WHITE SULPHUR SPRINGS WASTEWATER RATE CALCULATION

5/13/2016 - BASE RATE (O&M, $4 RESERVE, & 70% OF LOANS) , VARIABLE RATE (30% OF LOANS)

PERTINENT INFORMATION

Sewer Connections	540		
Average Water Usage (Gallons Per Month)	2,300		
Assumed O&M (I believe this is about $30,000 higher than history shows)	~~100,000~~	85000	90000
New Loan Amount (based on RPA's May 2 Proposed Budget)	$2,000,000		
Existing Annual Payments (P&I)	$27,165		
Excess Coverage for Existing Loan (10%)	$2,717		
Esitmated New Loan Payment	$127,686		
Excess Coverage for New Loan (10%)	$12,769		

REVENUE NEEDED

Assumed O&M (I believe this is about $30,000 higher than history shows)	~~100,000~~	85000	90000
Existing Annual Payments (P&I)	$27,165		
Excess Coverage for Existing Loan (10%)	$2,717		
Esitmated New Loan Payment	$127,686		
Excess Coverage for New Loan (10%)	$12,769		
ANNUAL REVENUE NEEDED	**$270,337**	255307	260307

FLAT RATE CALCULATION

Sewer Connections	540		
Annual Revenue Needed	270,337		
FLAT RATE	$42	39.40	40.17

70% OF TOTAL REVENUE FROM FLAT RATE, and 30% OF TOTAL REVENUE ON VARIED RATE (NOT EXPLORED BY GEORGE)

Flat Rate Revenue Needed (70% of Total)	$189,236
Base Rate (without $4 Fee)	$29.20
Monthly $4 Fee (Reserve)	$4.00
FLAT FEE TOTAL	***$33.20***
Variable Rate Revenue needed (30% of Total)	$81,101
Annual "Low Season Flow" 2300 x 540x12	14904000
Variable Rate (Per 1000 Gallons)	***$5.44***

BASE RATE (O&M, $4 Reserve, & 70% of Loans), VARIABLE RATE (30% of Loans)

O&M	$100,000	85000	90000
70% of Debt Service	$119,236		
Revenue Generated in Base Rate	$219,236	204236	209236
Base Rate Without $4 Fee	$33.83	31.51	32.28
Monthly $4 Fee (Reserve)	$4.00	4.00	4.00
FLAT FEE TOTAL	***$37.83***	35.51	36.28
Variable Rate Revenue Needed	$51,101		
Annual "Low Season Flow" 2300 x 540x12	14904000		
VARIABLE RATE (PER 1000 Gallons)	***$3.43***		

CHECK: BASE RATE (O&M, $4 Reserve, & 70% of Loans), VARIABLE RATE (30% of Loans)

Sewer Base - O&M ($100,000/540/12)	$15.43	13.12	13.89
Monthly $4 Fee (Reserve)	$4.00		
70% of Existing Loan P&I (Per Month Per User)	$2.93		
70% Of Excess Coverage for Existing Loan (Per Month Per User)	$0.29		
70% of Esitmated New Loan Payment (Per Month Per User)	$13.79		
70% of Excess Coverage for New Loan (10%)	$1.38		
FLAT FEE TOTAL	***$37.83***	35.51	36.28
30% of Existing Loan P&I (Per 1000 gallons)	$0.55		
30% Of Excess Coverage for Existing Loan (Per 1000 Gallons)	$0.05		
30% of New Loan P&I (Per 1000 gallons)	$2.57		
30% Of Excess Coverage for New Loan (Per 1000 Gallons)	$0.26		
VARIABLE RATE (PER 1000 Gallons)	***$3.43***		

CHECKS - FLAT/BASE RATE OF $37.83 plus $3.43 per 1000 Gallons

TOTAL ANNUAL REVENUE CHECK

Base/Flat Fee Revenue ($37.83 x 540 x 12)	$245,156	230104.80	235044.40
Variable Rate Revenue ($3.43 x 2.3 1000 gallon incraments x 540 x 12)	$51,101		
Estimated Revenue	$296,257	281205.80	286195.40
Revenue Needed	$270,337		
Estimated Accumulated Amount for Replaement ($4 Fee)	$25,920		

O&M = $85K

GALLONS	Base	Reserve	Debt 1	Bond 1	Debt 2	Bond 2	Sewer
0	$13.12	$4.00	$ -	$ -	$ -	$ -	$17.12
300	$13.12	$4.00	$ 1.02	$ 0.10	$ 4.93	$ 0.49	$23.67
600	$13.12	$4.00	$ 2.03	$ 0.20	$ 9.87	$ 0.99	$30.21
1000	$13.12	$4.00	$ 3.39	$ 0.34	$ 16.45	$ 1.64	$38.94
1500	$13.12	$4.00	$ 3.65	$ 0.37	$ 17.74	$ 1.77	$40.65
2000	$13.12	$4.00	$ 3.92	$ 0.39	$ 19.03	$ 1.90	$42.37
2300	$13.12	$4.00	$ 4.08	$ 0.41	$ 19.81	$ 1.98	$43.40
3000	$13.12	$4.00	$ 4.45	$ 0.45	$ 21.62	$ 2.16	$45.80
4000	$13.12	$4.00	$ 4.98	$ 0.50	$ 24.20	$ 2.42	$49.23
5000	$13.12	$4.00	$ 5.52	$ 0.55	$ 26.79	$ 2.68	$52.65
6000	$13.12	$4.00	$ 6.05	$ 0.60	$ 29.37	$ 2.94	$56.08
7000	$13.12	$4.00	$ 6.58	$ 0.66	$ 31.96	$ 3.20	$59.51
8000	$13.12	$4.00	$ 7.11	$ 0.71	$ 34.54	$ 3.45	$62.94
9000	$13.12	$4.00	$ 7.64	$ 0.76	$ 37.13	$ 3.71	$66.37
10000	$13.12	$4.00	$ 8.18	$ 0.82	$ 39.71	$ 3.97	$69.79
20000	$13.12	$4.00	$ 13.50	$ 1.35	$ 65.55	$ 6.56	$104.08
30000	$13.12	$4.00	$ 18.82	$ 1.88	$ 91.40	$ 9.14	$138.36
40000	$13.12	$4.00	$ 24.14	$ 2.41	$ 117.24	$ 11.72	$172.64
50000	$13.12	$4.00	$ 29.46	$ 2.95	$ 143.09	$ 14.31	$206.93
60000	$13.12	$4.00	$ 34.79	$ 3.48	$ 168.93	$ 16.89	$241.21
70000	$13.12	$4.00	$ 40.11	$ 4.01	$ 194.78	$ 19.48	$275.49
80000	$13.12	$4.00	$ 45.43	$ 4.54	$ 220.62	$ 22.06	$309.77
90000	$13.12	$4.00	$ 50.75	$ 5.08	$ 246.46	$ 24.65	$344.06
100000	$13.12	$4.00	$ 56.07	$ 5.61	$ 272.31	$ 27.23	$378.34

Variables

Water

$1.80

SewerFlat

$26.28

Sewer Vol

$11.43

fractional

1

0.7

0.5

0.3

0

constants

0.1552

0.01552

0.7537

0.07537

O&M=$90K

GALLONS	Base	Reserve	Debt 1	Bond 1	Debt 2	Bond 2	Sewer
0	$13.89	$4.00	$ -	$ -	$ -	$ -	$17.89
300	$13.89	$4.00	$ 1.02	$ 0.10	$ 4.93	$ 0.49	$24.44
600	$13.89	$4.00	$ 2.03	$ 0.20	$ 9.87	$ 0.99	$30.98
1000	$13.89	$4.00	$ 3.39	$ 0.34	$ 16.45	$ 1.64	$39.71
1500	$13.89	$4.00	$ 3.65	$ 0.37	$ 17.74	$ 1.77	$41.42
2000	$13.89	$4.00	$ 3.92	$ 0.39	$ 19.03	$ 1.90	$43.14
2300	$13.89	$4.00	$ 4.08	$ 0.41	$ 19.81	$ 1.98	$44.17
3000	$13.89	$4.00	$ 4.45	$ 0.45	$ 21.62	$ 2.16	$46.57
4000	$13.89	$4.00	$ 4.98	$ 0.50	$ 24.20	$ 2.42	$50.00
5000	$13.89	$4.00	$ 5.52	$ 0.55	$ 26.79	$ 2.68	$53.42
6000	$13.89	$4.00	$ 6.05	$ 0.60	$ 29.37	$ 2.94	$56.85
7000	$13.89	$4.00	$ 6.58	$ 0.66	$ 31.96	$ 3.20	$60.28
8000	$13.89	$4.00	$ 7.11	$ 0.71	$ 34.54	$ 3.45	$63.71
9000	$13.89	$4.00	$ 7.64	$ 0.76	$ 37.13	$ 3.71	$67.14
10000	$13.89	$4.00	$ 8.18	$ 0.82	$ 39.71	$ 3.97	$70.56
20000	$13.89	$4.00	$ 13.50	$ 1.35	$ 65.55	$ 6.56	$104.85
30000	$13.89	$4.00	$ 18.82	$ 1.88	$ 91.40	$ 9.14	$139.13
40000	$13.89	$4.00	$ 24.14	$ 2.41	$ 117.24	$ 11.72	$173.41
50000	$13.89	$4.00	$ 29.46	$ 2.95	$ 143.09	$ 14.31	$207.70
60000	$13.89	$4.00	$ 34.79	$ 3.48	$ 168.93	$ 16.89	$241.98
70000	$13.89	$4.00	$ 40.11	$ 4.01	$ 194.78	$ 19.48	$276.26
80000	$13.89	$4.00	$ 45.43	$ 4.54	$ 220.62	$ 22.06	$310.54
90000	$13.89	$4.00	$ 50.75	$ 5.08	$ 246.46	$ 24.65	$344.83
100000	$13.89	$4.00	$ 56.07	$ 5.61	$ 272.31	$ 27.23	$379.11

Variables

Water

$1.80

SewerFlat

$26.28

Sewer Vol

$11.43

fractional

1

0.7

0.5

0.3

0

constants

0.1552

0.01552

0.7537

0.07537