

CHAPTER 8

CAPITAL IMPROVEMENT PLAN AND FINANCIAL ANALYSIS

This chapter presents a recommended capital improvement plan, a financial analysis of the two Cities' sewer utilities and funding strategies for the Cities of Bingen and White Salmon to address recommended wastewater system capital improvements presented in the previous chapters.

CAPITAL IMPROVEMENT PLAN

CITY OF WHITE SALMON COLLECTION SYSTEM

Recommended improvements to the City of White Salmon collection system based on the collection system analysis in Chapter 6 are presented in Table 8-1. A cost to install wireless data loggers in the three existing collection system flow meters is included and explained below.

TABLE 8-1

City of White Salmon Collection System Improvements⁽¹⁾

No.	Item	Estimated Cost
1	Uncover, Inspect and Raise Manhole SW19-6EA Level with Pavement (manhole is currently paved over)	\$7,000 ⁽²⁾
2	Clean Out and Reseal Manholes NE30-3F and SW18-5F	\$4,500 ⁽²⁾
3	Repair broken or misaligned pipe in the City right of way	\$38,000 ⁽²⁾
4	Install Wireless Data Loggers on Collection System Flow Meters	\$16,000 ⁽²⁾
5	Raise six manholes on SR 14	\$12,000 ⁽²⁾
Total (rounded up to the nearest \$1,000)		\$78,000

(1) All costs include 7.5 percent sales tax, 25 percent contingency and 20 percent for engineering and construction administration unless otherwise noted.

(2) Include 7.5 percent sales tax, does not include engineering or construction administration costs.

The City of White Salmon installed three permanent flow meters to monitor flows in their wastewater collection system in late 2012 in support of the inflow/infiltration (I/I) study. There were data gaps due to loss of battery power and some questions about the validity of some of the data during early operation of the meters due to a possible lack of proper calibration.

The manufacturer of the meters, Hach, offers a "data delivery service" that includes complete maintenance of the flow meters, including meter calibration and management

and delivery of the flow data to the City. This service involves Hach buying back the meters and leasing them to the City.

The budget level costs for this service are summarized below:

- One-year lease: \$900/Meter-Month, \$32,400 per year for three meters
- Two-year lease: \$675/Meter-Month, \$24,300 per year for three meters
- Three year lease: \$585/Meter-Month, \$21,060 per year for three meters
- \$1,500 One Time Fee

Using the 3-year lease, this service would cost the City of White Salmon \$7,020 per year plus a one-time set up fee of \$1,500. Hach is willing to waive the one-time set up fee if the City were to enter into a 3-year contract.

Alternately, the data loggers installed on the three flow meters could be replaced with wireless devices to improve access to the meter data. Hach has provided quotes of \$5,503 plus a credit of \$800 for turning the existing data logger in, for each meter, which would total \$4,703 per meter or \$14,109 total. With shipping (\$330) and 7.5 percent sales tax, the estimated cost is \$15,522, which rounded up is \$16,000 for planning purposes. This one-time cost would allow the City to access the data remotely and become aware of any issues as they arise rather than when the data logger is manually accessed.

Gray & Osborne recommends that the wireless data loggers be installed as this would make the meters far easier to operate and maintain and much more useful as a tool for monitoring White Salmon's collection system flows. These meters can assist the City of White Salmon in tracking its wastewater flows and assess the impacts of I/I by providing a daily record of flows from the bulk of their collection system. One of the meters is in a manhole on a busy City street that is difficult to access and the other two meters are in remote locations, therefore this wireless access capability is expected to eliminate as much as 4 hours of labor each month for manually retrieving data, if installed.

CITY OF BINGEN

Recommended improvements to the City of Bingen collection system are presented in Table 8-2 and recommended improvements to the City of Bingen wastewater treatment facility are included in Table 8-3. All projects are listed by priority, with the number one representing the highest priority.

TABLE 8-2

City of Bingen Collection System Improvements⁽¹⁾

No.	Item	Estimated Cost
1	Replace 1,750 ft Depot Street 10-inch Gravity Sewer with 18-inch DI	\$660,000
2	Replace pipe in Manhole 24 to prevent debris from catching.	\$7,500 ⁽²⁾
3	Slipline pipe 870 ft @ \$50/ft)	\$43,500 ⁽²⁾
4	Reseal Manhole 60	\$1,500 ⁽²⁾
5	Raise manhole lid to grade (11 total)	\$22,000 ⁽²⁾
6	Raise manhole lid to grade, regrade and repave (9 total)	\$27,000 ⁽²⁾
7	Lower manhole lid to grade (2 total)	\$3,000 ⁽²⁾
8	Locate manhole and raise manhole lid to grade (2 total)	\$5,000 ⁽²⁾
Total (rounded up to the nearest \$1,000)		\$770,000

- (1) All costs include 7.5 percent sales tax, 25 percent contingency and 20 percent for engineering and construction administration unless otherwise noted.
- (2) Include 7.5 percent sales tax, does not include engineering or construction administration costs.

TABLE 8-3

City of Bingen Wastewater Treatment Facility Improvements⁽¹⁾

No.	Item	Estimated Cost
1	Older Oxidation Ditch Improvements	
1A	Replace Rotors on Older Oxidation Ditch	\$270,000 ⁽²⁾
1B	Structural Repairs to Older Oxidation Ditch	\$25,000 ⁽³⁾
1C	Outlet Weir on Older Oxidation Ditch	\$4,000
2	Clarifier Repairs	
2A	Clarifier Hydrostatic Valves	\$12,000
2B	Replace RAS/WAS Flow Meters	\$34,000
3	Aerobic Digester Improvements	\$401,000
4	Construct External Bioselector	\$366,000 ⁽³⁾
5	Safety Measures	
5A	Arc Flash Protection	\$10,000 ⁽⁴⁾
5B	Automatic Transfer Switch Testing	\$1,000 ⁽⁴⁾
5C	Circuit Breaker Testing	\$10,000 ⁽⁴⁾
6	Replace Heat Pump by Local Vendor	\$7,000 ⁽⁴⁾
Total		\$1,140,000

- (1) All costs include 7.5 percent sales tax, 25 percent contingency and 20 percent for engineering and construction administration unless otherwise noted.
- (2) Includes 15 percent contingency.
- (3) Includes 25 percent for engineering and construction administration.
- (4) Include 7.5 percent sales tax, does not include engineering or construction administration costs.

Figure 8-1 summarizes the wastewater facilities capital improvements for the two cities.

FINANCIAL STATUS OF EXISTING SEWER UTILITIES

CURRENT SEWER RATES

City of Bingen

Chapter 13.24 of the City of Bingen’s municipal code governs sewer rates and is included in Appendix D. Table 8-4 presents a history of the City’s sewer rate structure from 2010 to 2015.

TABLE 8-4

City of Bingen Monthly Sewer Rates, 2009 – 2015 ⁽¹⁾

Customer Class	2009	2010	2011	2012	2013	2014	2015
Monthly Base Charge							
Residential Inside City	\$38.00	\$38.00	\$40.00	\$42.00	\$44.00	\$44.00	\$46.00
Residential Outside City	\$47.50	\$47.50	\$50.00	\$52.50	\$55.00	\$55.00	\$57.50
Commercial ⁽²⁾ and Industrial Inside City	\$38.00	\$38.00	\$40.00	\$42.00	\$44.00	\$44.00	\$46.00
Commercial ⁽²⁾ and Industrial Outside City	\$47.50	\$47.50	\$50.00	\$52.50	\$55.00	\$55.00	\$57.50
Volume Charge (\$/0.5 ERU)							
Residential Inside City	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Residential Outside City	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Commercial and Industrial Inside City ⁽³⁾	\$14.00	\$14.00	\$15.00	\$15.75	\$17.00	\$17.00	\$18.00
Commercial and Industrial Outside City ⁽³⁾	\$17.50	\$17.50	\$18.75	\$19.69	\$21.25	\$21.25	\$22.50

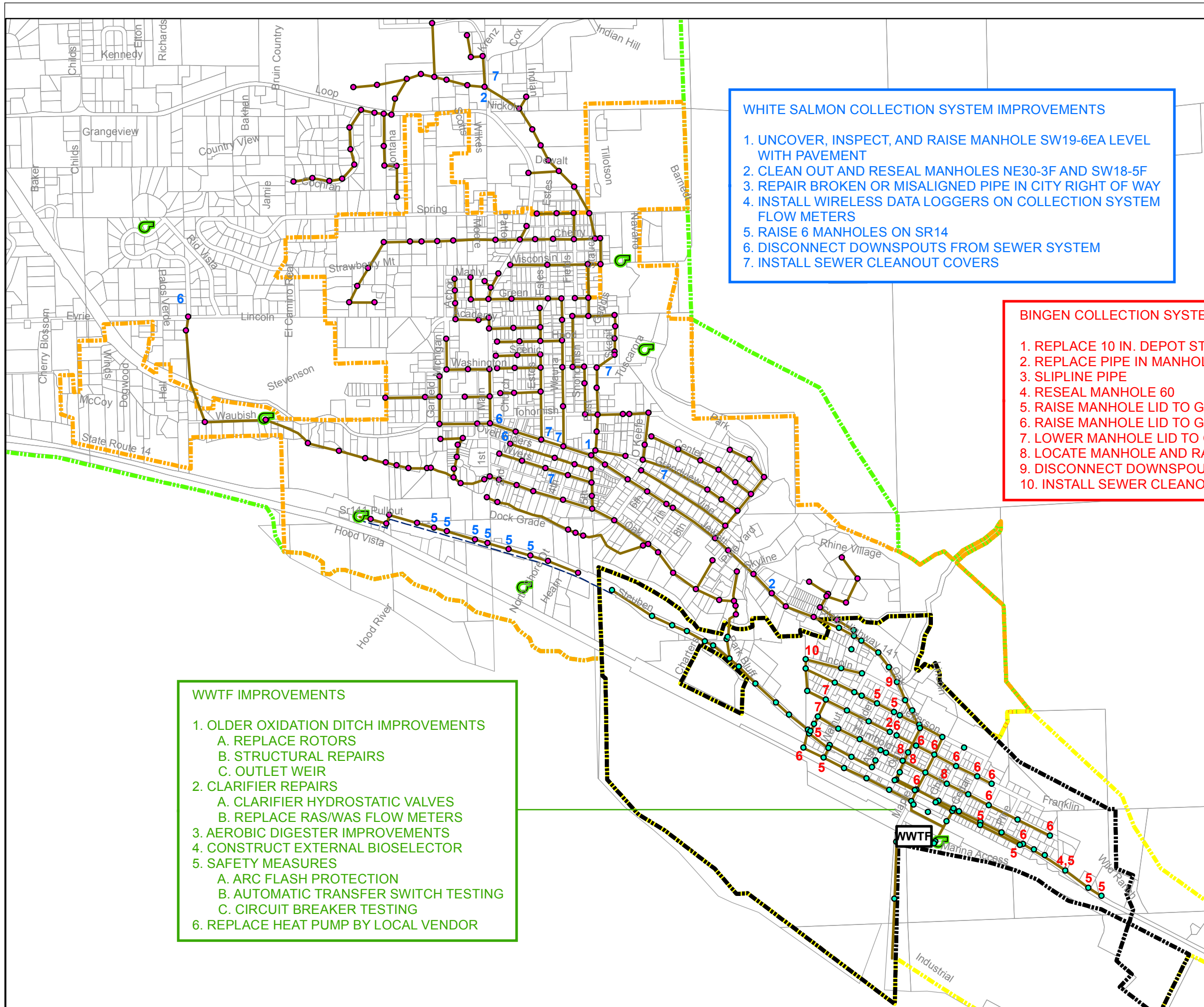
(1) Source: Chapter 13.24.030 City of Bingen Municipal Code.

(2) Charge per ERU, ERU = 8,500 gallons/monthly billing cycle.

(3) 0.5 ERU = 4,250 gallons/monthly billing cycle.

City of White Salmon

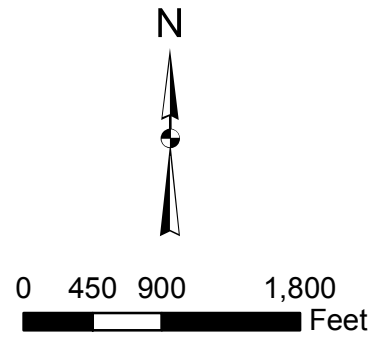
Chapter 13.16.055 of the City of White Salmon’s municipal code governs sewer rates and fees and is included in Appendix D. Table 8-5 presents a history of the City’s sewer rate structure from 2010 to 2014. The City of White Salmon transfers a portion of its monthly sewer fees to the City of Bingen to support the wastewater treatment plant operation; the amount of this contribution is also shown in Table 8-5.



- WHITE SALMON COLLECTION SYSTEM IMPROVEMENTS**
1. UNCOVER, INSPECT, AND RAISE MANHOLE SW19-6EA LEVEL WITH PAVEMENT
 2. CLEAN OUT AND RESEAL MANHOLES NE30-3F AND SW18-5F
 3. REPAIR BROKEN OR MISALIGNED PIPE IN CITY RIGHT OF WAY
 4. INSTALL WIRELESS DATA LOGGERS ON COLLECTION SYSTEM FLOW METERS
 5. RAISE 6 MANHOLES ON SR14
 6. DISCONNECT DOWNSPOUTS FROM SEWER SYSTEM
 7. INSTALL SEWER CLEANOUT COVERS

- BINGEN COLLECTION SYSTEM IMPROVEMENTS**
1. REPLACE 10 IN. DEPOT ST. GRAVITY SEWER WITH 18 IN. DI
 2. REPLACE PIPE IN MANHOLE 24
 3. SLIPLINE PIPE
 4. RESEAL MANHOLE 60
 5. RAISE MANHOLE LID TO GRADE (11 TOTAL)
 6. RAISE MANHOLE LID TO GRADE, REGRADE AND REPAVE (9 TOTAL)
 7. LOWER MANHOLE LID TO GRADE (2 TOTAL)
 8. LOCATE MANHOLE AND RAISE LID TO GRADE (2 TOTAL)
 9. DISCONNECT DOWNSPOUTS FROM SEWER SYSTEM
 10. INSTALL SEWER CLEANOUT COVERS

- WWTF IMPROVEMENTS**
1. OLDER OXIDATION DITCH IMPROVEMENTS
 - A. REPLACE ROTORS
 - B. STRUCTURAL REPAIRS
 - C. OUTLET WEIR
 2. CLARIFIER REPAIRS
 - A. CLARIFIER HYDROSTATIC VALVES
 - B. REPLACE RAS/WAS FLOW METERS
 3. AEROBIC DIGESTER IMPROVEMENTS
 4. CONSTRUCT EXTERNAL BIOSELECTOR
 5. SAFETY MEASURES
 - A. ARC FLASH PROTECTION
 - B. AUTOMATIC TRANSFER SWITCH TESTING
 - C. CIRCUIT BREAKER TESTING
 6. REPLACE HEAT PUMP BY LOCAL VENDOR



- LEGEND:**
- BINGEN CITY LIMITS
 - BINGEN SERVICE AREA
 - WHITE SALMON CITY LIMITS
 - WHITE SALMON SERVICE AREA
 - FORCE MAIN
 - BINGEN MANHOLES
 - WHITE SALMON MANHOLES
 - G PUMP STATIONS
 - SEWER PIPE

**CITIES OF BINGEN
AND WHITE SALMON**

GENERAL SEWER/WASTEWATER
FACILITY PLAN
FIGURE 8-1
CAPITAL IMPROVEMENT PROGRAM


Gray & Osborne, Inc.
CONSULTING ENGINEERS

TABLE 8-5

City of White Salmon Monthly Sewer Rates, 2009 - 2015 ⁽¹⁾

Customer Class	2009	2010	2011	2012	2013	2014	2015
Monthly Base Charge							
Residential Inside City ⁽²⁾	\$43.20	\$43.20	\$43.20	\$43.20	\$43.20	\$50.00	\$51.50
Residential Outside City ⁽²⁾	\$44.20	\$44.20	\$44.20	\$44.20	\$44.20	\$55.00	\$56.65
Commercial, ⁽³⁾ Governmental Inside City	\$43.20	\$43.20	\$43.20	\$43.20	\$43.20	\$50.00	\$51.50
Commercial, ⁽³⁾ Governmental Outside City	\$44.20	\$44.20	\$44.20	\$44.20	\$44.20	\$55.00	\$56.65
Volume Charge (\$/ERU)⁽³⁾							
Residential Inside City	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Residential Outside City	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Commercial, Governmental Inside City ⁽³⁾	\$12.75	\$12.75	\$12.75	\$12.75	\$12.75	\$15.00	\$15.45
Commercial, Governmental Outside City ⁽³⁾	\$12.75	\$12.75	\$12.75	\$12.75	\$12.75	\$15.00	\$15.45
Contribution per ERU of White Salmon Monthly Charge to Bingen WWTF Operations							
	\$10.50	\$11.50	\$12.50	\$12.75	\$13.25	\$13.25	\$13.50

- (1) Source: Chapter 13.16.055 City of White Salmon Municipal Code.
- (2) Includes multifamily dwellings, apartments, trailer courts, per unit.
- (3) Charge per ERU, ERU = 8,500 gallons/monthly billing cycle.
- (4) Volume Charge per ERU, ERU = 8,500 gallons/monthly billing cycle.

SEWER SYSTEM DEVELOPMENT CHARGES

System development charges (SDCs) are generally established as one-time charges assessed against new sewer customers as a way to recover a part of the cost of additional system capacity constructed for their use. The intent is that all new system customers will pay an equitable share for existing and planned facilities of general benefit.

Typical items of construction financed by the sewer system development charge are wastewater treatment facilities, pump stations, collection system piping, and other general improvements that benefit the entire system. SDCs are levied on single-family, multi-family, commercial, and industrial users.

City of Bingen

The City of Bingen imposes a sewer system development charge (SDC) for all new connections to the sewer system to finance improvements of general benefit to the wastewater system, that are required to service future growth. Chapter 13.44 of the City’s municipal code, found in Appendix D, governs sewer system development charges. The City places \$1,500 of each sewer system development charge into its wastewater treatment plant improvement fund per its interlocal agreement with the City of White Salmon.

The City of Bingen classifies its commercial customers based on meter size. The current SDC for residential and Commercial/Industrial customer classes are summarized in Table 8-6.

TABLE 8-6

City of Bingen Sewer System Development Charges

Customer/Meter Size	Charge
Residential (All)	\$2,000
Commercial/Industrial	
3/4 Inch	\$2,000
1 Inch	\$5,000
1-1/2 Inch	\$10,000
2 Inch	\$16,000
3 Inch	\$32,000
4 Inch	\$50,000
6 Inch	\$100,000
8 Inch	\$160,000

City of White Salmon

The City of Bingen imposes a sewer system development charge (SDC) for all new connections to the sewer system to finance improvements of general benefit to the wastewater system, that are required to service future growth. Chapter 13.16.050 of the City's municipal code, found in Appendix D, governs sewer system development charges.

The City of White Salmon imposes a sewer system development charge of \$2,000 per connection. Of this, \$1,500 is placed in the City's capital improvement fund.

HISTORICAL FINANCIAL OPERATIONS

City of Bingen Historical Financial Operations

The City of Bingen tracks its sewer utility finances with nine separate accounts, as listed below. This separate accounting is required because the City funds and maintains its own wastewater collection system while jointly funding the wastewater treatment facility with the City of White Salmon through an interlocal agreement.

- 403 – Sewer Fund – All monies earned by the sewer system from established sewer rates, sewer system development charges and other sources authorized by Council are placed in this fund.

- 405 – Treatment Facility – Monies provided by the Cities of Bingen and White Salmon per an interlocal agreement between the two cities to fund operation and maintenance of the WWTF. Bingen contributes monies to this fund from its Sewer Fund. White Salmon contributes a portion of monthly sewer fees to this fund.
- 410 – 1973 Bond Reserve – Monies in this fund are used to meet the reserve requirement of the 1973 water and sewer revenue bond that was issued in conjunction with the 1972 upgrades to the WWTF. (Now Closed)
- 411 – 1995 Bond Reserve – Monies in this fund are used to meet the reserve requirements of the City’s 1995 water and sewer revenue bond that was issued in conjunction with the 1996 upgrades to the WWTF.
- 413 – 1973 Bond Redemption – Monies in this fund are used to meet the 1973 water and sewer revenue bonds principal and interest payments. (Now Closed)
- 415 – 73/95 Bond Redemption – The 1973 and 1995 bonds were historically commingled and have been separated.
- 416 – Public Works Trust Fund Loan – Monies in this fund are used to meet the Public Works Trust Fund (PWTF) loan principal payment. Bingen appropriates funds from the Sewer Fund into this fund to pay for the City of Bingen’s portion of the PWTF Loan. White Salmon pays into this fund for its portion of the PWTF loan.
- 423 – Sewer Construction and Maintenance – Monies in this fund are transferred from the Sewer Fund to pay for planning, construction, improvements and maintenance of the City of Bingen wastewater collection system.
- 424 – Sewer Equipment – Monies in this fund are transferred from the Sewer Fund to pay for equipment needed for the operation and maintenance of the City of Bingen wastewater collection system..
- 425 – Treatment Facility Improvement Fund – Monies in this fund come from 405 – Treatment Plant Fund (monies provided equally by the two cities) and are used for improvements to the treatment plant.
- 428 – Treatment Plant Capital Expansion Fund – Monies in this fund are to be used towards future expansion or replacement of the wastewater treatment plant. Agreement between the two cities is required to use these funds. Per the interlocal agreement between the City of Bingen and White Salmon \$1,500 of each sewer hookup fee for each City must be deposited

in this fund. Any use of the transfers of other monies to this fund requires agreement between the two Cities.

Historical financial operations for the City of Bingen sewer utility for the years 2010 through 2014 are summarized in Tables 8-7A to 8-7K.

TABLE 8-7A

City of Bingen Historical Financial Operations (Bingen Sewer System Fund)

Title	Actual	Actual	Actual	Actual	Actual
403 Bingen Sewer Fund Revenues	2010	2011	2012	2013	2014
Beginning Net Cash and Investment	299,441.64	169,061.51	168,252.80	187,678.28	208,797.59
Sewer Charges	178,900.55	187,120.53	198,001.78	210,580.27	213,271.02
Sewer Hookups	0	0	11,500.00	16,000.00	500.00
Sewer Charges – Overage	29,015.60	30,826.30	37,149.33	42,489.75	41,382.25
Investment Interest	806.19	615.88	517.48	230.30	122.85
Overages/Underages/Adjustments	0	0	0	0	0
Miscellaneous	718.00	779.00	794.00	854.52	1,020.10
Miscellaneous Revenue – Other	0	0	1.60	0	0
Transfers In - Sewer Reserve	0	0	0	0	0
Total Revenues	209,440.34	219,341.71	247,964.19	270,154.84	257,298.00
Revenues Plus Beginning Balance	508,881.98	388,403.22	416,216.99	457,833.12	465,093.81
403 Bingen Sewer Fund Expenditures	2010	2011	2012	2013	2014
Salaries	5,506.34	5,078.11	4,442.19	5,691.54	8,459.73
Salaries OT	0	0	16.72	0	31.66
Salaries CO	0	0	286.70	66.88	0
Benefits	2,978.09	3,107.01	2,638.58	3,143.34	4,676.16
Benefits OT	0	0	3.22	0	6.23
Benefits CO	0	0	56.63	11.75	0
Supplies	1,162.18	963.56	1,592.03	1,273.66	1,346.65
Fuel Consumed	1,061.83	1,580.27	1,499.35	1,636.10	1,087.55
Small Tools	392.39	237.60	763.04	1,017.75	483.99
Professional Services	60.58	79.26	694.55	41.92	0
Professional Services - Labor Attorney	0	0	877.10	784.44	0
Communications	1,833.96	1,824.97	1,844.86	2,066.40	1,940.65

TABLE 8-7A – (continued)

City of Bingen Historical Financial Operations (Bingen Sewer System Fund)

Title	Actual	Actual	Actual	Actual	Actual
403 Bingen Sewer Fund Expenditures – Cont.	2010	2011	2012	2013	2014
Travel	0	0	126.54	0	0
Advertising	0	0	0	111.38	0
Equipment Rental	0	0	530.45	546.36	0
Utilities	1,240.17	1,578.66	1,937.62	1,587.36	1,321.19
Utilities – Water	660.03	691.74	734.78	772.26	605.26
Utilities – Sewer	152.04	159.96	168.00	176.04	132.00
Repairs And Maintenance	2,008.00	1,224.10	2,029.21	2,521.60	2,349.78
Miscellaneous	2,450.05	2,759.68	2,466.58	2,785.58	3,155.11
Utility Taxes	0.00	0.00	23,527.72	25,307.02	25,465.34
Transfer to Current Expense	6,206.32	5,441.50	11,996.79	11,985.09	14,657.89
Transfer to Sewer Construction	200,000.00	76,691.00	48,735.00	62,201.00	90,571.00
Transfer to Treatment Plant	92,558.49	98,083.00	101,821.05	106,458.06	85,177.39
Transfer to 1995 Bond Redemption	20,550.00	19,650.00	18,750.00	17,850.00	21,975.00
Transfer to Street	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
Total Expenditures	339,820.47	220,150.42	228,538.71	249,035.53	267,621.14
Ending Net Cash and Investment	169,061.51	168,252.80	187,678.28	208,797.59	197,472.67

TABLE 8-7B**City of Bingen Historical Financial Operations (WWTF Fund)⁽¹⁾**

Title	Actual	Actual	Actual	Actual	Actual
405 WWTF Fund Revenues	2010	2011	2012	2013	2014
Beginning Net Cash and Investment	65,833.15	95,448.68	126,983.94	159,978.92	201,288.51
Receipts White Salmon	250,102.66	272,532.86	278,416.40	294,683.34	220,660.07
Charges for Lab Testing	0	0	0	215.35	161.87
Bulk Wastewater Disposal	41,905.00	19,205.00	13,620.00	0	0
Charges for Lab Testing	171.06	280.41	218.28	0	0
Investment Interest	0	0	0	145.78	100.63
Miscellaneous Revenue - Other	0	0	0	226.95	303.52
Transfers in from Bingen	92,558.49	98,083.00	101,821.05	106,458.06	85,177.39
Total Revenues	450,570.36	485,549.95	521,059.67	561,708.40	507,691.99
405 WWTF Fund Expenditures					
Salaries	72,852.47	75,347.87	74,323.02	76,872.18	79,989.40
Salaries OT	0	0	0	0	58.38
Salaries CO	0	0	329.88	348.01	273.78
Benefits	37,769.59	42,301.74	42,222.97	42,872.32	45,200.73
Benefits OT	0	0	0	0	11.49
Benefits CO	0	0	63.45	67.32	53.64
Supplies	18,432.43	18,206.15	15,067.66	14,640.85	16,513.40
Fuel Consumed	897.80	322.14	1,284.01	1,001.01	1,881.64
Small Tools	1,551.96	3,864.24	7,448.94	1,722.87	2,733.45
Professional Services – Labor Attorney	0	0	9,439.08	10,516.65	0
Professional Services ⁽²⁾	2,828.72	2,787.11	4,694.00	7,747.71	1,944.29
Communications	1,934.75	1,958.84	2,032.49	1,976.90	1,942.18
Travel	32.50	551.71	274.17	0	0
Advertising	0	0	0	205.88	0

TABLE 8-7B – (continued)

City of Bingen Historical Financial Operations (WWTF Fund)⁽¹⁾

Title	Actual	Actual	Actual	Actual	Actual
405 WWTF Fund Expenditures – Cont.	2010	2011	2012	2013	2014
Equipment Rental	76.75	0	0	0	0
Utilities – Water	4,757.90	4,175.20	4,463.82	4,303.57	5,128.48
Utilities – Sewer	456.00	480.00	504.00	528.00	528.00
Utilities	14,794.67	16,824.08	18,997.98	21,187.39	23,537.82
Repairs and Maintenance	14,451.70	1,498.15	3,454.02	2,047.70	2,143.85
Miscellaneous ⁽²⁾	9,569.20	15,939.40	9,514.28	9,283.71	9,226.75
External Taxes and Operating Assessments	3.52	3.52	6.02	6.02	6.02
Capital Expenditures/Expenses – Equipment	0.00	5,271.48	0.00	0.00	0
Capital Expenditures/Expenses – Improvements	866.83	0.00	0.00	0.00	0
Transfer to 423 Sewer Construction					5,327.67
Transfer Current Expense	57,402.03	51,991.52	50,368.11	47,253.94	51,663.05
Transfer Treatment Plant Replacement	0.00	0.00	0.00	10,695.00	73,095.00
Transfer PWTF Loan	107,142.86	107,142.86	107,142.85	107,142.86	0
Transfer 73/95 Bond Redemption I	9,300.00	9,900.00	9,450.00	0	0
Total Expenditures	355,121.68	358,566.01	361,080.75	360,419.89	321,259.01
Ending Net Cash and Investment	95,448.68	126,983.94	159,978.92	201,288.51	186,432.98

(1) This fund is managed by the City of Bingen through an interlocal agreement with the City of White Salmon.

(2) Biosolids management costs were allocated as follows:

- In 2010 City hauled its biosolids for land application and costs are included in salaries and benefits and gas, but this is not accounted separately.
- In 2011 City paid \$6,214.85 to Natural Selection Farms for hauling to land application site; paid from 405 – Miscellaneous
- In 2012 City paid \$3,208.54 to Natural Selection Farms for hauling and disposal (land application) out of 405 – Professional Services.
- In 2013 City paid \$5,171.53 to Natural Selection Farms for hauling and disposal (land application) out of 405 – Professional Services.
- Beginning in 2014 the City intends haul it biosolids with its own personnel and equipment to a permitted land application site in Centerville, Washington costs are included in salaries and benefits and gas, but this is not accounted separately.

TABLE 8-7C

City of Bingen Historical Financial Operations (Sewer Construction and Maintenance Fund)⁽¹⁾

Title	Actual	Actual	Actual	Actual	Actual
423 Sewer Construction and Maintenance Fund	2010	2011	2012	2013	2014
Beginning Net Cash and Investments	87,166.33	254,558.15	339,448.64	387,914.34	439,621.65
Investment Interest	376.51	318.39	73.37	436.78	322.90
Overages/Underages/Adjustments	0	0	0	0	0
Interfund Loan Payment From Water	9,806.31	9,591.57	9,376.83	9,161.12	0
Transfers in from 405 Treatment Plant	0	0	0	0	5,327.67
Transfers in from Sewer	200,000.00	76,691.00	48,735.00	62,201.00	90,571.00
Total Revenues	297,349.15	341,159.11	397,633.84	459,713.24	535,853.22
Miscellaneous	0	0.47	0	0	0
Professional Services	0	0	9,719.50	0	14,982.49
Engineering – 2014 Dry Creek Sewer	0	0	0	0	1,650.00
Depot Street Sewer Engineering	7,736.00	0	0	0	0
Wastewater Plan – Professional. Services	0	0	0	20,091.59	0
Depot Street Sewer Construct	35,055.00	1,710.00	0	0	8,600
Total Expenditures	42,791.00	1,710.47	9,719.50	20,091.59	25,232.49
Ending Net Cash and Investment	254,558.15	339,448.64	387,914.34	439,621.65	510,610.73

(1) The City of Bingen created a construction and maintenance fund for its own collection system separate from the WWTF since the WWTF is jointly funded.

TABLE 8-7D

City of Bingen Historical Financial Operations (Sewer Equipment Fund)⁽¹⁾

Title	Actual	Actual	Actual	Actual	Actual
424 Sewer Equipment Fund	2010	2011	2012	2013	2014
Beginning Net Cash and Investment	214.17	214.98	215.14	223.90	223.90
Investment Interest	0.81	0.16	0	0	0
Sale Of Scrap And Junk	0	0	8.76	0	0
Ending Net Cash and Investment	214.98	215.14	223.90	223.90	223.90

TABLE 8-7E

City of Bingen Historical Financial Operations (Treatment Plant Improvement Fund)⁽¹⁾

Title	Actual	Actual	Actual	Actual	Actual
425 Treatment Plant Improvement Fund	2010	2011	2012	2013	2014
Beginning Net Cash and Investment	189,391.34	167,421.44	151,838.46	129,873.36	114,353.65
Investment Interest	1,104.98	494.99	231.85	132.40	137.33
Sale of Scrap and Junk	0	0	69.96	0	0
Transfers in from WWTF	0	0	0	10,695.00	73,095.00
Transfer from 73 Bond Reserve	0	0	0	0	10,000.00
Transfer from 73 Bond Redemption.	0	0	0	0	8,036.36
Total Revenues	190,496.32	167,916.43	152,140.27	140,700.76	205,622.34
Miscellaneous	0	5.97	0	0	0
Small Tools and Equipment					7,369.08
Professional Services	0	16,072.00	7,832.34	26,347.11	43,807.61
Professional Services Computer Upgrade	0	0	0	0	12,000.00
Capital Expenditures/Expenses – Improvements	0	0	7,457.86	0	0
Capital Expenditures/Expenses – Equipment	23,074.88	0	6,976.71	0	0
Total Expenditures	23,074.88	16,077.97	22,266.91	26,347.11	63,176.69
Ending Net Cash and Investment	167,421.44	151,838.46	129,873.36	114,353.65	142,445.65

(1) City of Bingen sewer only.

TABLE 8-7F

City of Bingen Historical Financial Operations (WWTF Capital Expansion Fund)⁽¹⁾

Title	Actual	Actual	Actual	Actual	Actual
428 WWTF Capital Expansion Fund	2010	2011	2012	2013	2014
Beginning Net Cash and Investment	146,269.36	147,077.89	147,645.50	166,811.46	191,148.60
Investment Interest	808.53	567.61	415.96	337.14	224.45
Contributed Capital – Hookup	0	0	18,750.00	0	0
Contributed Capital – Hookup	0	0	0	24,000.00	1,500
Contributed Capital – Hookup	0	0	0	0	0
Ending Net Cash and Investment	147,077.89	147,645.50	166,811.46	191,148.60	192,873.05

(1) This fund is managed by the City of Bingen through an interlocal agreement with the City of White Salmon.

TABLE 8-7G

City of Bingen Historical Financial Operations (1973 Bond Reserve Fund)

Title	Actual	Actual	Actual	Actual	Actual
410 1973 Bond Reserve Fund	2010	2011	2012	2013	2014
Beginning Net Cash and Investment	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
Transfer to Plant Improvement	0.00	0.00	0.00	0.00	10,000.00
Ending Net Cash and Investment	10,000.00	10,000.00	10,000.00	10,000.00	0.00

TABLE 8-7H

City of Bingen Historical Financial Operations (1995 Bond Reserve Fund)

Title	Actual	Actual	Actual	Actual	Actual
411 1995 Bond Reserve Fund	2010	2011	2012	2013	2014
Beginning Net Cash and Investment	23,335.00	23,335.00	23,335.00	23,335.00	23,335.00
Ending Net Cash and Investment	23,335.00	23,335.00	23,335.00	23,335.00	23,335.00

TABLE 8-7I

City of Bingen Historical Financial Operations (Bond Redemption Fund)

Title	Actual	Actual	Actual	Actual	Actual
413 1973 Bond Redemption Fund	2010	2011	2012	2013	2014
Beginning Net Cash and Investment	8,039.28	8,044.27	8,044.85	8,035.70	8,036.19
Investment Interest	4.99	0.78	0.85	0.49	0.17
Transfer in from Treatment Plant	9,300.00	9,900.00	9,450.00	0	0
Total Revenues + Beginning Net Cash and Investment	17,344.27	17,945.05	17,495.70	8,036.19	8,036.36
Miscellaneous	0	0.20	0	0	0
Redemption of Debt Principal	8,000.00	9,000.00	9,000.00	0	0
Interest on Debt Service	1,300.00	900.00	450.00	0	0
Other Debt Service Costs	0	0	10.00	0	0
Transfer to Plant Improvement	0	0	0	0	8,036.19
Total Expenditures	9,300.00	9,900.20	9,460.00	0.00	8,036.36
Ending Net Cash and Investment	8,044.27	8,044.85	8,035.70	8,036.19	0

TABLE 8-7J

City of Bingen Historical Financial Operations (Bond Reserve Fund)

Title	Actual	Actual	Actual	Actual	Actual
414 1995 Bond Redemption Fund	2010	2011	2012	2013	2014
Beginning Net Cash and Investment	6,453.85	6,339.47	6,396.59	6,452.49	6,287.37
Investment Interest	61.83	231.58	230.36	9.34	5.90
Transfer in from Sewer	20,550.00	19,650.00	18,750.00	17,850.00	21,975.00
Total Revenues	27,065.68	26,221.05	25,376.95	24,311.83	28,268.27
Redemption of Debt Principal	0	15,000.00	15,000.00	0	0
Redemption of Debt Principal	15,000.00	0	0	0	0
Redemption of Debt Principal	0	0	0	15,000.00	20,000.00
Interest on Debt Service	0	0	0	3,024.46	1,970.00
Interest on Debt Service	5,550.00	4,650.00	3,750.00	0	0
Other Debt Service Costs	176.21	174.46	174.46	0	0
Total Expenditures	20,726.21	19,824.46	18,924.46	18,024.46	21,970.00
Ending Net Cash and Investment	6,339.47	6,396.59	6,452.49	6,287.37	6,298.27

TABLE 8-7K

City of Bingen Historical Financial Operations (Public Works Trust Fund Loan)

Title	Actual	Actual	Actual	Actual	Actual
416 Public Works Trust Fund Loan	2010	2011	2012	2013	2014
Transfer in Treatment Plant	107,142.86	107,142.86	107,142.85	107,142.86	0
Redemption PWTF Loan Principal	0	107,142.86	107,142.85	0	0
Redemption PWTF Loan Principal	107,142.86	0	0	0	0
Redemption PWTF Loan Principal	0	0	0	107,142.86	0
Total Expenditures	107,142.86	107,142.86	107,142.85	107,142.86	0
Ending Net Cash and Investment	0	0	0	0	0

City of White Salmon Historical Financial Operations

The City of White Salmon tracks its sewer utility finances with six separate accounts, as listed below. This separate accounting is required because the city funds and maintains its own wastewater collection system while jointly funding the wastewater treatment facility with the City of Bingen through an interlocal agreement.

- 402 – Wastewater - All monies earned by the sewer system from established sewer rates, sewer system development charges and other sources authorized by Council are placed in this fund.
- 406 – Bond Redemption – Monies in this fund were historically used to meet water and sewer revenue bonds principal and interest payments
- 407 – Bond Reserve - Monies in this fund were historically used to meet the reserve requirements for water and sewer revenue bonds
- 409 – Wastewater Reserve – The purpose of the fund is to hold any moneys collected from sewer connection fees and usage fees which are allocated to the fund. The fund shall be used for construction of improvements to the wastewater system used by the city and for a bond reserve fund required for the construction of such improvements. Any interest accrued on the fund shall be credited to the fund.
- 414 – Wastewater Bond Redemption – This fund exists for the purpose of receiving all funds required by law to pay back the debt established in the soliciting of said bonds. The city clerk/treasurer is directed to make such transfer and execute such transfer on the books of the city from the wastewater fund into the wastewater bond redemption fund.
- 416 – Wastewater Bond Reserve – This fund exists as required in the bond documents referenced in the wastewater bond redemption fund
- 417 – Treatment Plant Reserve Fund – The purpose of this fund is to hold any moneys collected from sewer connection fees and usage fees which are allocated to the fund. The fund shall be used for construction of improvements, so long as the city utilizes the City of Bingen wastewater treatment plant, to the wastewater treatment plant used by the City and for a bond reserve fund required for the construction of such improvements. The use of these funds shall be collected and expended in accordance with the interlocal agreement with the City of Bingen for the wastewater treatment plant. Any interest accrued on the fund shall be credited to the fund.

Historical financial operations for the City of White Salmon sewer utility for the years 2009 through 2014 are summarized in Tables 8-8A to 8-8G.

TABLE 8-8A

City of White Salmon Historical Financial Operations (Wastewater Fund)⁽¹⁾

Title	2009	2010	2011	2012	2013	2014
402 White Salmon Wastewater Fund Revenues						
Unreserved. Beginning Balance	581,637.01	621,221.79	735,425.13	677,455.13	631,938.53	488,673.07
SR 14 Trunkline, WSDOT	210	0	0	0	0	0
SR 14 Trunkline USACE	49,254.76	53,156.74	0	0	0	0
Service Charge	626,007.34	647,051.23	651,755.47	657,743.76	676,550.09	795,315.18
Connections	8,000.00	14,000.00	22,350.00	20,633.71	40,601.34	36,860.79
Investment Interest	0	0	924.42	1,544.67	6,810.29	(1,998.30)
CE IF Loan Interest	0	0	0	67.7	50.20	32.70
Sale of Scrap and Junk	0	0	568.13	342.92	10,768.54	0
Other Miscellaneous Revenue	108.42	-108.42	0	18.19	2,248.47	2,690.51
CE IF Loan Principal	0	0	0	3,500.00	3,500.00	3,500.00
Tohomish Project Loan	0	0	0	0	0	
Transfer From Accrued Leave Reserve	0	1,941.17	0	0	0	
Transfer From Health Suspense Fund-	0	2,794.53	2,168.52	1,629.20	0	
Insurance Receipt Assets						33,419.28
Total Revenues	683,580.52	718,835.25	677,766.54	685,480.15	740,528.93	1,358,493.23
402 White Salmon Wastewater Fund Expenditures						
Salaries	102,444.88	51,089.42	47,802.84	56,153.51	76,191.60	79,267.49
Salaries/OT	0	0	226.68	638.16	477.61	868.86
Benefits	49,297.37	23,487.43	27,654.16	35,237.81	37,912.26	37,926.89
Benefits/OT	342.27	158.58	282.76	114.18	95.90	172.39
Uniforms and Safety Gear	0	0	837.86	333.96	1,357.40	799.20
Office Supplies	671	663.73	910.05	449.15	1,241.15	1,586.58
Janitorial Supplies	574.68	554.49	376.41	290.78	342.95	300.62
Chemical and Lab Supplies	323.19	0	802.48	54.36	999.94	1,340.17

TABLE 8-8A – (continued)

City of White Salmon Historical Financial Operations (Wastewater Fund)⁽¹⁾

Title	2009	2010	2011	2012	2013	2014
402 White Salmon Wastewater Fund Expenditures – Contin.						
Construction Supplies	405.71	753.84	666.12	1,361.36	743.94	302.18
Pipe, Valves, Fittings	1,411.62	159.11	0	867.11	2,900.19	298.26
Utility Locate Supplies	6.44	0	0	126.02	16.57	94.51
Vehicle/Equip Rep/Main Supplies					4,751.88	3,042.55
Gas/Oil/Diesel/Lubrication	4,289.25	5,332.22	5,105.02	6,149.16	5,728.19	6,098.13
Shop Equipment and Tools	441.11	1,467.84	563.28	545.99	757.86	1,367.45
Contractual Services	10,076.77	8,401.18	4,410.27	2,949.56	12,734.62	9,640.81
Com-CenturyLink	515.45	1,271.69	1,231.74	863.49	815.32	946.24
Com-Matrix	92.12	87.64	51.85	0	0	0
Com-Other	31.52	209.75	349.47	332.89	59.74	73.40
Utility Locates	146.50	119.62	241.57	136.93	195.24	215.03
Com-AT&T	0	0	0	0	256.56	380.01
Travel and Training	578.7	762.99	1,044.67	385.97	267.19	802.45
Advertising	33.2	7.34	24.38	18	35.10	8.75
Equipment Rental	1,209.33	419.63	947.34	839.16	940.93	12,792.73
Utilities-PUD	2,089.38	1,920.13	2,039.23	2,334.47	2,670.59	2,815.27
Utilities-NW Natural	1,722.61	1,327.30	1,370.90	1,237.49	1,261.44	1,241.70
Utilities-City of White Salmon	1,565.49	1,578.72	1,610.96	1,613.77	1,464.94	1,237.85
Bldg./Ground Repair/Maintenance	997.62	342.48	374.66	368.32	2,262.02	405.07
Radio Repair/Maintenance	43.26	168.21	16.21	8.06	0.00	0
Vehicle/Equipment Repair/Maintenance	3,574.81	1,422.95	4,767.57	7,992.52	511.20	24,135.33
Tire Repair/Maintenance	648.14	542.54	166.08	803.06	0.00	24.75
Telemetry Repair/Maintenance	0	0	0	0	0.00	875.05
Computer Equipment/Soft Maintenance	0	176.66	542.85	650.98	927.19	635.73

TABLE 8-8A – (continued)

City of White Salmon Historical Financial Operations (Wastewater Fund)⁽¹⁾

Title	2009	2010	2011	2012	2013	2014
402 White Salmon Wastewater Fund Expenditures – Contin.						
Dues and Subscriptions	219.33	197	359	38.99	139.32	179.00
Postage and Permits	2,846.18	2,995.65	2,950.80	3,057.61	3,138.22	3,282.51
Laundry Services	930.46	823.16	306.44	1,574.74	1,797.86	2,091.03
Miscellaneous Corrections and Reimburse	0	0	505	59.34	44.50	0
Disposal Plant Services	151,737.33	170,894.75	193,654.66	199,633.40	210,558.50	220,476.82
External Taxes	11,463.55	12,266.86	13,451.48	13,202.70	12,964.93	14,882.19
Transfer To Street (6% Utility Tax)	0	0	39,091.54	39,459.54	40,592.75	47,718.91
Transfer To CE (Utility Tax)	0	0	49,000.52	78,919.09	91,478.14	119,297.27
Admin Fee To CE Fund	52,682.68	48,772.32	65,366.76	66,111.17	52,894.36	76,478.58
Principal, PWTF	80,357.14	80,357.14	80,357.14	80,357.14	80,357.15	0
USDA Principal						
USDA Interest						
Bldg. Improvement.	491.94	0	0	0	0	
Infrastructure Improvement.	0	0	0	11,012.76	9,199.10	15,603.27
Non-Bldg. Improvement.	5,423.59	16.12	0	0	0	
Alley Project	0	0	0	0	44,198.26	
Spring Street						10,240.87
SR 14 Laterals	49,254.76	60,199.36	0	0	0	
SR 14 Trunkline, WSDOT	181.6	0	0	0	0	
SR 14 Trunkline, USACE	0	0	0	0	0	
Meters and Vaults	0	0	0	19,203.39	0	698.11
Fixed Assets > \$250	7,368.86	3,339.96	1,584.94	156.77	282.02	
Machinery	0	109.08	0	0	0	0
Vehicles	0	24,444.58	0	9,003.31	64,909.25	3,319.96

TABLE 8-8A – (continued)

City of White Salmon Historical Financial Operations (Wastewater Fund)⁽¹⁾

Title	2009	2010	2011	2012	2013	2014
402 White Salmon Wastewater Fund Expenditures – Contin.						
Office Equipment	0	80.25	598.36	0	0.00	0
Computer Equip/Software	3,430.45	4,806.62	3,046.60	3,315.58	1,335.31	5,742.81
Tohomish Project	0	0	0	0	17,113.20	0
Transfer to Accrued Leave Reserve	554	415.5	0	0	0	0
Transfer to WW Reserve	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00
Transfer to Bond Redemption	43,890.00	41,665.00	0	0	0	0
Transfer to Water Bond Redemption	0	0	63,392.21	0	0	0
Transfer to WW Bond Redemption	37,631.45	38,823.07	105,653.68	56,035.00	52,872.00	89,572.00
Transfer to Treatment Plant Reserve	0	0	0	15,000.00	30,000.00	27,000.00
Total Expenditures	643,995.74	604,631.91	735,736.54	730,996.75	883,794.39	840,128.78
Unreserved Ending Balance	621,221.79	735,425.13	677,455.13	631,938.53	488,673.07	518,364.45

TABLE 8-8B

City of White Salmon Historical Financial Operations (Bond Redemption Fund)

Title	2009	2010	2011	2012	2013	2014
406 White Salmon Bond Redemption Fund						
Beginning Cash and Investment	16,602.40	15,802.40	0	0	0	0
Investment Interest	0	0	0	0	0	0
Transfer from Water	46,450.00	45,300.00	0	0	0	0
Transfer from Wastewater	43,890.00	41,665.00	0	0	0	0
Principal	58,000.00	57,000.00	0	0	0	0
Interest	33,140.00	29,965.00	0	0	0	0
Transfer to Water Bond Redemption	0	0	0	0	0	0
Transfer to Wastewater Bond Redemption	0	0	0	0	0	0
Ending Cash and Investment	15,802.40	15,802.40	0	0	0	0

TABLE 8-8C

City of White Salmon Historical Financial Operations (Bond Redemption Fund)

Title	2009	2010	2011	2012	2013	2014
407 White Salmon Bond Reserve Fund						
Beginning Cash and Investment	110,504.30	110,504.30	0	0	0	0
Investment Interest	0	0	0	0	0	0
Transfer To Water Bond Res	0	0	0	0	0	0
Transfer To Wastewater Bond Res	0	0	0	0	0	0
Ending Cash and Investment	110,504.30	110,504.30	0	0	0	0

TABLE 8-8D

City of White Salmon Historical Financial Operations (Wastewater Reserve Fund)

Title	2009	2010	2011	2012	2013	2014
409 White Salmon Wastewater Reserve Fund						
Beginning Balance	453,130.53	479,034.60	500,481.60	513,172.71	158,303.81	171,836.15
Investment Interest	0	0	691.11	631.1	1,532.34	(124.56)
Repay Interfund Loan	13,904.07	9,447.00	0	0	0	0
Transfer From Wastewater	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00
Interfund Loan to Water for Tohomish Project	0	0	0	0	0	0
Transfer to Treatment Plant Res	0	0	0	367,500.00	0	0
Ending Balance	479,034.60	500,481.60	513,172.71	158,303.81	171,836.15	183,711.59

TABLE 8-8E

City of White Salmon Historical Financial Operations (Wastewater Bond Redemption Fund)

Title	2009	2010	2011	2012	2013	2014
414 White Salmon Wastewater Bond Redemption Fund						
Beginning Balance	0	0	9,876.50	9,780.28	1,526.82	27.15
Revenues						
Interim Transfer from Bond Redemption	0	0	12.81	0	0	
Transfer from Water	0	0	(50,706.80)	0	0	
Transfer from Wastewater	0	0	105,653.68	0	0	
Transfer from Wastewater	0	0	0	56,035.00	52,872.00	89,572.00
Expenditures						
Principal	0	0	38,125.00	46,000.00	43,666.67	74,000.00
Interest	0	0	16,930.91	18,288.46	10,705.00	6,536.67
Ending Balance	-	-	9,780.28	1,526.82	27.15	11,612.48

TABLE 8-9F

City of White Salmon Historical Financial Operations (Wastewater Bond Reserve Fund)

Title	2009	2010	2011	2012	2013	2014
416 White Salmon Wastewater Bond Redemption Fund						
Beginning Balance	0	0	69,065.19	69,149.80	69,262.66	70,167.90
Investment Interest	0	0	84.61	112.86	905.24	(183.47)
Ending Balance	0	0	69,149.80	69,262.66	70,167.90	69,984.43

TABLE 8-8G

City of White Salmon Historical Financial Operations (Wastewater Treatment Reserve Fund)

Title	2009	2010	2011	2012	2013	2014
414 White Salmon Wastewater Treatment Reserve Fund						
Beginning Balance	0	0	0	0	381,718.33	363,911.29
Wastewater Connection	0	0	0	0	0	
Investment Interest	0	0	0	544.72	4,276.85	(1,064.58)
Wastewater Reserve Transfer	0	0	0	367,500.00	0	0
Wastewater Transfer	0	0	0	15,000.00	30,000.00	27,000
Wastewater Plan	0	0	0	1,326.39	52,083.89	17,298.96
Ending Balance	0	0	0	381,718.33	363,911.29	372,547.75

PROJECTED GROWTH

In order to project future revenues, the growth of the number of customers must be estimated. In Chapter 5, the overall growth projections for the two cities were presented. In Tables 8-9 and 8-10, the projections are broken out for each City by year for the planning period.

TABLE 8-9

City of Bingen Projected Growth

Year	Residential ERUs	Commercial ERUs	Industrial ERUs	Total ERUs
2012	329	112	353	794
2013	333	113	353	799
2014	336	114	353	803
2015	339	115	353	807
2016	343	116	353	812
2017	346	117	353	816
2018	349	118	353	820
2019	353	120	353	826
2020	357	121	353	831
2021	360	122	353	835
2022	364	123	353	840
2023	367	124	353	844
2024	371	126	353	850
2025	375	127	353	855
2026	378	128	353	859
2027	382	129	353	864
2028	386	131	353	870
2029	390	132	353	875
2030	394	133	353	880
2031	398	135	353	886
2032	402	136	353	891

TABLE 8-10

City of White Salmon Projected Growth

Year	Single-Family Residential ERUs	Multi-Family Residential ERUs	Commercial ERUs	Tribal FishCo ERUs	New Construction ERUs	Seasonal/Vacant ERUs	Total ERUs
2012	1,137	6	219	0	1	10	1,373
2013	1154	6	222	0	1	10	1,393
2014	1171	6	225	0	1	10	1,413
2015	1189	6	229	0	1	10	1,435
2016	1207	6	232	57	1	10	1,513
2017	1225	6	235	159	1	10	1,636
2018	1243	6	239	189	1	10	1,688
2019	1262	6	243	218	1	10	1,740
2020	1281	6	246	218	1	10	1,762
2021	1300	6	250	218	1	10	1,785
2022	1320	6	254	218	1	10	1,809
2023	1339	7	257	218	1	10	1,832
2024	1359	7	261	218	1	10	1,856
2025	1380	7	265	218	1	10	1,881
2026	1401	7	269	218	1	10	1,906
2027	1422	7	273	218	1	10	1,931
2028	1443	7	277	218	1	10	1,956
2029	1465	7	281	218	1	10	1,982
2030	1486	7	286	218	1	10	2,008
2031	1509	7	290	218	1	10	2,035
2032	1531	7	294	218	1	10	2,061

PROJECTED EXPENSES, REVENUES, AND RESERVES

Future Operating Expenses

The recommended collection system and wastewater treatment system improvements are not expected to require hiring additional staff for either City since the operation of the two collection systems and the wastewater treatment plant will not differ substantially even when all the improvements are constructed. Operating expenses are expected to increase slightly for the wastewater system due to the upsized blowers for the aerobic digester that will use more power.

Billing ERUs

The Cities of Bingen and White Salmon established their monthly sewer charges on the basis of 8,500 gallons per ERU per monthly billing cycle. Assuming an average billing cycle of 30 days, this equates to an ERU of 283 gallons per day. The flow and loading

analysis in Chapter 5 calculated an existing average flow per ERU of 108 gpd/ERU for White Salmon and 130 gpd/ERU for Bingen. Future flows to the Bingen WWTF were estimated based on a system-wide value of 106.9 gpd/ERU, which corrects for irrigation water use.

Because the existing and projected flows identified in this plan do not use the same flow per ERU as the two cities use for their sewer rates, in order to make financial projections, the two cities' sewer billing records were reviewed to ensure the financial projections are based on the two cities' actual current number of sewer accounts and likely growth in number of sewer accounts based on the flow projections presented in Chapter 5.

Table 8-11 shows projected billing ERUs used in the financial forecasts for the two sewer utilities making an adjustment for actual ERUs.

TABLE 8-11
Cities of Bingen and White Salmon
Projected Growth Corrected for Financial Forecasting

Year	Bingen Projected Flow-based ERUs	Bingen Projected Billing ERUs⁽²⁾	White Salmon Projected Flow-based ERUs	White Salmon Projected Billing ERUs⁽³⁾	Total Projected Billing ERUs
2012	794	496	1,373	1333	1,829
2013	799	499	1,393	1352	1,851
2014	803	502	1,413	1372	1,874
2015	807	504	1,435	1393	1,897
2016	812	508	1,513	1469	1,977
2017	816	510	1,636	1588	2,098
2018	820	513	1,688	1639	2,152
2019	826	516	1,740	1689	2,205
2020	831	519	1,762	1711	2,230
2021	835	522	1,785	1733	2,255
2022	840	525	1,809	1756	2,281
2023	844	528	1,832	1779	2,307
2024	850	531	1,856	1802	2,333
2025	855	534	1,881	1826	2,360
2026	859	537	1,906	1850	2,387
2027	864	540	1,931	1875	2,415
2028	870	544	1,956	1899	2,443
2029	875	547	1,982	1924	2,471
2030	880	550	2,008	1950	2,500
2031	886	554	2,035	1976	2,530
2032	891	557	2,061	2001	2,558

- (1) Billing ERUs are based on historical financial information provided by the two cities for 2012-2014.
- (2) Projected based on a historical ratio of Flow-ERU/Billing ERU = 1.6.
- (3) Project based on a historical ratio of Flow ERU/Billing ERU = 1.03.

Table 8-12 shows projected sewer revenues based on projected billing ERUs.

TABLE 8-12

Cities of Bingen and White Salmon Actual and Estimated Projected Revenues from Sewer Rates

Year	Bingen Billing ERUs⁽¹⁾	Bingen Sewer Rate Revenue⁽²⁾	Bingen Overage Billing ERUs⁽²⁾	Bingen Overage Sewer Rate Revenue⁽¹⁾	Bingen Total Sewer Rate Revenue	Bingen Sewer Revenue to WWTF Operations	White Salmon Billing ERUs⁽¹⁾	White Salmon Total Sewer Rate Revenue⁽³⁾	White Salmon Sewer Revenue to WWTF Operations⁽⁴⁾
2012	423	\$213,271	98	\$37,149	\$250,420	\$101,821	1,333	\$657,744	\$278,416
2013	479	\$253,070	104	\$42,490	\$295,560	\$106,458	1,352	\$676,550	\$294,683
2014	482	\$254,653	101	\$41,382	\$296,035	\$85,177	1,372	\$795,315	\$220,660
2015	504	\$278,415	100	\$43,200	\$321,615	\$81,709	1,393	\$860,874	\$225,666
2016	508	\$280,140	100	\$43,200	\$323,340	\$83,738	1,469	\$907,842	\$237,978
2017	510	\$281,520	100	\$43,200	\$324,720	\$84,150	1,588	\$981,384	\$257,256
2018	513	\$282,900	100	\$43,200	\$326,100	\$84,563	1,639	\$1,012,902	\$265,518
2019	516	\$284,970	100	\$43,200	\$328,170	\$85,181	1,689	\$1,043,802	\$273,618
2020	519	\$286,695	100	\$43,200	\$329,895	\$85,697	1,711	\$1,057,398	\$277,182

- (1) Based on actual reported revenues from Table 8-7A divided by historical rates from Table 8-5 (Bingen) and Table 8-6 (White Salmon) for years 2012 through 2014. Other years are from Table 8-11 with Bingen further broken down between standard and overage revenue.
- (2) Based on actual reported revenues from Table 8-7A for years 2012-2014. Other years are projected at \$46/month/ERU.
- (3) Year 2012 thru 2014 are actual revenues, all other years projected based on \$51.50/month/ERU.
- (4) From Table 8 6, based on \$13.50/month/ERU.

Table 8-13 provides projected revenues from new sewer service connections based on the growth rates in Table 8-11 and connection fees in Tables 8-6 for Bingen and the \$2,000 flat rate that White Salmon uses for all of its sewer connections.

TABLE 8-13
Cities of Bingen and White Salmon
Estimated Projected Revenues from New Sewer Connections

Year	Bingen Projected Additional Billing ERUs⁽¹⁾	Bingen Projected Sewer Connection Revenue⁽²⁾	White Salmon Projected Additional Billing ERUs⁽¹⁾	White Salmon Projected Total Sewer Connection Revenue⁽³⁾
2015	22	\$44,000	21	\$42,000
2016	4	\$8,000	76	\$152,000
2017	3	\$6,000	119	\$238,000
2018	3	\$6,000	51	\$102,000
2019	4	\$8,000	22	\$44,000

- (1) Per projected growth in Table 8-11.
- (2) Assumes residential connection charge of \$2,000/ERU.
- (3) Assumes residential connection charge of \$2,000/ERU.

Table 8-14 presents projected expenses for the City of Bingen sewer utility and is broken down between the City of Bingen collection system and the City of Bingen wastewater treatment facility, which serves both the cities. Table 8-15 presents projected expenses for the City of White Salmon sewer utility.

Figure 8-2 is a diagram showing the flow of sewer revenues for each City’s sewer utility.

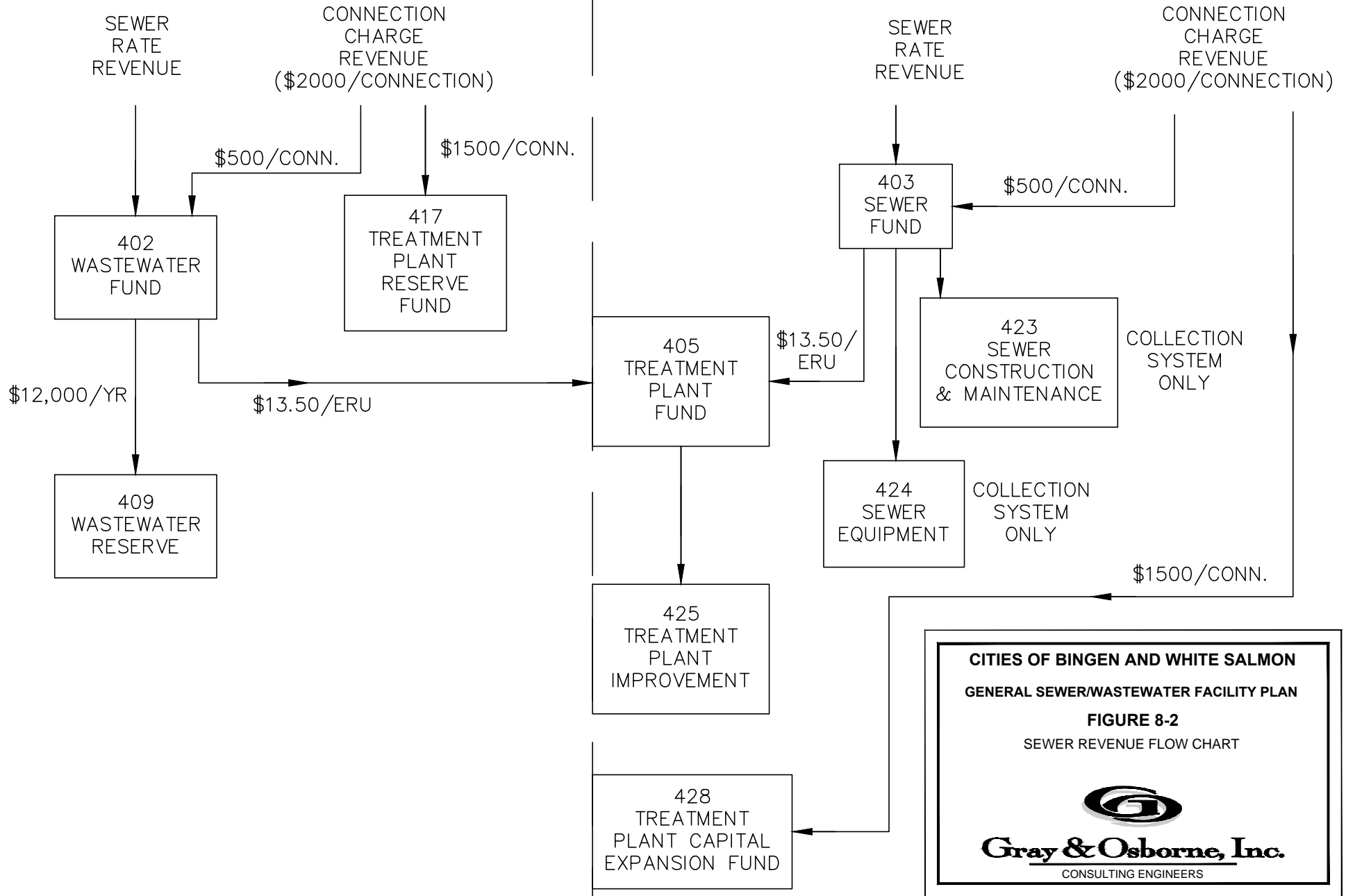
Table 8-16 presents projected balances and reserves for the Bingen sewer utility and Table 8-17 presents projected balanced and reserves for the White Salmon sewer utility based on the projected expense and growth/revenue assumptions presented in Tables 8-11, 8-12 and 8-13.

Project funding for each utilities’ capital improvement programs (see Tables 8-1, 8-2 and 8-3) was assumed to be 20-year loans at 2.4 percent annual interest. It was assumed that Bingen’s collection system capital expenses will be funded from the 403 fund and WWTF improvements from the 425 fund. It was assumed that White Salmon will fund collection system improvements from its 402 fund and WWTF improvements from its 417 fund.

The apportionment of the cost for financing the wastewater treatment facility improvements in the financial projections is based on the number of ERUs projected at the end of the planning period for each utility. It was determined that at the end of the planning period (2032) that the number of sewer ERUs for Bingen will be 693 and the

CITY OF WHITE SALMON

CITY OF BINGEN



CITIES OF BINGEN AND WHITE SALMON
GENERAL SEWER/WASTEWATER FACILITY PLAN
FIGURE 8-2
SEWER REVENUE FLOW CHART

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number of sewer ERUs for White Salmon will be 1,790, resulting in a 28 percent share of the WWTF improvement expense for Bingen and a 72 percent share for White Salmon.

The two cities will enter into an interlocal agreement once the General Sewer/Wastewater Facilities Plan is adopted by both cities and has been approved by Department of Ecology. The cost sharing arrangement presented in this chapter for the future improvements to the wastewater facility is an example of how the interlocal agreement might be structured.

Actual revenues from rates and connection fees could differ from those shown in Tables 8-16 and 8-17 if growth patterns change and if the Cities choose to make different financing arrangements with commercial and industrial sewer customers. It is important to note, for example, that the financial projections made for Tribal Fishco are based on preliminary loading projections and assumptions about sewer development charges and service fees, but have not been finalized by all parties (Tribal Fishco and the two cities).

TABLE 8-14

City of Bingen – Sewer Utility Projected Operating Expenses

Collection System Expenditures	2015	2016	2017	2018	2019
Salaries and Benefits	11,003	11,480	12,054	12,657	13,290
Supplies	1,500	1,575	1,654	1,737	1,824
Fuel	1,500	1,575	1,654	1,737	1,824
Small Tools	2,782	2,921	3,067	3,220	3,381
Professional Services	7,968	1,050	1,103	1,158	1,216
Communications	1,914	2,010	2,111	2,217	2,328
Travel	150	158	166	174	183
Equipment Rental	0.00	0.00	0.00	0.00	0.00
Utilities	1,830	1,922	2,018	2,119	2,225
Utilities – Water	638	670	704	739	776
Utilities – Sewer	138	145	152	160	168
Repairs and Maintenance	2,000	2,100	2,205	2,315	2,431
Miscellaneous	2,000	2,100	2,205	2,315	2,431
Utility Taxes	26,848	28,190	29,600	31,080	32,634
Transfer to Current Expense	12,637	13,269	13,932	14,629	15,360
Transfer to Sewer Construction	100,893	50,000	50,000	50,000	50,000
Transfer to Treatment Plant	80,055	84,058	88,261	92,674	97,308
Transfer to 1995 Bond Redemption	20,775	0.00	0.00	0.00	0.00
Transfer to Street	1,000	1,000	1,000	1,000	1,000
Total Expenditures Collection System	271,631	204,223.00	211,886.00	219,931.00	228,379.00

TABLE 8-14 – (continued)

City of Bingen – Sewer Utility Projected Operating Expenses

Wastewater Treatment Expenditures	2015	2016	2017	2018	2019
Salaries and Benefits	131,058	136,780	143,619	150,800	158,340
Supplies	18,000	18,900	19,845	20,837	21,879
Fuel	2,900	3,045	3,197	3,357	3,525
Small Tools	3,600	3,780	3,969	4,167	4,375
Professional Services	87,238	9,713	10,199	10,709	11,244
Communications	2,052	2,155	2,263	2,376	2,495
Travel	800	840	882	926	972
Advertising	18	19	20	21	22
Equipment Rental	0	0	0	0	0
Utilities	22,920	24,066	25,269	26,532	27,859
Utilities – Water	5,502	5,777	6,066	6,369	6,687
Utilities – Sewer	552	580	609	639	671
Repairs and Maintenance	9,600	10,080	10,584	11,113	11,669
Miscellaneous (Includes Biosolids Management)	15,000	15,750	16,538	17,365	18,233
External Taxes and Operations	7	7	7	7	7
Transfer to Current Expenses	52,493	55,118	57,874	60,768	63,806
Transfer Treatment Plant Replacement	24,796	26,036	27,338	28,705	30,140
Total Expenditures Wastewater Treatment	376,536	312,646	328,279	344,691	361,924

TABLE 8-15

City of White Salmon – Sewer Utility Projected Operating Expenses

All Expenditures	2015	2016	2017	2018	2019
All Expenditures	2015	2016	2017	2018	2019
Salaries and Benefits	295,000	196,100	204,700	216,700	226,200
Uniforms and Safety Gear	3,300	1,300	1,300	1,300	1,300
Office Supplies	1,500	1,500	1,500	1,500	1,500
Janitorial Supplies	1,000	1,000	1,000	1,000	1,000
Chemical and Lab Supplies	1,000	1,000	1,000	1,000	1,000
Construction Supplies	2,000	2,000	2,000	2,000	2,000
Pipes, Valves, Fittings	10,000	10,000	10,000	10,000	10,000
Utility Locate Supplies	4,200	200	200	200	200
Vehicle/Equip Rep/Main Supplies	7,000	5,000	5,000	5,000	5,000
Gas/Oil/Diesel/Lubrication	6,000	6,000	6,000	6,000	6,000
Shop Equipment and Tools	3,000	1,500	1,500	1,500	1,500
Contractual Services	5,000	5,000	5,000	5,000	5,000
Databar Services	0	6,000	6,000	6,000	6,000
Communications	4,450	1,650	1,650	1,650	1,650
Utility Locates	250	250	250	250	250
Travel and Training	600	200	200	200	200
Equipment Rental	1,000	1,000	1,000	1,000	1,000
Utilities-PUD	3,360	3,360	3,360	3,360	3,360
Utilities-NW Natural	1,500	1,500	1,500	1,500	1,500
Radio Repair/Maintenance	200	200	200	200	200
Vehicle/Equipment Repair/Maintenance	2,000	4,000	4,000	4,000	4,000
Tire Repair/Maintenance	1,000	1,000	1,000	1,000	1,000
Telemetry Repair/Maintenance	1,000	1,000	1,000	1,000	1,000
Computer Equipment/Soft Maintenance	1,000	1,000	1,000	1,000	1,000

TABLE 8-15 – (continued)

City of White Salmon – Sewer Utility Projected Operating Expenses

All Expenditures	2015	2016	2017	2018	2019
Dues and Subscriptions	400	400	400	400	400
Postage and Permits	4,200	100	100	100	100
Laundry Services	1,600	1,600	1,600	1,600	1,600
Wastewater Treatment Plant Services	221,328	224,826	228,006	231,345	235,002
External Taxes	14,500	15,000	15,500	16,000	16,500
Transfer to Street (6% Utility Tax)	41,000	43,000	45,000	46,000	48,000
Transfer to CE (Utility Tax)	83,000	86,000	89,000	92,000	96,000
Admin Fee to CE Fund	70,553	78,544	76,943	83,717	81,859
Infrastructure Improvement.	310,232	0	0	0	0
Machinery	1,075	0	0	0	0
Transfer to WW Reserve	12,000	12,000	12,000	12,000	12,000
Transfer to WW Bond Redemption	13,147	13,339	13,172	13,314	13,089
Transfer to Treatment Plant Reserve	15,000	15,000	15,000	15,000	15,000
Total Expenditures	1,155,007	759,126	778,367	808,900	830,146

TABLE 8-16

City of Bingen – Sewer Utility Projected Balances and Reserves

Category	2015	2016	2017	2018	2019
City of Bingen Collection System Non-CIP Expenses (Table 8-14)	\$271,631	\$204,223	\$211,886	\$219,931	\$228,379
City of Bingen Wastewater Treatment Non-CIP Expenses (Table 8-14)	\$376,536	\$312,646	\$328,279	\$344,691	\$361,924
Projected End of Year Balances without Capital Improvement Projects					
403 – Sewer Fund without CIP	\$176,748	\$214,127	\$242,931	\$266,038	\$282,648
405 – Wastewater Treatment Fund	\$117,272	\$117,693	\$135,584	\$145,890	\$147,832
423 – Sewer Construction and Maintenance Fund without CIP	\$543,891	\$552,049	\$560,330	\$568,735	\$577,266
425 – Wastewater Treatment Plant Improvement Fund without CIP	\$207,761	\$210,877	\$214,040	\$217,251	\$220,510
428 – Treatment Plant Replacement without CIP	\$225,873	\$231,873	\$236,373	\$240,873	\$246,873
Capital Improvement Projects					
Sewer – CIP	\$0	\$0	\$48,514	\$48,514	\$48,514
423 – Sewer Construction and Maintenance Fund with CIP	\$543,891	\$552,049	\$511,816	\$520,221	\$528,752
WWTF CIP	\$0	\$0	\$20,047	\$20,047	\$20,047
425 – Wastewater Treatment Plant Improvement Fund without CIP	\$207,761	\$210,877	\$193,994	\$197,204	\$200,463

TABLE 8-17

City of White Salmon – Sewer Utility Projected Balances and Reserves

Category	2015	2016	2017	2018	2019
City of White Salmon Sewer Utility Non-CIP Expenses	\$844,775	\$759,126	\$778,367	\$808,900	\$830,146
Projected End of Year Balances without Capital Improvement Projects					
402 – Wastewater Fund	\$522,463	\$386,545	\$577,562	\$769,564	\$971,220
409 – Wastewater Reserve Fund	\$195,712	\$207,712	\$219,712	\$231,712	\$243,712
417 – Treatment Plant Fund	\$404,048	\$518,048	\$696,548	\$773,048	\$806,048
Capital Improvement Projects					
Sewer - CIP	\$310,232	\$4,914	\$4,914	\$4,914	\$4,914
402 – Wastewater Fund with CIP	\$212,231	\$381,631	\$572,648	\$764,650	\$966,306
WWTF CIP	\$0	\$0	\$51,780	\$51,780	\$51,780
417 – Treatment Plant Fund with CIP	\$404,048	\$518,048	\$644,768	\$721,268	\$754,268

AVAILABLE CAPITAL PROJECT FUNDING SOURCES

Capital projects will likely require some outside financing. This section describes several funding sources available to the City without reference to any specific project:

- Grants: USDA Rural Development (RD) in conjunction with an RD Loan
 Community Development Block Grant funding through Klickitat
 County/HUD

- Loans: Public Works Trust Fund (PWTF) currently on hiatus
 USDA Rural Development (RD)
 Community Economic Revitalization Board (CERB)
 State Revolving Fund (SRF) and Centennial Clean Water Act

- Bonds: Revenue Bonds

- Other: Utility Local Improvement Districts (ULID)
 Developer Financing
 System Development Charges
 Klickitat County CDBG

USDA RURAL DEVELOPMENT

USDA Rural Development (RD) has a loan program that, under certain conditions, includes a limited grant program. Grant determination is based on a formula that incorporates existing utility debt service and existing utility service rates.

In addition, RD has a loan program for communities that cannot obtain funding by commercial means or through the sale of revenue bonds. The loan program provides long-term 30- to 40-year loans at interest rates that are based on federal rates and vary with the commercial market. Interest rates currently range from 2.15 percent (severe hardship) to 3.6 percent (market rate) and require a 1.1 debt coverage payment to a capital reserve. Currently RD's base rate for facilities projects for communities with a Median Household Income (MHI) over \$60,049 is 3.6 percent. The rate for low-moderate income communities was 2.875 percent as of June 2015. These rates are updated quarterly

PUBLIC WORKS TRUST FUND

The Public Works Trust Fund (PWTF) is a revolving loan fund designed to help local governments finance needed public works projects through low-interest loans and technical assistance. The PWTF, established in 1985 by legislative action, offers loans substantially below market rates, payable over periods ranging up to 20 years.

Interest rates for 2014 Loans were 2.55 percent with a maximum loan amount of \$7 million with no match requirement. Rates can be reduced for communities recovering from a Federally-Declared Disaster. The useful life of the project determines the loan term, with a maximum term of 20 years. The Public Works Board has proposed \$1.2 million to fund future emergency projects. For the FY 2016 Loan Funding Round (May 2014 application period) the Board recommended funding 49 Construction Loans for a total of \$170 million. Only 16 projects received funding from the Legislature. The FY 2017 Application Funding was not approved by the Legislature and no applications were solicited or submitted during 2015.

To be eligible, an applicant must be a local government such as a City, Town, County, or special purpose utility district, and have a long-term plan for financing its public work needs. If the applicant is a Town, City, or County, it must adopt the 1/4 percent real estate excise tax dedicated to capital purposes. Eligible public works systems include streets and roads, bridges, storm sewers, sanitary sewers, and domestic water. Loans are presently offered only for purposes of repair, replacement, rehabilitation, reconstruction or improvement of existing service users. A recent change has now made projects intended to meet reasonable growth (as detailed in a 20-year growth management plan) eligible for PWTF funding.

The funding program operates on an annual cycle for construction funds, with a May application date. The program also accepts preconstruction applications on a monthly basis when such funding is available. The PWTF Program operates at the discretion of the Governor and the Legislature. The fund has been re-allocated to the State's General Fund to cover budget deficits in recent years.

COMMUNITY ECONOMIC REVITALIZATION BOARD (CERB)

This low interest loan and grant program is managed by the Department of Trade and Economic Development. Funding is available for infrastructure that supports projects, which will result in specific private developments or expansions in manufacturing, and businesses that support the trading of goods and services outside the state's border. Funding is not available to support retail shopping developments or acquisition of real property. The projects must create or retain jobs. The average is one job per \$3,000 of CERB financing. The interest rate fluctuates with the state bond rate.

STATE REVOLVING FUND/CENTENNIAL CLEAN WATER ACT FUND

The Department of Ecology administers the State Revolving Fund (SRF) and Centennial Clean Water Act programs that provide low interest loans for water pollution control projects. Currently, Ecology provides is offering 20-year loans at 60 percent of the market rate for municipal bond market rate, or 2.4 percent interest rates, and 5-year loans at a 1.2 percent interest rate, or 30 percent of the municipal bond market rate. The primary program requirements are to have an approved facilities plan for treatment works and to demonstrate the ability to repay the loan through a dedicated funding source. The

loans can be used to finance sewer system replacement for the elimination of excessive infiltration and inflow and for the construction of facilities with reserve capacities to accommodate flows corresponding to the 20-year projected growth in the service area. Land acquisition is not eligible for SRF funding. Recent changes in direction of the Public Works Trust Funding have made the SRF the primary source for water quality infrastructure funding.

Centennial Clean Water Grants are available for facilities projects in Hardship Communities with a maximum grant award of \$5 million. Communities with a population less than 20,000 and a Median Household Income (MHI) less than 80 percent of the State MHI may qualify for Centennial Hardship Funding. Finally, projects qualifying for Green Project Reserve Funding may receive up to a 25 percent Forgivable Principal Loan (Grant) for approved activities in the following categories: Green Infrastructure, Energy Efficiency, Water Efficiency and Environmentally Innovative.

REVENUE BONDS

A common source of funds for construction of major utility improvements is the sale of revenue bonds. The tax-free bonds would be issued by the Cities, and repaid and backed by sewer service rate revenue. In order to market revenue bonds, the issuer must typically show that its net wastewater utility operating income (gross income less expenses) is equal to or greater than a factor, typically 1.2 to 1.4, times the annual debt service on all par debt issued. This 1.4 factor is commonly referred to as the debt coverage factor and is applicable to revenue bonds sold on the commercial market. The required debt coverage factor may be specified in previous revenue bond ordinances. If not, it will be determined at the time of bond issue.

UTILITY LOCAL IMPROVEMENT DISTRICTS

Another potential source of funds for improvements comes through the formation of Utility Local Improvement Districts (ULIDs) involving an assessment made against properties benefited by the improvements. ULID bonds are further guaranteed by the revenues and are financed by issuance of revenue bonds.

ULID financing is frequently applied to sewer system extensions into areas previously not served. Typically, ULIDs are formed by a municipality at the written request (by petition) of the property owner within a specific area of the municipality. Upon receipt of a sufficient number of signatures on petitions, the local improvement area is defined. Each separate property in the ULID is assessed in accordance with the special benefits the property receives from the sewer system improvements.

There are several benefits to a municipality in selecting ULID financing. The assessment places a lien on the property and must be paid in full upon sale of the property. Further, property owners may pay the assessment immediately upon receipt reducing the costs

financed by the ULID. The advantages of ULID financing, as opposed to rate financing, to the property owner include:

1. The ability to avoid interest costs by early payment of assessments.
2. Low-income senior citizens may be able to defer assessment payments until the property is sold.
3. Some Community Development Block Grant funds are available to property owners with incomes near or below the poverty level. Funds are available only to reduce assessments.

The major disadvantage to the ULID process is that there are significant costs associated with a ULID process (can be 30 percent of the amount of funds needing to be raised). Also, it may be politically difficult to approve the formation of the ULID. The ULID process may be stopped if owners of 40 percent of the property, within the ULID boundary, protest its formation.

DEVELOPER FINANCING

Developers may fund the construction of extensions of the sewer system to property within new plats. The developer extensions are turned over to the wastewater system for operation and maintenance when completed.

It may be necessary, in some cases, to require the developer to construct facilities outside of the plat limits to provide service to the plat and/or larger pipelines for the ultimate development of the sewer system. The municipality may, by policy, reimburse the developer through direct outlay, latecomer charges, or reimbursement agreements for the additional cost of facilities, including increased size of pipelines over those required to serve the property under development.

Construction of any pipe in commercial or industrial areas that is larger than the size required to service the development may also be considered as an oversized line possibly eligible for compensation. Developer reimbursement (latecomer) agreements provide up to 15 years or more for developers to receive payment from other connections made to the developer-financed improvements.

SYSTEM DEVELOPMENT CHARGES

The Cities of Bingen and White Salmon have system development charges to finance improvements of general benefit to the wastewater system, which are required to service future growth. System development charges are generally established as one-time charges assessed against new sewer customers as a way to recover a part of the cost of additional system capacity constructed for their use.

The fee is deposited in a reserve fund for construction projects. The intent is that all new system customers will pay an equitable share for existing and planned facilities of general benefit. Typical items of construction financed by the system development charge are wastewater treatment facilities, pump stations, interceptors, and other general improvements that benefit the entire system.