

City of Bozeman

Wastewater Rate Study - FY12 thru FY16

Exhibit 1

Escalation Factors

	Budgeted FY11	FY12	FY13	Projected FY14	FY15	FY16
Revenues						
Rates - Acct Growth	1.0%	1.0%	1.0%	1.0%	2.0%	2.0%
Other Revenues	1.0%	1.0%	1.0%	1.0%	2.0%	2.0%
Interest Income	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Expenses						
Utilities	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Labor	1.0%	2.0%	2.5%	2.5%	3.0%	3.5%
Benefits - Medical	0.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Materials & Supplies	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Chemicals	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Electricity	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Natural Gas	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Gas & Oil	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Equipment	3.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Miscellaneous	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Debt Service						
Revenue Bond (Outstanding)						
Term in Years	20	20	20	20	20	20
Rate	5.50%					
New SRF Loan						
Term in Years	20	20	20	20	20	20
Rate	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%

City of Bozeman
Wastewater Rate Study
Exhibit 2
Revenues

	Actuals FY10	Budgeted FY11	FY12	FY13	Projected FY14	FY15	FY16
Rate Revenues							
Rate Revenues	5,303,774.00	5,785,000.00	5,842,850.00	5,901,278.50	5,960,291.29	6,079,497.11	6,201,087.05
Unmetered Sales	21,123.00	20,000.00	20,200.00	20,402.00	20,606.02	21,018.14	21,438.50
Low Income Discount	(9,638.00)	(9,000.00)	(10,000.00)	(10,000.00)	(10,000.00)	(10,000.00)	(10,000.00)
ACH Discount	-	-	(25,000.00)	(25,000.00)	(25,000.00)	(25,000.00)	(25,000.00)
Total Rate Revenue	5,315,259.00	5,796,000.00	5,828,050.00	5,886,680.50	5,945,897.31	6,065,515.25	6,187,525.56
Other Revenues							
Sewer Hookup Charges	-	2,000.00	2,020.00	2,040.20	2,060.60	2,101.81	2,143.85
Sale of Sewer Materials	3,050.00	3,000.00	3,030.00	3,060.30	3,090.90	3,152.72	3,215.78
Interest Income	161,860.00	100,000.00	101,000.00	102,010.00	103,030.10	104,060.40	105,101.01
Refunds & Reimb	30,000.00	30,000.00	30,300.00	30,603.00	30,909.03	31,527.21	32,157.75
Lift Stations	15,636.00	12,000.00	14,841.95	14,990.37	15,140.27	15,443.08	15,751.94
Extra Strength Surcharge	12,628.00	20,000.00	20,200.00	20,402.00	20,606.02	21,018.14	21,438.50
Other	43,307.00	50,000.00	20,200.00	20,402.00	20,606.02	21,018.14	21,438.50
Sales	995.00	1,000.00	18,180.00	18,361.80	18,545.42	18,916.33	19,294.65
Total Other Revenue	267,476.00	218,000.00	209,771.95	211,869.67	213,988.37	217,237.83	220,541.99
Operating Revenues	5,582,735.00	6,014,000.00	6,037,821.95	6,098,550.17	6,159,885.67	6,282,753.08	6,408,067.54
<i>Other:</i>							
Contributed Capital	1,152,686.00	-					
Grants	1,270.00						
Loan Proceeds		9,500,000.00					
Grand Total	6,735,421.00	15,514,000.00	6,037,821.95	6,098,550.17	6,159,885.67	6,282,753.08	6,408,067.54

Option B - Updated Rate Study FY12-FY16

Operating Expenditures

City of Bozeman
Wastewater Rate Study
Exhibit 3
Operating Expenditures

	Actuals FY10	Budgeted FY11	FY12	FY13	Projected FY14	FY15	FY16
Wastewater Operations							
Wastewater Operations							
<i>Personnel</i>	420,625.00	445,501.00	454,411.02	465,771.30	477,415.58	491,738.05	508,948.88
Benefits - Medical	103,314.00	74,214.00	81,635.40	89,798.94	98,778.83	108,656.72	119,522.39
Overtime	10,660.00	17,398.00	17,398.00	17,398.00	17,398.00	17,398.00	17,398.00
Total Personnel	534,599.00	537,113.00	553,444.42	572,968.24	593,592.41	617,792.76	645,869.27
<i>Operations</i>	1,067,681.00	1,137,102.00	741,215.06	763,451.51	786,355.06	809,945.71	834,244.08
<i>***Solvent Site ACTIVE Remediation - Monitoring***</i>		<i>incl above</i>	<i>263,093.60</i>	<i>294,145.39</i>	<i>68,330.57</i>	<i>111,991.88</i>	<i>78,737.89</i>
Chemicals	1,185.00	1,000.00	1,100.00	1,210.00	1,331.00	1,464.10	1,610.51
Gas & Oil	12,167.00	15,000.00	16,200.00	17,496.00	18,895.68	20,407.33	22,039.92
Electricity	17,038.00	12,500.00	13,500.00	14,580.00	15,746.40	17,006.11	18,366.60
Natural Gas	9,470.00	8,750.00	9,187.50	9,646.88	10,129.22	10,635.68	11,167.46
Total Operations	1,107,541.00	1,174,352.00	1,044,296.16	1,100,529.78	900,787.93	971,450.81	966,166.47
Utility Locates							
<i>Personnel</i>	-	-	-	-	-	-	-
Benefits - Medical	-	-	-	-	-	-	-
Overtime	-	-	-	-	-	-	-
Total Personnel	-	-	-	-	-	-	-
<i>Operations</i>	1,911.00	2,000.00	2,060.00	2,121.80	2,185.45	2,251.02	2,318.55
Chemicals	-	-	-	-	-	-	-
Gas & Oil	-	-	-	-	-	-	-
Electricity	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-
Total Operations	1,911.00	2,000.00	2,060.00	2,121.80	2,185.45	2,251.02	2,318.55
Wastewater Services							
<i>Operations</i>	2,547.00	2,500.00	2,575.00	2,652.25	2,731.82	2,813.77	2,898.19
Total Operations	2,547.00	2,500.00	2,575.00	2,652.25	2,731.82	2,813.77	2,898.19
Manholes							
<i>Operations</i>	8,798.00	10,000.00	10,800.00	11,664.00	12,597.12	13,604.89	14,693.28
Total Operations	8,798.00	10,000.00	10,800.00	11,664.00	12,597.12	13,604.89	14,693.28
Televising							
<i>Operations</i>	4,269.00	6,600.00	6,798.00	7,001.94	7,212.00	7,428.36	7,651.21
Total Operations	4,269.00	6,600.00	6,798.00	7,001.94	7,212.00	7,428.36	7,651.21

Main Repairs

<i>Operations</i>	907.00	1,000.00	1,080.00	1,166.40	1,259.71	1,360.49	1,469.33
Total Operations	907.00	1,000.00	1,080.00	1,166.40	1,259.71	1,360.49	1,469.33

Wastewater Plant

Wastewater Plant Operations

<i>Personnel</i>	716,467.00	718,135.00	732,497.70	750,810.14	769,580.40	792,667.81	820,411.18
Benefits - Medical	109,000.00	113,925.00	125,317.50	137,849.25	151,634.18	166,797.59	183,477.35
Overtime	33,468.00	39,770.00	39,770.00	39,770.00	39,770.00	39,770.00	39,770.00
Total Personnel	858,935.00	871,830.00	897,585.20	928,429.39	960,984.57	999,235.40	1,043,658.53
<i>Operations</i>	601,979.00	715,422.00	736,884.66	758,991.20	781,760.94	805,213.76	829,370.18
Chemicals	53,923.00	60,000.00	66,000.00	72,600.00	79,860.00	87,846.00	96,630.60
Gas & Oil	6,662.00	9,000.00	9,720.00	10,497.60	11,337.41	12,244.40	13,223.95
Electricity	284,694.00	366,000.00	395,280.00	426,902.40	461,054.59	497,938.96	537,774.08
Natural Gas	10,882.00	17,000.00	17,850.00	18,742.50	19,679.63	20,663.61	21,696.79
Total Operations	958,140.00	1,167,422.00	1,225,734.66	1,287,733.70	1,353,692.56	1,423,906.73	1,498,695.59

Laboratory

<i>Personnel</i>	106,562.00	106,276.00	108,401.52	111,111.56	113,889.35	117,306.03	121,411.74
Benefits - Medical	16,618.00	17,670.00	19,437.00	21,380.70	23,518.77	25,870.65	28,457.71
Overtime	4,402.00	4,394.00	4,394.00	4,394.00	4,394.00	4,394.00	4,394.00
Total Personnel	127,582.00	128,340.00	132,232.52	136,886.26	141,802.12	147,570.67	154,263.45
<i>Operations</i>	28,978.00	40,400.00	41,612.00	42,860.36	44,146.17	45,470.56	46,834.67
Total Operations	28,978.00	40,400.00	41,612.00	42,860.36	44,146.17	45,470.56	46,834.67

Sludge Injection

<i>Personnel</i>	5,551.00	5,480.00	5,589.60	5,729.34	5,872.57	6,048.75	6,260.46
Benefits - Medical	880.00	930.00	1,023.00	1,125.30	1,237.83	1,361.61	1,497.77
Overtime	376.00	-	-	-	-	-	-
Total Personnel	6,807.00	6,410.00	6,612.60	6,854.64	7,110.40	7,410.36	7,758.23
<i>Operations</i>	83,451.00	29,600.00	30,488.00	31,402.64	32,344.72	33,315.06	34,314.51
Chemicals	-	-	-	-	-	-	-
Gas & Oil	16,120.00	30,000.00	32,400.00	34,992.00	37,791.36	40,814.67	44,079.84
Electricity	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-
Total Operations	99,571.00	59,600.00	62,888.00	66,394.64	70,136.08	74,129.73	78,394.35

PreTreatment

<i>Operations</i>	8,477.00	2,500.00	2,575.00	2,652.25	2,731.82	2,813.77	2,898.19
Total Operations	8,477.00	2,500.00	2,575.00	2,652.25	2,731.82	2,813.77	2,898.19

Grand Total Operating Expenses	3,748,155.00	4,010,067.00	3,989,213.56	4,168,749.24	4,099,710.45	4,315,878.84	4,472,099.97
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City of Bozeman
 Wastewater Rate Study
 Exhibit 4
 Capital Expenditures - Wastewater Fund

Actuals FY10	Budgeted FY11	Projected				
		FY12	FY13	FY14	FY15	FY16

Wastewater Plant

WW04 - WRF Construction

WW24 - Latchet Lab Equipment

Wastewater Operations

WW02 - 1 ton truck with hoist		45,000.00		45,000.00		
WW03 - 1/2 ton flex fuel truck			25,000.00			
WW07 - Biannual Project Engineering			90,000.00		90,000.00	
WW08 - Biannual Project Construction		884,600.00	886,000.00	1,003,150.00	952,700.00	803,200.00
WW17 - TV van replacement		167,000.00				
WW21 - Flusher truck replacement			253,094.00			
PW02 - Laurel Glen Shops Annex		100,000.00				
PW01 - Shops Facility Expansion Plan			10,000.00			
WW26 - Vac truck replacement					262,000.00	
WW27 - SKID STEER VEHICLE		45,000.00				
WW23 - MINI EXCAVATOR & TRAILER			25,000.00			
<i>***Solvent Site Active Remediation - BIO REMEDIATION (ends FY16)</i>		<i>380,000.00</i>	<i>54,000.00</i>	<i>100,000.00</i>	<i>55,000.00</i>	<i>103,000.00</i>

Unidentified CIP

Grand Total - Capital Expenditures for Wastewater Fund	-	1,621,600.00	1,343,094.00	1,148,150.00	1,359,700.00	906,200.00
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Less: Funding Sources other than Rates

Grants	-					
Cash on Hand	-					
SRF Loan	-					
net of SRF Loan to Reserve				-	-	
Total Funding Sources other than Rates	-	-	-	-	-	-

Rate Revenues Dedicated to CIP	-	-	1,621,600.00	1,343,094.00	1,148,150.00	1,359,700.00	906,200.00
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City of Bozeman
 Wastewater Rate Study
 Exhibit 5
 Capital Expenditures - Wastewater Impact Fee Fund

	Actuals FY10	Budgeted FY11	FY12	FY13	Projected FY14	FY15	FY16	Totals
Wastewater Plant <i>WWIF00 - WRF Phase I Debt Service</i>		-	404,000.00	408,040.00	416,201.00	424,525.00	433,015.00	2,085,781.00
Grand Total - Water Impact Fee Fund	-	-	404,000.00	408,040.00	416,201.00	424,525.00	433,015.00	

Option B - Updated Rate Study FY12-FY16

Debt Service

City of Bozeman
Wastewater Rate Study
Exhibit 7
Wastewater Fund Debt Service

Actuals FY10	Budgeted FY11	Projected				
		FY12	FY13	FY14	FY15	FY16

WRF SRF Loan

Summary of All Loans

Borrow an additional \$2M

1,021,006.00	\$1,900,817.00	\$1,917,480.00	\$1,915,845.00	\$1,914,840.00	\$1,912,448.00
	140,000.00	140,000.00	140,000.00	140,000.00	140,000.00

Grand Total Debt Service	-	1,021,006.00	2,040,817.00	2,057,480.00	2,055,845.00	2,054,840.00	2,052,448.00
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City of Bozeman
Wastewater Rate Study
Exhibit 8
Reserves Recap

	Actuals FY10	Budgeted FY11	FY12	FY13	Projected FY14	FY15	FY16
Wastewater Fund							
Operating & Capital Reserve							
Beginning Balance		8,698,577.00	2,982,927.00	3,777,081.89	3,154,897.40	3,335,280.21	3,729,097.30
Add: Operating Revenues		6,014,000.00	6,037,821.95	6,098,550.17	6,159,885.67	6,282,753.08	6,408,067.54
Add: Additional Rate Revenue		-	407,963.50	848,588.58	1,324,202.59	1,841,482.84	2,403,513.43
Add: SRF Loan Proceeds			2,000,000.00	-			-
Less: Operating Expenditures		(4,010,067.00)	(3,989,213.56)	(4,168,749.24)	(4,099,710.45)	(4,315,878.84)	(4,472,099.97)
Less: Capital Expenditures		(6,698,577.00)	(1,621,600.00)	(1,343,094.00)	(1,148,150.00)	(1,359,700.00)	(906,200.00)
Less: Debt Service Payment		(1,021,006.00)	(2,040,817.00)	(2,057,480.00)	(2,055,845.00)	(2,054,840.00)	(2,052,448.00)
Less: Funding of Debt Service Reserve							
Ending Balance - Wastewater Fund		2,982,927.00	3,777,081.89	3,154,897.40	3,335,280.21	3,729,097.30	5,109,930.29
Ending Balance - Debt Service Reserve					-	-	-
Operating & Capital Reserve Target		5,830,224.82	5,827,653.85	5,849,788.39	5,841,276.75	5,867,927.65	5,887,187.79
45 O&M		494,391.82	491,820.85	513,955.39	505,443.75	532,094.65	551,354.79
Annual Deprec		5,335,833.00	5,335,833.00	5,335,833.00	5,335,833.00	5,335,833.00	5,335,833.00

Wastewater Impact Fee Fund

Beginning Balance	-	-	(4,000.00)	(4,040.00)	(4,241.00)	(4,766.00)
Add: Impact Fee Revenues	-	400,000.00	408,000.00	416,000.00	424,000.00	433,000.00
Add: SRF Loan Proceeds	-	-	-	-	-	-
Less: Capital Expenditures	-	(404,000.00)	(408,040.00)	(416,201.00)	(424,525.00)	(433,015.00)
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Ending Balance - Wastewater Impact Fees	-	(4,000.00)	(4,040.00)	(4,241.00)	(4,766.00)	(4,781.00)

Option B - Updated Rate Study FY12-FY16

Rate Requirements

City of Bozeman
 Wastewater Rate Study
 Exhibit 9
 Wastewater Fund Rate Requirements

	Actuals FY10	Budgeted FY11	FY12	FY13	Projected FY14	FY15	FY16
Revenues							
Wastewater Services	5,315,259.00	5,796,000.00	5,828,050.00	5,886,680.50	5,945,897.31	6,065,515.25	6,187,525.56
Other Revenues	267,476.00	218,000.00	209,771.95	211,869.67	213,988.37	217,237.83	220,541.99
Total Revenues	5,582,735.00	6,014,000.00	6,037,821.95	6,098,550.17	6,159,885.67	6,282,753.08	6,408,067.54
Expenses							
<i>O&M Expenses</i>							
Wastewater Operations	1,642,140.00	1,711,465.00	1,597,740.58	1,673,498.01	1,494,380.34	1,589,243.58	1,612,035.73
Utility Locates	1,911.00	2,000.00	2,060.00	2,121.80	2,185.45	2,251.02	2,318.55
Wastewater Services	2,547.00	2,500.00	2,575.00	2,652.25	2,731.82	2,813.77	2,898.19
Manholes	8,798.00	10,000.00	10,800.00	11,664.00	12,597.12	13,604.89	14,693.28
Televising	4,269.00	6,600.00	6,798.00	7,001.94	7,212.00	7,428.36	7,651.21
Main Repairs	907.00	1,000.00	1,080.00	1,166.40	1,259.71	1,360.49	1,469.33
Wastewater Plant Operations	1,817,075.00	2,039,252.00	2,123,319.86	2,216,163.09	2,314,677.13	2,423,142.13	2,542,354.13
Laboratory	156,560.00	168,740.00	173,844.52	179,746.62	185,948.29	193,041.23	201,098.12
Sludge Injection	106,378.00	66,010.00	69,500.60	73,249.28	77,246.48	81,540.09	86,152.59
<i>Debt Service</i>	-	1,021,006.00	2,040,817.00	2,057,480.00	2,055,845.00	2,054,840.00	2,052,448.00
<i>Plus: Impact Fees Dedicated to Debt Svc</i>		-	(404,000.00)	(408,040.00)	(416,201.00)	(424,525.00)	(433,015.00)
<i>Rates Dedicated to CIP</i>		-	1,621,600.00	1,343,094.00	1,148,150.00	1,359,700.00	906,200.00
Total Expenses	3,740,585.00	5,028,573.00	7,246,135.56	7,159,797.39	6,886,032.34	7,304,440.56	6,996,304.12
Balance or (Deficiency) of Funds	1,842,150.00	985,427.00	(1,208,313.61)	(1,061,247.22)	(726,146.67)	(1,021,687.47)	(588,236.58)
REQUIRED RATE ADJUSTMENT CUMULATIVE	-	-	20.73%	18.03%	12.21%	16.84%	26.02%
Proposed Rate Adjustment		10.2%	7.0%	7.0%	7.0%	7.0%	7.0%
Additional Revenue beyond Total Revenues			\$ 407,963.50	\$ 848,588.58	\$ 1,324,202.59	\$ 1,841,482.84	\$ 2,403,513.43
Bond Coverage Ratio							
Average Residential Customer (10 CF, 3/4" Meter)	\$ 39.20	\$ 39.20	\$ 41.94	\$ 44.88	\$ 48.02	\$ 51.38	
With Rate Increase		\$ 2.74	\$ 2.94	\$ 3.14	\$ 3.36	\$ 3.60	
	\$ 39.20	\$ 41.94	\$ 44.88	\$ 48.02	\$ 51.38	\$ 54.98	