

Capital Facilities Element

INTRODUCTION

Purpose of the Capital Facilities Element

The purpose of the Capital Facilities Element and the Capital Facilities Plan it contains is to prioritize and schedule capital expenditures. A capital expenditure is defined as an individual item or project which is expected to have a life span of three or more years and a cost of \$10,000 or more. The projects listed in the plan will allow public services to be maintained and improved as the city grows, and the comprehensive nature of the plan will help citizens compare costs of improvements to the city's revenues. Annual review will allow the plan to be updated as priorities change.

The development of various land uses and densities of development will generate the need for a variety of city public facility improvements. Capital facilities planning provides the method to choose among all possible projects and services that the City will need to provide in response to population growth, land uses and densities of the development planned for the Ephrata Urban Growth Area during the next 20 years and beyond.

The primary purpose of the Capital Facilities Plan is to produce rational decisions concerning major maintenance, replacement or expansion of public facilities - rather than reacting to costly "emergency" events which usually characterize a lack of planning. The Growth Management Act requires the City to prepare and adopt a Capital Facilities Plan implementing the Comprehensive Plan for the Proposed Urban Growth Area. This CFP is prepared to insure that consistency is achieved among elements of the Comprehensive Plan and to obtain a schedule of concurrency with the private developments anticipated in the Land Use Plan.

What Does the Growth Management Act Require?

Statutory Requirements - The capital facilities element contains separate project lists for each city utility, each of which may have its own state requirements. For example, the Six-Year Street Improvement Plan (SIP) requires annual review and is adopted separately from the capital facilities element. However, the SIP

receives its policy direction from this plan. Also, this element of the Comprehensive Plan includes the facility needs for the Ephrata School District as provided for in the Growth Management Act. Other public services are addressed in the Utility Element of this plan.

Under the Growth Management Act, a capital facilities element is one of the six required elements of the comprehensive plan. This element must identify public facilities that will be required during the six years following adoption of the comprehensive plan. It must include the location and cost of the facilities, and the sources of revenue that will be used to fund the facilities, and it must be financially feasible. In other words, dependable revenue sources must equal or exceed anticipated costs. If the costs exceed the revenue, the local government must reduce its level of service, or otherwise reduce costs, or else the land use element of the comprehensive plan must be modified to bring development into balance with available or affordable facilities.

The Growth Management Act Mandates:

- An inventory of existing capital facilities owned by public entities, showing the locations and capacities of the capital facilities.
- A forecast of future needs for capital facilities, and the use of standards for levels of service as the basis for public facilities planning.
- The proposed locations and capacities of expanded or new capital facilities.
- At least a six-year plan that will finance such capital facilities within projected funding capacities and clearly identifies sources of public money for such purposes.
- A requirement to reassess the land use element if probable funding falls short of meeting existing needs and to ensure that the land use element, capital facilities plan element, and financing plan within the capital facilities plan element are coordinated and consistent.

The Capital Facilities Element has been developed in accordance with the County-Wide Planning Policies, and has been integrated with all other planning elements to ensure consistency throughout the comprehensive plan

Several provisions of the law require that public facilities needed to support development shall be available at the time of development. This is the "concurrency" requirement that no development order or permit be issued if it would result in a reduction in the levels of service below the standards adopted in the comprehensive plan. Concurrency management procedures must be developed to insure that sufficient public facility capacity is available for each proposed development, or that development applications are denied when public facilities are not sufficient. Project selection is based on several major goals: alleviating current deficiencies, meeting future demand, the city's financial capability, and the related ability to secure state and federal funding.

The City Council will continue to consider and update the CFP on an annual basis to reflect current goals and the realistic financing capabilities of the City of Ephrata. The Council will consider the Annual CFP program budget each year in conjunction with a review of the City's operating budget so that operation and maintenance costs, and the CFP can be addressed simultaneously in the annual City budgeting process. System deficiencies have been identified by the city and are described in this element.

Development of Level of Service Standards

Level of service standards are numerical measures of service delivered. They will be different for each type of facility, for example, water service standards can be measured in terms of gallons available per person per day, while police protection standards might be in officers per hundred residents or in average minutes of response time. Development of such standards is required by the Growth Management Act as a means to set measurable targets which are clearly related to population and business growth. The tables in the following sections represent level of service standards for the city's current utilities and facilities.

Capital Facilities Planning

Planning for municipal systems is a critical management tool for which the City of Ephrata is involved with. Basically the principal goal of all system planning is to make effective use of all available resources and match them with need. This is accomplished by allowing elected and/or appointed officials to make decisions about capital improvements which

follow policies and comprehensive planning for the city and future service area.

Capital facilities planning and budgeting involves the development of a long term expenditure plan for the City of Ephrata to use in order to provide for City owned public facility needs to serve existing and future residents of the City. Also, this element of the Comprehensive Plan includes the facility needs for the Ephrata School District as provided for in the Growth Management Act. Other public services are addressed, but, specific projects are not included in this comprehensive plan element.

To insure orderly growth the City Council over the last eight years has held public meetings during the last three months of each year during which goals and objectives are determined for the overall city budget. Public works systems represent a large function of the City and a great deal of time has been spent before and during these meeting on capital improvement planning. Prior to GMA mandates, capital improvement planning efforts focused in ten year increments. Though the first five years is much more predictable, the Ephrata City Council believed it necessary for capitalization purposes to look at a ten year span. In order to comply to GMA requirements a new 20 year planning horizon has been undertaken for capital facilities.

CAPITAL FACILITIES INVENTORY

The City of Ephrata Comprehensive Land Use Plan adopts by reference the most recently adopted Water System Plan as approved by the Washington State Department of Health. **(updated by Resolution 04-859, February 4, 2004)**

The City of Ephrata Comprehensive Land Use Plan adopts by reference the most recently adopted and published Capital Facilities Plan, issued by the City of Ephrata Public Works Department. **(updated by Resolution 04-859, February 4, 2004)**

WATER-The following information is excerpted from the City of Ephrata Water System Plan, June 2004, Gray & Osborne, Inc. Please consult that document for specific information.

Production

WELL CAPACITIES				
Well Number	Present Capacity (gpm)	Location	Depth	Year Drilled
Well No. 1	Not Presently in Use	West of Ephrata	390 ft	1933
Well No. 2	490	West of Ephrata	260 ft	1941
Well No. 3	560	West of Ephrata	1000	1952
Well No. 4	1400	SW of Ephrata	618 ft	1952
Well No. 5	260	West of Ephrata	450	1955
Well No. 6	700	Division @	1025	1943
Well No. 9	1400	Division @ G St	1361	1964
Well No. 10	2000	Division @ K St	1850	1977
TOTAL CAPACITY	6810			

Grandview Heights Booster Station: The Grandview Heights Booster Station was constructed in 1955 to serve residential development in the upper system above an approximate elevation of 1520' MSL. The station consists of a single vertical turbine can-type pump set in a below-grade vault located in the sidewalk just north of the intersection of Maringo and Statter Roads. The pump is a 15 HP, hollow-shaft, 2-stage unit with a capacity of about 400 gpm at 94 feet TDH. The station provides adequate pressures for the existing approximately 36 connections. However it can only provide fire flows of about 500 gpm to its present service area. The City has a spare pump and motor assembly available at the City Shop to be used in the event of a failure. Positive pressure is maintained at all connections from the high reservoir even in the event of booster pump failure.

Transfer Station: The Transfer Station is located between Reservoirs No. 2 and No. 4 and is used to transfer water between the high reservoir and the low reservoirs. This transfer station allows water produced by Wells No. 3 and 5 to be transferred to the lower downtown pressure zone and can pump water from this lower zone up to the higher zone in the event that Wells No.3 and 5 are unable to produce enough water. The Station was constructed in 1954 as a part of the

Reservoir No. 3 construction project. The Station contains a single 30 HP end-suction, short-coupled, centrifugal booster pump with an approximate capacity of 700 to 800 gpm which is used to lift water to the high reservoir and a 10-inch solenoid operated valve that can transfer water from the high reservoir to the low reservoirs. The Station was at one time automatically controlled by the telemetry system however many of the telemetry components were removed over the past several years for use by other more important portions of the telemetry system. The rarely needed transfers are currently accomplished by manual operation of the station.

Storage-

The city has three operating reservoirs, providing 5,000,000 gallons of storage. Two of the reservoirs (Nos. 2 and 4) operate at an overflow elevation of 1,441 feet Mean Sea Level (MSL) serving the lower pressure zone, which includes the major portion of the City. The third reservoir (No.3) has an overflow elevation of 1,595 feet MSL and serves the upper pressure zone. This high reservoir serves the area west of the USBR West Main Canal and north of Division Avenue which is referred to as the Grandview Heights area. This high reservoir is supplied by Wells No. 3 and No. 5. It can also be supplied by a booster pump that pumps from the lower reservoirs. The lower storage reservoirs are supplied by Well Nos. 2,4, 6, 9, and 10. An alternative supply to the lower reservoir may be obtained by transferring water from the upper storage reservoir. This transfer is accomplished by a dump valve located in the Transfer Station near the lower reservoirs. An inventory of the storage reservoirs is included in Table 1-3.

Reservoir No. 1: Reservoir No. 1 is a 250,000 gallon "gull-bath" reservoir built in 1939 that was taken out of service in 1983 due to leakage. The water surface at full condition matched the water surface in Reservoirs No. 2 and No. 3, however, this reservoir is quite shallow, being only about one-half the depth of the other two. City staff estimated leakage from this reservoir was about 50 GPM (72,000 GPD). They believe the losses were not at construction joints, but simply going through the floor, possibly because of high porosity concrete. A new steel roof system was recently installed on Reservoir No.1.

Reservoir No. 2: Reservoir No. 2 is a 1,000,000 gallon concrete reservoir constructed in 1946. It appears to be in good condition with the exception of the roof slab. When the reservoir was drained and cleaned in 1974 and 1982, the condition of the interior appeared to be good.

Reservoir No. 3: Reservoir No. 3 is also a concrete reservoir with a capacity of 2,000,000 gallons that was built in 1954. This reservoir has a dome roof that has been converted with a built-up roof that appears to be in good condition. The reservoir was drained and cleaned in 1974 and 1982, and the condition of the interior appeared to be good.

Reservoir No. 4: Reservoir No. 4 is a 2,000,000 gallon steel reservoir that was built in 1965. The interior of the reservoir is protected with hot-applied coal-tar enamel. The reservoir was drained and cleaned in 1973 and 1980. An inspection of this coating in 1980 revealed some minor failures which were repaired at that time. The coating, as a whole however, appeared to be in good condition. The exterior coating has not been touched since it was originally applied in 1965. Primer, believed to be lead based, is exposed on the roof.

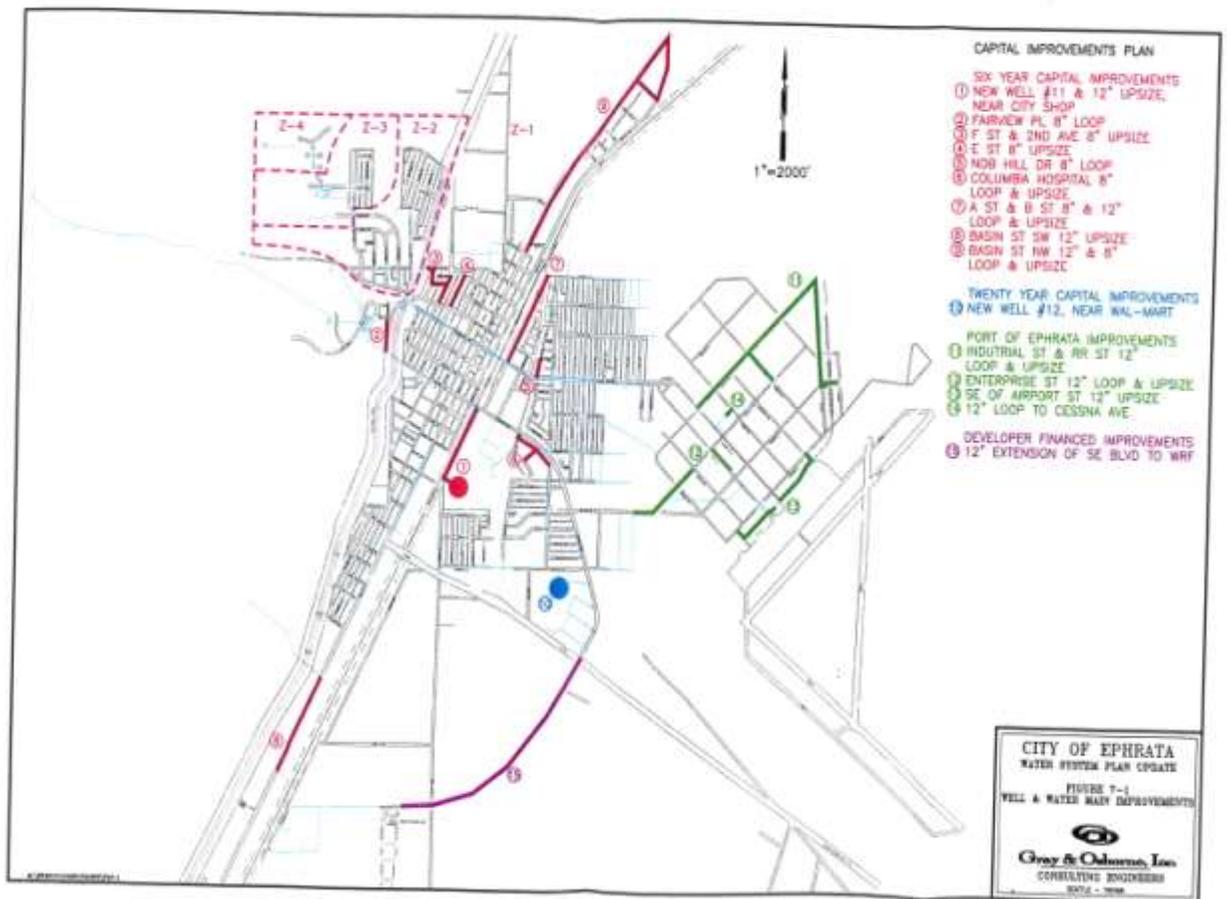
Reservoir No. 5: Reservoir No. 3 is a concrete reservoir with a capacity of 300,000 gallons that was built in 1997/1998.

Distribution

The existing water distribution system consists of approximately 42 miles of pipeline that supplies water to both the city and the Port of Ephrata. The distribution system is used to transfer water from the wells to the storage reservoirs and to residential and commercial customers. Wells pump directly into the distribution system and the reservoirs float on the system providing water when demand exceeds well supply and storing water when well supply exceeds demand.

The existing distribution system consists of 251,018 feet of pipe, 4 inches to 14 inches in diameter. The make-up of the system for 4-inch and larger pipe is itemized on the Water Facilities Map in the Utility Element (page UT-12).

A large part of the steel pipeline in use was installed in the early 1950's and may be approaching its life expectancy. A program to replace approximately 2000 feet of 4" to 8" steel pipe each year was implemented several years ago. This program has been effective and has replaced over 12,000 feet of old steel pipe over the last several years.



In the urban growth area most property owners obtain water from three sources, ground water for domestic uses, City water, and from water districts for irrigation. In planning for future growth it is assumed that all property that presently has irrigation district water rights will continue to use that source for landscape irrigation maintained separate from the city system. Additionally, most existing

residents have expressed intent to continue using their ground water supply. Therefore, with other sources of water available in the urban growth areas the average amount of water used by future customers will be less than the average water used by city residents.

Street Inventory

An inventory of the Street System including a detailed list of streets by name, length, width and square yards of pavement is included in Appendix F.

Building and Structure Inventory

Following is a list of structures owned and maintained by the City:

	DESCRIPTION	YR BLT	SQ/FT	PROPERTY ADDRESS	LOC TOTAL VALUE
1	PUMP HOUSE #9	1964	144	G Street SW	\$102,621
2	CITY HALL	1973	8,988	121 Alder SW	\$1,509,768
3	PUMP HOUSE #10 INCL PUMP	1977	300	1106 East Division	\$216,126
4	PUMP HOUSE INCL PUMP	1952	48	Cyrus Road	\$40,426
5	PROPERTY IN OPEN 3 LOCATIONS	1994		At City Entrances/ Solar Lighting	\$74,042
6	FIRE STATION	1985	10,200	800 "A" St SE	\$1,019,987
7	RESERVOIR #5	1998			\$853,617
8	CHAPEL	1976	320	Oasis Park	\$34,206
9	RESERVOIR #3	1954		Cyrus Road West of City	\$853,617
10	RAILROAD SIGNAL	1990		Division Street	\$101,066
11	PICNIC SHELTER	1992	252	Grandview Park	\$8,163
12	RECREATION BLDG	1941	7,440	112 Basin SW	\$1,124,162
13	RESERVOIR #2	1946		Cyrus Road West of City	\$230,120
14	CITY SHOP	1948	3,700	900 "A" St SE	\$449,356
15	PUMP HOUSE #5 INCL. PUMP	1953	144	S/S Sagebrush Flats Road 1 mi W	\$68,416
16	SEWER LIFT STATION (INCLUDES CONTENTS)	1994		Port District (Airport Ave.)	\$135,508
17	RESERVOIR #1	1939		Cyrus Road West of City	\$569,078
18	TOOL HOUSE	1948	810	Cemetary	\$46,643
19	RESTROOM #1	1973	720	Oasis Park	\$180,060
20	RESTROOM #2	1973	400	Oasis Park	\$55,976
21	LIBRARY	1986	5,300	45-49 Alder NW	\$665,482
22	PUMP HOUSE #3 INCL. PUMP	1952	144	N/S Sagebrush Flats Road 11.3 mi W	\$68,416
23	SEWER LIFT STATION (INCLUDES CONTENTS)	1994		Basin NW Between 6 & 7	\$147,712
24	TRAIN DEPOT	1994		Alder & 1st NW	\$251,740

25	RESTROOM	1952	360	Parkway Blvd.	\$14,695
26	RESTROOM / CONCESSION STAND	1990	1,500	900 A St SE	\$60,639
27	PUMP HOUSE #4	1952	48	West of City	\$145,301
28	SHOP/STORAGE	1973	442	Oasis Park	\$87,073
29	PUMP HS BSTR PUMP		80	Leslie Road	\$41,982
30	RESTROOM #3	1973	400	Oasis Park	\$37,316
31	WATER DEPT SHOP	1977	5,400	900 "A" St SE	\$774,323
32	EQUIPMENT STG SHED	1985	3,912		\$72,724
33	PLAYGROUD EQUIP	2001		Lions Park	\$60,639
34	PUMP HOUSE #2 INCL. PUMP	1941	144	S/S Sagebrush Flats Road	\$49,755
35	PUMP HOUSE #6 INCL. PUMP	1943	144	East Division (Port)	\$68,416
36	RAILROAD SIGNAL	1990		SE Blvd.	\$101,066
37	SIGN SHOP/STORAGE	1938	1,182	900 "A" St SE	\$26,619
38	CITY SHOP - PROPERTY IN THE OPEN				\$34,206
39	PUMPHOUSE - PROPERTY IN THE OPEN				\$18,657
40	DOG KENNEL	1998	1,400	At City Shop	\$75,231
41	PUMP HOUSE #5	1998		Morningstar Road	\$564,243
42	SEWER PLANT INCLUDING EQUIPMENT	2000		Dodson Road NW	\$6,631,047
43	LITTLE LEAGUE BUILDING EPHRATA SPORTS COMPLEX	1958		11th SW & D Street	\$42,198
44	(BATHHOUSE & SWIMMING POOL)	2002	14,934	780 A St. SE	\$1,823,325
45	FOOD BANK	2001	1,080	1010 A Street SE	\$81,148
46	SEWER LIFT STATION	2001		SE Blvd. (WalMart)	\$313,382
47	CANAL PUMP HOUSE LEE PARK PLAYGROUND	1955			\$56,275
48	EQUIPMENT	2001			\$16,882
49	RESERVOIR #4 LIONS PARK BATHHOUSE &	1965			\$1,688,263
50	SWIMMING POOL	1952			\$225,101
51	SKATEBOARD PARK	2004	6,300	790 A Street SE	\$50,000
TOTAL VALUES					\$21,966,814

SEWER SYSTEM

In 1990 the city of Ephrata was issued a State Waste Discharge permit by Department of Ecology which contained a Compliance Schedule requiring the city to evaluate its existing wastewater treatment and disposal system. In 1992 the city obtained funding under the Centennial Clean Water program to prepare an Engineering Report to provide the following items required by the Compliance Schedule:

1. Engineering Study/Report to evaluate plant capacity and develop a plan for upgrading the treatment plant.
2. Hydro-geologic Study/Report to determine subsurface conditions at the sprayfield, including aquifer characteristics and groundwater flow direction.
3. Wastewater Application Study/Report to evaluate the ability of the sprayfield to assimilate wastewater on an agronomic basis.

In the early 1990's a number of new regulations and design criteria were promulgated by the State Departments of Ecology and Health which govern groundwater quality, municipal wastewater land application systems and wastewater re-use projects employing land application. These new regulatory requirements had a significant impact on the development of the Engineering Report for the City of Ephrata's wastewater treatment system and were considered in the city's evaluation of its wastewater system.

The existing treatment facility, including the 45 acre sprayfield, is inadequately sized for current and 20-year projected plant flows and loadings. The existing land treatment system also does not meet current state criteria for disinfection and setback distances. The existing facultative lagoons are unlined and provide relatively little nitrogen removal. Based on groundwater monitoring in the vicinity of the lagoons, it is suspected that the unlined lagoons are causing nitrates to leach into the groundwater above the state groundwater standard of 10mg/L. The lagoons, therefore, are considered inadequate for protecting groundwater quality in the vicinity of the wastewater plant.

Expansion of the existing 45 acre land treatment system to 133 acres, thereby utilizing all of the existing city-owned property in the vicinity of the sprayfield, would not be adequate to serve projected flows and loadings to the treatment plant. Even using the entire 133 acres now owned by the city, the sprayfield and lagoons could not be adequately sized to permit application at agronomic rates, i.e. the rate of crop

water uptake. Wastewater applications outside the growing season would be necessary even with an expanded sprayfield and increased lagoon storage. During a portion of the growing season the wastewater would need to be applied at rates exceeding the crop uptake rate. Because of the limited nitrogen removal that would occur in the lagoons, such application practices could potentially lead to groundwater quality degradation, particularly with respect to nitrates.

Sizing the land treatment system components to allow agronomic application of projected 20 year flows would require the city to have a land area nearly twice that of the existing city-owned acreage. The cost of such a system, estimated at over \$10 million, would be substantial due to the need for large lined storage lagoons during the non-growing season and procurement of additional land. Due to residential development around the perimeter of the existing city-owned land, acquisition of additional property in the immediate vicinity of the city's property is not considered viable.

Under the new state water reclamation and re-use regulations, land application of properly treated wastewater to recharge aquifers is allowed when such a practice can be demonstrated to be beneficial. This practice requires that the water be treated to the highest reclamation standard recognized by the State: Class A. However, to be protective of ground water, the system must also produce an effluent sufficiently low in nitrogen (<10 mg/L total nitrogen) to avoid elevation of nitrate levels in the aquifer.

To upgrade the city's treatment plant to produce a Class A reclaimed water that will protect existing groundwater quality requires that the city employ a biomechanical treatment system that can remove nitrogen and provide continuous oxidation, chemical coagulation, filtration and disinfection to consistently achieve the Class A re-use standard. Such a system will be more complex operationally than a land treatment system, as it will require more mechanical equipment, computerized control systems, as well as alarms, bypasses and an alternative discharge point in the event of a treatment process or power failure. However, the capital cost for a Class A water reclamation facility will be substantially less (between \$4 to 5 million less) than an agronomically managed land treatment system sized for equivalent flows.

The water reclamation plan can also be built within the City's existing property boundaries and is expected to be more compatible with the adjacent residential land use than a land treatment system. Compared

to the City's existing treatment system there will be significantly reduced odors generated by the new treatment plant and because of the high quality of the reclaimed water no negative impact on down-gradient water supplies will occur.

The city held a public hearing on February 28, 1996 to present the findings of its engineering, hydro-geologic and land application studies. This meeting was attended by city officials, interested citizens and officials from the State Departments of Health and Ecology. At this hearing the city proposed the construction of a water reclamation facility as the most environmentally acceptable and cost effective means of managing its wastewater in the long term. The proposed plant would include an activated sludge treatment process with biological nitrogen removal, continuous filtration and disinfection that will continuously meet the State's Class A reclamation standard.

Under this treatment concept the City would initially place the reclaimed water into infiltration basins constructed from the City's three existing wastewater lagoons. The reclaimed water would recharge the existing unconfined aquifer that flows in a general north to south direction under the city's sprayfield. However, long term, the water could be used for a number of other beneficial uses which the city will investigate as the project develops through the design and construction phases.

In 2000, the City of Ephrata replaced its previous wastewater treatment facility with a water reclamation facility (WRF) with the goal of producing Class "A" reclaimed water suitable for a number of beneficial uses. The City of Ephrata plans to initially use its reclaimed water for three primary purposes: (1) Groundwater recharge via surface percolation, (2) Sale to the public for construction uses, and (3) Plant non-potable water requirements.

Raw domestic wastewater is conveyed by the City's gravity sewer system to the reclamation facility's headworks. The headworks provides grit removal, influent flow measurement and sampling, and influent screening. The fine screen is a ¼ inch self cleaning circular screen that removes large solids (rags, plastics, cans and wood). From the headworks the wastewater flows by gravity to the wet well of the influent lift station, which conveys the screened and dewatered wastewater to the oxidation ditch. Figure 2A shows the physical arrangement of each of the treatment process units.

The oxidation ditch stabilizes organic matter and removes nitrogen in the wastewater, by employing turbine aerators, recycling of activated sludge, and oxidation reduction potential (ORP) control system and two (2) submersible mixers. Following oxidation, the mixed liquor flows by gravity to two 55 ft. diameter secondary clarifiers. Suspended solids are removed by gravity settling from the mixed liquor in the secondary clarifiers and accumulated in the cone-shaped bottom of the clarifiers where they form a sludge blanket. The settled solids are pumped from the clarifiers and returned to the oxidation ditch by two (2) non-clog centrifugal return activated sludge (RAS) pumps. Figure 2B provides a schematic diagram of the wastewater and recycle flow paths through the reclamation facility.

Clarified effluent overflows the clarifier weirs and flows by gravity to the coagulation/filtration system. In the event of a critical alarm, indicating a failure to continuously oxidize, coagulate, filter or disinfect the wastewater, wastewater entering the coagulation/filtration system will be diverted to the by-pass storage basin.

In the coagulation system, liquid is injected into the wastewater prior to filtration in order to cause the finely divided solids to clump and enhance solids capture in the sand filters. A static mixer is used to thoroughly blend the coagulant solution with the wastewater prior to filtration. The filtration system consists of six (6) cells of continuously backwashed sand filters. Coagulated wastewater flows upward through the sand bed trapping coagulated solids in the bed. Effluent from the filter is continually monitored with a turbidity meter to ensure it meets the Class "A" reclaimed water standard for turbidity (<2 NTU monthly average and <5 NTU at any given time).

A low-pressure low-intensity ultraviolet (UV) disinfection system consisting of four banks of horizontal UB lamps in a single channel is used to provide effluent disinfection to meet the Class "A" reclamation standards. The UV system is equipped with monitoring and alarm systems to ensure that effluent is continuously disinfected. The disinfected reclaimed water exits the disinfection system and flows by gravity to the effluent splitter box, where flow is directed to the groundwater infiltration basins.

Biological solids produced in the oxidation ditch settle out in the secondary clarifiers. Two (2) double-disc diaphragm pumps transfer the excess biological solids to the two-cell aerobic digester (waste activated sludge (WAS) pumps). In rectangular covered concrete digester tanks, the sludge is mixed and aerated by two (2) blowers and

membrane diffusers. The two digester cells operate in parallel. To provide operation control over sludge pH and nitrate levels, the aeration system has a cycle timer, which turns off the blowers and turns on supplemental mixers for a set period of time. The digester is also equipped with an adjustable decanter to remove supernatant for sludge gravity thickening. The WAS pumps are used to transfer digested sludge from the digester to the dewatering centrifuge. Prior to entering the centrifuge, cationic polymer is added to the digested sludge to improve dewaterability. After dewatering, the biosolids (~18 percent solids) are transferred to the covered Dewatered Sludge Storage Facility until land application.

In the urban growth area most property owners make use of septic systems for wastewater treatment. However, upon review and acceptance by the Ephrata City Council these property owners can connect to the city system at their own cost. Additionally, most existing residents have expressed intent to continue using their septic systems for wastewater treatment. Therefore, until such time as the land is annexed to the city, cost of connection will be the responsibility of the property owners annexing into the city unless previous arrangements to connect were put in place.

An inventory of the existing location, piping and manhole locations are depicted in the Existing Sewage Facility Map located in the Utility Element (page UT-13).

Electrical System

Ephrata's electrical power provider is the Grant County Public Utility District #2 (GCPUD). The PUD is a public utility district that provides services separate from the City. Maintenance and improvements are managed and paid for by the Utility and funded through customer billing from the Utility. City lights are owned and maintained by the PUD unless private services are requested by developers which are then the responsibility of the development. All capital facility improvements of the electrical system are borne from the PUD and the City does not have any expectation or plan to provide additional capital improvements for electric service. An electrical facilities map is located in the Utility Element of this comprehensive plan on page UT-11.

Library

Located on Alder Street the Library is part of the North Central

Washington Regional Library System. As a regional library materials are available from other branches and by mail. There are no plans for new library capital facilities in Ephrata. Library services are provided regardless of location within or outside the Urban Growth Boundary.

Solid Waste

A private company Consolidated Disposal Services, Inc. provides subscriber service both inside and outside the city limits. The firm disposes its refuse at the regional landfill south of Ephrata. The City does not plan any separate capital facilities for solid waste disposal. Consolidated Disposal Services, Inc also provides services outside city limits. CDSI's main office is located in Ephrata on Highway 28/Basin Street in the Southern section of town.

Natural Gas

No natural Gas distribution or transmission lines exist in the planning area. This city has no plans for capital improvements for natural gas.

Telephone Service

Telephone service is provided and maintained by Qwest Communications. Infrastructure is owned and maintained by and at the cost of Qwest Communications both inside the city and in the Urban Growth Area. Telephone service infrastructure is typically collocated with the existing electrical system through franchise agreements the City and the Grant County Public Utility District.

Cable Television

Northland Cable has a franchise agreement with Ephrata to provide service within city limits. All areas within the city and the urban growth area are able to access cable service. This city has no plans for capital improvements for cable television services. Cable infrastructure is typically collocated with the existing electrical system through franchise agreements the City and the Grant County Public Utility District.

GENERAL FINANCIAL CAPACITY

Existing Debt

The city of Ephrata currently has \$6,932,664.00 in outstanding debt. Of this \$532,872.00 is scheduled to be paid on principal in 2007. The remaining \$6,399,792.00 consists of General Obligation debt of \$840,000.00, Revenue debt of \$5,559,792.00 and Assessment debt of \$0.00.

Debt Capacity

In order to assume additional debt, the city must have adequate revenue to make payments. The largest areas of income under the city's control are property tax levies and utility rates.

The city has the authority through city council action, to levy up to the maximum of \$3.375 per \$1000 of assessed valuation for general government services, however, they are currently at \$3.15648 to allow for the 106% limit. This authority is subject to the following limitations:

- RCW 84.55.010 limits growth of regular property taxes to 6% per year, after adjustments for new construction. If the assessed valuation increases by more than 6% due to revaluation, the levy rate will be decreased.
- The Washington State Constitution limits the total regular property taxes to 1% of assessed valuation or \$10 per \$1000 of value. If the taxes of all districts exceed this amount, each is proportionately reduced.

The city's 2005 assessed valuation is \$286,230,159.00. This represents \$903,480.00 in city revenues.

Since property taxes are at the maximum, any higher rate would have to be approved by the citizens in an election.

Water rates are at a base residential rate of \$18.10 per month with a charge for excess at \$1.57/1000 gallons. The city's revenue from water for 2006 was \$1,170,205.00. Sewer residential rates are \$29.00 per month. Revenue from sewer rates were \$1,196,910.00 in 2006. Garbage rates are based on container size and for residential service range from \$11.15 to \$20.55. Revenue from the city garbage accounts for 2006 were \$877,999.00. An increase in water or sewer rates do not have to be voted on but, a public hearing must be held.

Various other revenue resources are available to the city, in the form of tax distribution, local levies, general obligation bonds, loans and grants. A list is presented in **Appendix D**.

Most revenue sources increase in rough proportion to population. It is reasonable to expect that Ephrata's overall revenues will increase as population trends are increasing.

In 2004 the City converted their financial activities to a cash basis

FUTURE DEMAND PROJECTIONS

This element of the Comprehensive Plan is a summary of the City of Ephrata’s efforts to identify future demands on City facilities and schedule improvements to provide adequate new facilities to meet these demands which are illustrated on the following table, **Projection of Future Demands**. The Growth Management Act requires the City to prepare and adopt a Capital Facilities Plan to implement the Comprehensive Plan for the Proposed Urban Growth Area in addition to the area within the City. Also, this CFP is prepared to insure that consistency is achieved among elements of the Comprehensive Plan and to obtain a schedule of concurrency with the private developments anticipated in the Land Use Plan.

Future Demand Projections

Recreation Open Space

	Year	Acres
Community Park:	2000	18.2468
	2005	20.6466
	2010	23.9434
	2015	27.0868
	2020	31.3196
	2025	36.3064
	Regional Park: 20 acres per 1,000 residents	2000
2005		158.82
2010		184.18
2015		208.36
2020		240.92
2025		279.28

Sanitary Sewer (Treatment Capacity 126GPCD)

Year	GPCD
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2000	884,268
2005	1,000,566
2010	1,160,334
2015	1,312,668
2020	1,517,796
2025	1,759,464

Potable Water

Treatment & Pumping Capacity (189 gpdc)

Year	Gal/Day	Gal/Yr
2000	1,326,402	484,136,730
2005	1,500,849	547,809,885
2010	1,740,501	635,282,865
2015	1,969,002	781,685,730
2020	2,276,694	830,993,310
2025	2,639,196	963,306,540

Total Storage

Year	1 Day Reserve
2002	2,414,064 g
2008	2,611,515 g
2022	2,953,374 g

Population Trends and Projected Service					
Year	Census Population	Population with 3% Growth	Connections	Per Capita Demand (Gal/Day)	Annual Demand (MG)
1990	5349			425	829
1991	5380			424	833
1992	5430			453	898
1993	5550			423	856
1994	5585		2458	451	920
2001		6869	2972	451	1131
2005	6,930	7731	3317	451	1273
2010	7,660*	8962	3809	451	1134
2015	8,310*	10390	4380	451	1710
2020	8,837*	12,046		451	1982

2025	9,352*	13,964		451	2298
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* - Washington State OFM High Series Population Projection

Solid Waste (Res 3.3#pcpd)

Year	#/day	#/yr
2000	23,159.4	8,453,181
2005	26,205.3	9,564,934.5
2010	30,389.7	11,092,240.5
2020	39,751.8	14,509,407.0
2025	46,081.2	16,819,638.0

Recreation & Open Space Facilities Needs

Year	2000	2005	2010	2015	2020	2025
Gymnasiums	1	2	3	4	4	4
Playgrounds	1	1	2	3	4	4
BB Diamonds	6	7	8	9	10	10
SB Diamonds	3	4	5	6	6	6
Football/Soccer	5	6	7	8	8	8
Tennis Courts	3	4		6	6	8
Handball/Racquetball Cts	1	1	1	2	2	2
Swimming	1	1	1	1	1	1
Community Centers	1	1	1	2	2	2

The Land Use Plan serves as a guide for upgrading, extending and developing new facilities as growth takes place. The planned densities for residential and other development will be appropriately reflected in each project during planning and implementation of improvements to Ephrata's public facilities. Therefore, this Capital Facilities Plan presents a program to be undertaken during the next 20 years (2007 - 2027) which will also have an even longer term impact upon growth because most public facilities have a "life" expectancy well beyond this 20 year GMA planning period. This CFP is consistent with public expectations and the Goals, Objectives and Policies of the Ephrata Urban Area Comprehensive Plan's Land Use and other Elements to satisfy the requirements of the state's Growth Management Act.

It is anticipated that the City Council will continue to consider and update this CFP on an annual basis to reflect current goals and the realistic financing capabilities of the City of Ephrata. The Council will consider the Annual CFP program budget each year in conjunction with

a review of the City's operating budget so that operation and maintenance costs, and the CFP can be addressed simultaneously in the annual City budgeting process.

CAPITAL NEEDS FOR PUBLIC WORKS AND COMMUNITY FACILITIES

Projects listed in this Capital Facilities Plan were divided into three major groups for consideration after it has been determined that each project is consistent with and will contribute to implementation of other elements of the Comprehensive Plan for the Ephrata UGA.

1. Those which have the highest priority and need be undertaken in the 2007 fiscal year;
2. Proposals which should be undertaken sometime during the Short Term ((6 yr) 2007-2013 capital facilities planning period.
3. Projects which should be anticipated beyond the next 6 years within the Growth Management Act time frame of 20 years.

Another motivating factor in project selection is economic development. As potential customers become available to city utilities the City often times is asked to participate in these extensions. Under current policy the City only gets involved in supply infrastructure with the application of surcharges to the effective area. This policy will be revised consistent with the new GMA requirements so that future extensions are not subsidized by other utility customers. These projects do not rank as high as other identified projects, but the City realizes that to maintain orderly growth participation may be needed.

Capital facilities planning is **not a one time only effort**, it is an ongoing process with new capital budgets to be considered for adoption by the City Council during each upcoming fiscal year. The project and funding element of this Capital Facilities Plan will be updated every year to reflect changing community needs and funding abilities of the City of Ephrata and the Ephrata School District. Each year a new capital facilities project and funding list will be submitted to the City Council for adoption as the **Capital Budget** for each subsequent fiscal year. The project list for the additional years covered by the City of Ephrata Capital Facilities Plan will be reviewed and updated to reflect any new capital needs that may be identified to solve emerging problems in the community and continue to

appropriately support growth activities in accordance with the Ephrata UGA Land Use Plan.

The City of Ephrata is committed to conform with all applicable Federal, State and local rules and regulations. Obviously to preserve the public health and safety many projects are rated and driven by these criteria. To preserve adequate access as well health and safety factors are the primary motivator for the projects that rank the highest on the capital improvement lists. The City of Ephrata has always taken great pride in all of its facilities and a strong commitment to improve as well as maintain those facilities has been surmount. The City has always relied on its own resources for maintenance, but obviously when facilities can no longer be maintained they must be replaced. Other sources of funding then become the only viable way of replacing these facilities.

The process undertaken to produce this initial Capital Facilities Plan is anticipated to also satisfy the general requirements for participation in state and federal programs which provide grant or loan funding. The City of Ephrata and the Ephrata School District will not be able to pay for many of the public works projects proposed in this plan without obtaining financial assistance.

In determining the capital facilities needs for this initial CFP for the City of Ephrata, a comprehensive list of community facility projects from the following public works systems and community services were considered:

- Street, Bridge & Storm Sewer System
- Water System
- Sewer System
- Park & Recreation
- Community Facilities
- Public Schools

IDENTIFICATION, PRECIPITATION AND COORDINATION

The development of this CFP by the City Council provides the City of Ephrata with the direction necessary to accommodate its capital improvement needs for the next 20 years and beyond. A comprehensive list of capital needs based on Growth Management Goals, to make up the "Priority Projects" list in this "1996 to 2015 Capital Facilities Plan" for the City of Ephrata.

In addition, an evaluation of each project's status regarding necessary planning, engineering, permitting status and other considerations were done to determine project "readiness" for inclusion in the CFP. A priority listing of the appropriate projects is provided in the following illustrations for 1996, 1997, 1998, 1999, 2000, and 2001 with estimated project costs and the anticipated sources of funding indicated for each project. The projects, estimated costs and sources of funding for the Long-Term (20 yr) 2002-2015 Capital Facilities Plan for the City of Ephrata and Ephrata School District was prepared utilizing the best available information and making simple projections to estimate some costs. These projects will be refined on this CFP planning process is carried out in the future.

INTRODUCTION

Capital Facilities Plan

As part of the Growth Management Act of 1990, a Capital Facilities Plan (CFP) must be prepared in conjunction with the comprehensive plan. A CFP is used to determine if the existing and proposed facilities, that are mandated by the population and land-use projections established in the comprehensive plan, will be supported by the revenue generated by the City. In other words, if the costs of the proposed facility improvements exceed the revenue, the City must either a) reduce its level of service standards, b) reduce its costs, c) increase its revenue, or d) the comprehensive plan land use elements must be modified in order to balance development with affordable capital facilities. By planning for capital facilities and their associated costs, the City can:

- Integrate the need for capital facilities in the annual budget (for design, construction, operation, maintenance, etc.).
- Utilize available revenue sources for funding of capital facilities (impact fees, service charges, etc.), especially for revenue sources (i.e. Public Works Trust Funds) that require a CFP plan in order to be eligible for loans.
- Provide the timely development of capital facilities for the land development that the City envisions in their comprehensive plan.
- Meet the "concurrency" requirements which stipulate that sufficient public facility capacity must be available concurrent with proposed development, so that the level of service is not reduced below the standards adopted by the City.

The CFP will help the City resolve growth management issues, relating to its funding, by enabling the City to objectively evaluate its existing facilities and the need to accommodate growth at an acceptable level of service.

The goal of capital facilities planning is to provide the community with a guideline to completing proposed facility improvements so that the community may effectively accommodate growth within the UGA. It makes sense to allow for this growth at a rate in which the growth can economically support itself. It does not make sense, however, to let the growth control the economics. In other words, all capital facility improvements must be completed with the "big picture" in mind. It will cost the City more in the future to upgrade capital facility improvements that were completed to lesser standards in order to save money. All capital improvements must be made in accordance with the policies described herein.

2007

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
A St. NE Reconstruction - From 3rd NE to Division. Curbing, Sidewalk,Paving	City Construction Fund	\$150,000.00
Beezley Pedestrian Trail Phase 1	County, Private	\$135,000.00
Autism / Beezley Trailhead	City / Private	\$25,000.00

2008

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
City Wide Water & Roadway Improvements	PWTF and City Funds	\$2,250,000.00
Water Reclamation Plant - Bio-Selector	City Construction Funds	\$225,000.00
SR 282 / Nat Washinton Way Round-a-Bout	WSDOT	\$1,400,000.00
		\$135,000.00

2009

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
City Wide Water & Roadway Improvements	PWTF and City Funds	\$2,250,000.00
Nat Washington Way Extension to Dodson Road	TIB, City, Private	\$1,000,000.00
Dodson Road Overlay	City Construction Funds	\$100,000.00
NE / SE Pressure Zone Project	DWSRF,	\$350,000.00

2010

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
City Wide Water & Roadway Improvements	PWTF and City Funds	\$2,250,000.00
Indoor Recreation Center	City / Private	\$4,000,000.00
Lazy River - Pool Project	City / Private	\$2,000,000.00

2011

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
City Wide Water & Roadway Improvements	PWTF and City Funds	\$2,250,000.00
Alder Street Signalization	TIB	\$950,000.00
New Well and Storage Reservoir SE	DWSRF	\$1,100,000.00

2012

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
New Municipal Facility / Government Center	Bond, City Funds	\$4,000,000.00
Port of Ephrata Sewer Extension	EDC, SIP	\$200,000.00
New Ephrata Recreation Center	City, Private	\$2,000,000.00

2013

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
Add Manholes to Sewer System	City Construction	\$50,000.00
Lift Station - Port of Ephrata	PWTF, Bond, EDA	\$2,000,000.00
Replace Water Main to Reservoir # 2 & # 4	DWSRF	\$750,000.00

2014

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
5th Ave. - Widen, Sidewalk - Nat Washington Way to Corporate	TIB	\$400,000.00
Downtown Park / Square	IAC, Private, City	\$2,000,000.00
Performing Arts Center	School, Private, City	\$5,000,000.00

2015

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
Pedestrian Bridge across Canal at Lions Park	IACC	\$150,000.00
Replace Bridge to Well #4 - Widen, Water and Sewer Extension	PWTF, TIB	\$1,000,000.00
Dodson Road Widening - SR 282 to City Limit	TIB, County	\$1,000,000.00
New Reservoir Above Well # 4	DWSRF	\$1,500,000.00

2016

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
Water Reclamation Plant Upgrade	DOE, Clean Water, PWTF	\$1,500,000.00
Corporate St. to Division Improvements	EDA, SIP	\$250,000.00
Alder Street Sewer - Sewer from 14th NW to lift Station	TIB, PWTF	\$600,000.00
Equestrian Facility	IAC, City	\$800,000.00

Gun Range Expansion	IAC, City, Private	\$1,000,000.00
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2017

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
Railroad Ave Reconstruction	TIB, County	\$750,000.00
Municipal Golf Course	IAC, City	\$4,000,000.00

2018

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
Division Street Overlay	TIB	\$1,000,000.00
Satellite Fire Station	Bond	\$300,000.00

2019

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
Nat Washington Way Overlay Storm Water Treatment Facility	DOE	\$2,500,000.00

2020

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
Canal Crossing to Grandview Heights	LID	\$1,000,000.00

2021

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
Lift Station South of Sewer Plant	City Construction	\$350,000.00

2022

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
Railroad Crossing at 14th NW		\$250,000.00

2023

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
Railroad crossing Near South City Limit		\$250,000.00

2024

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
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2025

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
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2026

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
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2027

<u>Project</u>	<u>Funding Source</u>	<u>Estimated Cost</u>
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CAPITAL FACILITIES GOALS AND POLICIES

Maintenance

Goal 1: To provide capital improvements in order to correct existing deficiencies, to replace worn out or obsolete facilities and to accommodate desired future growth, as indicated in the Six-year Schedule of Improvements in this element.

Concurrency and Financing

Goal 2: To ensure future development bears a fair share of facility improvement cost necessitated by the development in order to achieve and maintain the adopted Level of Service (LOS) standards and measurable objectives standards.

Goal 3: To manage fiscal resources to support the provision of needed capital improvements for previously issued development orders and for future development and redevelopment.

Goal 4: To coordinate land use decisions and financial resources with a schedule of capital improvements to meet adopted LOS standards, measurable objectives, and provide existing and future facility needs.

Goal	Policy	Program
1. To provide capital improvements in order to correct existing deficiencies, to replace worn out or obsolete facilities and to accommodate desired future growth, as indicated in the Six-year Schedule of Improvements in this element.	1.a. Large scale or high cost (\$10,000+) capital improvement projects will be included in the Six year Schedule of Improvements, the 20-year Capital Improvements Program and the annual capital budget.	
	1.b. Proposed capital improvement projects will be evaluated and prioritized using criteria outlined in the comprehensive plan.	1.b.1. <u>Prioritize annually a list of capital facilities projects, weighing more heavily those projects serving properties already located within city limits.</u>
2. To ensure future development bears a fair share of facility improvement cost necessitated by the development in order to achieve and maintain the adopted Level of Service (LOS) standards and measurable objectives	2.a. City sewer and water connection fee revenues will be allocated primarily for capital improvements related to expansion.	

standards.		
	2.b. Maintain an adequate reserve of water rights to serve all of the urban growth area.	2.b.1. Continue negotiations with state agencies to ensure the city is retaining sufficient water rights for development.
	2.c. Appropriate funding mechanisms for development's contribution of a fair share of other public facility improvements (such as recreation, drainage, solid waste) will be considered for implementation as they are developed by the city.	2.c.1. Verify that transportation mitigation fees are sufficient to address the fair share of transportation improvement costs necessitated by new development.
3. To manage fiscal resources to support the provision of needed capital improvements for previously issued development orders and for future development and redevelopment.	3.a. Prior to the issuance of certificates of occupancy, the city and/or developers will provide for public facilities at the LOS standards needed to serve development for which development was previously issued.	
	3.b. Continue to adopt an annual capital budget and a six-year Capital Improvement Program as part of its budgeting process.	
	3.c. Debt will be managed so that city Charter limits on general obligation debt (15% of assessed value) will not be exceeded. There are no limits placed on revenue bonds.	
	3.d. Efforts will be made to secure grants or private funds whenever available to finance the provision of capital improvements.	
	3.e. Fiscal policies to direct expenditures for capital improvements will be consistent with other comprehensive plan elements.	
4. To coordinate land use decisions and financial resources with a schedule of capital improvements to meet adopted LOS standards, measurable objectives, and provide existing and future	4.a. The City will annually update its Concurrency Management System through the Infrastructure Capacity Statement as a mechanism for determining facility capacity.	

facility needs.		
	4.b. The City will support and encourage the joint development and use of cultural and community facilities with other governmental or community organizations in areas of mutual concern and benefit.	
	4.c. Emphasize capital improvement projects that promote the conservation, preservation or revitalization of commercial, industrial and residential uses of Ephrata.	
	4.d. The City will use LOS standards contained in the Capital Facilities Element of the Comprehensive Plan in reviewing the impacts of new development and redevelopment in the provision of public facilities.	
	4.e. Proposed plan amendments and requests for new development or redevelopment actions shall be evaluated according to guidelines contained in the Capital Facilities Element of the Comprehensive Plan.	

Goal	Policy	Program
5. To provide adequate and appropriate facilities for skateboarding activities	5.a. City staff will address and search for funds to expand the skateboard park..	5.a.1. Locate funding sources to expand and make adequate the skateboard park.
6. Ensure that adequate public facilities to support existing city demands and to serve expected future growth can be built and maintained.	6.a. Establish a land use development strategy that will minimize the cost of providing public facilities and services.	
	6.b. Support conservation of resources and facilities as an alternative to establishing new facilities.	
	6.c. Provide a means for locating and building those public facilities that are essential to the operation of	

	the city.	
	6.d. Establish a criteria for each essential public facility that identifies siting requirements and associated costs.	
7. The City of Ephrata will provide water of the best possible quality, at needed quantities, and at the lowest cost possible to its citizens.	7.a. Each property owner is responsible for the cost of installing and maintaining the water line from the water main to the building, excluding the meter and tapping of the main.	
	7.b. New water mainlines to serve development shall be provided by the land developer and shall conform to city standards.	
	7.c. Obtain additional water rights by requiring water rights to be transferred to the city as part of annexation approval.	
8. To provide wastewater service of the best possible quality and the lowest possible cost to the citizens.	8.a. Storm water and wastewater shall be collected and conveyed in separate systems. Roof, yard and foundation drains shall not be connected to the sanitary sewer system.	
	8.b. Developers of new subdivisions shall construct sanitary sewers to City specifications, at no cost to the City.	
	8.c. No customer/discharger shall introduce to the sewerage system any pollutants that cause "pass-through" or interfere with treatment plant operations.	
9. To provide consistency with the Land Use Element.	9.a. Six year funding source plan will be reviewed annually to ensure funding is consistent with needs.	9.a.1. If funding falls short on planned capital facilities, the City shall review and take appropriate action to secure new funding sources or reevaluated goals and expectations of the Land Use Element.

GOAL 1: The city of Ephrata will endeavor to adequately provide needed public facilities to all residents within its jurisdiction in a manner which protects investments in existing facilities, maximized the use of existing facilities, and promotes orderly compact urban growth.

PROVIDE CAPITAL IMPROVEMENTS

OBJECTIVE A: Capital improvements will be provided to correct existing deficiencies, to replace worn out or obsolete facilities and to accommodate desired future growth, as indicated in the Six-Year Schedule of Improvements of this element.

Policy 1: Capital improvement projects identified for implementation in the other elements of this plan and determined to be of relatively large scale and high cost (\$10,000+) will be included in the Six-Year Schedule of Improvement of this element, the 20-year Capital Improvement Program and the annual capital budget.

Policy 2: Proposed capital improvement projects will be evaluated and prioritized using all the following criteria:

- a. whether the project is needed to correct existing deficiencies, replace needed facilities or to provide facilities needed for future growth;
- b. elimination of public hazards;
- c. elimination of capacity deficits;
- d. financial feasibility;
- e. site needs based on projected growth pattern;
- f. new development and redevelopment;
- g. plans of state agencies;
- h. local budget impact; and
- i. location and effect upon natural and cultural resources.

MAINTAIN ADOPTED LEVELS OF SERVICE

OBJECTIVE B: Future development will bear a fair share of facility improvement cost necessitated by the development in order to achieve and maintain the adopted Level of Service standards and measurable objectives standards.

Policy 1: City sewer and water connection fee revenues will be allocated primarily for capital improvements related to expansion.

Policy 2: The city will verify that transportation impact fees are sufficient to address the fair share of transportation improvement costs necessitated by new development.

Policy 3: Appropriate funding mechanisms for development's contribution of a fair share of other public facility improvements (such as recreation, drainage and solid waste) will be considered for implementation as they are developed by the city.

SUPPORT NEEDED CAPITAL IMPROVEMENTS

OBJECTIVE C: The city will manage its fiscal resources to support the provision of needed capital improvements for previously issued development orders and for future development and redevelopment.

Policy 1: Prior to the issuance of certificates of occupancy, the city and or developers will provide for public facilities at the Level of Service standards needed to serve development for which development was previously issued.

Policy 2: The city will continue to adopt an annual capital budget and a six-year Capital Improvement Program as part of its budgeting process.

Policy 3: Debt will be managed so that city Charter limits on general obligation debt (15% of assessed value) will not be exceeded. There are no limits placed on revenue bonds.

Policy 4: Efforts will be made to secure grants or private funds whenever available to finance the provision of capital improvements.

Policy 5: Fiscal policies to direct expenditures for capital improvements will be consistent with other comprehensive plan elements.

COORDINATE LAND USE DECISIONS

OBJECTIVE D: The city will coordinate land use decisions and financial resources with a schedule of capital improvements to meet adopted Level of Service standards, measurable objectives, and provide existing and future facility needs.

Policy 1: Subsequent to the adoption of the comprehensive plan, the city and/or developers will provide for the availability of public facilities and services needed to support development concurrent with the impacts of such development. These facilities shall meet adopted Level of Service standards and be consistent with the Concurrency Management System which will be developed and adopted prior to July 1, 1997.

Policy 2: As a mechanism for determining facility capacity and existing Level of Service, the city will annually update its Concurrency Management System through the Infrastructure Capacity Statement.

Policy 3: The city will support and encourage the joint development and use of cultural and community facilities with other governmental or community organizations in areas of mutual concern and benefit.

Policy 4: The city will emphasize capital improvement projects which promote the conservation, preservation, or revitalization of commercial, industrial, and residential areas of Ephrata.

Policy 5: The city will use the following LOS standards in reviewing the impacts of new development and redevelopment upon public facility provision:

a. Recreation and Open Space

Community Park -	2.6 acres per 1,000 residents;
Regional Parks -	20 acres per 1,000 residents;
Open Space -	25% of total city area

b. Drainage

Dry wells -	25 year, 24-hour storm event
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Stormwater Management Systems-Retain on-site the runoff from 25-year, 24-hour storm at peak discharge rates. Development will be regulated to ensure that its post-development run-off to city systems does not exceed the predevelopment discharge volume and/or rate.

c. Traffic Circulation

Roadway link specific for arterial and collector streets in the city' jurisdiction. The LOS by segments is indicated in the Transportation Element.

Principal Arterial: LOS C at peak hour traffic
 Minor Arterial: LOS C over 24 hour period, off season traffic.
 Collectors and Local Roads: Design Standards

d. Sanitary Sewer

2025	110 gallons per capita day	X	13,964	=	1,536,040
2020	110 gallons per capita day	X	11,046	=	1,215,060
2015	110 gallons per capita day	X	10,418	=	1,145,980
2005	110 gallons per capita day	X	9,209	=	1,012,990
2000	110 gallons per capita day	X	7,018	=	771,980

e. Potable Water

Yearly average **169.4 gallons** per capita per day (gpcd) raw water source (dry season 154 gpcd) including a 10% contingency; 189 gpcd treatment and pumping capacity.

2025	135	X	13,964	=	1,885,140
2020	135	X	12,046	=	1,626,210
2015	135	X	10,390	=	1,402,650
2010	135	X	8,962	=	1,209,870
2005	135	X	7,731	=	1,043,685
2000	135	X	6,669	=	900,315

f. Solid Waste

Residential: 3.3 pounds per capita per day (pcpd)

g. Mass Transit (Section Reserved)

Policy 6. In addition to the LOS standards shown above, the city intends to use the following measurable objectives to guide short and long range capital improvements, planning, and programming.

a. Recreation and Open Space

Facility	Unit of Measure
Gymnasiums (1 gym)	per city quadrant
Playgrounds (1 supervised)	per 1,000 residents (age 5-14)
Baseball Diamonds (1 diamond)	per 6,000 residents (age 5-19)
Softball Diamonds (1 diamond)	per 3,000 residents
Football/Soccer Fields (1 field)	per 10,000 residents
Tennis Courts (1 court)	per 1,000 residents (age 9-70)
Handball/Racquetball Courts (1 court)	per 10,000 residents (age 9 - 59)
Swimming (450 sq ft surface water)	per 1,000 residents (all ages)
Community Centers (a facility/2 miles)	per 25,000 persons (all ages)

Access: In order to ensure that accessibility shall be adequately taken into account as an aspect of park and recreation needs assessment, the following service radii shall be applied: Neighborhood = 1 mile, Community = 30 miles, and Regional = 30 minutes driving time.

- b. Drainage-** Level of Service C to 98% of all residents by the year 2025, for five-year recurrence interval design storm event.
- c. Traffic Circulation-**The long range measurable objectives for 2027 are identified for the arterial and collector streets in the city’s jurisdiction. The LOS is indicated in the Transportation Element.
- d. Sanitary Sewer-**125 gallons per capita per day
- e. Potable Water-**Yearly average 140 gallons per capita per day (gpcd) raw water source (dry season 162 gpcd); 192 gpcd treatment and pumping capacity.
- f. Solid Waste-**By the year 2025, 3.3 per capita per day (pcpd).

Policy 7: Proposed plan amendments and request for new development or redevelopment shall be evaluated according to the following guidelines as to whether the proposed action would:

- a. contribute to a condition of public hazards;

- b. exacerbate any existing condition of public facility capacity deficits;
- c. generate public facility demands that exceed capacity increase planning in the Six-Year Schedule of Improvements;
- d. conform with future land uses as shown on the future land use map of the Land Use Element;
- e. accommodate public facility demands based upon adopted LOS standards and attempt to meet specified measurable objective, when public facilities are developer-provided;
- f. demonstrate financial feasibility, subject to this element, when public facilities are provided, in part or whole, by the city.
- g. affect state agencies facilities plans an siting of essential public facilities; and
- h. affect significant cultural and scenic resources and critical natural areas.