expanded library was designed for a maximum of 15 years from the 1996 date of the design.

Lynnwood is the Sno-Isle Regional Reference Center and in 1999 logged 113,948 reference transactions. In addition Lynnwood has unique and out-of-print material at its disposal that other Sno-Isle branches do not have, as well as offering more materials in greater depth.

The community supports the Library as evidenced by the funds donated for the recently acquired electric cart for disabled patrons and the ongoing support by the Friends of the Library.

Needs Assessment

Due to more rapid than anticipated usage and the addition of technological advances and materials which evolve as our society changes, the Lynnwood Library Board anticipates the need for a new library approximately double the current size or larger by the year 2010.

In order to meet the goal of providing high quality of service to library patrons, the Library Board expects that planning and construction need to be underway before 2010, as the present library will reach capacity before this date. Due to the fact that the serviceable life of the Library building itself will likely be longer than the useful function as a library, provisions need to be made for alternative uses of the building.

The exploration of alternate funding sources is encouraged. Some alternatives may be corporate and Sno-Isle partnering, grants, service fees, and alternative taxing methods. The

Library Board will need to involve the citizenry in the exploration and analysis of alternative financing methods.

TELECOMMUNICATION SERVICES

Inventory and Existing Conditions

Verizon recently replaced GTE as the provider of telephone service in Lynnwood. It maintains facilities that include switching equipment and other telephone facilities in Lynnwood. These facilities provide residential and business service in the City. Verizon reports that they have adequate capacity to meet the existing demand.

Wireless communication service has increased greatly in the last few years. Lynnwood has numerous wireless communication facilities, serviced by Cellular One, AT&T, Sprint, Verizon, Metricom, Nextel, and Qwest. Adequate facilities are available to meet existing needs of the Lynnwood area.

Demand Forecasts

Service demands are expected to increase with new development. Long-term quantified projections of such large amounts of new development like Lynnwood is seeing cannot be reliable due to the rapidly changing technology in the telecommunications industry.

Needs Assessment

Verizon has adequate facilities for the expected service requirements into 2012. It expects that there will be sufficient digital technology to manage new development.

Wireless communication providers constantly monitor the use of their facilities to determine where additional facilities will be required. As the number of customers increases, supplementary wireless communication sites will need to be located. Additional facilities are frequently being added within the city.

CAPITAL FACILITIES PLAN

For the City owned services (sewer, water, and stormwater management), the Capital Facilities Plan (CFP) identifies planned and proposed projects for the next twenty years. The City reviews and updates a financially balanced, six year Capital Facilities Plan on a yearly basis. The functional plans for these services also discuss planned and proposed improvements to resolve current service deficiencies and to provide services to new development. For the services provided by other agencies or utilities, each provider determines the timing, place and manner of providing new or expanded facilities.

This Capital Facilities Plan has been developed to identify public facility capital improvements that will be needed to adequately serve the community as it grows under the provisions of the Lynnwood Comprehensive Plan. The CFP has been developed consistent with the requirements of the Growth Management Act (GMA) which requires:

- An inventory of existing capital facilities owned by public entities, showing their locations and capacities.
- A forecast of the future needs for such facilities.
- The proposed locations and capacities of expanded or new facilities.
- At least a six-year plan that will finance such facilities within projected funding capacities, and that clearly identifies sources of public money for such purposes.

GMA also requires that jurisdictions reassess the Land Use Element of their comprehensive plans if probable funding falls short of meeting identified capital needs (RCW 36.70A.070(3)).

The following public facilities are included in the CFP: transportation facilities (streets, sidewalks, traffic signals, etc.); the sanitary sewer system; the public water system; stormwater management facilities; parks, recreation facilities and open space; and general government facilities including fire and police facilities, the library, City Hall, etc.

This CFP focuses on public facilities, or improvements to those facilities that have a relatively long life and substantial cost, since it is difficult to adequately plan for and finance such facilities through an annual budget process alone. For the purposes of this CFP, a capital improvement is defined as the acquisition or improvement of land, equipment or structures costing \$40,000 or more and having a useful life of at least five (5) years. This definition is used for planning purposes and the Six-Year and Long Range Capital Facilities Plans may also identify expenditures less than \$40,000 that are considered significant.

Approach:

The City's overall approach to capital facility planning and financing is reflected in the goals, objectives and policies established in the Transportation, Capital Facilities and Utilities, and Parks, Recreation and Open Space Elements. These policies will guide future facility planning and funding decisions to ensure appropriate coordination between changing community needs and capital investments.

Existing Public Buildings:

Other relative Elements of the Comprehensive Plan provide an inventory of existing capital facilities and a forecast of future needs for each category of public facility (transportation, sewer, water, etc.). The inventory and needs information included in the CFP has been derived largely from previous planning efforts, which have been updated where needed to reflect the community growth rates anticipated and the land use patterns established by the Land Use Element of the Lynnwood Comprehensive Plan. In the case of transportation systems, the identification of needs has also been guided by established level of service standards. For other categories of public facilities (e.g., parks, water systems, etc.), appropriate level of service planning guidelines or other criteria were used to help identify needed improvements.

A six-year Capital Facilities Plan with a financial plan for meeting capital facility needs over the planning period is included. This finance plan lists each capital improvement project identified as needed during that six-year period, and identifies its estimated cost, timing and probable funding sources.

It should be noted that the CFP, including the six-year finance plan, is based on a number of key assumptions about the community's future. These assumptions include:

- that the community will grow generally consistent with the timing, land use patterns and land use intensities anticipated by the Land Use Element of the City of Lynnwood Comprehensive Plan;
- that the existing tax structure (tax rates and types of taxes levied) will remain essentially unchanged over the planning period;
- that the City will continue to have success in securing grant funding and other forms of financial assistance from state and federal sources;
- that the City will continue to experience moderate growth (4 percent per year) in retail sales tax revenues (this is significantly lower than sales tax growth experienced during the 1980's, but slightly higher than average growth for the last three years);
- voted general obligation bonds will be used for large scale capital projects related to community growth and are primarily dependent on General Fund revenues, such as parks or community services.

The Capital Facilities Plan, and especially the six-year finance plan, will be reviewed on an annual basis and modified as conditions warrant. For example, if community growth occurs more slowly than anticipated by the Land Use Element, the timing of some capital improvement projects may require modification (since they may not be needed as soon as anticipated, and supporting revenues may accumulate more slowly than forecast). Other circumstances that may require modification of the CFP include slower than anticipated sales tax revenue or assessed value growth, significant tightening of outside funding availability (e.g., grants), or a more rapid community growth rate than anticipated.

ESSENTIAL PUBLIC FACILITIES SITING PROCESS

Goal:

Facilitate the siting of essential public facilities sponsored by public and private entities in a manner that results in the least negative impact on surrounding properties and the community as a whole.

Objectives:

EPF-1: Comply with state law by accepting state and regional essential public facilities within the corporate limits of Lynnwood, subject only to reasonable impact mitigation measures.

EPF-2: Work with Snohomish County and other local jurisdictions to prepare, adopt, and maintain a common siting process for various types of essential public facilities.

EPF-3: Establish criteria defining and guiding the siting of local essential public facilities.

EPF-4: Prepare and adopt development regulations to implement the siting of state, regional and local essential public facilities consistent with the goal, objectives and policies of this section of the Comprehensive Plan.

Policies:

- Policy EPF-1:** The City of Lynnwood shall follow the common process for siting state and regional essential public facilities, as adopted by Snohomish County Tomorrow, and as presented in this section of the Comprehensive Plan.
- Policy EPF-2:** The City of Lynnwood will review and modify its development regulations and administrative procedures as necessary to fully implement the common siting process within its area of jurisdiction.
- Policy EPF-3:** The City of Lynnwood shall not prevent the siting of a state or regional essential public facility through imposition of regulatory requirements. The City will mitigate negative impacts of such facilities by the application of mitigation measures applied through an EPF Permit process. Approval of an EPF Permit shall be granted by the City Council upon recommendation of the Planning Commission and after public hearings before the Commission and the Council.
- Policy EPF-4:** Criteria may be established for siting of public facilities which are essential to the local area. Regulation of such local facilities may utilize the common siting process designed for state and regional essential public facilities. The regulation of local essential public facilities may require a Conditional Use Permit, which may include the possibility of denial of the permit. Regulation of such local facilities shall not be a means for regulation of or denial of siting state or regional essential public facilities.

Purpose:

In accordance with the requirements of the Washington Growth Management Act (GMA), and following an extensive policy review process by the Snohomish County Tomorrow Steering Committee, the Snohomish County Council has adopted a series of countywide planning policies to guide the preparation of city and county comprehensive plans. Included therein are policies addressing the siting of "public capital facilities of a countywide or statewide nature" (identified as Policies CF-1 through CF-5), as specifically required by the GMA. These policies commit the GMA planning jurisdictions of Snohomish County to develop a common siting process for these facilities.

The GMA further requires local governments to develop a process for identifying and siting "essential public facilities" and to incorporate that process into their local comprehensive plans. As indicated and defined by WAC 365-195-340 essential public facilities can be difficult to site, and their location in a community may be locally unpopular. Local and state governments are charged by GMA with the task of ensuring that such facilities, as needed to support orderly growth and delivery of public services, are sited in a timely and efficient manner.

The process described here is intended to address the siting of essential public facilities not already sited by the Lynnwood Comprehensive Plan, or other City facility plans, and for which land use action is required. The siting process set forth as follows is also intended to meet GMA requirements, as well as the intent of the countywide planning policies. A final objective is to enhance public participation during the early stages of facility siting so as to

reduce the time spent analyzing unacceptable sites, and thereby produce earlier siting decisions that are also consistent with community goals.

Definition of Essential Public Facility:

Any facility owned or operated by a unit of local or state government, by a public utility or transportation company, or by any other entity providing a public service as its primary mission may qualify as an "essential public facility" (or, EPF). In general, an essential public facility will be characterized by the following:

- it is a necessary component of a system or network which provides a public service or good; and
- it may be difficult to site because of potential significant opposition.

Essential public facilities of a countywide nature are those which serve a population base extending beyond the host community. This may include several local jurisdictions within Snohomish County or a significant share of the total County population. Such facilities may include, but are not limited to, the following examples: airports, state education facilities, state or regional transportation facilities, state or local correctional facilities, solid waste handling facilities, in-patient facilities including substance abuse facilities, mental health facilities, and group homes.¹ Other facilities meeting the basic definition above and whose sponsor desires to utilize this siting process may be qualified as essential public facilities by completing the designation procedure described below.

Essential public facilities of a regional or statewide nature may include, but are not limited to, those facilities listed above which serve a multi-county population base; and other large public facilities appearing on the Office of Financial Management (OFM) list to be maintained under RCW 36.70A.

Essential Public Facilities Eligible for Common Site Review:

Essential public facilities of a countywide or statewide nature which are not already sited in a local comprehensive plan are eligible for review under the common siting process described below. Candidate facility proposals may be submitted for review under this Common Siting Process by either the project sponsor or by a local jurisdiction wishing to site the project (the "host community").

A facility may be designated an essential public facility eligible for review under this process under the following conditions:

- the Snohomish County Tomorrow Steering Committee or the governing board of the host community makes a determination that the proposed facility meets the definition of an essential public facility; or, the facility appears on the state, county, or the host community's list of essential public facilities; AND
- either the sponsoring agency or the host community determines that the facility will be difficult to site.

¹ The application of this definition for group homes and similar facilities, as well as of the siting process for these facilities, will be within the legal parameters of fair housing laws.

Common Site Review Process:

Either the sponsor of an essential public facility within Snohomish County which is eligible for review under the Common Site Review Process, or the proposed host community, may elect to follow the process described herein. Alternatively, sponsors of such facilities having a preferred site location already identified may choose to seek siting approval under the local process provided by the host community (the jurisdiction having land use authority over the site), if that approach is acceptable to the host community.

The Common Site Review Process will involve the steps described below.

1. Determination of Eligibility. The project sponsor must receive a determination of eligibility from either the host community or the Snohomish County Tomorrow Steering Committee that the proposed facility constitutes an essential public facility as defined above. This initial step will also include a determination, as a threshold matter, of whether the facility in question presents siting difficulties. If the facility does not present siting difficulties, it should be relegated to the normal siting process, as recommended in WAC 365-195-340 (2)(a)(iii).
2. Site Search Consultation. As an optional service to project sponsors, the Planning Advisory Committee (PAC) and/or the Infrastructure Coordinating Committee (ICC) will, upon request, provide a forum for project sponsors prior to the initiation of the formal siting review process. Sponsors will have the opportunity to present proposed projects involving essential public facilities for the purpose of seeking information on potential sites within Snohomish County and about potential concerns related to siting. Sponsors may also propose possible incentives for host communities.

Through the PAC/ICC, local jurisdictions may be requested to provide information to sponsors regarding potential sites within their communities. The sponsor of an eligible project electing to utilize this siting process may initiate this communication by contacting Snohomish County Tomorrow and requesting aid in the siting of its proposed facility.

3. Local Land Use Review. Following site consultation with the PAC and/or ICC (when that step is taken by the sponsor), the sponsor may then apply for site approval with the local land use permit authority, as required under local law. The local jurisdiction shall conduct its review as required by this common siting process, as well as its own codes and ordinances. This shall include the conduct of public hearings required for any land use action which may be needed by the proposal, including comprehensive plan amendment, rezoning, conditional use permit, or similar approval.

The local authority shall evaluate the proposal against the common siting criteria described herein, as well as against any local criteria generally applicable to the type of action required, in making its land use decision on the project proposal. Where no local land use action is required the sponsor may proceed directly to the permit application stage.

4. Advisory Review Process. The local land use authority's decision, as it relates to matters encompassed by the site evaluation criteria described below, is subject to an advisory review process as provided herein. This process, if utilized, would occur prior to any appeal processes already provided by local ordinance.

Within 21 days following the decision by the local land use authority required to approve the proposal, and advisory review process may be utilized by the sponsor involving a three member advisory review board appointed by the Snohomish County Tomorrow Executive Board. Qualifications for board members, as well as procedures for board creation and conduct of board business shall be governed by written guidelines to be established by Snohomish County Tomorrow, provided that no official or employee of Snohomish County or any local jurisdiction within Snohomish County shall be a board member.

The advisory review board shall not have the authority to overturn a local decision. The board, on a review of the record, shall only find that the local decision does or does not accurately reflect the evidence provided by the sponsor, or that adequate consideration was or was not given to the evaluation criteria, and may recommend to the local agency that it reconsider its decision.

A recommended alternative for host communities and sponsors would be to use arbitration as the final recourse for resolution of differences. In cases where this option is agreed to in advance, a pre-selected arbitrator would serve as the appeal agent for these parties.

Nothing herein shall be construed to limit the administrative appeal or legal remedies otherwise available to sponsors, host communities, or third parties.

5. Permit Application. Upon receipt of the required land use approvals by the local land use authority, the sponsor may then apply for the required permits to construct the proposed facility. When a permit is denied for reasons relating to this siting process, the permitting authority will submit in writing the reasons for permit denial to the sponsor.

Site Evaluation Criteria:

The following criteria will be utilized by all county and city review authorities in evaluating siting proposals made by sponsoring agencies seeking to site an essential public facility (EPF) in Snohomish County. The sponsor shall provide the information needed for the reviewing body to evaluate a site(s) and make a recommendation or decision on a specific proposal. These criteria encompass an evaluation of regional need and local site suitability for the proposed and designated essential public facility. Findings concerning the proposal's conformance with each criterion shall be included in the documentation of the local authority's decision.

1. Documentation of Need. Project sponsors must demonstrate the need for their proposed EPF's. Included in the analysis of need should be the projected service population, an inventory of existing and planned comparable facilities and projected demand for this type of essential public facility.
2. Consistency with the Sponsor's Plans. The proposed project should be consistent with the sponsor's own long-range plans for facilities and operations.
3. Consistency with Other Plans. The proposal must demonstrate the relationship of the project to local, regional, and state plans. The proposal should be consistent with the comprehensive plan and other adopted plans of the prospective host community. In evaluating this consistency, consideration shall be given to urban growth area designations and critical area designations, population and employment holding capacities and targets, and the land use, capital facilities and utilities elements of these adopted plans.
4. Relationship of Service Area to Population. The facility's service area population should include a significant share of the host community's population, and the proposed site should be able to reasonably serve its overall service area population. [Note: Linear transmission facilities are exempt from this criterion.]
5. Minimum Site Requirements. Sponsors shall submit documentation showing the minimum siting requirements for the proposed facility. Site requirements may be determined by the following factors: minimum size of the facility, access, support facilities, topography, geology, and mitigation needs. The sponsor shall also identify future expansion needs of the facility.
6. Alternative Site Selection. In general, the project sponsor should search for and investigate alternative sites before submitting a proposal for siting review. Additionally, the proposal should indicate whether any alternative sites have been identified that meet the minimum site requirements of the facility. The sponsor's site selection methodology will also be reviewed.

Where a proposal involves expansion of an existing facility, the documentation should indicate why relocation of the facility to another site would be infeasible.

7. Concentration of Essential Public Facilities. In considering a proposal, the local review agency will examine the overall concentration of essential public facilities within Snohomish County to avoid placing an undue burden on any one community.
8. Public Participation. Sponsors should encourage local public participation, particularly by any affected parties outside of the host community's corporate limits, in the development of the proposal, including mitigation measures. Sponsors should conduct local outreach efforts with early notification to prospective neighbors to inform them about the project and to engage local residents in site planning and mitigation design prior to the initiation of formal hearings. The sponsor's efforts in this regard should be evaluated.
9. Consistency with Local Land Use Regulations. The proposed facility must conform to local land use and zoning regulations that are consistent with the Countywide Planning Policies. Compliance with other applicable local regulations shall also be required.
10. Compatibility with Surrounding Land Uses. The sponsor's documentation should demonstrate that the site, as developed for the proposed project, will be compatible with surrounding land uses.
11. Proposed Impact Mitigation. The proposal must include adequate and appropriate mitigation measures for the impacted area(s) and community(ies). Mitigation measures may include, but are not limited to, natural features that will be preserved or created to serve as buffers, other site design elements used in the development plan, and/or operational or other programmatic measures contained in the proposal. The proposed measures should be adequate to substantially reduce or compensate for anticipated adverse impacts on the local environment.

Amendments:

This siting process may be amended, upon recommendation by the Snohomish County Tomorrow Steering Committee, through established procedures for amending the Comprehensive Plan in accordance with local code and the State Growth Management Act.

GOALS, OBJECTIVES AND POLICIES

GOAL: Capital facilities, regulations, policies, and procedures which serve the needs of current and future residences and businesses, property owners, and commuters by providing utility services which meet basic level of service standards.

Subgoal 1: Planning

Planning that considers both changes in regulations, requirements, and best available science, studies existing and future conditions and specifies non-structural and structural solutions including system upgrades, maintenance and replacements based on established Level of Service (LOS) standards for the purpose of meeting future challenges as they arise.

Objectives: Surface Water Management (SWM):

- SWM-1.1:** Study the legal issues and practical requirements of the Endangered Species Act (ESA) and assess the areas in stormwater runoff management that require the City to make appropriate planning, regulatory, procedural or policy changes.
- SWM-1.2:** Develop an ESA compliance program that establishes appropriate planning, regulatory, procedural, and policy changes for the purpose of protecting the City against liability and goes towards the goal of enhancing the habitat of listed species.
- SWM-1.3:** Implement the requirements of the National Pollution Discharge and Elimination System (NPDES) and assess the areas in stormwater runoff management that require the City to make appropriate planning, regulatory, procedural or policy changes.
- SWM-1.4:** Update and adopt ordinances that meet the requirements of the Puget Sound Water Quality Management Plan, NPDES and ESA for water quality and quantity control from development and redevelopment.
- SWM-1.5:** Review and update the City's Comprehensive Flood and Drainage Management Plan approximately every five years, depending on changes in best available science and the regulatory climate.
- SWM-1.6:** Study and update the Surface Water Utility rate model and resource/staffing needs and propose appropriate changes that reflect both changes in costs of business since the rates were adopted in 1991 and requirements of regulations, such as ESA.
- SWM-1.7:** Complete and implement an emergency response plan to be used for responding to surface and ground water contamination emergencies. Staff from different City departments should work together.

Objectives: Sanitary Sewer (SS):

- SS-1.1** Provide review for all development considering the land use plan.
- SS-1.2** Utilize contemporary materials and construction techniques.
- SS-1.3** Provide construction services to insure quality construction.

Objectives: Water System (WS):

- WS-1.1** Conduct ongoing monitoring and analysis of the water system to identify deficiencies and system expansion needs related to current and future growth and list options (administrative changes and capital projects) that would resolve deficiencies identified and the improvements needed.
- WS-1.2** Plan and initiate the necessary design efforts to address identified system deficiencies, system upgrades and expansions.
- WS-1.3** Plan and initiate the necessary analysis and public review to identify system financial needs and implement results of the those efforts.
- WS-1.4** Review and initiate changes to the operation and regulation of the water system relative to changing State and Federal regulations and prudent fiscal and environmental considerations at least once each year. For example, conservation requirements.
- WS-1.5** Coordinate with other jurisdictions to assure that interties, local agreements and common issues are addressed. This should be done at least once per year.

Subgoal 2: Maintenance and Operations (M&O)

Continue to identify facilities that are in need of repair, cleaning or replacement and revise the maintenance program to schedule these activities in an efficient, and timely manner so that the systems perform in a manner that will optimize the use and life of the facilities, while also making necessary changes in the program, as necessary, to protect the natural environment and aesthetic character of the city.

Objectives: Surface Water Management (SWM):

- SWM-2.1** Operate the North Scriber Regional Detention Facility to decrease erosive and flood flows and to enhance and create environmentally sensitive areas in the Scriber Creek Drainage Basin.
- SWM-2.2** Update and adopt ordinances that meet the requirements of the Puget Sound Water Quality Management Plan, ESA, and NPDES Phase 2 for maintenance of the system by both the City of Lynnwood and private property owners.
- SWM-2.3** Perform M&O activities to the currently adopted schedule such that cleaning, repairs, and replacements are made quickly and efficiently, or immediately in the case of emergencies.

- SWM-2.4** Review and update the City's Comprehensive Flood and Drainage Management Plan list of problems and corrective solutions, depending on changes in best available science and the regulatory climate.
- SWM-2.5** Every year prioritize, schedule, fund, and construct capital improvements in the Six-Year Capital Facilities Plan, as identified in the Comprehensive Flood and Drainage Management Plan, to decrease incidents of flooding, enhance water quality in the system, and make improvements to natural habitat.

Objectives: Sanitary Sewer (SS):

- CFS-2.1** Provide financial support annually for funding the Pre-treatment Program.
- CFS-2.2** Clean sewers on a frequency determined by historical need.
- CFS-2.3** Remedy one infiltration/inflow concern each year.
- CFS-2.4** Prevent any large and control any small wastewater overflows each year.
- CFS-2.5** Monitor air and water quality on a daily basis.
- CFS-2.6** Maintain the equipment preventative maintenance schedule.
- CFS-2.7** Limit odor complaints to no more than four annually.

Objectives: Water System (WS):

- WS-2.1** Respond within one hour to any emergency water system failure. Repair all non-critical water system problems within three days of knowledge of the problem.
- WS-2.2** M&O activities will be based on an annual schedule established for the upcoming year during the budget process of the preceding year. The schedule will be developed from field reviews of the water system (flow, pressure and leak testing) and life cycle information combined with field verification inspections.
- WS-2.3** Stay abreast of current water quality standards and make adjustments to monitoring and testing to assure continual, consistent compliance with the standards and conditions of the Department of Health operating permit.

Subgoal 3: Interjurisdictional Relations

Cooperate and coordinate planning, capital facilities planning and development, as appropriate, with adjacent jurisdictions and stakeholders for the purpose of improving levels of service and reducing costs for all services and utilities.

Objectives: Surface Water Management (SWM):

- SWM-3.1** Participate in interjurisdictional coordination to help solve common stormwater runoff management problems, coordinate land use plans, development regulations and capital facility plans on a watershed basis. This will also include analyzing the benefits of interjurisdictional funding of projects and habitat enhancements in response to the ESA.

SWM-3.2 Design and implement a Public Involvement Program that builds upon the current school grants program and expands to businesses as well as general citizen groups. The program would work towards the reduction of illegal dumping onto the stormwater system and receive citizen input to assist staff and City Council in making decisions related to all aspects of stormwater runoff management as well as to the City's response to ESA.

Objectives: Sanitary Sewer (SS):

SS-3.1 Maintain air and water quality to standards required by regular authority.

SS-3.2 Coordinate contractual relationships with adjacent agencies for services.

Objectives: Water System (WS):

WS-3.1 Maintain coordination and communications with the Lynnwood water supplier, Alderwood Water District as well as AWD's supplier, the City of Everett so that the contract with AWD is adhered to and the City's interests are protected.

WS-3.2 Conservation issues will be reviewed, goals and programs established relative to the impact conservation has on long term costs of water, summer flow and peaking issues, and regulatory and contract issues such that conservation efforts will be implemented that meet the established goal and regulatory standards.

Subgoal 4: Capital Facilities

Provide Capital facilities to properly serve the community in a manner that enhances quality of life and economic opportunities, optimizes the use and protection of existing facilities and provides for future needs.

Levels of Service Standards:

Specific Comprehensive Plans for each utility establish level of service standards for City-provided services (water, sewer, and stormwater drainage). These standards must be used in all development permitting and other facility planning so that acceptable service levels are maintained through service systems.

Objective 1: Implement levels of service (LOS) for water, sewer and storm water systems as minimum standards for facility design and planning, land development permitting, and operation and maintenance.

Policy 1.1: Utilize professionally accepted methods and measures in determining LOS standards.

Policy 1.2: Land development review will include coordination of the development requirements according to pertinent adopted plans, the land development regulations, and the availability of system capacities needed to support such development.

Policy 1.3: Water, sanitary sewer, and storm water system improvements shall be designed and constructed to the size required to serve the City's projected capacity needs consistent with the Comprehensive Plan.

Policy 1.4: Require the private sector to provide fair share, project related capital facility improvements and contributions in connection with the development of land.

Policy 1.5: Development should be encouraged only when adequate utilities, including water, sewer, power, natural gas, telecommunications and storm drainage facilities are available or will be made available in conjunction with development.

Capital Facilities Plans and Projects:

Principle: The Capital Facilities Plan Element identifies projects to construct new facilities, or to expand or rehabilitate existing facilities. These projects must be completed in a timely manner in order to maintain acceptable service levels.

Objective 2: Implement capital facilities plans for water, stormwater, sewer, transportation, parks, recreation, public safety, and other municipal facilities:

Policy 2.1 Maintain a 20-year Capital Facilities Plan that supports the Land Use Plan, and includes the implementation of a Six-Year Capital Facility Plan. Implement the following facility plans for City utilities, parks and recreation and transportation facilities. These plans will be prepared and implemented such that they are coordinated and consistent with the Comprehensive Plan.

- Six-Year Transportation Improvement Plan (1996)
- Water System Comprehensive Plan Update (1992)
- Sewer Facilities Plan (1980 and 1990)
- Comprehensive Flood and Drainage Management Plan (1998)
- Parks Plan (1996)
- Non-Motorized Plan (to be adopted 1996)

Policy 2.3 Include the Six-Year Capital Facilities Plan and capital budget as a part of the annual budget process.

Policy 2.4 Evaluate, categorize and prioritize proposed capital improvement projects in the Six-Year Capital Facilities Plan according to the following categories:

Category 1 Project specifically satisfies legal, operational, health or safety requirements mandated by local, state and federal statutes.

Category 2 Project is required to obtain basic services relating to public health, safety, welfare, and applicable levels of service (LOS) standards.

Category 3 Project is consistent with the Comprehensive Plan or other adopted Capital Facilities Plans.

Category 4 Project is a public benefit or service improvement relating to general welfare of the community.

Additional considerations in prioritizing and scheduling capital improvement projects will include the following criteria:

- The project is necessary to maintain, operate or implement a requirement of a debt obligation or grant.
- The project is a subsequent phase or continuation of a previously approved project.

- The project will have a significant impact on alleviating an identified problem.
- The project has exhibited a high degree of citizen support
- The local economy and tax base will derive significant benefit from the project.
- The project is related to improved efficiency or increased productivity of public services, or reduces operation and maintenance costs.
- The project will provide service for a longer period of time relative to other possible approaches to the problem.
- If the project is not acted upon now, the opportunity may be irrevocably lost, or other major alternative actions would have to be initiated.

Proposed projects that substantially comply with these criteria will be considered to have a higher priority than those with relatively less compliance with the criteria.

- Policy 2.5** Requests for new capital facilities will be considered concurrently with requests for maintenance, repair and staffing costs of existing capital investments.
- Policy 2.6** Identify acceptable funding methods and debt service standards as guidelines for financing capital facility and utility projects.
- Policy 2.7** Identify capital facility improvements and implementation strategies to encourage redevelopment at appropriate locations and for the Activity Center plans.
- Policy 2.8** Actively seek local, state, and federal funding and grants for the capital facilities projects.
- Policy 2.9** Amend the following capital facility plans as necessary to include current regulations, standards, techniques and conditions. In addition, comprehensively review and revise these plans at least every five years. Revisions, updates and amendments to the plans shall be consistent with the City's Comprehensive Plan.
- Long Range Transportation Plan
 - Water System Comprehensive Plan
 - Sewer Facilities Plan
 - Comprehensive Flood and Drainage Management Plan
 - Parks Plan
 - Non-Motorized Plan

Capital Facility Maintenance:

Principle: Preserving adequate service levels in developed areas will require proper maintenance of existing facilities.

Objective 3: Ensure that existing capital facilities are maintained and operated in a manner that will optimize the use and the life of the facility.

Policy 3.1: Capital improvements needed to maintain and improve existing facilities shall be prioritized in the capital facilities plans.

Environmental Compatibility:

Principle: Carefully design, construct, operate and maintain facilities to minimize environmental impacts.

Objective 4: Develop a response to the Endangered Species Act (ESA) that includes strategies and standards for the development of capital facilities.

Policy 4.1: Design and develop capital facilities that minimize or mitigate adverse impacts.

Policy 4.2: Develop, operate and maintain capital facilities located in neighborhoods to minimize or mitigate facility related impacts on residential uses.

Policy 4.3: Capital facility improvements and maintenance should be compatible with the natural constraints of slope, soil, geology, vegetation, wildlife habitat and drainage.

Policy 4.4: Evaluate capital projects, plans and programs to determine their impact to locally significant historical resources.

Coordination with Other Jurisdictions and Service Providers:

Principle: Neighboring cities and the County provide similar services, and other providers also serve City residents and businesses. Cooperation and coordination among all jurisdictions and service providers can improve levels and reduce costs for all services and utilities.

Objective 5: Coordinate capital facilities planning and development with appropriate jurisdictions and service providers.

Policy 5.1: Coordinate land use plans, development regulations and capital facilities plans with adjacent jurisdictions and service providers.

Policy 5.2: Work closely with other jurisdictions and service providers to ensure the proper extension or expansion of utility services.

Policy 5.3: Encourage the County, Federal, and State, regional and special purpose agencies to participate in the implementation of capital facilities that are mutually beneficial.

Policy 5.4: Work with the appropriate jurisdictions and agencies to coordinate stormwater management activities.

Siting of Essential Public Facilities:

Principle: The GMA requires the City to develop a process for siting essential public facilities in Lynnwood. At present, the County is identifying such facilities for the County and developing a county-wide siting program. The City will need to adopt a City siting program when the County has completed its program that is consistent with state requirements and the County program.

Objective 6: Facilitate efficient and equitable siting of essential public facilities.

- Policy 6.1:** Ensure that the siting and construction of capital facilities considered essential public facilities are not precluded by the City's Comprehensive Plan.
- Policy 6.2:** Establish a review process for the siting and construction of essential, local public facilities.
- Policy 6.3:** Participate in an interjurisdictional review and selection process for the siting of essential public facilities having interjurisdictional significance.
- Policy 6.4:** Locate and develop essential public facilities to provide the necessary service to the intended users of the facility with the least impact on surrounding land uses.

Related Design Standards and Programs:

Principle: The City has standards for the design and construction of sewer water and stormwater utilities, and programs to develop new or expand utility systems. These standards should include the most recent design techniques so that these utilities are constructed and operate in an efficient manner.

Objective 7: Design and construct sewer, water and stormwater utility systems to ensure efficient service, and the use of best management practices.

- Policy 7.1:** Require connection to the City sewer system for all new development.
- Policy 7.2:** Design sewer systems to provide efficient and reliable service while minimizing cost. Gravity feed shall be used whenever feasible.
- Policy 7.3:** Continue to actively pursue elimination of high infiltration and inflow situations.
- Policy 7.4:** Support and implement conservation strategies aimed at reducing average annual and peak day water use. These strategies can include: billing rate structures which encourage conservation, water restrictions at appropriate times, technical assistance for leak detection, design of low-water use irrigation and other water saving measures, public information, use of drought tolerant plantings and native vegetation in City landscaping and development regulations, and construction codes requiring water saving devices.
- Policy 7.5:** Design water delivery and storage systems to provide efficient and reliable service while minimizing cost. These design methods can include: the use of gravity feed whenever feasible, the development of a looped system, and standardization of transmission facilities sizing and/or materials.
- Policy 7.6:** New development shall construct water system improvements and dedicate easements necessary to serve the development and to provide a reliable integrated distribution system.
- Policy 7.7:** Maintain adequate water storage facilities to meet demand loads.

- Policy 7.8:** Open channel drainage systems, natural or man-made (except roadway drainage ditches), should be retained and new systems encouraged and utilized when feasible.
- Policy 7.9:** Stormwater management systems shall be designed and constructed to minimize adverse impacts to natural watercourses.
- Policy 7.10** Stormwater retention/detention facilities shall be allowed to be used as partial fulfillment of open space requirements.
- Policy 7.11** Encourage co-location of utilities in shared trenches and easements.
- Policy 7.12** Coordinate utility construction with public improvements when possible to minimize costs and related service disruption.
- Policy 7.13** Require underground utilities for all new development.
- Policy 7.14** Require, where feasible, that existing utility lines be relocated underground when areas are redeveloped, or as streets are constructed, reconstructed, or widened.
- Policy 7.15** Promote, where safe, the joint use of utility corridors for recreational facilities, such as non-motorized trails.
- Policy 7.16** Design utility facilities that are aesthetically complementary to surrounding land uses and minimize adverse visual impacts.

Subgoal 5: Capital Facilities coordinated with the land use plan, which serves the needs of current and future residents, property owners, visitors and commuters in a safe, efficient and aesthetic manner while protecting neighborhoods and minimizing adverse impacts on businesses and the natural environment.

