

## Utilities and Capital Facilities

The Utilities and Capital Facilities Element reflects the following framework goals highlighted in black:

### FRAMEWORK GOALS

- FG1: Promote a sense of place by requiring quality building and development that is not just compatible with the surrounding environment, but enhances the community spirit.
- FG2: Promote quality building and development that is compatible with the surrounding environment.
- FG3: Support a variety of housing opportunities for Edgewood's diversifying population that are affordable, enhance a safe and livable community, and prepare and protect our families for life in the 21<sup>st</sup> Century.
- FG4: Pursue a strong and diverse economy and assure economic development that creates a "Heart" for Edgewood and balances regional objectives, while complementing the unique neighborhood character.
- FG5: Protect the natural environment and preserve environmentally sensitive areas.
- FG6: Promote improvements to human services as the community changes and diversifies.
- FG7: Assure effective and efficient public investment for quality public services, facilities, and utilities.**
- FG8: Balance the transportation needs of the community with regional objectives through improvement of both street and multimodal transportation systems for Edgewood's present and future population.
- FG9: Provide for inclusive and meaningful citizen involvement in community planning decisions.

## Intent

The Capital Facilities Element and Utilities Element are mandated Elements under the Growth Management Act (GMA). The City of Edgewood has decided to integrate them into one Element due to the intertwined nature of capital facilities and utilities in Edgewood. Combining the Elements has reduced the amount of redundancy and increased the readability of the Comprehensive Plan.

The GMA requires that the Capital Facilities Element include an inventory of existing capital facilities owned by public entities, showing their location and capacities. The GMA also requires a forecast of future needs for capital facilities, including an identification of the proposed location and capacity of new or expanded capital facilities. For facilities funded by the City, the GMA requires the preparation of six- and twenty-year plans for financing new or expanded capital facilities. The six- and twenty-year plans must consider financing within project funding capacities, clearly identify the sources of public moneys for these improvements, and ensure that these improvements will be consistent with the Land Use Plan. Finally, the GMA requires the City to reassess the Land Use Element if funding falls short of meeting future capital facility needs.

The GMA requires that the Utilities Element identify the location and capacity of all existing and proposed utilities, whether they are provided by public or private organizations.

The Utilities and Capital Facilities Element will address the requirements of the Growth Management Act and help answer important questions, such as:

- What kind of services and facilities does the community want and need to serve existing and future residents, and which are most important?
- When should these services and facilities be provided, and how should they be funded?
- Where should they go?
- How should the need for new facilities and their impact on the community be addressed?
- What is the City's role in ensuring and providing services and facilities, and how should the City work with other providers to facilitate good service?

## Background and Context

The City of Edgewood does not directly provide most of the public services within its borders. Instead, the City utilizes private companies or Pierce County staffing to provide services to the residents of Edgewood. The City of Edgewood has a limited public storm water system and is developing a sanitary sewer system.

Edgewood is served by an extensive system of publicly funded and operated capital facilities, from schools and parks to utility systems and transportation facilities. Many of these facilities, like water towers and roads, help meet the basic needs of residents. Some, such as fire stations and flood detention ponds, make the community safer. Structures like

schools and libraries foster learning and growing and help make the City a better place. Others, like parks and museums, enhance the quality of life.

Capital facilities and utilities meet the basic needs of daily living, ensure health and safety, and enhance the quality of life in the community. In order to sustain and improve the benefits that the community enjoys, the City will have to identify ways that it and other providers of public services can best maintain existing facilities and create new facilities to serve the needs and desires of local residents.

To serve existing and future residents, many public facilities will need to be replaced, refurbished, or expanded and new facilities will need to be created. The City provides some of these facilities. In other cases, separate service providers plan and fund capital improvements to meet the mission of their district or service area. Many of the non-City providers, such as school districts and water purveyors, serve not only the needs of Edgewood, but also adjacent areas.

Capital facility projects compete for limited public resources. For projects that the City controls, citizens must decide which projects will proceed and how to fund them. For all capital projects, the community must clarify where facilities will be located and how to address the impacts of new or expanded facilities. The Utilities and Capital Facilities Element identifies how the community will respond to these capital needs during the next twenty years.

## Existing Conditions

The Existing Conditions section presents a compilation of information on existing public capital facilities. It includes facilities provided by the City of Edgewood and other public entities. The types of public facilities addressed in this document are:

- City Hall and other Municipal Buildings
- Police Facilities
- Parks and Recreation Facilities
- Fire and Rescue Facilities
- Public Schools
- Transportation Facilities
- Water Facilities
- Wastewater Facilities
- Solid Waste Facilities
- Telecommunications Facilities
- Electrical Facilities
- Natural Gas Facilities
- Surface Water Facilities
- Cable Television Facilities

The Existing Conditions section presents an inventory for the capital facilities within and directly serving the City of Edgewood, including the name, provider, size, and location of each facility. The inventory includes brief descriptions of services provided at each facility to explain the use of the structures. For each type of facility, the Existing Conditions section also presents a description of planned facilities or expansions, including proposed sizes, locations, and timing, in cases where the information is available.

The Existing Conditions Section of this Element provides information useful to the planning process. The Element does not include all the data or information that was gathered, but presents the relevant information concerning the general location, proposed location, and capacity of all existing and proposed capital facilities.

Additional information on specific types of facilities is available in the Transportation Element, the Parks, Recreation, and Open Space Element, and the Essential Public Facilities Element. Further information is also available from the plans of the service providers referred to in this Element. Capital Facilities plans for the water purveyors and school districts are on file with the City of Edgewood.

## **Municipal Buildings**

### **Existing Municipal Facilities**

The City of Edgewood owns eight (8) acres of land near the northeast corner of 24<sup>th</sup> Street East and Meridian Avenue East. The existing Edgewood City Hall is a temporary structure and occupies approximately 3,600 square feet of office space on this site. This space can accommodate about fifteen (15) workstations.

The City of Edgewood offices provide a wide variety of services and functions, including law enforcement, land use and building permitting, community development services, parks and recreation, budgeting, and surface water and transportation management. In addition, the City maintains a number of general administration functions, such as finance, record keeping, and human resources, as well as the office of the City Clerk.

### **Planned Municipal Facilities**

The design and construction of a new permanent City Hall building on the site of the existing facility is programmed into the Six-Year Capital Improvement Program.

## **Police Facilities**

### **Existing Police Facilities**

Police services are provided to the City of Edgewood through a contract with the Pierce County Sheriff's Department. The police services contract provides for an office assistant, eight (8) deputy sheriffs, one (1) detective, a command/liaison officer (Chief), investigation services, dispatch, and record services.

Police facilities in Edgewood are located in Edgewood City Hall. The City does not contain any municipal jail cells, or courts. It contracts with Pierce County for these services. Edgewood's police facilities include two temporary holding cells located in the police department wing of City Hall.

### **Planned Police Facilities**

The City will continue to evaluate its contract with the Pierce County Sheriff and the services contracted for based on community satisfaction with the level of service provided in planning and budgeting for future services and law enforcement supporting facilities.

## **Parks and Recreation Facilities**

Please refer to the Parks, Open Space, and Recreation Element for more information.

### **Existing Parks and Recreation Facilities**

The City contains parks for both active and passive recreation. Active parks include Edgemont Park, Civic Center, Jovita Crossroads, Interurban Trail and the planned 36<sup>th</sup>/Meridian Community Park. The City's passive park inventory includes Nelson Nature

Park, Nelson Farm Park, Walkers Pond,, Crawford Woods and Kempf Open Space. Together these parks total 111.8 acres with 55.85 acres being for active recreational use and the remaining land being for passive recreation.

### **Planned Parks and Recreation Facilities**

The Friends of the Parks, a non-profit organization in Edgewood, has prepared a needs assessment for parks, open space, and recreational facilities. The needs assessment includes a community center, active parks, small active parks, one-half to one-acre pocket parks, and linear paths/bike trails. The needs assessment also includes land for steep slopes, wetlands, and trails.

### **Fire and Rescue Facilities**

#### **Existing Fire and Rescue Facilities**

Pierce County Fire District No. 8 serves the entire incorporated area of Edgewood. The District's service area boundaries are the same as the City Limits. The District maintains one station, located at 10105 - 24<sup>th</sup> Street East. The fire station has a total floor area of 9,912 square feet. The District also maintains two (2) fire engines, one (1) aid vehicle, two (2) command vehicles, and one (1) staff vehicle.

The District's staff consists of ten (10) volunteer firefighters, nine (9) career firefighters, three (3) career Captains, one (1) Assistant Chief, one (1) Chief, an Administrative Assistant, and a Secretary. The district has fourteen (14) Emergency Medical Technicians (EMTs). District staff is dispatched through a dispatching user group called Fire Comm., located at the headquarters fire station of Pierce County Fire District No. 2 in Lakewood. As is typical for fire service, Pierce County Fire District No. 8 cooperates with other fire districts for mutual aid in the event of a fire.

#### **Planned Fire and Rescue Facilities**

Pierce County Fire District No. 8 plans to upgrade its facilities by constructing new fire and rescue facilities to house its existing operations. These facilities will be designed to incorporate capacity for anticipated future needs.

### **Public School Facilities**

Three public school districts serve the residents of Edgewood: Fife School District (No. 417), Puyallup School District (No. 3), and Sumner School District (No. 320).

#### **Fife School District, No. 417**

#### **Existing School Facilities**

The Fife School District serves a population of over 15,000 and encompasses ten (10) square miles in both Pierce and King Counties. The district serves the City of Fife, parts of the cities of Milton and Edgewood, and some unincorporated areas in Pierce and King counties. The District's 2007-2008 enrollment totaled 3415 students in kindergarten through grade twelve (12). The Fife School District headquarters are located at 5802 - 20<sup>th</sup> Street East, on the Fife High School Campus.

The District's facilities include six (6) schools, which are listed in Table CF-1. In addition to permanent structures, the School District uses twenty-five (25) portable classrooms.

<b>Table CF-1. FIFE SCHOOL DISTRICT Facilities serving residents of the City of Edgewood.</b>		
<b>FACILITY</b>	<b>CAPACITY</b>	<b>LOCATION</b>
<b>Elementary Schools</b>		
▪ Discovery Primary (K-1, pre-school)	485	1205 - 19 <sup>th</sup> Avenue Milton, WA 98354
▪ Endeavor Intermediate (grades 2-5)	530	1304 - 17 <sup>th</sup> Avenue Milton, WA 98354
▪ Alice V. Hedden School (grades 2-5)	485	11313 8 <sup>th</sup> Street East Edgewood, WA 98372
<i>Elementary Total</i>	1,500	
<b>Middle Schools</b>		
▪ Surprise Lake Middle School (grades 6-7)	530	2001 Milton Way Milton, WA 98354
▪ Columbia Junior High School (grades 8-9)	600	2901 54 <sup>th</sup> Avenue East Fife, WA 98424
<b>High School</b>		
▪ Fife High School (grades 10-12)	705	5616 20 <sup>th</sup> Street East Tacoma, WA 98424

### **Planned School Facilities**

Future school facilities are programmed into the Fife School District 6-Year Capital Facilities Plan, which is adopted as an appendix to the City's Comprehensive Plan.

### **Puyallup School District, No 3:**

#### **Existing School Facilities**

The District encompasses the City of Puyallup, the South Hill area, and parts of the cities of Edgewood and Fife. It includes many of the southern and central portions of the City of Edgewood. The District's 2007-2008 enrollment totals 21,029 students.

The District's facilities include thirty-two (32) schools of which four (4) are located within the municipal boundaries of the City of Edgewood. These four (4) schools are listed in Table CF-2, as well as the Senior High Schools that serve the City. In addition to permanent structures, the School District uses 207 portable classrooms.

<b>Table CF-2. PUYALLUP SCHOOL DISTRICT Facilities serving residents of the City of Edgewood.</b>		
<b>FACILITY</b>	<b>BENCHMARK CAPACITY *</b>	<b>LOCATION</b>
<b>Elementary Schools</b>		
▪ Hilltop Elementary	327	2110 - 110 <sup>th</sup> Avenue East Edgewood, WA 98372
▪ Mountain View Elementary	307	3411 - 119 <sup>th</sup> Avenue Court East Edgewood, WA 98372
▪ Northwood Elementary	311	9805 - 24 <sup>th</sup> Street East Edgewood, WA 98372
<b>Junior High School</b>		
▪ Edgemont Junior High	639	2300 – 110 <sup>th</sup> Avenue East Edgewood, WA 98372
<b>Senior High Schools</b>		
▪ Puyallup High School	1,715	105 - 7 <sup>th</sup> Street Southwest Puyallup, WA 98371
▪ Quest (Gifted program)	51	428 – 11 <sup>th</sup> Street SW Puyallup, WA 98371
▪ Walker High School	64	5715 Milwaukee Avenue East Puyallup, WA 98371

\* See Puyallup School District's Capital Facilities Plan for explanation of benchmark.

### **Planned School Facilities**

Future school facilities are programmed into the Puyallup School District Six Year Capital Facilities Plan, which is adopted as an appendix to the City's Comprehensive Plan.

### **Sumner School District, No 320:**

The Sumner School District includes the cities of Bonney Lake and Sumner and portions of Pacific, unincorporated Pierce County, and the eastern and southeastern edges of the City of Edgewood. The District's facilities include twelve (12) schools of which none are located within the City's municipal boundaries. The 2006 enrollment totaled 8,340 students.

<b>Table CF-3. SUMNER SCHOOL DISTRICT Facilities serving residents of the City of Edgewood</b>		
<b>FACILITY</b>	<b>CAPACITY</b>	<b>LOCATION</b>
<b>Elementary School</b>		
▪ Maple Lawn Elementary	430	230 Wood Avenue Sumner, WA 98390
<b>Middle School</b>		
▪ Sumner Junior High	750	1508 Willow Street Sumner, WA 98390
<b>High School</b>		
▪ Sumner High	1,375	1707 Main Street Sumner, WA 98390

### **Planned School Facilities**

Future school facilities are programmed into the Sumner School District Six Year Capital Facilities Plan, which is adopted as an appendix to the City's Comprehensive Plan.

### **Transportation Facilities**

#### **Existing Transportation Facilities**

The City's transportation system consists of 48 miles of streets and roads and provides access primarily to residential areas. Meridian Avenue East (State Route 161) includes 3.34 miles of state highway in Edgewood. Please refer to the Transportation Element for further information.

#### **Planned Transportation Facilities**

For further identification of future transportation facilities and improvements, consult the Transportation Element.

### **Water Facilities**

Five (5) water utilities serve the City of Edgewood: the Mountain View-Edgewood Water Company, the City of Milton, Lakehaven Utility District, the City of Sumner, and the DeChaux Water Company. Of these, the Mountain View-Edgewood Water Company serves the largest number of residents and businesses within the City of Edgewood. The City of Milton provides water service to the northern and northwestern portion of the City of Edgewood. The Lakehaven Utility District, while encompassing a large area within King County, serves only a small number of Edgewood residents adjacent to the Pierce/King County boundary. DeChaux Water serves small areas within the City. Additionally, a number of private wells scattered throughout the service area supply small residences. The water systems provide water conveyance and fire flow service to hydrants, residents, commercial customers, businesses, and fire suppression systems.

#### **Mountain View-Edgewood Water Company**

##### **Existing Mountain View-Edgewood Water Services and Facilities**

The Mountain View-Edgewood Water Company's service area constitutes approximately 80% of the area within Edgewood City Limits. Within this area, the company provides water service for about 2,910 connections serving an estimated 7,653 people in 2007. The average consumption for residential units is approximately 270.4 gallons per day (gpd), and for commercial it is approximately 365 gpd.

The water company utilizes untreated groundwater sources for the supply of water. The company holds water rights for ten wells with a pumping capacity of 3,950 gallons per minute (gpm). Additionally, the company owns and operates three aboveground storage tanks with 2,175,000 gallons of storage. A booster station can pump up to 1,500 gpm, and can supplement fire flows throughout the entire system with net total system demand of 2,960 gallons per minute. In 2007 a new pressure zone was created to boost system

pressures around the South Reservoir tanks and increase fire flows above 1500 gpm. The distribution system is composed of primarily cast iron and ductile iron pipe with 300,960 lineal feet of two (2) inch to twelve (12) inch diameter piping.

### **Future Mountain View-Edgewood Water Services and Facilities**

The Mountain View-Edgewood Water Company has completed its latest comprehensive water system plan, which includes capital improvement plans for the next twenty (20) years. The Company has existing water rights to withdraw an annual total of 1,776 acre-feet per year. The 2007 withdraw was 1,011 acre feet and the 2025 production requirements are projected to reach 1,626 acre feet so the water company has a surplus of water rights. However, the ability of existing facilities to meet Peak Day production requirements is anticipated to be deficient by the year 2023. Future capital improvements are delineated in the Mt. View-Edgewood Water Company Water System Plan.

### **Milton Municipal Water Utility**

#### **Existing City of Milton Water Services and Facilities**

Milton Municipal Water Utility provides water to approximately 540 households and businesses in the northwest portion of the City, constituting about 20% of the area within Edgewood City Limits. The average consumption per household or business unit per day is about 260 gallons. This amounts to a total consumption of approximately 150,000 gallons per day.

The City of Milton derives its water from an underground aquifer located in the area. The City of Milton has a total of seven wells for water supply. Six (1) of the wells are active and one (1) is inactive. One well is located near 19<sup>th</sup> Avenue, at the top of the hill. All six (6) of the other wells are at the bottom of the hill in west Milton.

The City of Milton's water system has both, a gravity and an artificial pressure system. Within Edgewood, variable speed boosters create artificial pressure. The company has a two million-gallon storage reservoir at 18<sup>th</sup> Street Court East, behind Northwood Elementary School. This reservoir has a booster station that is capable of pumping more than 3,000 gallons per minute.

The City of Milton Water facilities in Edgewood include a new two million-gallon reservoir, one pump station, nine fire hydrants, and approximately 24,000 feet of distribution water main. The system also has two (2) sixteen (16)-inch transmission mains in Edgewood. One (1) is the supply to the reservoir and the other leads from the reservoir to the distribution system. The utility's administrative office is located at Milton's City Hall, 1000 Laurel Street.

Fire flow is an issue only in areas with small sized water mains. However, whether fire flow levels are adequate also depends on land use. Residences have a fire flow requirement of 1,000 gpm. Businesses have higher fire flow requirements that vary depending on the type of business. While pipe sizes of six (6) inches or more provide adequate residential fire flow, these mains may not be large enough to provide adequate fire flow for businesses under the Uniform Fire Code.

#### **Future City of Milton Water Services and Facilities**

The City of Milton Water Utility plans to replace pipes with larger sizes and perfect water rights for additional sources. It is also investigating construction of a well at the site of the two million-gallon reservoirs in Edgewood. The proposed water right is 1,000 gpm. Neither of these improvements will require land acquisitions.

The proposed improvement is expected to increase capacity by a multiplication factor of three or more times. Replacing four-inch pipe with twelve (12)-inch pipe, for example, will more than triple capacity. An increase in pipe size causes capacity to increase at a rate greater than the increase in size because larger pipe sizes decrease the amount of friction relative to the amount of water flowing through the pipe.

### **Lakehaven Utility District**

#### **Existing Lakehaven Utility District Water Services and Facilities**

The Lakehaven Utility District's service area includes a very small portion of Edgewood near the King County border. Within this area, the district provides water service for about thirty-two (32) households in the City of Edgewood. This accounts for less than one percent of Lakehaven's service area, which is located in the greater Federal Way area. The Edgewood residents who receive water from the District consume a total of approximately 10,000 gallons of water per day.

The Lakehaven Utility District maintains approximately 400 miles of water main, about 10,560 feet of water main is located within the City of Edgewood. The company's administrative offices are located at 31627 - 1<sup>st</sup> Avenue South in Federal Way. The District's primary source of water is in the past was groundwater (12.1 mgd of groundwater supply), however in 2006 the district began receiving water from the Tacoma Second Supply Partnership which has added 7.9 mgd of surface water to the district's water supply. The District also maintains interties with adjacent purveyors, such as the City of Tacoma, Highline Water District, and the City of Milton.

#### **Future Lakehaven Utility District Water Services and Facilities**

The Lakehaven Utility District has recently obtained a reservoir water right to store water underground in the district's OASIS ASR project. The project is a 50 year one that will utilize wintertime water to be stored underground and recovered in the summer months. The first ASR well has recently been drilled and will be tested in late 2008. The OASIS project is estimated to be able to store 9.5 billions gallons of water which could produced in excess of 50 mgd for summer time use.

### **Sumner Water Utility**

The City of Sumner, as a result of obtaining the Fowler Mutual Water system, services a small portion of the city, approximately 30 acres, with direct access to the West Valley Highway. This service currently provides for approximately 7 residential water service connections in this area.

### **Private Water Systems**

The private water systems (DeChaux Water Company and private wells) within the City of Edgewood are primarily located along the perimeter of the City.

## **Wastewater Facilities**

### **Existing Wastewater Facilities**

Two (2) sanitary sewer lines run from the City of Milton into Edgewood. Each has an eight (8)-inch gravity line. One serves the development on the corner of 8<sup>th</sup> Street and Meridian. Another extends from Taylor Way to Northwood Elementary School. These sewer lines are part of Pierce County's sanitary sewer system. Wastewater collected within this area is sent through sewer mains to the City of Tacoma Wastewater Treatment Plant.

Cherrywood Manor Mobile Home Park operates a self-contained package sewer treatment plant for approximately eighty (80) residences. The outfall is allowed to empty into Wapato Creek under state and federal permits.

With the exception of these two (2) sewer lines, and the Cherrywood Manor private system, City residences and businesses utilize individual septic systems to handle wastewater.

### **Planned Wastewater Facilities**

The City sanitary sewer service area is divided into three (3) phases in which sewers will be provided. The Phase I area plans to be sewerred within twenty (20) years, the Phase II area is planned to be sewerred between twenty (20) and fifty (50) years, and the Phase III being sewerred after fifty (50) years. Additionally, property use defined as essential public facilities within the City that provide essential services that the Council determines should be served may also be served.

The City has completed a General Sewer Plan that has been approved by the Department of Ecology and adopted by the Edgewood City Council in December 2007. Project costs for servicing Phase I was estimated between \$18 and \$33 million (2007 dollars). The system will be designed so that wastewater will be collected and routed through a conveyance system into existing facilities outside of the City for treatment and disposal. The City has entered into an interlocal agreement with LakeHaven Utility District to serve the Phase I core area. The agreement provides for the use of their facilities to provide treatment and disposal of wastewater and also includes maintenance of the City's sewer facilities.

The phasing of collection and conveyance facilities is based on land use patterns and anticipated future growth. Funding options to construct these facilities may come from Developer Extension and Latecomer Agreements, federal and state grant programs, Public Works Trust Fund and other funding sources. Revenue sources to pay for the improvements may include a Local Improvement District and General Facilities Charges.

The General Sewer Plan is a stand alone technical plan, referenced here for consistency with the Comprehensive Plan and maintained by the Public Works Director. The General Sewer Plan will be updated in accordance with RCW 35.67.030 and; when required, modifications must be approved by the Department of Ecology. The Planning commission shall provide recommendations on Comprehensive Plan policy updates consistent with the General Sewer Plan, Edgewood Municipal Code, and Growth Management planning requirements for the required plan element and technical documents adopted by the City

consistent with and including the processing of procedural updates and recommendations to Council.

## **Surface Water Facilities**

### **Existing Stormwater Services and Facilities**

The City manages a stormwater system associated with City-owned facilities and the road network. The current road drainage system predominantly consists of swales and ditches within the paved or gravel-lined road shoulder to collect the runoff.

There are public and private drainage systems in the City. Many of the privately-owned and-maintained, stormwater systems are associated with newer residential developments. Prior to City incorporation, several catch basin dry well systems were installed under contract with Pierce County to alleviate local flooding problems. As the systems fail with age, they will need to be upgraded to the new standards.

The City owns and maintains four (4) small detention/retention ponds, which are located at 16<sup>th</sup> Street East and 106<sup>th</sup> Avenue East, 32<sup>nd</sup> Street East, 16<sup>th</sup> Street East and 109<sup>th</sup> Avenue Court East, and Caldwell Road East. The City of Edgewood owns and maintains these facilities. A small number of detention/retention ponds and potholes are privately owned and maintained.

One problem with controlling runoff in Edgewood is the number of jurisdictions that regulate different portions of the drainage that flows through the City. Jovita Creek originates in unincorporated King County, flows through Edgewood, and drains to the east through Pierce County and Sumner before entering the White River. All the steep slopes on the eastern side of the City drain to the White River. On the western side, Surprise Lake in the City of Milton discharges to Surprise Lake Creek, which flows through the City of Edgewood and eventually connects to Hylebos Creek in Fife. Southern creeks flow into Wapato Creek or the Puyallup River outside the City limits in either Pierce County or the City of Puyallup.

The City adopted the City of Edgewood Surface Water Management Plan (SWMP) (Kato & Warren, Inc., KCM, Inc., Geo Engineers, Inc., 1997) as a guide to surface water management within the City.

The City was issued a Western Washington Phase II Municipal Stormwater permit in January, 2007, as required by the Department of Ecology to comply with Phase II National Pollutant Discharge Elimination System (NPDES). This permit is a five year permit, which requires the City complete and adopts a Stormwater Management Plan (SWMP). Elements within this SWMP provide public education and outreach on storm water management; develop and implement an Illicit Discharge Detection and Elimination program (IDDE); provide for control of runoff from new development and redevelopment; and, adopt a program to provide Municipal pollution prevention, operation, and maintenance.

The City has completed a SWMP that was submitted to DOE and deemed acceptable. The City of Edgewood adopted a revised EMC Chapter 13.05, which designates the Washington State Department of Ecology Stormwater Management Manual for Western Washington, dated February 2005 as our standard for site development within the City.

## **Future Stormwater Services and Facilities**

The SWMP made recommendations to better control the storm water and associated impacts of new development. The SWMP's recommends:

- Development and implementation of an Illicit Discharge Detection and Elimination program (IDDE).
- Provide public education and outreach on storm water management to existing residents and developers.
- Continue to provide maintenance of systems, with an emphasis on preventative, rather than reactive, maintenance.
- Develop a program to ensure both public and private surface water facilities are maintained and operated efficiently.

Stormwater facilities will be provided as development occurs in accordance with the City's adopted standards (EMC Chapter 13.05). All new development and redevelopment are required to employ Best Management Practices (BMP) and/ or have adequate permanent facilities to capture on-site surface water runoff. The purpose of BMP and these facilities are to protect properties and waterways downstream from a site from erosion due to increases in the volume, velocity and peak flow rate of stormwater runoff. A variety of methods to control surface water may be employed including infiltration, dispersion and retention to control flooding and erosion impacts. Depending on site conditions and the scope of the project, runoff treatment and/ or flow control facilities may be required. The City is looking for new and innovative methods to more effectively and efficiently manage surface water. Low impact development and emerging technologies might allow alternative methods of managing surface water.

## **Solid Waste Facilities**

### **Existing solid Waste Collection Services and Facilities**

The management of solid waste in Pierce County is governed by the *Tacoma-Pierce County Solid Waste Management Plan*. Responsibility for managing the Pierce County solid waste system is shared by individual residents and businesses, service providers, city government, Pierce County government, Washington State government, and the Federal Government. Programs to implement the Plan are targeted towards reaching a 50 % recycling goal. According to the 1996 Annual Report from Pierce County Environmental Services, Solid Waste Division, the county and cities and military bases within it have achieved a 52% recycling rate.

Murrey's Disposal Company provides solid waste disposal services in the community. Residential and commercial refuse in Edgewood is collected weekly by this private firm, which is franchised under the authority of the Washington Utilities and Transportation Commission (WUTC). In cooperation with the City, the company provides single-family customers with the opportunity to choose curbside pickup of recyclables as part of their garbage service. The Solid Waste Plan calls for the development of additional recycling collection programs for multifamily residences and commercial businesses, including the development of a yardwaste collection program.

## **Electrical Facilities**

### **Existing Electrical Services and Facilities**

Puget Sound Energy (PSE) supplies electric service within the entire incorporated area of Edgewood. The quality of service within Edgewood is dependent on the local delivery system

operated by PSE, the bulk electrical transmission system operated by Bonneville Power Administration (BPA) and power generation by a number of agencies. PSE is regulated by the Washington Utilities and Transportation Commission (WUTC) and the Federal Energy Regulatory Commission (FERC).

One of the primary sources of PSE's electrical power is the Bonneville Power Administration, which generates electricity from federal hydroelectric plants along the Columbia River east and west of the Cascade Mountains. However, PSE purchases electricity on the competitive power market, and will buy it from whichever producer offers the best price.

Approximately 2,300 miles of transmission lines in the Puget Sound Region carry electricity from the generation sources to local distribution systems. Edgewood's local distribution system is fed from the White River-Stewart #2 transmission line, which is energized at 115kV. Power also comes into the City from substations located in Pierce County and unincorporated King County.

Distribution substations transform voltages of 115kV or greater to lower voltages of 12 kV. The Edgewood Distribution Substation is located near the intersection of 16<sup>th</sup> Street East and Meridian. The capacity is 19.3 MVA. In 2003, PSE anticipates that the Edgewood distribution substation will be at 58% capacity, assuming current rates of population growth.

### **Future Electrical Services and Facilities**

Proposed transmission lines and substations are needed to increase service reliability and/or capacity in the Edgewood area to meet projected growth over the next twenty years. The additional substations needed include Killarney, Shalet, Levee, and the Freeman Switching Station.

The Freeman 115kV Transmission Switching Station (Freeman Station) is proposed southwest of Milton. This new switching station would allow 115kV lines to be connected with Starwood, White River, and the proposed Alderton Station. As a switching station, the Freeman Station would be used to control and monitor the flow of electricity in order to increase system reliability. PSE has acquired properties for potential use as distribution and switching substations.

Additional transmission line and transformer capacity may be necessary on the PSE – Tacoma City Light (TCL) intertie at Starwood. Proposed cogeneration facilities in TCL's tideflats area could potentially expand the existing system. The timing of any improvement would depend on the design and capacity of the cogeneration facility.

PSE forecasts that these improvements, along with other anticipated projects in the sub area, will produce a system that will be operating at 72.5% of capacity by the year 2020. No substation or transmission line upgrades are planned for the next five (5) years.

### **Natural Gas Facilities**

#### **Existing Natural Gas Service and Facilities**

Puget Sound Energy (PSE) supplies natural gas service to selected areas in Edgewood. PSE purchases gas from other regions and manages the distribution of natural gas to customers within its service area. The North Tacoma Gate Station, off Williams pipeline, provides most of the natural gas supply to Edgewood and has a capacity of five million cubic feet per hour (cfh). Two natural gas mains run through the City of Edgewood.

PSE provides natural gas to portions of the City and surrounding communities through a network of interconnecting supply and distribution mains. According to PSE's Rate Department, an average house that uses natural gas for both heat and hot water consumes about 1,000 therms per year. Ten therms equal approximately one thousand cubic feet of gas, therefore, 1,000 therms per house equals approximately 100,000 cubic feet of gas per year.

When planning the size of new gas mains, PSE uses a saturation model that assumes all new households will use natural gas since 99% of new homes constructed, where builders have the choice, have natural gas. Extension of service (typically conversion) is based on request and the results of a market analysis to determine if revenues from an extension will offset the cost of construction.

PSE has 1,968 natural gas customers in the City as of July 2006. Based on existing growth rates, PSE anticipates an additional 1,000 customers in the City by 2015. The existing system has the capacity to supply natural gas to approximately 2,695 customers in the Edgewood area.

Natural gas is not defined as an essential service by the Washington State Utilities and Transportation Commission (WUTC). Therefore, PSE is not required to provide natural gas services.

Pressure reducing stations are located at various locations throughout the system to reduce supply main pressure to a standard distribution operating pressure of approximately sixty (60) pounds per square inch gauge (psig). There are nine (9) district regulator stations located in Edgewood.

Gas supply mains are generally larger diameter (six (6)-inch 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. PSE has 5,200 feet of twelve (12)-inch steel wrapped supply main located along Meridian Avenue East (SR 161) and 24,000 feet of sixteen (16)-inch steel wrapped supply main located primarily along 24<sup>th</sup> Street East.

Distribution mains are fed from district regulators. These are typically eight, six, four, two and one and one-fourth inches in diameter. The pipe material is typically polyethylene or steel wrapped. Puget Sound Energy has 40 miles of main serving the City of Edgewood.

### **Future Natural Gas Services and Facilities**

There are three types of construction anticipated in the Edgewood area. These include: 1) new installation due to increased capacity of existing customers or conversions from an alternate fuel; 2) main replacement projects to facilitate improved maintenance and system reliability; and 3) replacement or relocation of facilities due to municipal and state projects. Within the next five years, PSE plans to retrofit and install new regulators along Meridian Avenue East.

Puget Sound Energy's tentative future projects include upgrading the system to sixty (60) pounds per square inch, and installing a gas main along 114<sup>th</sup> Avenue East from 36<sup>th</sup> Street East northerly to 32<sup>nd</sup> Street East. Due to the growing popularity of natural gas in Edgewood and surrounding areas, PSE plans to continually evaluate the necessity of future projects and alternatives. Changes in project route, construction schedule, and details occur because projects are dependent on budgets and the cooperation of the Washington State Utilities and Transportation Commission.

## **Telecommunication Facilities**

In general, telecommunication refers to the exchange of information by wire, radio, optical, visual, or other electromagnetic systems. While the term encompasses the media of telephone, television, cable, and radio services, this element focuses primarily on telephone, cellular radio-telephone communications and optical fiber.

### **Telephone Services and Facilities**

Qwest provides local telephone service to all areas of Edgewood. The demand for additional telephone service will continue to increase as population grows. However, as citizens and business owners continue to take advantage of technology, such as faxes and modems, the demand for additional phone lines will increase at a greater rate than population.

### **Existing Telephone Services and Facilities**

Edgewood is served by four (4) different central offices. They are located in Puyallup, Fife, Sumner, and Federal Way. Central offices serve telephone customers as switching facilities. For local exchange or intra-LATA calls, the central office switches calls within and between line exchange groupings. These groupings are addressed uniquely by an area code and the first three digits of a phone number.

Qwest does not provide estimates of local capacity due to the proprietary nature of this information. The capacity of each central office differs relative to the types of switch it houses. Each line grouping, which is identified by the area code and prefix, can carry up to 10,000 numbers. Qwest does the vast majority of its trench installations jointly with PSE.

### **Future Telephone Services and Facilities**

Advances in technology and the use of digital transmission allows Qwest to increase the capabilities in central office switches as demand grows. A 10,000-line grouping can be installed by adding circuit packs, line trunk capacity units, and distribution frame wiring, which can be engineered and installed in twelve (12) months. Telephone infrastructure is generally requested by developers, not by municipalities. Qwest services are demand-derived and will increase as paying customers request it.

Washington Utilities Trade Commission regulations require Qwest to provide adequate telecommunications service on demand. Section 480-120-086 of the Washington Administrative Code requires Qwest to maintain adequate personnel and equipment to handle any reasonable demand and traffic. New technology, such as multiplexing and digital transmission, and cellular and fiber optic technologies are allowing dramatic advances in communication. Because Qwest provides service on demand, there are no limits to future capacity.

### **Cellular Services**

#### **Existing Cellular Services and Facilities**

The Federal Communications Commission (FCC) has divided geographic areas into regional cellular service areas. The FCC awards licenses to at least two cellular providers within each regional service area to maintain healthy competition. The entire market area within each service area must be serviced within five (5) years of the FCC awarding the respective license. Apart from this general requirement, the FCC applies no level of service (LOS) standards to cellular activity. Qwest, Verizon, and Cingular Wireless Services provide cellular services to individuals within the City of Edgewood. Other cellular service is available, depending on the location within Edgewood.

Although the cellular industry is regulated by the FCC, it is not subject to the jurisdiction of the Washington Utilities Trade Commission. It is not required to develop any formal capital facilities plans for public review.

When demand warrants, additional capacity is supplied through the addition of transmission antennas. This approach has the effect of dividing larger cells into smaller cells. As with many other utilities, cellular systems grow according to increases in population density and higher volume transportation corridors. In addition, technical changes such as digital transmission will permit more voices to use the same channel, and will allow each cell site to handle approximately three (3) times as many calls as it does now.

### **Future Cellular Service and Capacity**

Because of the small size of facilities (transmission antennas) and the fact that they can be located on top of buildings and do not require utility corridors, there are no significant limits to future capacity. The locations of antennas are planned according to geographic and engineering constraints.

Capacity overload and subsequent cellular system expansion is a response to several factors: an increase in the number of customers residing within a designated area; a shift in traffic volumes affecting cellular users; or a record of service inadequacies such as dropped calls or poor quality sound.

### **Cable Television**

#### **Existing Cable Television Services and Facilities**

Comcast Cable Services provides cable television service within the City. Comcast offers a full range of cable televisions products, including digital cable.

#### **Future Cable Television Services and Facilities**

The demand for cable television will increase with population growth and new development. Comcast plans to meet this demand by feeding off existing services and anticipates rebuilding services. The rebuild will consist of upgrading facilities and infrastructure and will not necessarily involve expansion into new locations or acquisitions of new land. The rebuild will enable Comcast to offer increased bandwidth. This will provide more channels for digital cable subscribers.

### **Fiber Optic Cable**

#### **Existing Fiber Optic Cable Services and Facilities**

Fiber optic (or "optical fiber") refers to the medium and the technology associated with the transmission of information as light impulses along a glass or plastic wire or fiber. The City has franchise agreements with two telecommunication companies who have installed fiber optic cables along portions of 8<sup>th</sup> Street East and Meridian Avenue East. The City has exclusive rights to the use of two (2)-pair (four) dark fibers between the City and Seattle.

### **Future Fiber Optic Cable Services and Facilities**

The demand for optical fiber is unknown. It is anticipated that as the technology continues to evolve and access to fiber optics become more readily available, the demand to transmit over optical fiber systems will increase. The City will exercise its exclusive rights to the use of the dark fibers in accordance with the franchise agreement at the time the opportunity arises.

## **Utilities and Capital Facilities Issues**

The community will face a number of issues over the coming years that will determine whether facilities need to be refurbished, expanded, or developed, as well as when, where, and how this will occur.

### **Maintaining and/or Improving Services**

The community will face challenges in maintaining current services over the coming years. Aging facilities will need to be replaced or refurbished. Additional or expanded facilities will be needed to serve new development. In addition, the community must clarify areas where it desires higher levels of service. A number of these issues are still several years from resolution. Many of the decisions remain incomplete in part because of the newness of the City government. As the City becomes more established, greater clarity should emerge on the need for and provision of facilities throughout the community.

As new development occurs, it may strain existing services and make it difficult to fully serve newly developed areas at the same level as the rest of the community. For instance, several intersections are already over capacity during peak hours and some parts of the City do not have adequate fire flow capacity. The community must anticipate these potential strains and clarify which services need to be available for new development at the time of occupancy.

### **Limited Funding Sources**

The cost of additional capital facilities may exceed current revenue sources. If this situation occurs, the community will be faced with deciding whether to reduce desired levels of service or to use alternate funding sources such as user fees or impact fees to fund the desired level of service.

Because the City will not have adequate resources to complete all capital improvement projects, decisions must be made to prioritize projects. In order to prioritize future City projects, the community must identify which projects are most important in meeting its needs.

For new residential developments, impact fees can create public benefits, but also raise home sale prices. Reduced demand on the City's general fund for capital improvements is one potential trade-off.

Forming franchise agreements with service providers is an important way of increasing City revenue. The City can also place utility taxes on purveyors, which are ultimately paid by the consumers of the utility. It is also possible for the City to form its own utility districts, such as a

street lighting or recycling district. The City may decide to form a utility district if the action is likely to result in a net benefit to the City’s utility customers or for the City to maintain local control. In many cases, franchise agreements and utility taxes perform the same function more efficiently and effectively.

**Environmental Impacts from Capital Facility Improvements**

When capital facilities are renovated, expanded, or created, they have an impact on the community. Several projects may be considered in the future that could have an impact on the City. Such projects can be expected to raise questions about how the community addresses and mitigates capital facilities. The City relies upon the State Environmental Policy Act to identify and address most impacts. However, the community may consider additional approaches to mitigate the impact of capital facilities. For example, the siting of electric substations and cellular phone towers must conform to the City’s zoning code.

The City of Edgewood will be impacted as a result of the cost of maintenance and operations of existing facilities. New facilities may not have the initial high maintenance costs, but local government must only construct capital projects that it can afford to maintain. The City is planning several capital facilities including surface water systems, sanitary sewers, parks, and street improvements.

**Opportunities for Cooperation**

Coordination and co-location of capital facilities can increase the public benefits of facilities relative to cost. Coordination consists of both cooperation among service providers and the City, as well as among the providers themselves. For example, co-location of new recreation facilities with schools reduces the need to purchase new land for parks. The use of a Puget Sound Energy right-of-way for a trail facility would be another example of a beneficial cooperative arrangement.

**Levels of Service and Level of Service Standards**

Level of service (LOS) is a term describing the amount, type or quality of facilities needed to serve the community at a desired and measurable standard. This standard varies depending on both the type of service provided and the quality of service desired by the community.

LOS standards are the minimum thresholds required to adequately serve new development. These standards quantify the level of service that the City desires for each type of facility or service.

For each type of service, the City can decide to lower, raise, or maintain existing levels of service standards. This decision will affect both the quality of service and the amount of funding needed. In cases where the City is not the direct provider of service, it should describe the LOS desired for all public facilities within the community.

The Growth Management Act requires cities to adopt measurable level of service standards for capital facilities. In accordance with the Growth Management Act, the City is establishing the following LOS standards:

<b>Table CF-4. Acceptable Levels of service for capital facilities.</b>	
Transportation	<ul style="list-style-type: none"> <li>As established by the Transportation Element of the Comprehensive Plan for local streets</li> </ul>

	<ul style="list-style-type: none"> <li>Accepting the level of service as established for SR-161 and working with the Washington State Department of Transportation to develop partnerships</li> </ul>
Water	Consistent with fire flow rates stated in the Uniform Fire Code (based upon land use type) not to be less than an overall average utilization rate of 270 gallons per capita per day.
Wastewater	Collection of peak wastewater discharge plus infiltration and inflow resulting in zero overflow events per year due to capacity and maintenance inadequacies (or consistent with current health standards) not to be less than an average rate of 100 gallons per capita per day.
Surface Water	Consistent with the requirements of the current Surface Water Design Manual adopted by the City.
Police	Capital facilities to support 0.50 officers per 1,000 residents and a response time of 5 minutes or less to all high priority calls and within 30 minutes to all calls.
Fire	Capital facilities to support and respond to 90% or more of all emergencies within 5 minutes.
Parks and Recreation	As established in the Parks, Open Space, and Recreation Element.
Public Schools	As established by individual school district capital facilities plans.

**Adequacy and Concurrency**

According to the Growth Management Act (GMA), public facilities and services shall be adequate to serve new development at the time of occupancy without decreasing LOS below the standards established in the Comprehensive Plan. The GMA mandates concurrency for transportation services. It requires that transportation improvements or strategies are in place at the time of development or that a financial commitment is made to complete the improvement within six years.

If the City determines that facility providers or the City will not be able to meet the established service standards, the City can choose to:

- 1) modify the land use plan identified in Figure LU-I through an amendment to the plan,
- 2) modify the LOS standards through an amendment to the plan, or
- 3) restrict development until service can be provided at the established standards.

***Capital Improvement Plan***

The Capital Improvement Plan (CIP) is a Six-Year plan of proposed major capital improvements and associated operating costs for the City. The purpose and goals of the CIP are to:

- Provide capital facilities and infrastructure that are needed by the community for civic purposes and envisioned by the Land Use Element of the Comprehensive Plan;
- Support the provision of City services consistent with the expectations of the community, as expressed in the level of service standards;

- Preserve LOS as growth and development add new demands on City Government;
- Supply facilities that meet the special needs of the community; and
- Rehabilitate or replace the City’s facilities and infrastructure to extend the useful life and assure continued efficiency.

The Capital Improvement Plan can be updated annually and is adopted as an appendix to the City’s Comprehensive Plan.

**Table CF-5. Non-City Capital Facilities**

For capital facility plans from service providers other than the City of Edgewood, the reader is referred to the Comprehensive or Capital Facility Plans of the following responsible agencies:

<b>Water</b>	<b>MountainView-Edgewood Water Company</b>
	<b>The City of Milton</b>
	<b>Lakehaven Utility District</b>
	<b>DeChaux Water Company</b>
	<b>City of Sumner</b>
<b>Wastewater</b>	<b>Pierce County Public Works &amp; Utilities, Sewer Utility Division</b>
	<b>Lakehaven Utility District</b>
<b>Solid Waste</b>	<b>Murrey’s Disposal Company</b>
<b>Electricity</b>	<b>Puget Sound Energy</b>
<b>Natural Gas</b>	<b>Puget Sound Energy</b>
<b>Telecommunications</b>	<b>360 Network</b>
	<b>Qwest</b>
	<b>Private Wireless Providers</b>
	<b>WilTel Communications</b>
	<b>Comcast Corporation</b>
<b>Fire and Rescue</b>	<b>Pierce County Fire District No. 8</b>
<b>Public Schools</b>	<b>Fife School District</b>
	<b>Puyallup School District</b>
	<b>Sumner School District</b>
<b>Transportation</b>	<b>Pierce Transit</b>
	<b>Sound Transit</b>
	<b>WSDOT</b>

**Goals and Policies**

The following goals and policies identify steps that the City of Edgewood can take in response to the capital facility issues found within the community. These steps are intended to ensure that the City can adequately and appropriately meet the capital facility needs of its existing and future residents.

## **GENERAL UTILITIES AND CAPITAL FACILITIES**

**Goal CF I:** Ensure an adequate public facility that address past deficiencies and are concurrent with new development, based on the City's adopted LOS standards.

### **Policies**

**CF1: Support the timely expansion, maintenance, and replacement of capital facilities and utilities infrastructure at designated service levels in order to meet expected demand for service.**

**Discussion:** Whether public or private entities provide them, capital facilities and utilities are public services. In other words, they provide collective benefits throughout the Community. The City can support this policy through the Capital Facilities Funding Plan and by developing special provisions for capital facilities and utilities in the land use code.

**CF2: Identify deficiencies in LOS and capital improvements and the means and timing for correcting these deficiencies.**

**CF3: Coordinate with other jurisdictions and governmental entities in the planning and implementation of multijurisdictional utility facility additions and improvements.**

**Discussion:** Many capital facilities directly serve the citizens of more than one jurisdiction. In such cases, the facilities require significant inter-jurisdictional coordination. Consultation and negotiation is necessary for the implementation of this policy.

**CF4: Annually review and update the City's Capital Improvement Plan.**

**Discussion:** So that financial planning remains current with changing conditions, development trends and the economy, the six-year Capital Improvement Plan should be updated annually. The Washington State Department of Community Trade and

Economic Development recommends that the six-year funding plan be updated at least every two (2) years to accomplish this purpose.

**CF5: If the projected funding is inadequate to finance needed public facilities and utilities based on adopted LOS standards and forecasted growth, the City may do one or more of the following to achieve a balance between available revenue and needed public facilities:**

- **require developers to provide such facilities at their own expense;**
- **increase the amount of revenue from existing sources;**
- **adopt new sources of revenue;**
- **lower the level of service standard; and/or**
- **change the Land Use Element to phase growth concurrent with facility availability.**

**Discussion:** Should new development cause level of service to go below the established minimum, several options exist that may allow development to proceed at some point in time. The above and other options will be addressed in an adopted Concurrency Management Ordinance.

**CF6: Govern the amount, timing, and location of new development where necessary to maintain the adopted the level of service of public facilities.**

**Discussion:** New development shall maintain the level of service at or above the City's adopted minimum standard for facilities to meet the "concurrency test". For transportation facilities "concurrent" means at the time of development or within six (6) years of completion of the project. If a development does not meet the concurrency test for transportation facilities, mitigation shall be required or the project must be denied. Other public facilities besides transportation will be monitored by the City as development occurs. The City should actively track and monitor level of service for City owned and operated facilities.

**CF7: Establish and enforce concurrency requirements for water, surface water, wastewater, and electrical facilities.**

**Discussion:** Concurrency means that adequate transportation systems, schools, parks, utilities, and similar public services are available or planned to meet increased demands from new development. The Growth Management Act requires concurrency only with respect to transportation issues. However, the City may also require other services, such as utilities, to be available concurrent with development and determine how to apply concurrency.

**CF8: Ensure that adequate fire and police services are available for new development at the time of issuance of the building permit.**

**Discussion:** The City of Edgewood contracts for law enforcement from the Pierce County Sheriffs Department. Pierce County Fire District No. 8 provides fire service to the City. The City will work closely with these providers to pursue and implement programs that improve and enhance public safety and retain facilities within the City.

**CF9: Work with outside service providers to ensure reliable and cost-effective sources of services for public consumption.**

**Discussion:** Cooperation among the City and service providers can benefit the community. It can result in timely provision of required new services, minimize adverse impacts for the City and offer more efficiency for the service provider.

**CF10: Monitor and support technological advances that enhance services to the community relative to cost and are consistent with the Comprehensive Plan.**

**Discussion:** New technologies can provide the City with greater flexibility for

solving problems and attaining the goals of this Comprehensive Plan.

**CF11: Identify future locations or land reserves for needed facilities.**

**Goal CF II:** Minimize the demands of growth on public facilities.

**CF12: Establish land use patterns that optimize the use of public facilities.**

**Discussion:** Land use patterns that focus residential and economic development in key locations can maximize the benefit from capital facilities and utilities relative to cost. To promote optimal use of facilities, the City will direct development in locations where existing facilities are available or where they can be provided in a cost and resource efficient manner. The City will implement this policy through the Land Use Element.

**CF13: Promote the development, maintenance and operation of capital facilities and utilities in a manner consistent with the Land Use Element.**

**Discussion:** The Growth Management Act requires consistency between the Utilities and Capital Facilities Elements and other Comprehensive Plan Elements, especially the Land Use Element. Consistency is essential because the cost and long life of utilities sets precedence for location and intensity of future development. The Capital Facilities Funding Plan in this Element will implement this policy by serving as a catalyst for financing key projects and establishing a fair process to balance competing requests for funds.

**CF14: Consider the use of conservation and natural solutions, such as the protection of the depressional potholes for surface water management and aquifer recharge.**

**Discussion:** Many natural features in Edgewood function as surface water storage facilities. Preservation of these features makes sense economically because replac-

ing them with human made facilities is generally more expensive.

**CF15: *Plan for specific capital facilities projects and determine funding sources for each selected project.***

**Discussion:** The availability of capital facilities and utilities in key locations can reduce development pressures in other parts of the City. As property values increase and new economic development complies with design standards, the appearance of land uses will improve with planned utility extensions. The City of Edgewood will implement this policy through active involvement in the planning of infrastructure for specific areas.

**Goal CF III:** Provide needed public facilities that are within the ability of the City to fund or within the City's authority to require others to provide.

**CF16: *Establish level of service standards that are achievable with the six-year Capital Improvement Plan.***

**Discussion:** The Capital Improvement Plan is based on realistic estimates of current local and external revenues that are reasonably anticipated to be received by the City in the future. The City's ability to provide capital facilities will be limited by the amount of funding available.

**CF17: *Ongoing operating and maintenance costs of capital facilities shall be considered as part of the planning process.***

**Discussion:** Capital facilities acquisition often focuses on purchase cost. However, capital facility purchases also commit the City to an operation and maintenance program. Therefore, decisions to construct or expand capital facilities should consider facility maintenance costs, operation costs, and depreciation.

**CF18: *Require new development to fund the costs to provide services for growth generated by that development.***

**Discussion:** New development creates impacts upon public facilities and should be responsible for bearing its fair share of costs. Impact fees are one possible source to fund certain public facilities for new growth. However, other funding sources must be used to pay for existing deficiencies.

**CF19: *Establish the use of impact fees to pay for additional costs of public services that result from new development.***

**Discussion:** Establishing impact fees for new development is one method that can be used to pay for capital improvements, such as parks or roads. The amount of the fees should be based on projected economic impacts of new development on public services. The City can implement this policy through the municipal code. For school impact fees, the City can implement this policy through interlocal agreements with the Puyallup, Sumner, and Fife school districts.

**CF20: *Promote utility provisions that meet established levels of service at reasonable rates.***

**Discussion** Utility funds should primarily support the maintenance, construction, replacement, and operation of facilities needed to provide the utility service to the area for which they are collected.

**CF21: *Reevaluate the Utilities and Capital Facilities Element biennially to ensure consistency throughout the Comprehensive Plan.***

**CF22: *Cooperate with non-City providers of public facilities on joint programs to help maintain adopted levels of service. Seek grants and cooperative funding agreements for funding improvements.***

**Discussion:** Cooperation can include joint funding, co-location, consolidation, and joint use of capital facilities.

**CF23: As general guidelines, give priority to capital facility improvements that:**

- **protect the public health and safety;**
- **have a positive impact on the operating budget through reduced expenditures;**
- **correct existing deficiencies or maintain existing levels of service adopted in this Comprehensive Plan;**
- **provide critical City services such as police, surface water and transportation; or**
- **provide adopted levels of service for new development and redevelopment during the next six years.**

**Discussion:** Because sources of funding are limited relative to the cost of improvements, the City must establish priorities. Information on costs and benefits has been included in the Existing Conditions section of this Element and will be included in other plans to assist the City Council and Planning Commission in establishing priorities.

**Goal CF IV:** Support environmental quality, energy efficiency, and community character in the design and installation of public facilities.

**CF24: Encourage the use of ecologically sound site design in ways which enhance the provision of public services through measures such as:**

- **promoting landscaping with vegetation that consumes large amounts of water in areas subject to flooding;**
- **Promote green building/design practices in public facility design and construction;**
- **Encourage and support site planning and facility design that incorporates active solar and wind energy;**
- **using native vegetation in places such as natural or buffer areas to reduce surface water or wetland impacts;**
- **practicing efficient and environmentally responsible**

**maintenance and operating procedures;**

- **promoting solar orientation on site to reduce energy consumption;**
- **reducing impervious surfaces through green roofs or rain gardens to reduce excessive run-off and maintain natural drainage systems; and**
- **encouraging tree retention to prevent erosion and provide wildlife habitat and other public benefits.**

**Discussion:** New facilities will have an impact on the community. The City can address and mitigate the impacts of these facilities in a variety of ways. In addition, the community can evaluate and minimize the impacts of new development on the demand for new facilities.

**CF25: Investigate water conservation opportunities that may diminish impacts on water, wastewater, and surface water systems and promote the conservation or enhancement of natural systems.**

**Discussion:** Water utility providers encourage and benefit financially from resource conservation. They often provide information on water saving techniques and devices. To encourage conservation by local residents and businesses, the City can coordinate with water purveyors to ensure that appropriate information and education materials are available to citizens. Examples include placing educational materials at City Hall for public distribution and having them available at public meetings.

**CF26: Existing natural vegetation and natural features shall be considered in the development of public facilities.**

**Discussion:** See the Parks, Recreation, and Open space Element for more detailed policies and discussion statements related to these issues.

**CF27: Encourage joint use of trenches, conduits, or poles to allow for**

**minimization of disruption during expansion, maintenance, undergrounding, and upgrading of facilities.**

**Discussion:** The shared use of utility corridors reduces the impacts of utility services to roads, topography, vegetation, and other components of the environment. To implement this policy, the City can support the shared use of utility corridors as mitigation for negative environmental impacts.

**Goal CF V:** Bring all parties together in the process of making decisions on capital projects within the community.

**Discussion:** The construction of new facilities within the Community requires the involvement of many parties, including the public entities and local service providers.

**CF28:** *Ensure opportunities for public participation in the development or improvement of capital facilities.*

**Discussion:** Please see the Citizen Participation Element for more information.

**CF29:** *Request that service providers make capital improvements where deficiencies in capital systems have been identified. Actively work with providers to address improvements when necessary to protect public health and safety or to meet established level of service standards.*

**CF30:** *Maintain an inventory of existing public facilities that provide service to the City. Include in the inventory the location and capacity or levels of service for each public facility or system.*

**CF31:** *Capital facility plans of other service providers in the Community, identifying total costs and timing of improvements, shall be incorporated in the City's six-year Capital Facilities Finance Plan and 20-year Capital Facilities Element.*

**CF32:** *Identify the condition schedule for all capital facilities in Edgewood. Use the information gathered to assess the quality of facilities and identify existing and probable future needs for maintenance and improvements.*

**CF33:** *Evaluate all proposed City capital improvements to identify any plans of state or local governments or districts that affect, or will be affected by, the improvements.*

## **WATER SERVICE**

**Goal CF VI:** Protect and enhance the community water systems while facilitating the provision of safe and reliable water utility service.

**CF34:** *Encourage water providers within the community to establish appropriate service areas that ensure safe and reliable sources of water for public consumption. Support efforts that ensure adequate water supply for existing and anticipated development at service levels designated by the Capital Facilities Element.*

**Discussion:** A number of private and public entities provide water service in Edgewood. The City of Edgewood will implement this policy by coordinating with water purveyors and reviewing their capital facilities or comprehensive plans.

**CF35:** *Manage runoff from impervious surfaces to protect surface and groundwater systems from degradation.*

**Discussion:** Development creates impervious surfaces, such as rooftops and compacted gravel, which diminish or eliminate the ability of the environment to absorb water. Increased surface water from these surfaces can diminish groundwater quality by transporting pollutants that would otherwise be filtered by vegetation and wetlands.

**CF36: Provide for the protection of groundwater supplies by reducing or eliminating sources of contamination.**

**Discussion:** Groundwater impacts from hazardous waste and pollutants are detrimental to the groundwater supply, affect its quality for years, and are costly to clean up. Reduction or elimination of sources of contamination prevents irreversible degradation of groundwater supplies.

**CF37: Manage development, which increases storm water runoff, in environmentally sensitive areas to minimize impacts on groundwater systems utilized by community wells.**

**Discussion:** The City contains critical aquifer recharge areas that supply potable water to its residents and businesses. The City's depressional potholes and wetlands contribute to aquifer recharge. Increased surface water from development can diminish groundwater quality by transporting pollutants that would otherwise be filtered by vegetation and wetlands.

**CF38: Support efforts that will correct existing water system deficiencies where deficiencies exist and ensure adequate infrastructure and services for all areas of the City.**

**Discussion:** Water purveyors have identified improvements that are needed to correct existing deficiencies in their comprehensive plans. The City of Edgewood will implement this policy by coordinating its efforts and sharing relevant information with the water purveyors within its boundaries.

### **SANITARY SEWER SERVICES**

**Goal CF VII:** Provide for proper and healthful sewage disposal while ensuring that the community land use goals and objectives are met.

**CF39: Maintain the City's utility authority addressing planning, timing, and control of sanitary sewer services within the City of Edgewood.**

**Discussion:** The City has formed a sanitary sewer utility that gives the City control of the location of potential sanitary sewer utility and extensions. The City has adopted a comprehensive General Sewer Plan.

**CF40: The City of Edgewood shall maintain and update the General Sewer Plan and pursue services with wastewater treatment providers in order to develop and maintain the best services possible.**

**Discussion:** Lakehaven Utility District, Pierce County, the City of Puyallup, the City of Sumner, the City of Tacoma, the City of Fife, and the King County Wastewater Treatment Utility are all potential providers of sanitary sewer service to the City of Edgewood. As sewer plan phasing implementation projects are considered, the City should investigate all possibilities to ensure that sewer service is provided in a way that is in the best interest of the City of Edgewood.

**CF41: Support the extension of Sanitary Sewer service to Essential Public Facilities that provide services to the City and it's citizens that consistent with the General Sewer Plan when appropriate**

**Discussion:** Certain essential public facilities such as schools, parks, and emergency service facilities may be served by sanitary sewer by policy and amended into a current service area of the General Sewer Plan when approved by the Council. Such limited areas shall be considered on a case-by-case basis by the Council and shall include a review of the public health and safety benefits provided.

**CF42: Encourage the maintenance of and investment in on-site and community sanitary sewer systems with the understanding they will be constructed for long-term operation.**

**CF 43: *Direct the extension of sanitary sewers to the adopted land use categories.***

**Discussion:** The Comprehensive Plan identifies the need to focus development along the Meridian Corridor and Town Center to support the retention of the “rural character” of other portions of the City zoned for less intensive uses. Both the Growth Management Act and County Wide Planning Policies require managed, phased infrastructure improvements. The ultimate development of Edgewood may take more than the twenty-year planning period addressed in this Comprehensive Plan. Creation of the phased areas of capital facilities will balance governmental and private financial resources to effectively manage growth. The General Sewer Plan guides the City’s long term effort to control the location of the sewer utility.

**CF 44: *Limit the extension of sanitary sewers into areas not identified and planned for service through the City’s adopted General Sewer Plan except:***

1. ***In cases where a health emergency has been declared by the Tacoma-Pierce County Health Department and consistent with County-Wide Planning Policies, or***
2. ***In the case where the City Council has granted the ability to connect to sewers without cost or requirement for any other adjacent residences to connect.***

**Discussion:** Phasing and directing the expansion of the sanitary sewer is supported by the Growth Management Act to control and effectively provide infrastructure for urban development. The City has adopted a General Sewer Plan and identified a long-term approach to service and provision of facilities consistent with the Adopted County-Wide Planning Policies and Comprehensive Plan.

**CF45: *Encourage the proper use and maintenance of septic systems.***

**Discussion:** Proper use and maintenance of septic systems reduces the need for pumping, reduces the need for sewers, and protects water quality. To implement this policy, the City will develop policies and implementation programs.

**CF46: *Support the use of new technology for on-site sewage disposal that enhances the environment and minimizes environmental degradation.***

**Discussion:** The vast majority of residents and businesses in Edgewood use septic tanks to treat wastewater. New technologies can reduce the need for sewers in some areas. To implement this policy, the City can obtain information about new on-site sewage technologies and include this information in application packets for land use proposals.

**CF47: *Support local efforts to minimize inflow and infiltration and reduce excessive discharge of surface water into septic systems in order to reduce impacts on septic systems and enhance their combined capacities.***

**Discussion:** Additional water from downspouts, roofs, and other impervious surfaces can overwhelm the drainfields of septic tanks. To implement this policy, the City will require physical separation between septic tank drainfields and surface water facilities.

**SURFACE WATER**

**Goal CF VIII:** Facilitate the provision of appropriate, reliable surface water management utility services.

**CF48: *Ensure adequate surface water services for existing and anticipated development at service levels designated by the Capital Facilities Element.***

**Discussion:** Since incorporation, the City has received numerous calls regarding flooding, ranging from minor incidents to major situations. Public involvement has indicated a strong desire for improvements to the surface water infrastructure within the

community to minimize damage from flooding in the future. To implement this policy, the City should consider both on- and off-site mitigation.

**CF49: Design, locate, and construct surface water retention/detention facilities to:**

- **promote water quality,**
- **enhance public safety, and**
- **protect environmentally sensitive areas.**

**Discussion:** Flooding in the City has been a concern. The surface water management system of the City consists primarily of creeks, depressional potholes, wetlands, and private on-site surface water management facilities. New development will place additional strains on the existing surface water system. The City will implement this policy by encouraging the creation retention/detention facilities. It can also implement this policy through direct provision. The City should coordinate implementation of this policy with parks and open space.

**CF50: Require storm water drainage review for all new and redeveloped projects.**

**Discussion:** In Ordinance 97-0078, the Edgewood Council adopted a revised version of the King County Surface Water Design Manual as the standard for stormwater management criteria. Under the ordinance, the City requires drainage review for all new and redeveloped projects. This policy calls for continuation of the existing surface water management process.

**CF51: Implement, where feasible, the recommendations made in the City of Edgewood Surface Water Management Plan.**

**Discussion:** The City of Edgewood adopted the Washington State Department of Ecology Stormwater Management Manual for Western Washington, dated February 2005, in November 2005 to address surface water issues. This Element summarizes the

Plan's recommendations in the Existing Conditions section.

**CF52: Require new development to have adequate facilities to control and manage all surface water runoff on-site. In accordance with the adopted Surface Water Management Plan.**

**Discussion:** Upon incorporation, the City of Edgewood has required that new development include surface water facilities in proportion to the amount of impervious surface it creates. This policy calls for the continuation of this requirement, as implemented through the development review process and code enforcement.

## **SOLID WASTE**

**Goal CF IX:** Reduce residential and commercial solid waste within the City while facilitating the provision of appropriate, reliable solid waste services.

**CF532: Encourage recycling programs and facilities, including drop-off sites and curbside recycling, to reduce solid waste in the community.**

**Discussion:** Recycling reduces the need for landfills and helps conserve natural resources. Pierce County and its cities, towns, and military bases recycle over 50% of their solid waste. This policy states that the City will continue to support recycling.

**CF54: Encourage home composting as a means of reducing solid waste in the community.**

**Discussion:** Composting not only reduces the need for landfills, but is also the most practical way to turn yard waste and other debris from plants into healthy, useable soil. The City will implement this policy by providing educational material and participating in the celebration of Edgewood's agricultural heritage.

**CF55: Promote education of solid waste issues throughout the City.**

**Discussion:** Pierce County's Solid Waste group provides information on techniques

to reduce solid waste. To encourage conservation by local residents and businesses, the City can coordinate with Pierce County to ensure that appropriate information and educational materials are available to citizens. Examples include the placing of educational materials at City Hall for public distribution and having them available at public meetings.

### **ELECTRICAL SERVICE, NATURAL GAS, & TELECOMMUNICATIONS**

**Goal CF X:** Facilitate the provision of appropriate and reliable electrical, natural gas, and telecommunications services.

**CF56:** *Encourage utilities and developers to coordinate the placement of new electric, telephone, and cable television lines underground in all new developments.*

**Discussion:** Shared utility corridors offer benefits to the City and to utility providers. The utilities save time and expense by sharing the cost of installation and repairs to rights-of-way. The City benefits from fewer traffic disruptions and extended pavement life. To implement this policy, the City can encourage utility providers to notify other providers when they request permit applications.

**CF57:** *Promote the joint use of utility corridors for recreational facilities where appropriate.*

**Discussion:** Cooperative use of land for utility facilities can benefit the Community in some instances. An example of this would be the use of an electrical utility right-of-way for a trail.

**CF58:** *Mitigate the aesthetic impacts of electrical substations within the community.*

**Discussion:** The aesthetic impacts of electrical substations can be mitigated through setbacks and vegetation. For example, the mitigation provided for Puget Sound Energy's electrical substation at the

inter-section of Meridian Avenue and 16<sup>th</sup> Street East would meet the intent of this policy.

**CF59:** *Require all new commercial development and new residential development greater than 3.45 dwelling units per acre to underground utilities. Promote the gradual undergrounding of utilities in developed areas. Allocate costs for direct burial between one or more of the following: ratepayers, taxpayers, and property owners.*

**Discussion:** Undergrounding of electrical and telecommunication wires prevents power outages during storms and minimizes the frequency of needed repairs. For existing facilities, the City should focus on undergrounding in specified areas to obtain the maximum benefit per unit cost. The City can implement this policy through land use codes for new facilities and franchise agreements for existing facilities.

**CF60:** *Work with telecommunication providers and other utility companies to develop a full range of community information services, such as fiber optic cable networks and other emerging technologies.*

**Discussion:** All telecommunication companies should implement this policy through franchise agreements with the City.

**CF61:** *Explore strategies to minimize or reduce the impacts of cellular telecommunication facilities on the community.*

**Discussion:** Under existing technology, cellular telecommunication facilities are often large towers or structures. These facilities may not be compatible with adjoining residential uses and should be sited in areas least likely to affect residential properties. The Federal Telecommunications Act of 1996 prevents local governments from prohibiting cellular service provisions or eliminating them through regulation. However, the City may regulate the placement, construction, and

maintenance of such facilities through zoning and related ordinances.

**CF62: *Promote opportunities for distance learning and telecommuting in coordination with telecommunication and cable television providers.***

**CF63: *Support the provision of high quality cable television service throughout the community.***

**Discussion:** All cable services providing cable television service to residents of Edgewood should implement this policy through its franchise agreement with the City.

**CF64: *Cooperate with private natural gas utilities in logical service improvements and expansion throughout the community. Support the eventual provision of full coverage for natural gas services.***

**Discussion:** Extensions and improvements to natural gas services benefit community residents and businesses. The City will implement this policy through coordination and franchise agreements with Puget Sound Energy.