

**BOONE COUNTY REGIONAL SEWER DISTRICT  
BOONE COUNTY, MO  
ASSUMPTIONS FOR RATE STUDY**

**Prepared by Stephen M. Connelly, CPA, PC  
August 18, 2014**

**1 CUSTOMERS**

We will assume an annual growth rate of customers at 1.5%, which is the average growth rate for the area over the last several years. Our customer base will be billed customers from the 2014 billing report.

**2 USAGE**

We used a calculated 5 year average monthly usage from the billing reports as our base. This generally reflects less average usage as more conservation is realized.

**3 RATES**

Rates will be derived based on the necessary levels to meet the state mandated 1.10 debt service coverage ratio, cash requirements and other various assumptions regarding expenses.

**4 DEBT**

Debt is a function of the Capital Improvement Plan funding list for projects on the AOC. Additional capital purchases are factored into the fixed asset schedule as required. Debt is also fully recognized on the financial statements in the year of draw down.

**5 INCOME STATEMENT ITEMS**

Items on the income statement are evaluated on an individual basis, based on known data. Absent specific additional information, expenses are assumed to increase at the historical inflation rate from 1914-2013 of 3.38%.

BOONE COUNTY REGIONAL SEWER DISTRICT  
BOONE COUNTY, MO  
Actual and Projected Rate Structure 2011-2019  
Prepared by Stephen M. Connelly, CPA, P  
August 18, 2014

	RATE A PROJECTION									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	
(change)	\$ 2.00	\$ -	\$ -	\$ 1.20	\$ 1.00	\$ 1.20	\$ 1.75	\$ 1.40	\$ 1.40	
Base service fee	\$ 18.45	\$ 18.45	\$ 18.45	\$ 19.65	\$ 20.65	\$ 21.85	\$ 23.60	\$ 25.00	\$ 26.40	
Usage charge	\$ 4.54	\$ 5.45	\$ 5.45	\$ 5.75	\$ 6.00	\$ 6.50	\$ 6.90	\$ 7.25	\$ 7.60	
(change)	\$ 0.59	\$ 0.91	\$ -	\$ 0.30	\$ 0.25	\$ 0.50	\$ 0.40	\$ 0.35	\$ 0.35	
Total Charge (bsf + usage charge)	\$ 22.99	\$ 23.90	\$ 23.90	\$ 25.40	\$ 26.65	\$ 28.35	\$ 30.50	\$ 32.25	\$ 34.00	
Prior Year Total Charge (bsf + usage charge)	\$ 20.40	\$ 22.99	\$ 23.90	\$ 23.90	\$ 25.40	\$ 26.65	\$ 28.35	\$ 30.50	\$ 32.25	
Difference YoY	\$ 2.59	\$ 0.91	\$ -	\$ 1.50	\$ 1.25	\$ 1.70	\$ 2.15	\$ 1.75	\$ 1.75	
Percentage change	13%	4%	0%	6%	5%	6%	8%	6%	5%	
Funds available for DS	1,220,104	1,339,892	1,242,524	1,339,905	1,432,228	1,619,525	1,813,464	1,958,543	2,096,012	
Debt Service	569,021	608,478	654,402	855,653	1,102,304	1,387,920	1,533,428	1,628,438	1,756,240	
DSCR	2.14	2.20	1.90	1.57	1.30	1.17	1.18	1.20	1.19	
Benchmark	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	2.10	
Incremental Debt Service	540,165	609,606	475,165	362,442	199,721	84,375	115,176	152,055	149,226	

**BOONE COUNTY REGIONAL SEWER DISTRICT**  
**BOONE COUNTY, MO**  
**STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION**  
**ACTUAL AND PROJECTED YEARS ENDED DECEMBER 31, 2011-2019**  
**Prepared by Stephen M. Connelly, CPA, PC**  
**August 18, 2014**

	ACTUAL					PROJECTED			
	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>OPERATING REVENUES:</b>									
Customer fees (user fees, penalties, etc)	\$ 2,988,923	3,411,189	3,429,509	3,614,110	3,883,901	4,206,668	4,542,510	4,842,070	5,149,629
Grants									
Miscellaneous	34,840	12,260	5,443	36,972	37,711	38,466	39,235	40,020	40,820
<b>Total Operating Revenue</b>	<b>3,023,763</b>	<b>3,423,449</b>	<b>3,434,952</b>	<b>3,651,082</b>	<b>3,921,612</b>	<b>4,245,134</b>	<b>4,581,745</b>	<b>4,882,090</b>	<b>5,190,449</b>
<b>OPERATING EXPENSES:</b>									
Personnel expenses	\$ 823,952	849,337	881,797	920,300	960,996	1,004,055	1,049,669	1,098,045	1,149,414
Materials and supplies	6,186	8,227	8,188	8,464	8,749	9,044	9,348	9,663	9,989
Dues, training and seminars	4,777	5,850	2,666	2,756	2,849	2,945	3,044	3,147	3,253
Utilities	158,544	168,643	153,206	158,369	163,706	169,223	174,926	180,821	186,915
Equipment costs	56,999	62,840	67,519	75,758	82,197	89,184	96,764	104,989	113,914
Maintenance	138,613	182,053	230,572	264,190	313,330	371,609	440,728	522,704	619,927
Wholesale treatment	541,011	640,723	713,183	741,186	811,859	828,096	836,377	840,559	840,980
Contract services	214,450	286,666	249,879	258,297	267,000	275,995	285,294	294,906	304,841
Miscellaneous	15,845	13,261	20,067	20,743	21,442	22,165	22,912	23,684	24,482
Bad debts	22,357	27,151	24,567	25,395	26,251	27,135	28,050	28,995	29,972
Depreciation	611,552	670,119	666,881	696,102	920,457	1,081,370	1,272,828	1,398,218	1,420,392
<b>Total Operating Expenses</b>	<b>2,594,285</b>	<b>2,914,870</b>	<b>3,018,525</b>	<b>3,171,560</b>	<b>3,578,835</b>	<b>3,880,821</b>	<b>4,219,941</b>	<b>4,505,731</b>	<b>4,704,078</b>
<b>INCOME FROM OPERATIONS</b>	<b>\$ 429,478</b>	<b>508,579</b>	<b>416,427</b>	<b>479,521</b>	<b>342,777</b>	<b>364,313</b>	<b>361,804</b>	<b>376,358</b>	<b>486,372</b>
<b>NON-OPERATING REVENUES/(EXPENSES):</b>									
Interest income	106,979	161,194	159,216	164,282	168,994	173,843	178,832	183,966	189,249
Interest expense	(236,674)	(242,675)	(231,865)	(405,539)	(404,257)	(427,720)	(419,228)	(444,438)	(420,440)
Bond Issuance costs	(55,369)	(35,895)	(128,265)	(20,461)	(146,292)	(52,115)	(180,227)	0	(102,981)
Gain/(loss) on disposal of assets	(157,577)	(33,800)	(279,814)	(36,117)	(37,334)	(38,592)	(39,892)	(41,237)	(42,626)
Contributed collection systems	306,387	92,197	127,695	625,205	765,698	632,374	638,698	645,085	651,536
Grants	285,042	87,303	-	-	-	-	-	-	-
Misc./Contr collection system closure	-	-	-	-	-	-	-	-	-
<b>Total Non-Operating Rev/(Exp)</b>	<b>\$ 248,788</b>	<b>28,324</b>	<b>(353,033)</b>	<b>327,371</b>	<b>346,809</b>	<b>287,789</b>	<b>178,182</b>	<b>343,376</b>	<b>274,737</b>
<b>NET INCOME/(LOSS)</b>	<b>678,266</b>	<b>536,903</b>	<b>63,394</b>	<b>806,892</b>	<b>689,586</b>	<b>652,102</b>	<b>539,986</b>	<b>719,734</b>	<b>761,109</b>
<b>INCREASE/(DECREASE) IN NET POSITION</b>	<b>678,266</b>	<b>536,903</b>	<b>63,394</b>	<b>806,892</b>	<b>689,586</b>	<b>652,102</b>	<b>539,986</b>	<b>719,734</b>	<b>761,109</b>
<b>NET POSITION, BEGINNING</b>	<b>\$ 12,276,827</b>	<b>12,955,093</b>	<b>13,491,996</b>	<b>13,555,390</b>	<b>14,362,282</b>	<b>15,051,868</b>	<b>15,703,970</b>	<b>16,243,957</b>	<b>16,963,691</b>
<b>NET POSITION, ENDING</b>	<b>\$ 12,955,093</b>	<b>13,491,996</b>	<b>13,555,390</b>	<b>14,362,282</b>	<b>15,051,868</b>	<b>15,703,970</b>	<b>16,243,957</b>	<b>16,963,691</b>	<b>17,724,800</b>
	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Funds available for DS	\$ 1,220,104	1,339,892	1,242,524	1,339,905	1,432,228	1,619,525	1,813,464	1,958,543	2,096,012
Debt Service	\$ 569,021	608,478	654,402	855,653	1,102,304	1,387,920	1,533,428	1,628,438	1,756,240
DSCR	2.14	2.20	1.90	1.57	1.30	1.17	1.18	1.20	1.19
Benchmark	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Incremental Debt Service	540,165	609,606	475,165	362,442	199,721	84,375	115,176	152,055	149,226

## CIP FUNDING LIST with ANNUAL INFLATION ADJUSTMENT (Financed)

<u>Description</u>	<u>Budget</u>	
<u>2013 DEBT FUNDING</u>		
	<u>TOTAL</u>	<u>12,198,000</u>
<u>2014 DEBT FUNDING</u>		
	<u>TOTAL</u>	<u>454,681</u> 100%
<u>2015 DEBT FUNDING</u>		
	<u>TOTAL</u>	<u>3,250,943</u> 103%
<u>2016 DEBT FUNDING</u>		
	<u>TOTAL</u>	<u>1,158,121</u> 106%
<u>2017 DEBT FUNDING</u>		
	<u>TOTAL</u>	<u>4,005,052</u> 109%
<u>2018 DEBT FUNDING</u>		
	<u>TOTAL</u>	<u>0</u> 113%
<u>2019 DEBT FUNDING</u>		
	<u>TOTAL</u>	<u>2,288,465</u> 116%
<u>OTHERS PROJECTS AFTER 2019</u>		
	<u>TOTAL</u>	<u>18,437,750</u> 130%
	<u>COMBINED TOTAL FOR ALL PROJECTS</u>	<u>\$41,793,012</u>

BOONE COUNTY REGIONAL SEWER DISTRICT  
 BOONE COUNTY, MO  
 Actual and Projected Debt Levels 2012-2019  
 Prepared by Stephen M. Connelly, CPA, PC

2012						
	Beg Bal	Advances	Payments	Ending Bal	Gross Interest	Gross DS
Series 1998B	265,000		30,000	235,000	12,513	42,513
Series 2000A	485,000		55,000	430,000	25,305	80,305
Series 2002B	285,000		20,000	265,000	12,250	32,250
Series 2004B	770,000		50,000	720,000	38,075	88,075
Series 2006B	535,000		30,000	505,000	23,800	53,800
Series 2007B	2,440,000		100,000	2,340,000	106,544	206,544
SRF Direct Loan	1,325,100		67,530	1,257,570	22,715	90,245
City of Columbia	58,988		14,747	44,241	0	14,747
Direct Loan 2012		1,360,000		1,360,000	0	0
City of Rocheport		30,500		30,500	0	0
Calculated	6,164,088	1,360,000	367,277	7,187,311	241,201	608,478

2013						
	Beg Bal	Advances	Payments	Ending Bal	Gross Interest	Gross DS
Series 1998B	235,000		30,000	205,000	10,938	40,938
Series 2000A	430,000		55,000	375,000	22,765	77,765
Series 2002B	265,000		20,000	245,000	11,200	31,200
Series 2004B	720,000		50,000	670,000	35,450	85,450
Series 2006B	505,000		30,000	475,000	22,600	52,600
Series 2007B	2,340,000		105,000	2,235,000	102,444	207,444
SRF Direct Loan - 09, 11	1,257,570		55,070	1,202,500	23,023	78,093
City of Columbia	44,241		14,747	29,494	0	14,747
SRF Direct Loan 2012	1,360,000		27,000	1,333,000	22,413	49,413
City of Rocheport	30,500		15,533	14,967	1,220	16,753
Series 2013		12,198,000		12,198,000		
Calculated	7,187,311	12,198,000	402,350	18,982,961	252,052	654,402

2014						
	Beg Bal	Advances	Payments	Ending Bal	Gross Interest	Gross DS
Series 1998B	205,000		30,000	175,000	9,363	39,363
Series 2000A	375,000		60,000	315,000	20,153	80,153
Series 2002B	245,000		20,000	225,000	10,100	30,100
Series 2004B	670,000		55,000	615,000	32,694	87,694
Series 2006B	475,000		30,000	445,000	21,400	51,400
Series 2007B	2,235,000		110,000	2,125,000	98,144	208,144
SRF Direct Loan - 09, 11	1,202,500		59,400	1,143,100	21,968	81,368
City of Columbia	29,494		14,747	14,747	0	14,747
Direct Loan 2012	1,333,000		56,000	1,277,000	18,994	74,994
City of Rocheport	14,967		14,967	0	218	15,185
Series 2013	12,198,000			12,198,000	172,507	172,507
Series 2014		454,681		454,681		0
Calculated	18,982,961	454,681	450,114	18,987,528	405,539	855,653

2015						
	Beg Bal	Advances	Payments	Ending Bal	Gross Interest	Gross DS
Series 1998B	175,000		35,000	140,000	7,656	42,656
Series 2000A	315,000		60,000	255,000	18,153	78,153
Series 2002B	225,000		20,000	205,000	9,000	29,000
Series 2004B	615,000		55,000	560,000	29,806	84,806
Series 2006B	445,000		35,000	410,000	20,200	55,200
Series 2007B	2,125,000		115,000	2,010,000	93,644	208,644
SRF Direct Loan - 09, 11	1,143,100		59,300	1,083,800	20,894	80,194
City of Columbia	14,747		14,747	0	0	14,747
Direct Loan 2012	1,277,000		57,000	1,220,000	18,187	75,187
Series 2013	12,198,000		247,000	11,951,000	180,530	427,530
Series 2014	454,681			454,681	6,187	6,187
Series 2015		3,250,943		3,250,943		0
Calculated	18,987,528	3,250,943	698,047	21,540,424	404,257	1,102,304

## 2016

	Beg Bal	Advances	Payments	Ending Bal	Gross Interest	Gross DS
Series 1998B	140,000		35,000	105,000	5,819	40,819
Series 2000A	255,000		60,000	195,000	16,153	76,153
Series 2002B	205,000		20,000	185,000	7,900	27,900
Series 2004B	560,000		55,000	505,000	26,919	81,919
Series 2006B	410,000		35,000	375,000	18,800	53,800
Series 2007B	2,010,000		115,000	1,895,000	89,044	204,044
SRF Direct Loan - 09, 11	1,083,800		61,400	1,022,400	19,800	81,200
Direct Loan 2012	1,220,000		58,000	1,162,000	17,359	75,359
Series 2013	11,951,000		503,000	11,448,000	175,025	678,025
Series 2014	454,681		17,800	436,881	6,664	24,464
Series 2015	3,250,943			3,250,943	44,238	44,238
Series 2016		1,158,121		1,158,121		0
Calculated	21,540,424	1,158,121	960,200	21,738,345	427,720	1,367,920

## 2017

	Beg Bal	Advances	Payments	Ending Bal	Gross Interest	Gross DS
Series 1998B	105,000		35,000	70,000	4,113	39,113
Series 2000A	195,000		60,000	135,000	10,153	70,153
Series 2002B	185,000		20,000	165,000	6,800	26,800
Series 2004B	505,000		60,000	445,000	23,900	83,900
Series 2006B	375,000		35,000	340,000	17,400	52,400
Series 2007B	1,895,000		120,000	1,775,000	84,344	204,344
SRF Direct Loan - 09, 11	1,022,400		63,500	958,900	18,663	82,163
Direct Loan 2012	1,162,000		60,000	1,102,000	16,517	76,517
Series 2013	11,448,000		515,000	10,933,000	167,536	682,536
Series 2014	436,881		18,300	418,581	6,399	24,699
Series 2015	3,250,943		127,400	3,123,543	47,646	175,046
Series 2016	1,158,121			1,158,121	15,759	15,759
Series 2017		4,005,052		4,005,052		0
Calculated	21,738,345	4,005,052	1,114,200	24,629,197	419,228	1,533,428

## 2018

	Beg Bal	Advances	Payments	Ending Bal	Gross Interest	Gross DS
Series 1998B	70,000		35,000	35,000	2,538	37,538
Series 2000A	135,000		60,000	75,000	4,153	64,153
Series 2002B	165,000		20,000	145,000	5,700	25,700
Series 2004B	445,000		60,000	385,000	20,750	80,750
Series 2006B	340,000		35,000	305,000	15,650	50,650
Series 2007B	1,775,000		125,000	1,650,000	79,288	204,288
SRF Direct Loan - 09, 11	958,900		64,500	894,400	17,497	81,997
Direct Loan 2012	1,102,000		62,000	1,040,000	15,646	77,646
Series 2013	10,933,000		528,000	10,405,000	159,870	687,870
Series 2014	418,581		18,700	399,881	6,126	24,826
Series 2015	3,123,543		130,500	2,993,043	45,749	176,249
Series 2016	1,158,121		45,300	1,112,821	16,974	62,274
Series 2017	4,005,052		0	4,005,052	54,500	54,500
Calculated	24,629,197	0	1,184,000	23,445,197	444,436	1,628,436

## 2019

	Beg Bal	Advances	Payments	Ending Bal	Gross Interest	Gross DS
Series 1998B	35,000		35,000		875	875
Series 2000A	75,000		60,000	15,000	2,153	62,153
Series 2002B	145,000		20,000	125,000	4,600	24,600
Series 2004B	385,000		60,000	325,000	17,600	77,600
Series 2006B	305,000		35,000	270,000	14,250	49,250
Series 2007B	1,650,000		135,000	1,515,000	73,256	208,256
SRF Direct Loan - 09, 11	894,400		65,600	828,800	16,300	81,900
Direct Loan 2012	1,040,000		63,000	977,000	14,753	77,753
Series 2013	10,405,000		541,000	9,864,000	152,003	693,003
Series 2014	399,881		19,100	380,781	5,848	24,948
Series 2015	2,993,043		133,800	2,859,243	43,805	177,605
Series 2016	1,112,821		46,500	1,066,321	16,299	62,799
Series 2017	4,005,052		156,800	3,848,252	58,698	215,498
Series 2019		2,288,465		2,288,465		0
Calculated	23,445,197	2,288,465	1,335,600	24,397,662	420,440	1,756,240

**BOONE COUNTY REGIONAL SEWER DISTRICT**  
**BOONE COUNTY, MO**  
**Actual and Projected Capital Assets 2012-2019**  
**Prepared by Stephen M. Connelly, CPA, PC**

31-Dec-12

	Beg Bal	Additions	Contributed Capital	Disposals	Transfer	Ending Bal	Beg Bal	Expense	Disposals	Ending Bal	
Land	42,888					42,888					
Building	173,907					173,907					
Vehicles & equipment	969,245	3,302		(212,364)		760,183					
Treatment & Collection Systems	19,915,701	15,499	92,197	(33,800)	1,659,764	21,649,361					
Work-In-Progress - CIP	3,081,260	1,498,371			(1,659,764)	2,919,867					
Accumulated Deprec							7,290,631	670,119	(212,364)	7,748,386	
	24,183,000.95	1,517,172	92,197	(246,164)	-	25,546,206	7,290,631	670,119	(212,364)	7,748,386	17,797,820

31-Dec-13

	Beg Bal	Additions	Contributed Capital	Disposals	Transfer	Ending Bal	Beg Bal	Expense	Disposals	Ending Bal	
Land	42,888					42,888					
Building	173,907					173,907					
Vehicles & equipment	760,183	134,738				894,921					
Treatment & Collection Systems	21,649,361	10,000	127,695	(486,067)	785,661	22,086,650					
Work-In-Progress - CIP	2,919,867	3,267,315		(95,965)	(785,661)	5,305,556					
Accumulated Deprec							7,748,386	666,881	(248,270)	8,166,997	
	25,546,205.95	3,412,053	127,695	(582,032)	-	28,503,922	7,748,386	666,881	(248,270)	8,166,997	20,336,925

31-Dec-14

	Beg Bal	Additions	Contributed Capital	Disposals	Transfer	Ending Bal	Beg Bal	Expense	Disposals	Ending Bal	
Land	42,888					42,888					
Building	173,907					173,907					
Vehicles & equipment	894,921	60,000				954,921					
Treatment & Collection Systems	22,086,650		625,205		2,652,778	25,364,633					
Work-In-Progress - CIP	5,305,556	12,652,681			(2,652,778)	15,305,459					
Accumulated Deprec							8,166,997	696,102		8,863,099	
	28,503,921.95	12,712,681	625,205	-	-	41,841,808	8,166,997	696,102	0	8,863,099	32,978,709

31-Dec-15

	Beg Bal	Additions	Contributed Capital	Disposals	Transfer	Ending Bal	Beg Bal	Expense	Disposals	Ending Bal	
Land	42,888					42,888					
Building	173,907					173,907					
Vehicles & equipment	954,921	55,000				1,009,921					
Treatment & Collection Systems	25,364,633	79,310	765,698		7,652,730	33,862,371					
Work-In-Progress - CIP	15,305,459	3,250,943			(7,652,730)	10,903,673					
Accumulated Deprec							8,863,099	920,457		9,783,555	
	41,841,808	3,385,253	765,698	-	-	45,992,759	8,863,099	920,457	0	9,783,555	36,209,203

31-Dec-16

	Beg Bal	Additions	Contributed Capital	Disposals	Transfer	Ending Bal	Beg Bal	Expense	Disposals	Ending Bal	
Land	42,888					42,888					
Building	173,907					173,907					
Vehicles & equipment	1,009,921	50,000				1,059,921					
Treatment & Collection Systems	33,862,371		632,374		5,451,836	39,946,581					
Work-In-Progress - CIP	10,903,673	1,158,121			(5,451,836)	6,609,957					
Accumulated Deprec							9,783,555	1,081,370			10,864,925
	45,992,759	1,208,121	632,374	-	-	47,833,254	9,783,555	1,081,370	0	10,864,925	36,968,329

31-Dec-17

	Beg Bal	Additions	Contributed Capital	Disposals	Transfer	Ending Bal	Beg Bal	Expense	Disposals	Ending Bal	
Land	42,888					42,888					
Building	173,907					173,907					
Vehicles & equipment	1,059,921	50,000				1,109,921					
Treatment & Collection Systems	39,946,581		638,698		6,609,957	47,195,236					
Work-In-Progress - CIP	6,609,957	4,005,052			(6,609,957)	4,005,052					
Accumulated Deprec							10,864,925	1,272,828			12,137,753
	47,833,254	4,055,052	638,698	-	-	52,527,004	10,864,925	1,272,828	0	12,137,753	40,389,251

31-Dec-18

	Beg Bal	Additions	Contributed Capital	Disposals	Transfer	Ending Bal	Beg Bal	Expense	Disposals	Ending Bal	
Land	42,888					42,888					
Building	173,907					173,907					
Vehicles & equipment	1,109,921	50,000				1,159,921					
Treatment & Collection Systems	47,195,236	79,911	645,085		4,005,052	51,925,283					
Work-In-Progress - CIP	4,005,052	-			(4,005,052)	-					
Accumulated Deprec							12,137,753	1,398,218			13,535,971
	52,527,004	129,911	645,085	-	-	53,301,999	12,137,753	1,398,218	0	13,535,971	39,766,029

31-Dec-19

	Beg Bal	Additions	Contributed Capital	Disposals	Transfer	Ending Bal	Beg Bal	Expense	Disposals	Ending Bal	
Land	42,888					42,888					
Building	173,907					173,907					
Vehicles & equipment	1,159,921	50,000				1,209,921					
Treatment & Collection Systems	51,925,283	143,750	651,536		-	52,720,569					
Work-In-Progress - CIP	-	2,288,465			-	2,288,465					
Accumulated Deprec							13,535,971	1,420,392			14,956,362
	53,301,999	2,482,215	651,536	-	-	56,435,750	13,535,971	1,420,392	0	14,956,362	41,479,387