Section 9 - Financial Analysis and Rate Study

This section summarizes the recommendations for the Capital Improvement Plan (CIP). For a more detailed description of the alternatives, refer to Section 7 (Development and Evaluation of Alternatives).

9.1. Capital Improvement Plan

9.1.1. 20-Year Capital Improvement Plan

Table 9-1 presents the 20 year capital improvement plan (CIP). Projects are organized by priority. The need for each improvement varies for reasons including compliance with the City's existing and anticipated discharge permits, achieving capacity necessary to accommodate growth, improving operations, and replacing worn/old equipment. Priority 1 improvements are expected to be required from 2013 to 2019, Priority 2 from 2019 to 2022, and Priority 3 from 2022 to 2032. However, flexibility in the schedule for completion of improvements may be warranted. For example, the City should consider accelerating pipeline projects if they can be coordinated with roadway improvements. Similarly, changes in flows and efforts to reduce infiltration and inflow may allow for some improvements to be postponed.

TABLE 9-1: 20-Year Capital Improvement Plan

ID#	Item	Primary Purpose	Total Estimated Cost	SDC Growth Apportionment		City's Estimated Portion
				%	Cost	
Priority 1 Improvements (0-6 years)						
Wastewater Collection System						
1A1	Main Lift Station Upgrades	Capacity	$ 797,000	7%	$ 56,000	$ 741,000
1A2	Main Lift Station Force Main Upgrades	Capacity	$ 714,000	14%	$ 100,000	$ 614,000
1B.1	Yamhill Street & E. Main Street 24" Trunkline	Capacity	$ 1,892,000	39%	$ 738,000	$ 1,154,000
1B.2	W. Main Street & Yamhill Street 15" Pipeline	Capacity	$ 591,000	44%	$ 260,000	$ 331,000
1B.3	West Main Lift Station Upgrades	Capacity	$ 176,000	26%	$ 46,000	$ 130,000
1C.1	Bridge Street & Jefferson Street Flow Split Manhole	Capacity	$ 98,000	0%	$ -	$ 98,000
Wastewater Treatment						
1	Pilot Study of Filters	Various	$ 15,000	42%	$ 6,000	$ 9,000
2	Yard Piping and Sitework	Various	$ 339,000	28%	$ 95,000	$ 244,000
3	FCI Pump Station	Operations	$ 312,000	0%	$ -	$ 312,000
4	Headworks Facility	Compliance	$ 607,000	6%	$ 36,000	$ 571,000
5	Lagoons - treatment	Compliance	$ 2,851,000	28%	$ 798,000	$ 2,053,000
6	Biosolids Removal	Capacity	$ 2,500,000	0%	$ -	$ 2,500,000
7	Filter Pump Station	Compliance	$ 641,000	42%	$ 269,000	$ 372,000
8	Filters	Compliance	$ 1,815,000	42%	$ 762,000	$ 1,053,000
9	Disinfection	Compliance	$ 253,000	6%	$ 15,000	$ 238,000
10	Replace Irrigation Pumps	Replacement	$ 62,000	0%	$ -	$ 62,000
		Total Priority 1 Improvements	$ 13,663,000		$ 3,181,000	$ 10,482,000
		Rate Impact (20 yr, 2%)	$ 29.77			
Priority 2 Improvements (6-10 years)						
Wastewater Collection System						
2.1	Yamhill Street 18" & 21" Pipelines	Capacity	$ 691,000	45%	$ 311,000	$ 380,000
2.2	Lincoln Street 12" Pipeline	Capacity	$ 161,000	43%	$ 69,000	$ 92,000
2.3	Sheridan Road 15" Pipeline	Capacity	$ 286,000	32%	$ 92,000	$ 194,000
		Total Priority 2 Improvements	$ 1,138,000		$ 472,000	$ 666,000
		Rate Impact (20 yr, 2%)	$ 2.07			
Priority 3 Improvements (10-20 years)						
Wastewater Collection System						
3.1	Sheridan Road 18" Pipeline	Capacity	$ 932,000	27%	$ 252,000	$ 680,000
3.2	Sheridan Street 15" Pipeline (between Bridge & Schley Street)	Capacity	$ 175,000	32%	$ 56,000	$ 119,000
3.3	Center Street & Hill Street 10" & 12" Pipelines	Capacity	$ 339,000	44%	$ 149,000	$ 190,000
3.4	Monroe Street 10" Pipeline	Capacity	$ 371,000	57%	$ 211,000	$ 160,000
3.5	Evans Street 10" Pipeline	Capacity	$ 236,000	18%	$ 42,000	$ 194,000
		Total Priority 3 Improvements	$ 2,053,000		$ 710,000	$ 1,343,000
		TOTAL WASTEWATER IMPROVEMENTS COSTS (rounded)	$ 16,854,000		$ 4,363,000	$ 12,491,000

9.1.2. 6-Year Capital Improvement Plan

Table 9-2 illustrates how the Priority 1 improvement expenses are anticipated to occur over the next several years. This 6-year CIP should be used by the City's financial consultant to complete a more detailed rate study.

TABLE 9-2: 6-Year Capital Improvement Plan

ID#	Item	Cost	Opinion of Probable Costs (2013 Dollars)					
			2014	2015	2016	2017	2018	2019
Wastewater Collection System								
1A.1	Main Lift Station Upgrades	$797,000	$87,670	$709,330				
1A.2	Main Lift Station Force Main Upgrades	$714,000	$78,540	$635,460				
1B.1	Yamhill Street & E. Main Street 24" Trunkline	$1,892,000		$56,760	$151,360	$1,702,800		
1B.2	W. Main Street & Yamhill Street 15" Pipeline	$591,000		$17,730	$47,280	$531,900		
1B.3	West Main Lift Station Upgrades	$176,000			$19,360	$156,640		
1C.1	Bridge Street & Jefferson Street Flow Split Manhole	$98,000					$98,000	
Wastewater Treatment								
1	Pilot Study of Filters	$ 15,000	$15,000					
2	Yard Piping and Sitework	$ 339,000	$6,780	$27,120	$152,550	$152,550		
3	FCI Pump Station	$ 312,000	$6,240	$24,960	$140,400	$140,400		
4	Headworks Facility	$ 607,000	$12,140	$48,560	$273,150	$273,150		
5	Lagoons - treatment	$ 2,851,000	$57,020	$228,080	$1,282,950	$1,282,950		
6	Biosolids Removal	$ 2,500,000					$1,250,000	$1,250,000
7	Filter Pump Station	$ 641,000	$12,820	$51,280	$288,450	$288,450		
8	Filters	$ 1,815,000	$36,300	$145,200	$816,750	$816,750		
9	Disinfection	$ 253,000	$5,060	$20,240	$113,850	$113,850		
10	Replace Irrigation Pumps	$ 62,000	$62,000					
	Total	$ 13,663,000	$ 379,570	$ 1,964,720	$ 3,286,100	$ 5,459,440	$ 1,348,000	$ 1,250,000

9.2. Estimated Annual Operation, Maintenance, and Replacement Costs of the Proposed System

In addition to the capital improvement costs presented in the previous section, Keller Associates recommends the following be accounted for in setting annual budgets:

- Additional collection system replacement / rehabilitation needs (refer to Section 5.1.2 of this plan): The City should work toward establishing an annual replacement budget of an additional $77,000/year. This budget was calculated by using an average cost of $50 per linear foot for the recommended 1,540 linear feet of replaced / rehabilitated pipe per year.
- Additional annual operation and maintenance costs associated with some of the treatment improvements (FCI pump station, headworks facility, lagoons-treatment, filter pump station, and filters): the additional operations and maintenance costs for these improvements are anticipated at close to $183,000/year. The additional operations and maintenance costs includes an estimated increase of 0.2 FTE.
- Short-lived assets were not evaluated as a part of this facilities planning study. These should be accounted for in the rate study completed by a third party financial consultant.

9.3. Evaluation of Local Funding Resources (municipal bonds, tax base, user fees, etc.)

9.3.1. Potential User Rate Impacts

The existing sewer rate schedule consists of a monthly flat rate fee of $34.00 per equivalent residential unit (ERU). The sewer ordinance was last revised on November 21, 2011 to provide for a $0.50 per month increase. The sewer ordinance establishes how the number of ERUs is assigned for typical sewer connections. Since 2004 the monthly user rate has increased an average of $0.44 each year. The City should re-evaluate the assignments for ERUs for all non-residential and mixed use based on water meter usage.

In 1999, the City borrowed $1,000,000 to fund the new treatment plant outfall project. This loan has an annual payment obligation that ranges from $76,000 to $84,000 and will retire in 2019. In 2012, the City retired the State Revolving Fund debt taken out for the 1988 lagoon expansion project. The 1999 loan is the only outstanding debt for the wastewater system. The City maintains a sewer reserve fund, but is not required to maintain a specific balance. In order to use funds from the reserve fund, city staff must obtain approval from City Council.

After reviewing of the City's sewer system budget with City staff, it appears that the sewer fund generates approximately $250,000 - $500,000 in revenue for use to offset near-term capital improvements. The ending sewer fund balance for June 2011 was $1,330,000. The ending sewer fund balance for June 2012 was $1,737,000. Keller Associates identified with City staff that there is approximately $250,000 that could be used each year for funding the recommended capital improvements.

Table 9-3 shows the existing and potential monthly charge for sewer services for one ERU. Funding for the recommended system improvements may come from any number of sources. This section presents potential user rate impacts if priority improvements are funded only through a low interest loan with debt service payments (20 year, 2%) made through a user rate increase. Table 9-3 outlines the potential residential user rate impacts. Calculation for the user rate impact can be referenced in Appendix H. The user rate impacts assume that the existing SDC fund balance of $302,000 will be used to partially fund the priority 1 improvements and there is no surplus in the annual budget contributing to the annual payment. If the $250,000 mentioned above is used to contribute to the annual payment the estimated user rate increase would drop approximately $7.00 per month.

In the likely event that grant funds, low interest loans, or principal forgiveness could be obtained, then the user rate impacts would be less than those illustrated in Table 9-3. Keller Associates recommends that the City actively pursue these opportunities that would mitigate user rate impacts.

TABLE 9-3: User Rate Impact

	Annual Payment (20 year, 2%)	User Rate (increase)	User Rate (total)
Existing User Rates (2013)	-	-	$ 34.00
Priority 1 Improvements	$1,000,300	$ 29.77	$ 63.77
Priority 2 Improvements	$ 69,600	$ 2.07	$ 65.84

The anticipated user rate impacts presented in Table 9-3 account for potential operation and maintenance costs associated with the recommended treatment improvements. Keller Associates does not anticipate that future collection system improvements will increase the City's operations and maintenance requirements. In fact, with new facilities and pipelines, it may be that maintenance demands for the collection system could decrease slightly. However, it should be noted that all costs are in 2013 dollars, and that the City should plan on annual increases in user rates of 2-5% to account just for inflation.

9.3.2. System Development Charge

The City's current sewer System Development Charge (SDC) for a single family home is $2,670.75. A one-inch meter for a building would draw a sewer SDC of $4,450.86. The baseline study for sewer SDCs was done in August 2000. The sewer SDC is divided into two components, 39% for reimbursement, and 61% for improvement. The scope of this study included estimating the SDC eligibility for each identified capital improvement. It is the intent that this information will be utilized by the City's financial consultant to update the City's SDCs. The estimated SDC eligibility for each identified capital improvement is shown in Table 9-1.

9.4. Evaluation of Federal and State Funding Resources (grants, loans, state bond pool, etc.)

Keller Associates recommends that the City seek funding for Priority 1 improvements now. The following funding programs are available at this time. The sources of funding may change over time, however, and should be re-evaluated in the future as the need for additional financing approaches. The list of possible funding agencies is presented for the City's evaluation and does not infer that these funding sources are compatible with all federal, state and/or city charter restrictions that may be applicable to the City of Sheridan.

9.4.1. Oregon Department of Environmental Quality, State Revolving Fund (DEQ SRF)

The DEQ SRF program relies on annual Congressional appropriations and on repayment of loans made to municipalities in prior years. In a typical year, the SRF funds about 10% of the eligible projects. (In the past 5 years, DEQ lent between $37.9 million and $109.0 million a year for 3 to 23 projects per year.) Modifications to the SRF program are in progress, and may result in changes that make the program more attractive for Sheridan. Recent modifications have included an increase in funds reserved for small communities (population less than 10,000; formerly 5,000) to 25% of the total loan amounts, and reductions in interest rates. If so, the modifications will also result in increased competition for the funds. The current interest rate for a 20 year design/construction loan is 1.58%. The rates will adjust from quarter to quarter and depend on the duration of the loan period.

9.4.2. Oregon Infrastructure Finance Authority (IFA)

IFA administers two state-funded programs and the rural portion of one federal program. Two IFA programs provide both loans and grants for eligible capital improvements—the *Water/Wastewater Financing Program* and the *Special Public Works Fund.* Both of these programs are funded by State lottery revenues and loans the IFA obtains from the municipal bond market, which are then re-lent to municipalities at subsidized rates and terms. The interest rate on these loans is lower than Sheridan would likely get for a direct loan through the municipal bond market because (1) the State has a better credit rating, and (2) the State pays all the closing costs of issuing the bonds, which can range from 1% to 2% of the amount borrowed. The loans are controlled by the Oregon Legislature and contain several provisions and limitations that need to be addressed if Sheridan proceeds with applications to either program. Eligible projects can receive loans up to $10 million for a term not to exceed the lesser of 25 years or the expected life of the assets being financed.

The grants portions of the IFA programs differ:

- *Water/Wastewater Financing Program.* This program provides up to $750,000 in grants for qualifying applicants based on two factors: financial need (which is determined by a needs analysis conducted by IFA), and median household income which must be less than the statewide average. In the 2010 census, Sheridan's MHI was below the State's MHI.
- *Special Public Works Fund.* This program offers up to $500,000 in grants (but not more than 85% of the total project cost) for qualifying projects, which must either create or retain "traded-sector" jobs. (These are jobs in businesses selling goods or services in markets for which national or international competition exists, as determined by IFA.) The ratio of project cost (loan and grant) to jobs created or retained cannot exceed $5,000 per job.
- *Community Development Block Grant (CDBG).* The U.S. Department of Housing and Urban Development (HUD) administers this program. HUD distributes the funding to metropolitan governments or to designated state agencies for rural communities—in this case the Oregon IFA. Because Sheridan is not designated as a metropolitan city, Sheridan can apply for grants. Grants for wastewater improvements can be up to $2 million except the preliminary engineering study. The limit for the preliminary engineering study is $150,000. The City will have to balance its own set of priorities for CDBG funds—*i.e.,* sewer projects will have to compete with other City priorities for the available funds. The funds are for projects that must meet 3 criteria: (1) the project must benefit low- and moderate-income households; (2) aid in the prevention or elimination of slums or blight; and (3) meet an urgent need that poses a serious and immediate threat to the health or welfare of the community.

9.4.3. U.S. Department of Agriculture, Rural Utilities Services (USDA-RUS), Water and Wastewater Loans and Grants

These loans and grants are available to develop water and waste disposal systems in rural areas and towns with a population less than 10,000. Applicants must be unable to obtain the financing from other sources at rates and terms they can afford and/or their own resources. Eligibility for this program is based on user rates, median household income, and compliance issues. Applications are accepted at any time at the state or area office. Interim financing is required for all loan/grant recipients.

9.4.4. Direct State Loans, Revenue Bonds, and General Obligation Bonds

The City has three legal means of borrowing money. First, direct State of Oregon loans; second, revenue bonds; and third, general obligation bonds. The direct state loans do not require the City to issue bonds, but pledges to keep sewer rates high enough to pay operating and maintenance costs and pay for the debt service.

A revenue bond can be issued under the authority of the Uniform Revenue Bond act of the State of Oregon. A revenue bond still requires that the City Council pledge to keep sewer rates high enough to pay operating and maintenance costs and pay for the debt service.

The City has the power to issue general obligation bonds, but only upon voter approval. Annually, the City Council through the budgeting process can decide to pay the next year's debt service partially from user fee revenues, system development charge revenues, or property tax assessments.

9.4.5. U.S. Economic Development Administration (EDA)

The US EDA provides grants for qualified public works projects, including sewer. Congress has appropriated between $15 million and $20 million for 2013 for projects across the nation that retain or create jobs. Traditionally, this has been much more. Due to the uncertainty in the federal government budgets, the certainty of this and future years' budgets are unknown. The program typically funds up to 50% of the project cost, and the balance must come from local matching funds. Projects must show a very strong connection to jobs, and competition from the larger states in the 7-state region is very strong. Sheridan's planned sewer projects are not likely to meet EDA's criteria. In the past, the maximum funding awarded to a project was $2.5 million. In practice, Sheridan would have to have an existing private employer of significant employment or a potential new employer that need a significant sewer improvement to compete for this funding.

9.4.6. Energy Trust of Oregon Customized Water/Wastewater Incentives

The Energy Trust of Oregon supports customers of Portland General Electric and Pacific Power, and offers many services to wastewater treatment plants. They offer a detailed system optimization study at no cost to the facility, which recommends capital improvements and changes in operations and maintenance that would result in reduced electricity consumption. They also offer a program called customized water/wastewater incentives for implementing these energy savings. Once the energy-savings measures have been implemented, the City receives of $0.32/annual kWh from the Energy Trust—or up to 50% of the total project cost.

9.5. Recommended Rate Structure and Financing Strategy

Keller Associates recommends that the City continue the application process for the SRF program for the lift station improvements and smaller projects. Upon completion of this facilities planning study, the City should request a "one stop" meeting with IFA. This meeting will bring together a number of funding sources and this group will suggest which funding package will be best for the City. The City has a jump start in this process having already submitted an application for the DEQ-SRF for the Main Lift Station and force main project. The City was ranked 9th amongst the applicants. The DEQ has indicated that there should be enough funds for this project to be funded. The next step would be to attend a "one stop" meeting and decided whether the City should continue to step through the DEQ-SRF process or begin working with another agency.

In order to finance needed improvements, it is anticipated that sewer rate increases will be required. Keller Associates recommends that the City complete a more detailed sewer rate study while aggressively seeking low interest loan and grant opportunities. Increasing the sewer rates incrementally over a 5-year period will help to avoid rate shock to customers, and provide additional time for the economy to recover from the recession. Each year the City should re-evaluate the sewer utility's financial position relative to the forecast provided by the financial consultant and as necessary adjust the next proposed rate increase.