

Chapter 6

Capital Facilities and Utilities Element

Introduction

Capital facilities and utilities are the basic services which the public sector provides to support land use developments, both as they currently exist and as they are anticipated to develop over the course of the 20-year growth management planning horizon. The Capital Facilities and Utilities Element provide a general summary of how and when these basic services will be provided to support future growth as envisioned by the 20-Year Plan and proposed funding.

The Growth Management Act (GMA) establishes many of the requirements for the Capital Facilities and Utilities Element. The GMA establishes an overall goal to "ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards" (RCW 36.70A.020). The GMA requires that the capital facilities element include an inventory of existing publicly owned capital facilities, a forecast for the future needs for new or expanded facilities and a six-year financial plan. The GMA defines public facilities to include water, sewer, stormwater, schools, parks and recreational facilities, law enforcement and fire protection. The Capital Facilities and Utilities Element is intended to provide a general assessment of major public services which impact land use issues, rather than a detailed analysis of every service provided by government.

The Capital Facilities and Utilities Element must be consistent with the other elements of the 20-Year Plan, particularly the Land Use Element. Future development should be encouraged to occur in generally more compact patterns where public facilities already exist, because it can be served more efficiently and inexpensively than dispersed or sprawling land use patterns. The GMA dictates that "urban growth should be located first in areas already characterized by urban growth that have existing public facility and service capabilities to serve such development and second in areas already characterized by urban growth that will be served by a combination of both existing public facilities and any additional needed public facilities and services that are provided by public or private sources" (RCW 36.70A.110).

Providing new capital facilities in previously undeveloped and unserved areas may in turn lead to new development in dispersed patterns and should also be avoided. The GMA states that "...cities are the units of local government most appropriate to provide urban governmental services. In general, it is not appropriate that urban governmental services be extended to or expanded in rural areas except in those limited circumstances shown to be necessary to protect basic public health and safety and the environment and when such services are financially supportable at rural densities and do not permit urban development."

The GMA also emphasizes the concept of concurrency, which requires that needed public facilities and services be in place, or officially planned and scheduled to be put into place, concurrent with new development. This concept requires cities and counties to establish explicit levels of service, or minimum threshold measures, to determine if particular service is adequately provided. New development applications which cause the minimum levels of service to be exceeded will not be approved unless improvements are made to correct the deficiency or unless corrective measures are scheduled and

funded to occur within a locally established time frame, up to a maximum of six years. The GMA requires that at a minimum level-of-service standards be adopted for transportation. Other services should be reviewed for adequacy, but specific threshold standards are not required to be universally applied. This element is organized into two sections:

- inventory and review of existing facilities and services, along with 6-year future plans for water, sewer, storm drainage, schools, law enforcement, fire, solid waste, libraries, general government buildings, electricity, telecommunications and natural gas services. The Inventory and Capital Facilities Plan for Schools, Transportation and Parks can be found in their respective elements; and,
- policies regarding the provision of these services. The policies provide direction in three areas:
 - ensuring the overall provision of needed facilities and services by public or private agencies;
 - providing direction for the establishment of minimum levels of service and concurrency obligations for new developments to assist in the provision of these services; and,
 - ensuring that the provision of services is fully consistent with overall growth management objectives, which is ultimately linked to the ability to efficiently provide the services in the first place.

Emphasis throughout this document is placed on those services provided by Clark County government and, in particular, on transportation, sewage treatment and storm drainage services which are mandated by the GMA for direct concurrency requirements. Capital facilities plans for all services provided within individual cities of the county are included within the individual comprehensive plans of Battle Ground, Camas, La Center, Ridgefield, Vancouver, Washougal and Yacolt, although available information is included in this document for context. The 6-year capital facility and financing summaries are an estimate of future needs and are not official policy or budget documents of the service providers except where indicated.

Services Summaries and Projected Future Needs

- Table 6.1 summarizes who the providers of services are for the various jurisdictions within Clark County. Additional information regarding city services can be found in each jurisdiction's Capital Facilities Element.
- Table 6.2 attempts to isolate the direct capital costs attributable to Clark County over the next six years. In cases where services are provided by outside agencies, Table 6.2 estimates the direct costs of providing service to county residents only. Table 6.2 also attempts to exclude services constructed by developers as part of the development process, such as road, sewer, water, or storm drainage extensions or improvements.

Direct and Indirect Concurrency Services

Direct concurrency will be applied on a project by project basis for public facilities of streets, water and sanitary sewer. While the GMA requires direct concurrency only for transportation facilities, this plan extends the concept of direct concurrency to cover other critical public facilities of water and sanitary sewer. Indirect services include schools, fire protection, law enforcement, parks and open space, solid waste, libraries, electricity, gas and government facilities.

Table 6.1 | Direct and Indirect Concurrency Services in Clark County

Service	Battle Ground	Camas	La Center	Ridgefield	Vancouver	Washougal	Yacolt	County
DIRECT								
Transportation	City	City	City	City	City	City	City	County
Water Supply System	City	City	CPU	City	City	City	CPU	CPU, Vancouver
Sanitary Sewer Collections Services	City	City	City	City Clark Regional Wastewater District	City	City	NA	CPU, Clark Regional Wastewater District, Vancouver
Sewage Treatment Facilities	County Discovery Cleanwater Alliance	City	City	City Clark Regional Wastewater District, Discovery Cleanwater Alliance	City	City	NA	County Discovery Cleanwater Alliance, Vancouver
INDIRECT								
Public Schools	Battle Ground S.D.	Camas S.D.	La Center S. D.	Ridgefield S.D.	Vancouver, Camas, Evergreen S.D.	Washougal, Camas S.D.	Battle Ground S.D.	NA
Fire Protection	City Fire Marshal City provides facilities; F.D. #3 provides personnel	City Camas-Washougal Fire Department	District 14 Clark County Fire and Rescue	District 12 and City Fire Marshal; Clark County Fire and Rescue	City	City Camas-Washougal Fire Department	F.D. #13	All non-municipal fire districts
Law Enforcement	City	City	City	City	City	City	Sheriff's Department	Sheriff's Department
Solid Waste	Private Hauler	City	Private Hauler	Private Hauler	Private Hauler	Private Hauler	Private Hauler	Private Hauler
Libraries	FVRLS	City	FVRLS	FVRLS	FVRLS	FVRLS	FVRLS	FVRLS
Government Buildings	City	City	City	City	City	City	City	County
Electricity	CPU	CPU	CPU	CPU	CPU	CPU	CPU	CPU
Natural Gas	NW Natural Gas	NW Natural Gas	NW Natural Gas	NW Natural Gas	NW Natural Gas	NW Natural Gas	NA	NW Natural Gas

FVRLS--Fort Vancouver Regional Library System, NA--Not Applicable, CPU--Clark Public Utilities

Table 6.2 | Summary of Estimated 6-Year Capital Facilities Expenditures in Clark County

Service or Utility	Major Capital Projects	Estimated Cost	Funding Sources
Transportation	2016-2021 Transportation Improvement Program	\$163,818,000	<ul style="list-style-type: none"> County Road Fund Traffic Impact Fees Federal and State Grants
Water	Well source, storage and distribution	\$50,090,000	<ul style="list-style-type: none"> Systems charges Contributed capital
Sewer Collection and Treatment	Treatment plant and interceptor system expansions	\$59,987,700 64,840,700	<ul style="list-style-type: none"> Rates and charges Revenue bond sale
Stormwater Drainage	Develop regional drainage facilities, complete drainage basin studies, Stormwater treatment retrofit and repair	\$9,603,000	<ul style="list-style-type: none"> Future Drainage Utility (or similar mechanism) and systems development charges Existing drainage fund
Schools	New Facilities and expansions of existing facilities	\$585,479,377	<ul style="list-style-type: none"> Impact Fees Voter Approved Bonds State Matching Funds
Fire Protection	Land acquisition, construction, remodel of stations and purchase of vehicles	\$37,420,000	<ul style="list-style-type: none"> Bonds Dedicated tax revenue
Law Enforcement/ Corrections	Expansion of detention facilities, construction of new administrative bldg.	\$98,200,000 to \$108,200,000	<ul style="list-style-type: none"> General Obligation Bonds REET Grants
Solid Waste and Recycling	Land acquisition and construction of new compost facility. Central, Transfer Station Site Improvements	\$4,000,000	<ul style="list-style-type: none"> User fees State grants
Libraries	Two new libraries in Washougal and Ridgefield	\$9,000,000	<ul style="list-style-type: none"> Capital reserves Capital bonds Private donations
Parks and Recreational Facilities	Acquisitions, park development, improvements and repairs	\$110,639,231	<ul style="list-style-type: none"> County General Fund Impacts Fees REET Bonds
Government Buildings	Completed administrative space and expanded facilities including 78 th Street/WSU Extension Service property	\$167,000,000	<ul style="list-style-type: none"> Bonds financed through REET

Note 1: Schools, Fire Protection and Libraries costs pertain to the entire county, incorporated and unincorporated areas. Other services pertain only to the unincorporated areas.

Note 2: Electricity and natural gas are not included in the Table as users are assessed direct fees for service.

Transportation

The capital facilities plan for transportation, including a projection of six-year needs and policies regarding concurrency requirements for the county are included in Chapter 5, Transportation. Transportation services include provisions for roads and associated improvements, transit and pedestrian and bicycle systems.

Water

Water service is an essential element of all types of land uses. Water supply development must consider the needs of threatened and endangered species. The majority of water users in the county are served by public water suppliers. The county does not own or operate public water systems. In the urban areas of Clark County, public water is provided by the cities of Battle Ground, Camas, Ridgefield, Vancouver,

Washougal and Clark Public Utilities (CPU), a publicly owned utility which serves unincorporated areas of the county and the City of La Center's and Town of Yacolt water systems.

Extensive water service in the central portion of the county, in portions of the unincorporated Vancouver Urban Growth Area, is provided by CPU. In some of the more remote rural areas of the county where water service is not readily available, CPU manages "satellite water systems" which serve small developments and clusters of homes. The Clark County Coordinated Water System Plan, was last updated in 2011, defined service boundaries and established policies for the provision of water service in the county. For further information on water provisions for the individual water purveyors, refer to their respective Water System Plan.

The water providers' systems consist of three basic components: source, storage and distribution/transmission. The source for virtually all water in Clark County, public or private, is from groundwater aquifers. Although adequate water supplies for individual domestic or small consumption commercial wells can be found in most parts of the county, aquifers capable of yielding large amounts of water for extended periods of time, without environmental impacts, are less common. Identifying and developing adequate water supply to meet future demand is essential in order to ensure the continued growth and economic viability of Clark County. County officials in Clark, Skamania, and Cowlitz counties adopted the Salmon-Washougal & Lewis Watershed Management Plan Water Resource Inventory Areas (WRIAs) 27-28, in July, 2006. The plan recognizes that new groundwater supplies should be developed in the tidally influenced areas of the Columbia River, near large sources, where the tidally influenced rivers and groundwater discharging to the Columbia River have a negligible effect on upper basin river and stream flows. Individual water providers are required under the federal Safe Drinking Water Act to monitor the water quality of their production wells, subject to the review of the State Department of Health.

Although the physical water carrying capacity is determined by the capital facilities constructed for each water system, the source of supply of an individual purveyor is determined by the allocation of water rights issued by the Washington State Department of Ecology. A groundwater permit exemption allows groundwater withdrawal for a single home or group of homes, such as a small subdivision, limited to 5,000 gallons per day and watering a lawn or garden up to ½ acre in size. Water rights are prioritized by seniority, which includes exempt wells for the amount of water that is beneficially used. The Department of Ecology must find that no previously established water rights will be impaired by a proposed junior withdrawal.

Clark Public Utilities, the principal purveyor within the unincorporated area, obtains water from 66 production wells throughout the county, including satellite water systems, with a pumping capacity of approximately 20,800 gallons per minute. To ensure readily available water supplies, CPU also maintains 37 reservoirs comprising a total storage capacity of 20.4 million gallons. CPU currently has 8 emergency interconnections or interties: 3 with the City of Battle Ground, 3 with the City of Ridgefield and 2 with the City of Vancouver. Clark Public Utilities projected future needs and funding sources are summarized in Table 6.3.

Table 6.3 | Summary of Clark Public Utilities

Projects	Estimated Cost	Reason for Need	Funding Source
Project Type : 21 - General Plan	\$670,000	Concurrency items; needed to maintain adequate water service	System charges, rates and bonds
Project Type : 53 - Reservoirs & Boosters	7,970,000	Concurrency items; needed to maintain adequate water service	System charges, rates and bonds
Project Type : 54 - Main /Upgrades	29,500,000	Concurrency items; needed to maintain adequate water service	System charges, rates and bonds
Project Type : 56 - Source of Supply	9,200,000	Concurrency items; needed to maintain adequate water service	System charges, rates and bonds
Project Type: 58 –Meters/Meter Installation	2,750,000	Concurrency items; needed to maintain adequate water service	System charges, rates and bonds
Total	\$50,090,000		

Source: Clark Public Utilities Capital Facilities Plan (2016-2021)

Clark Public Utilities is funded by user fees and system development charges. CPU uses bonds, rates and system development charges to fund their capital facilities plan. Contributed capital consists of developer driven improvements that connect to the water system. Total costs through 2021 are estimated at \$50,090,000. The CPU Plan contains the necessary requirements of RCW 36.70A.070 (3), including inventories, forecasts and analyses of future plans and financing mechanisms. Clark County incorporates the CPU Water System Plan into the County’s Capital Facilities Plan. Future changes made to the CPU Plan should be reviewed for consistency with county plans on an annual basis.

Clark Public Utilities has reviewed the adopted county land use designations and the adopted countywide population target of 577,431 and has determined that the CPU Water System Plan is fully consistent with the land use provisions and the additional service demands which they entail, subject to the timely issuance of approvals and permits by Clark County.

Water is also supplied to individual homes through the use of private wells. The number of private wells in the county has been estimated at 17,000 to 25,000. Use of private wells is subject to the review and approval of Clark County Public Health. Private wells continue to be the primary water source in the rural area, but should be aggressively phased out within the urban area as public water becomes fully available. (Readers interested in water service provisions for individual cities within Clark County should refer to each water provider’s Water System Plans and each city’s 20-Year Capital Facility Plans.)

The collective water provisions of the individual city and outside agency capital facilities plans are consistent with the Land Use Element of the 20-Year Plan. Outside of urban growth areas, there is limited public water provision and future expansions are generally discouraged by policies of the Land Use and Capital Facilities Elements of the 20-Year Plan. Rural water provision is provided by Clark Public Utilities, or by individual or group private wells, subject to the review of Clark County Public Health.

Within unincorporated Urban Growth Areas other than Vancouver UGA, the 20-Year Plan Map has designated very little land for short term urban density development which would require public water service. These UGA lands are affixed with an "Urban Holding" overlay designation, which explicitly precludes urbanization until a site-specific demonstration of service ability is made. Provision for lands within corporate limits is addressed in the city comprehensive plans.

Within the Vancouver UGA there is a substantial amount of land under county jurisdiction which is designated for near term urban development without the Urban Holding Overlay. Clark Public Utilities is the water purveyor for a large portion of the Vancouver UGA north of the Burlington Northern Rail Road tracks. See the water service area map in the 2011 Clark County Coordinated Water System Plan Update for specific service areas. The City of Vancouver formally adopted a Capital Facilities Plan in 2014 specifying how their water service area would be served. The City Department of Public Works reviewed the proposed county land use designations and the 2035 countywide population projection of 577,431 and concluded that projected population in the Vancouver service area can be served by the central facilities listed within the city's adopted Capital Facilities Plan. Additional line extensions needed to serve the higher population would be financed by development proposals.

Sanitary Sewer/Treatment Plant

Clark County no longer provides wastewater collection, having transferred operation of its collection system to the Clark Regional Wastewater District (formally Hazel Dell Sewer District) in 1993 and treatment system to the Discovery Clean Water Alliance (Alliance) in 2015. Sanitary sewer services in Clark County are provided by the Cities of Vancouver, Washougal, Camas, Battle Ground and La Center, as well as Clark Regional Wastewater District (District). In general, the city sewer districts tend to be slightly larger than current city boundaries and Vancouver, Washougal, Camas and La Center have their own sewage treatment facilities. For further information on sewer provisions for the individual cities, refer to the respective city's comprehensive plans.

Within the county's unincorporated urban area, sanitary sewer service is provided by the City of Vancouver and the Clark Regional Wastewater District. The Vancouver service area encompasses over 55 square miles, extending well beyond city limits to Vancouver Lake to the west, 202nd Avenue to the east and NE 99th Street to the north. The Vancouver system includes two treatment plants and an industrial pretreatment lagoon.

The Clark Regional Wastewater District encompasses more than 47 square miles and serves a population of approximately 100,000 within the unincorporated urban area north and northeast of Vancouver, portions of the Orchards area and Hockinson and Meadow Glade and the City of Ridgefield. Effective January 1, 2014 the City of Ridgefield transferred ownership of their collection system to the District. The District completed construction of phase one of the Discovery Corridor Wastewater Transmission System (DCWTS) in 2016. DCWTS provides a way for wastewater generated in Ridgefield to be conveyed south into the District's central service area for treatment at the Salmon Creek Wastewater Treatment Plant. The District's service area within the unincorporated Vancouver Urban growth area is estimated to be developed at 60 percent of full coverage based on 2016 population.

Projected needs and funding sources for the Clark Regional Wastewater District are included in the District's Comprehensive General Sewer Plan (GSP), ~~December 2017 . March 2001 (with amendments in June 2006 and March 2013)~~ which incorporates the City of Ridgefield General Sewer Plan, March 2013. These plans have the necessary contents required by RCW 36.70A.070 (3), including inventories, forecasts and analyses of future plans and financing mechanisms. The District has reviewed the proposed county land use designations and determined that the plans are fully consistent with these provisions and the additional service demands which they entail. ~~The District is currently in the process of updating these plans. This update will be reviewed for consistency with the County's Comprehensive Plan.~~ Annually the District updates and adopts a six-year capital improvement program. The current adopted six-year program for the period of ~~2016-2021~~ 2017-2022, consistent with the GSP, is

summarized in Table 6.4 below. The program presents figures for both capital projects, new infrastructure and capacity, and restoration and replacement (R&R) projects, which represents re-investment in existing infrastructure.

Table 6.4 | Clark Regional Wastewater District: 6-yr Capital Program Summary, 2016-2021-2017-2022

Projects	Estimated Cost	Reason for Need	Funding Source
General Facilities	\$18,089,100	New capacity	Rates and charges
District Installed Infrastructure	\$1,000,000	New capacity	Rates and charges
Septic Elimination Program	\$750,000	New capacity	Rates and charges
Developer Reimbursement	\$9,460,000	New capacity	Rates and charges
CIP – Fleet & Facilities	\$220,000	New capacity	Rates and charges
R&R – Gravity	\$5,366,500	Aging infrastructure	Rates and charges
R&R – Pump Stations & Force Mains	\$2,440,100	Aging infrastructure	Rates and charges
R&R – Fleet & Facilities	\$1,922,000	Aging infrastructure	Rates and charges
Total	\$39,247,700		

	(MILLIONS OF \$)		
	R&R PROJECTS	CAPITAL PROJECTS	GRAND TOTAL
6-YEAR CIP (2017-2022)	10.34	36.76	47.10
<i>Salmon Creek Service Area</i>	8.19	36.13	44.32
Vancouver UGA	7.73	22.08	29.81
Ridgefield UGA	0.46	14.05	14.51
<i>Westside Service Area (WVUGA)</i>	2.15	0.63	2.78
Reason for Need	Aging infrastructure	New capacity	
Funding Source	Rates and charges	Rates and charges	

Source: Clark Regional Wastewater District Approved Budget GSP.

Note: R&R Service area in the Table above stands for Restoration and Replacement refers to the treatment plan.