

## SECTION 9 CAPITAL FACILITIES PLAN

### 9.1 INTRODUCTION

This Section of the Plan provides an overall Capital Facilities Plan (CFP) for the City of Sedro-Woolley's sanitary sewer system, which outlines the recommendations detailed in previous sections of the Plan. The CFP is presented in Table 9-1 and provides a summary of recommended projects, and identifies estimated costs of each project, recommended scheduling and financing for each. A summary of the proposed financing is provided in Table 9-2. Detailed information on specific projects was presented in Sections 6 and 8 and additional information on financing options is presented in Section 10.

### 9.2 PROJECT RECOMMENDATIONS

The projects recommended in Table 9-1 are the result and summary of the analysis and recommendations detailed in Sections 6 (Collection System Analysis and Recommendations) and Section 9 (Treatment Plant Analysis and Recommendations). Each project, or project area, is shown on the Sewer System Plan Map provided at the back of this document.

Although the recommended projects are as concise as possible, they are presented at a "planning level" of detail and are in no way meant to replace analysis and engineering required at the time of project implementation. In some cases, the magnitude of projects required can not be identified without such additional analysis and monitoring. This is especially true in the case of rehabilitation projects, where video inspection of pipelines is required to determine the extent and priority of the projects. In these instances, a worst-case scenario was assumed to provide the City with more conservative budgeting information.

### 9.3 COST ESTIMATES

Project cost estimates are based on the current, local, June 2004 Engineering News Record (ENR) Construction Cost Index of 7562.48. Estimated recommended improvement costs include: construction costs, tax, overhead costs, project design engineering and surveying, legal and administrative services (25%) and a contingency factor (varied between 25% and 40% depending on project size and estimated scope).

The cost estimates outlined herein are based on industry standards, engineering experience and documented costs of similar recent construction work. Other factors affecting cost estimates include the complexity of the project and the known and unknown constraints which may be associated with the construction. The projects outlined have been identified in conceptual terms and it is important to note that further analysis and actual design of the improvements could significantly change the cost of the project from the given estimate. Prior to

the initiation of the projects outlined in the CFP, specific design criteria should be reviewed and the cost estimates should be updated to reflect current conditions.

#### 9.4 PROJECT SCHEDULING

Recommended project scheduling has been developed for the projects included in the Capital Facilities Plan. The projects have been prioritized according to the needs determined by a combination of engineering analysis performed in this planning process, the City's existing Capital Facilities Plan and information provided by City staff. Although a detailed six-year improvement schedule has been developed, scheduled projects identified beyond 2006 are more generally defined.

It is recommended that this CFP be reviewed annually to confirm the actual construction program for the year as well as any transportation improvement projects scheduled by the City or the State Department of Transportation. Project priorities should be modified as required to accommodate more current information, key community issues and available funding. As mentioned previously in this Section, the magnitude of several of the rehabilitation projects identified in the CFP will be determined from additional monitoring and analysis. Although this Plan is required to be updated every six years, it is important that the City staff review project priorities as additional studies and analyses are performed and that the CFP is adjusted accordingly.

**TABLE 9-1  
 CITY OF SEDRO-WOOLLEY  
 SANITARY SEWER SYSTEM CAPITAL FACILITIES PLAN**

Proj. No.	Six-Year Capital Improvement Program Schedule	Cost to City (\$2004)	Escalated Project Costs						Escalated Total 2005-2010	Recommended Funding
			2005	2006	2007	2008	2009	2010		
6-1	Metcalf Street Sewer Replacement Phase 1 (P1)	500,000	500,000	-	-	-	-	-	500,000	2005 Budget
6-2	Metcalf Street Sewer Replacement Phase 2: Northern to State (P2)	600,000	-	648,960	-	-	-	-	648,960	Bond/PWTF
6-3 & 6-4	West Jones Pump Station (PS1) and Garden of Eden Gravity Sewer & Forcemain (P3)	1,720,000	1,720,000	-	-	-	-	-	1,720,000	Bond/PWTF/ 2005 Budget
6-5	State Route 20 - Phase 1 (P4)	complete	-	-	-	-	-	-	-	Complete
6-6 & 6-12	State Route 20 - Phase 2 (P5) and Holtcamp Road Pump Station & Forcemain (PS2)	1,350,000	445,750	958,250	-	-	-	-	1,404,000	PWTF/Rates/Reserves/ Connect. Charges/ Skagit Co. Grant
6-7 & 6-11	State Route 20 - Phase 3 (P6) and Sterling Road Pump Station & Forcemain (PS2)	2,275,000	-	2,460,640	-	-	-	-	2,460,640	Bond/PWTF
6-8	West Nelson Street Sewer Extension (P7)	479,750	-	-	-	561,240	-	-	561,240	PWTF/Rates/Reserves/ Connect. Charges
6-9	Northern State Multi-Service Center I&I Study (M1)	25,000	25,000	-	-	-	-	-	25,000	2005 Budget
6-10	Northern State Multi-Service Center I&I Replacement/ Rehabilitation(M2)	500,000	-	-	-	584,929	-	-	584,929	City Share = PWTF/Rates/Reserves/ Connect. Charges + \$1,500,000 from others
6-11	See 6-7	-	-	-	-	-	-	-	-	
6-12	See 6-6	-	-	-	-	-	-	-	-	
6-13	Township Street to Treatment Plant Sewer Main Replacement (P10)	982,500	-	1,062,672	-	-	-	-	1,062,672	Bonds/PWTF
6-14	Township Street Sewer Main Replacement - Phase 1 (P11)	950,000	-	1,027,520	-	-	-	-	1,027,520	Bonds/PWTF
6-15	Township Street Sewer Main Replacement - Phase 2 (P12)	700,000	-	757,120	-	-	-	-	757,120	Bonds/PWTF
6-16	Township Street Sewer Main Replacement - Phase 3 (P13)	1,113,000	-	1,203,821	-	-	-	-	1,203,821	Bonds/PWTF

CITY OF SEDRO-WOOLLEY  
 COMPREHENSIVE SEWER SYSTEM PLAN

Proj. No.	Six-Year Capital Improvement Program Schedule	Cost to City (\$2004)	Escalated Project Costs						Escalated Total 2005-2010	Recommended Funding
			2005	2006	2007	2008	2009	2010		
6-17	Sapp Road Extension (P14)	775,000	-	-	-	906,640	-	-	906,640	PWTF/Rates/Reserves/Connect. Charges
6-18	McGarigle Road Sewer Main Replacement (P15)	1,296,000	-	1,401,754	-	-	-	-	1,401,754	Bonds/PWTF
6-19	North of Fidalgo Alley Rehabilitation/Replacement (S1)	145,800	-	-	-	170,565	-	-	170,565	PWTF/Rates/Reserves/Connect. Charges
6-20	South of Talcott Street Alley Rehabilitation/Replacement (S2)	235,500	-	-	-	-	-	297,983	297,983	PWTF/Rates/Reserves/Connect. Charges
6-21	North of Warner Street Alley Rehabilitation/Replacement (S3)	315,900	-	-	-	-	-	-	-	PWTF/Rates/Reserves/Connect. Charges
6-22	Ball Street Rehabilitation/Replacement (S4)	486,000	-	-	-	-	-	-	-	PWTF/Rates/Reserves/Connect. Charges
6-23	North of Warner Street & East of Township Street Rehabilitation/Replacement (S5)	210,600	-	-	-	-	-	-	-	PWTF/Rates/Reserves/Connect. Charges
6-24	Waldron Street West of Township Street Rehabilitation/Replacement (S6)	153,900	-	-	-	-	-	-	-	PWTF/Rates/Reserves/Connect. Charges
6-25	Borseth Street North of Washington Street Rehabilitation/Replacement (S7)	129,600	-	-	-	-	-	-	-	PWTF/Rates/Reserves/Connect. Charges
6-26	North of Pacific Street & West of Eastern Street. Alley Rehabilitation/Replacement (S8)	81,000	-	-	-	-	-	-	-	PWTF/Rates/Reserves/Connect. Charges
6-27	Ball Street South of Chester Avenue Rehabilitation/ Replacement (S9)	48,600	-	-	-	-	-	-	-	PWTF/Rates/Reserves/Connect. Charges
6-28	North Skagit Tribe Extension from NE Area of UGA (S10)	-	-	-	-	-	-	-	-	\$4,750,000 (2004\$) To be paid by Tribe
6-29	Minkler-Fruitdale to Hoehn Road Forcemain & Minkler Pump Station (P9)	700,000	-	-	-	-	-	-	-	PWTF/ Connect. Charges
6-30	Comprehensive Sewer Plan Update (M2)	150,000	-	-	-	-	-	189,798	189,798	PWTF/Rates/Reserves/Connect. Charges

CITY OF SEDRO-WOOLLEY  
 COMPREHENSIVE SEWER SYSTEM PLAN

Proj. No.	Six-Year Capital Improvement Program Schedule	Cost to City (\$2004)	Escalated Project Costs						Escalated Total 2005-2010	Recommended Funding
			2005	2006	2007	2008	2009	2010		
6-A	SR-20 Sewer Main Analysis Study	45,000	-	-	50,619	-	-	-	50,619	Rates/Reserves/ Connection Charges
6-B	Annual Pump Station Rehabilitation	30,000	-	-	-	11,699	12,167	12,653	36,518	Rates/Reserves/ Connection Charges
6-C	Annual Renewal & Replacement		Included as separate projects for 2005-2010							Connection Charges
6-D	Annual Repair Existing Sewer System - Emergency	450,000	50,000	54,080	84,365	87,739	121,665	126,532	524,381	Rates/Reserves/ Connection Charges
6-E	Annual I&I Reduction Program	30,000	-	-	-	11,699	12,167	12,653	36,518	Rates/Reserves/ Connection Charges
6-F	Develop Grease Program	10,000	-	-	-	11,699	-	-	11,699	Rates/Reserves/ Connection Charges
6-G	Telemetry Upgrade - Existing Pump Station (Fiber Optic)	120,000	-	-	-	46,794	48,666	50,613	146,073	Rates/Reserves/ Connection Charges
8-5	Clarifier Number 1 Repair	240,000	-	-	269,967	-	-	-	269,967	Rates/Reserves/ Connection Charges
Project Costs 2005-2010		14,722,550							15,998,418	
Project Costs 2011 +		2,125,600								
<b>Total Project Costs</b>		<b>16,848,150</b>								

**OTHER CAPITAL REQUIREMENTS (O&M RELATED)**

8-1	Move Sodium Hypochlorite Injection	9,000							9,000	Rates/Annual Budget
8-2	Sump Pumps	15,600							15,600	Rates/Annual Budget
8-3	Plant Water Pumps	13,200							13,200	Rates/Annual Budget
8-4	Clarifier Hydraulic Issue	42,000							42,000	Rates/Annual Budget
8-6	Digester Overflow	15,930							15,930	Rates/Annual Budget
8-7	Flood Protection (Initial Planning, no capital cost)	12,000							12,000	Rates/Annual Budget
8-8	Influent Pump VFD's	60,000							60,000	Rates/Annual Budget
8-9	Anoxic Tank Repairs	55,200							55,200	Rates/Annual Budget
8-10	Sludge Dryer	90,000							90,000	Rates/Annual Budget
8-11	Clarifier #2 Scum Issue (Planning, no capital cost)	6,000							6,000	Rates/Annual Budget
8-12	Reuse (Planning, no capital cost)	30,000							30,000	Rates/Annual Budget

Budget incl. 331,000 toward project 6-2. Difference between budget and above est. for W Nelson & Garden of Eden is \$511,740.

**TABLE 9-2  
 CITY OF SEDRO-WOOLLEY  
 CAPITAL FACILITIES PLAN FUNDING SOURCE SUMMARY**

<b>Funding Sources for CFP</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>TOTAL</b>
Budget 2005/Carryover Budget 2004 *	2,071,000						2,071,000
Grant from Skagit County	445,750						445,750
New Revenue Bond, 2005							
New Loans (Assume PWTF)		9,500,000	-	2,000,000	-	268,000	11,768,000
Rates	50,000	54,080	134,984	169,629	194,664	202,451	805,809
Reserves / Connection Charges	174,000	20,736	269,967	223,375		219,780	907,859
<b>Total</b>	<b>2,740,750</b>	<b>9,574,816</b>	<b>404,951</b>	<b>2,393,004</b>	<b>194,664</b>	<b>690,232</b>	<b>15,998,418</b>

*\* \$331,000 toward project 6-1, project 6-3 and project 6-4 are in one budget with \$1,000,000 in 2005;  
 Project 6-9 include \$20,000 in 2005; Add \$1,362,750 carryover from budget 2004.*

**Anticipated New PWTF Loan Repayment at 1.0% Interest**

	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
2006 Loan	-	85,500	595,000	590,000	585,000	580,000
2008 Loan	-	-	-	18,000	125,263	124,211
2010 Loan	-	-	-	-	-	2,412
<b>Total</b>	<b>-</b>	<b>85,500</b>	<b>595,000</b>	<b>608,000</b>	<b>710,263</b>	<b>706,623</b>