17 – Summary of Plan

This chapter summarizes the planned actions described in Chapters 12–16. These include new or revised policies, programs and capital projects for gravity sewers, STEP systems, onsite systems, alternative technologies and planning and program implementation. Financial implications of these actions are presented in Chapter 18.

A modest increase in staff resources will be needed to implement the Plan. In 2007, overall Utility staffing will remain the same. In 2008, staffing will increase by 1.5 FTE in Operations and Maintenance to handle small repair projects. Current budgeted and planned staff resources are shown in Table 17.1.

Table 17.1. Staffing*

Core Service	2006	2007	2008
Policy, Planning, Program Management	0.75	0.9	0.9
Capital Facilities Management	0.5	0.5	0.5
Operation & Maintenance	8.83	8.58	10.08
Development Review, Technical Assistance & Code Enforcement	0.5	0.5	0.5
Monitoring, Research and Evaluation	0.5	0.5	0.5
Public Involvement & Education	0.0	0.1	0.1
Total	11.08	11.08	12.58
Total Increase		0	+1.5

* Number of full-time equivalent employees (FTEs).

Following are three tables summarizing the three types of planned actions: policies (Table 17.2), strategies and programs (Table 17.3) and capital projects (Table 17.4).

Table 17.2. New or Revised Policies

	Current Policy	New/Revised Policy	Goal/Strategy
OLYMPIA COMPREHENSIVE PLAN POLICIES			
PF 9.3	All future ~~growth shall:~~ ~~a. Be developed on sewers, including Septic Tank Effluent Pump (STEP), or~~	All future development shall be connected to the gravity sewer system with the following exceptions:	Goal 1-Gravity Strategies 3, 4
		a. New Septic Tank Effluent Pump (STEP) systems will be permitted only in subdivisions vested as of July 2005, and individual lots in neighborhoods currently served by STEP systems.	Goal 2-STEP Strategy 1
PF 9.3	~~b. Have systems designed to be efficiently converted to future sewer use (such systems might include group septic systems, dual plumbing with dry-line sewers, or the like), or….~~	b. New individual onsite sewage systems will be permitted in the City limits only for individual single family residences on existing lots larger than one acre. New community onsite sewage systems will not be permitted within the City limits. Refer to "Requirements for Grinder Pump Systems" in Chapter 14. In the Urban Growth Area, individual OSS may be permitted, provided that soil conditions will support their use, and that they are designed for eventual connection to gravity sewers.	Goal 3-OSS Strategies 2, 4
PF 9.3	~~c. Use managed individual on-site septic systems and community systems at low densities, provided that soil conditions will support their use until sewers are available.~~	Delete	
9.10	~~Community on-site sewage systems (COSS) will be permitted if all of the following conditions are met:~~	Delete	
9.10 New 9.3	Community onsite sewage systems (COSS) ~~will~~ may be permitted in the UGA under the following conditions ~~(Resolution 11866, 12/21/98):~~	c. New community onsite sewage systems may be permitted in the UGA under the following conditions:	Goal 3-OSS Strategy 4
	a. Topography or other physical constrains preclude connection to municipal sewer.	(1) Topography or other physical constrains preclude connection to municipal sewer.	
	b. COSS users agree to pay the City a monthly maintenance fee.	(2) COSS users agree to pay the City a monthly maintenance fee.	

	c. COSS users agree to connect to the municipal sewer and properly abandon the COSS within one year of sewer becoming available. COSS users agree to pay up-front all expenses for sewer connection, including the general facilities charge, the reserve capacity charge and a latecomer fee, if applicable.	(3) Systems are designed for eventual connection to gravity sewers. COSS users agree to connect to the municipal sewer and properly abandon the COSS within one year of sewer becoming available. COSS users agree to pay up-front all expenses for sewer connection, including the general facilities charge, the reserve capacity charge and a latecomer fee, if applicable.	
	~~d. The cost of extending the City collection system exceeds the cost of COSS installation and lifecycle costs by 50%, based on an engineering cost index comparison as approved by the City.~~	Delete	
	e. System design is approved by the City Engineer. ~~(Ord. #5757, 12/16/97)~~	(4) System design is approved by the City Engineer.	
PF 9.5	Existing development within the sewer service area served by onsite systems should be required to use public sewers in the event of irreparable system failure or determination of water quality degradation. Where sewer collectors are not yet available, property owners will be required to repair onsite systems to City and Health Department standards. Availability and timing of sewer extension should be considered when choosing an acceptable design to achieve environmental standards and minimize duplication of capital investment. ~~(Ordinance #5757, 12/16/97)~~	*Work with Thurston County to resolve inconsistencies in City/County policies*	Goal 3-OSS Strategy 1
NEW		If a proposed building remodel or expansion would affect onsite system operation (i.e. exceeding the treatment capacity of the system), require connection to the gravity sewer as a permit condition if a public sewer is within 300 feet.	Goal 3-OSS Strategy 1
PF 9.6	~~Design and construction flexibility should be employed to allow service for isolated unsewered areas, while maintaining appropriate technical standards and sufficient control for the ease of long-term maintenance of the system.~~	Delete	
PF 9.8	Periodic inspections and pumping of ~~septic~~ onsite sewage systems ~~should~~ shall be required.	Periodic inspections and pumping of onsite sewage systems shall be required in conjunction with Thurston County's onsite system maintenance program.	Goal 3-OSS Strategy 1

PF 9.9	The owners of onsite sewage systems shall be encouraged to register with the Thurston County Operational Certificate Program so system function and maintenance can be monitored ~~and so onsite~~ sewage ~~septic systems may be connected to public sewer service when necessary. (Ord. #5861, 12/15/98; Resolution 11866, 12/21/98)~~	Owners of onsite sewage systems shall be encouraged to register with the Thurston County Operational Certificate Program so system function and maintenance can be monitored.	Goal 3-OSS Strategy 1
PF 11.5	Generally, new sewer line and pump station construction is to be privately financed by users of the facilities. When the City contributes to financing of new sewer collection facilities, future users of the new facilities will repay the City through general facilities charges, ~~or~~ latecomer fees or other cost recovery tools. ~~The City will participate in financing of new sewer facilities only under the following circumstances~~ *[paraphrased]:*	Generally, new sewer line and pump station construction is to be privately financed by users of the facilities. When the City contributes to financing of new sewer collection facilities, future users of the new facilities will repay the City through general facilities charges, or latecomer fees or other cost recovery tools. The City may participate in financing of new sewer facilities in circumstances such as:	Goal 5-Effectiveness Goal 6-Equity
	~~*a. [to oversize sewer extensions to accommodate future capacity . . .]*~~	a. to accommodate future planned service . . . by extending sewers or upgrading existing lines.	
	b. [in conjunction with street or other improvements…]	*b. [in conjunction with street or other improvements…]*	
	c. [to areas determined to be a present or potential threat to health or water quality at least partly because of OSS…]	*c. [to areas determined to be a present or potential threat to health or water quality at least partly because of OSS…]*	
	d. [exceptional circumstances…]	*d. [exceptional circumstances…]*	
PF 12.1	~~Phasing of interceptor construction and City sewage collection system capital facilities projects should address the following goals in order of priority:~~ ~~a. To protect ground and surface water.~~ ~~b. To meet sewer deficiencies of existing populations and businesses.~~ ~~c. To encourage infilling.~~ ~~d. To direct future growth. (Ord #5757, 12/16/97)~~	Delete. Priorities established in this Plan will be implemented annually with the capital facilities budget.	Goal 1-Gravity Strategies 3, 4
PF 13.4	~~Onsite sewage Septic system users within an aquifer protection district should help pay a share of the costs of extending sewer service and monitoring groundwater quality of the aquifer for aquifer protection to correct deficiencies. (Ord #5757, 12/16/97)~~	Delete. Not legally feasible.	

SEWERAGE GENERAL PLAN POLICIES (1990)			
p. IV-3	Unless replaced by a single management agency that operates in the urban area, each of the three cities (Olympia, Lacey and Tumwater) will own and operate interceptors and community onsite systems within their unincorporated urban service area.	Included here for reference	
p. IV-4	There should be joint city-county review and approval of the design and location of community onsite systems in individual development proposals to assure that the systems will meet standards of the city which will be operating and maintaining the community system.	*Revise to authorize cities to deny approval of a community onsite system. (Previously recommended in Olympia's 1997 Sewer Master Plan.)* *See 1994 Interlocal Agreement for implementation agreements.*	Goal 3-OSS Strategy 4
p. IV-6	New subdivisions or commercial and industrial development in [the] short-term [urban growth management] area may develop only on sewers or community systems. *[Except in areas planned for low density one acre or less and where individual onsite systems are determined to be an appropriate long solution.]*	Revise to restrict or discourage community onsite systems in the UGA.	
p. IV-6	Existing plats not yet developed should be encouraged to resubmit for replatting using community systems; for example by waiving platting fees.	Revise to restrict or discourage community onsite systems in the UGA.	
p. IV-6	Sewers and community systems are <u>generally not</u> to be provided in the long-term Urban Growth Management Area. Where they are provided, the cities would own them.	Included here for reference. Delete "long-term"	
p. IV-6	Preferred approach to subdividing within the long-term Urban Growth Management Area is to subdivide at densities and in configurations that allow re-dividing or later additional development at planned urban densities as the short-term boundary expands. The use of community systems <u>may</u> be part of this strategy.	Included here for reference Delete "long-term" and "short-term"	
p. IV-7	Similarly, the use of community onsite systems in the long-term growth area would only be envisioned where developments are allowed at densities lower than ultimate planned densities, but in configurations that allow later re-dividing or later additional development, meaning that the current development is clustered into smaller lots on one part of the property and a community system is used rather than individual onsite systems on each lot. The overall density on the whole parcel, however, would be lower than the land use plan will allow when the area becomes part of the short-term urban area.	Included here for reference Delete "long-term" and "short-term"	

Table 17.3a. Summary of Strategies

System Component	Strategy
GRAVITY SEWERS	Strategy 1. Repair or replace deteriorating infrastructure (pipes, pumps and pump stations).
	Strategy 2. Provide system capacity for current and anticipated flow demands.
	Strategy 3. Extend the gravity sewer system to allow conversion of onsite sewage systems and service to undeveloped infill lots in priority areas, within the City and eventually in the UGA.
	Strategy 4. Extend sewers to outlying areas with the help of increased City planning and funding.
	Strategy 5. Reduce infiltration and inflow (I&I) by separating combined wastewater/stormwater pipes in conjunction with stormwater, road improvements, and residential repairs.
STEP SYSTEMS	Strategy 1. Allow no new STEP systems except in vested subdivisions and individual lots in neighborhoods currently served by STEP systems.
	Strategy 2. Reduce maintenance cost by educating STEP system customers about proper use of their system and reducing the frequency of planned maintenance.
ONSITE SEWAGE SYSTEMS	Strategy 1. Manage individual and community on-site systems to ensure proper functioning and reduce the potential for failure.
	Strategy 2. Permit no new community onsite systems or large onsite systems (LOSS) within the City limits and permit no new individual onsite systems on lots smaller than one (1) acre within the City limits.
	Strategy 3. Offer financial incentives to encourage conversion of existing OSS where sewers are currently available or extended by the City.
	Strategy 4. Require all new plats in the UGA to connect to the public sewer. Allow individual and community on-site systems only on an interim basis until sewers are available.
	Strategy 5. Extend the gravity sewer system to allow conversion of onsite sewage systems and service to undeveloped infill lots in priority areas, within the City and eventually in the UGA.
ALTERNATIVE SYSTEMS	Strategy 1. Allow conditional use of alternative systems in the Olympia wastewater collection system.
PLANNING AND PROGRAM IMPLEMENTATION	Strategy 1. Organize and develop the Wastewater Program to reflect the City's comprehensive approach to water resources management by implementing seven core services.

Table 17.3b. Summary of Planned Programs

Core Service	Strategy	Program
PLANNING, POLICY AND PROGRAM MANAGEMENT		
	Planning & Implementation 1	Manage implementation of this Plan.
		Analyze existing policies and potential revisions, interpret regulations, and help implement necessary changes.
		Provide policy and technical resources to proactively manage emerging issues and needs.
		Establish supportive coordinating staff relationships with LOTT and neighboring jurisdictions.
		Evaluate the effectiveness of all programs and projects, and prepare the update for 2014-2020.
	OSS 1	Work with Thurston County to designate Olympia's wellhead protection areas as areas of special concern.
	OSS 3	Continue and expand the City's Sewer Connection Assistance Loan Program (SCALP) for low and moderate-income on-site system owners.
	OSS 3	Initiate a Sewer Connection Incentive Program, providing low-interest financing of connection costs for voluntary participants in selected neighborhoods.
	ALT 1	Develop performance objectives for alternative technologies. As a minimum this will include targets for environmental and public health protection, service outages and overall cost of service.
	ALT 1	Establish policies outlining the City's roles and responsibilities for alternative systems,
	ALT 1	Establish a structured process to evaluate alternative technologies.
	ALT 1	Develop organizational structure to support the program.
CAPITAL FACILITIES MANAGEMENT		
	Planning & Implementation 1	Manage capital facilities project planning, scoping, funding and tracking.
	Gravity 1	Evaluate pump station condition and criticality.
	Gravity 2	Refine likely long-term capacity needs through 2025 using computer flow simulation. Route flows for new public and private infrastructure to collector pipe systems with sufficient capacity as feasible.
	Gravity 2	Study the alternatives for conveyance from Southeast Olympia to the proposed LOTT Alliance Chambers Prairie satellite treatment plant.
	Gravity 3	Evaluate neighborhoods with a high concentration of onsite sewage systems and/or undeveloped infill lots to identify and prioritize potential sewer extensions
	Gravity 4	Play an active role in planning, designing and potentially constructing regional gravity sewer systems, with the expectation of full or partial cost recovery.
	Gravity 5	Pursue opportunities for I&I reduction during planning of street, stormwater and wastewater projects.
	OSS 1	Develop engineering and construction standards to ensure proper design and installation of a COSS.

OPERATION AND MAINTENANCE		
	Planning & Implementation 1	Develop and maintain condition assessment and life cycle costing processes.
		Implement Geographic Information System (GIS) technologies.
		Continue developing the maintenance management system.
		Implement systematic staff certification and training programs.
		Better manage equipment inventory.
		Complete risk assessment and implement emergency response plan.
	Gravity 1	Continue pipe televising, evaluation and condition rating.
	Gravity 1	Monitor STEP system discharges.
	Gravity 1	Track high maintenance systems.
	Gravity 1	Respond to emergencies.
	OSS 1	Continue maintaining community onsite systems; make sure adequate maintenance agreements are in place.
	STEP 1	Continue maintaining STEP systems. Schedule inspections bi-annually instead of annually, and continually evaluate procedures to reduce emergency calls and unnecessary service.
DEVELOPMENT REVIEW, TECHNICAL ASSISTANCE AND CODE ENFORCEMENT		
	Planning & Implementation 1	Review proposed new wastewater systems.
		Enforce illicit discharge regulations.
		Provide technical assistance to wastewater customers as needed. As
		GIS support.
	OSS 1	Begin an OSS inspection program in wellhead and other risk areas, coordinated with Thurston County, per new state law.
	OSS 1	Coordinate implementation of OSS inspection reporting with Thurston County.
	OSS 1	Provide technical assistance for property owners on proper OSS maintenance and options for conversion to gravity sewers.
	OSS 2	Develop a general maintenance program in accordance with the requirements of the Thurston County Environmental Health Department to effectively maintain existing COSS and any future systems.
	OSS 2	Make sure adequate maintenance agreements are in place.
	OSS 3	Provide technical assistance to Utility Local Improvement Districts (ULIDs) initiated by property owners.

MONITORING, RESEARCH & EVALUATION		
	Planning & Implementation 1	Provide resources for wastewater-related surface and ground water monitoring.
		Evaluate performance in meeting objectives in this Plan and recommend course corrections as needed.
		Develop and maintain information systems for onsite system management.
		Explore and evaluate new and innovative wastewater technology.
	OSS 1	Utilize Thurston County database on on-site system location, age, inspection records, failures, certifications and hookups, in order to provide better technical assistance and CFP planning.
	OSS 1	Coordinate groundwater monitoring in WHPAs and other high-risk areas with City's Groundwater Protection Program.
PUBLIC INVOLVEMENT & EDUCATION		
	Planning & Implementation 2	Support implementation of Plan priorities, particularly increased City management of onsite sewage system and incentives for conversion to public sewer.
		Keep customers informed about Wastewater Program activities, regulatory and rate changes.
		Coordinate with regional partners in planning and implementing wastewater educational activities as feasible.
		Inform and involve customers and other stakeholders in wastewater planning activities.
	Gravity 5	Increase educational efforts to reduce illegal connections and leaky laterals.
	STEP 1	Improve educational materials for STEP system customers and distribute periodically to customers and neighborhood associations.
	OSS 1	Mail annual maintenance reminders to all onsite system owners.
	OSS 1	Offer educational programs on required maintenance, registration and inspection of on-site systems.
	ALT 1	Develop a public education and owner training program for each acceptable alternative technology.

Table 17.4. Capital Projects, Timing and Estimated Cost

Project	Basin	Strategy[1]	Year	Est. Cost[2]
Lilly Road Pipe Replacement	Lilly Road	1, 4	2007	$3,600,000
Yelm Highway Sewer Extension	Southeast	4	2007	$3,075,000
East Bay Drive Pump Station Replacement	Northeast	1	2007	$721,000
West Bay Sewer Upgrade	West Bay	2	2007	$452,000
Percival Street Pipe Replacement	West Bay	1	2007	$450,000
Decatur St. Sewer Extension	West Olympia	4	2007	$200,000
Motel 8 Pump Station Generator Replacement	Lilly Road	1	2007	$79,000
Division & Jackson Pump Station Replacement	West Bay	1, 2	2007	$76,000
18th Avenue Sewer Extension	Southeast	3	2008	$1,422,000
Black Lake Pump Station Replacement	West Olympia	2	2008	$646,000
Spot Repairs	Citywide	1	2008	$280,000
South Bay Road Extension	South Bay	4	2009	$2,840,000
West Bay Pump Station Replacement	West Bay	2	2009	$1,763,000
Division and Farwell Pump Station Upgrade	West Bay	2	2009	$28,000
Miller & Ann Pump Station Upgrade	Northeast	2	2011	$48,000
Water Street Pump Station Bar Screens	Downtown	2	2012	$688,000
Old Port 2 Pump Station Replacement	West Bay	2	2012	$645,000
Kempton Downs Pump Station Upgrade	Southeast	2	2012	$50,000
Ken Lake Pump Station Building	West Olympia	1	2013	$103,000
Indian Creek Interceptor (LOTT-funded)	Southeast	2	2015	$532,000
Woodcrest Pump Station Upgrade	Southeast	1	2015	$100,000
Miller & Central Pump Station Replacement	Northeast	2	2020	$729,900
Rossmoor Pump Station Replacement	Southeast	2	2020	$436,000
Annual Repair Allocation	Citywide	2	Annual	$425,000
Onsite System Conversions	Citywide	3	Annual	$300,000
Street Project Upgrades	Citywide	1	Annual	$65,000
Sewer Pipe Condition Rating	Citywide	1	Annual	$53,300
Flow Measurement and Analysis	Downtown	2	Annual	$50,000
Sewer Master Planning		4	Annual	$50,000
Sewer Infrastructure Predesign and Planning		4	Annual	$30,000

1. Strategy 1 (replace deteriorating infrastructure), 2 (upgrade capacity), 3 (extend sewers to replace onsite sewage systems and infill), 4 (extend sewer to serve developing areas), 5 (I&I reduction).

2. Costs include construction costs plus 42% allied costs, and are indexed based upon a 3% annual rate of inflation.