

August 29, 2014

METERED BILLING PROPOSAL

GOAL: Establish fair water charges that encourage water conservation & remain close to historic fees.

DISCUSSION: Using the HISTORIC GENERAL FUND AVERAGE we can determine other FUND charges by HISTORIC RATIOS. These THREE FUNDS are related by WATER USE. The SEWER FUND is 29.9% funded by the USFS by contract.

GENERAL FUND > SEWER > ADMIN [old Overhead Fund]

The GENERAL FUND includes costs for WATER, ROADS & FIRE/EMERGENCY. This may need to be altered at some time in the future as we utilize ACTUAL water use as a fee determinant but this is the current arrangement. At one time GARBAGE was included in this fund. For this discussion we will ignore GARBAGE & SNOW PLOW FUNDS which accrue on an unrelated basis.

GARBAGE > Overall Cost /386 Cabins > ADMIN

SNOW PLOW > \$100/ User > ADMIN

Note that all funds contribute to the old Overhead Fund now called ADMINISTRATION based on financial contribution. Completion of cabin water meter installation has allowed us the opportunity to determine individual cabin water costs. It is noteworthy that we have one group of South Shore Cabins on meters as a cluster [25] and another group without a meter [16]. Meter records show that most cabin owners have a 10 KGal-50KGal annual use. Some are over 100 KGals. A tiered rate structure allows us to encourage the lower use by establishing a base tier and then providing an additional charge for use above that base amount.

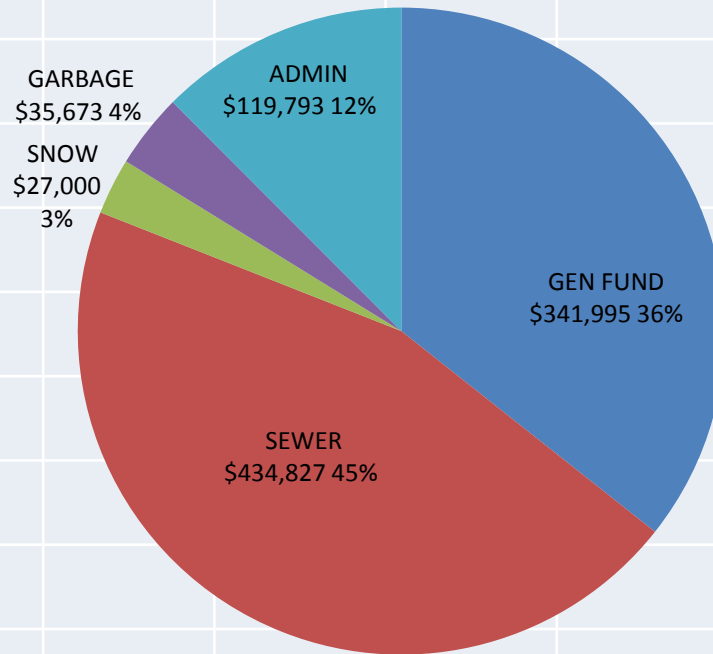
METHOD: GENERAL FUND BUDGET will be set by us in October. For the sake of this discussion we will assume a **\$1M OVERALL BUDGET**. The GENERAL FUND usually costs approximately 39% of that \$1M. The CABIN BURDEN is approximately 60% of that GENERAL FUND cost. If we select a recovery of 100% of our GENERAL FUND costs within a given base tier we should spread the CABIN BURDEN of the GENERAL FUND over all 386 cabins [just for this example-refinements like North & South Shore adjustments will follow]. Any users who exceed the base tier will be charged the BASE TIER plus additional tiers(s). The rate for this/these tier(s) can be higher than the BASE TIER to encourage conservation. A similar methodology will be needed to determine the CAMP/COMMERCIAL USERS FEES. The first step in such a process would be a determination of the total CAMP/COMMERCIAL use vs. the CABIN use relationship. In this example we are using CAMP/COMMERCIAL as 40% and Cabin as 60% but our meters will determine the actual relationship at our October BUDGET MEETING.

PRODUCTION		WATER YEAR =July 1 to June 30						
Location		2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	
Lake WTP		8,505,400	7,459,930	3,568,720	1,069,990	6,913,860	5,812,140	
N.F. Shearing Crk WTP		10,151,390	8,068,810	14,191,220	13,702,040	7,755,270	6,495,458	
Meadowview Well		2,557,200	2,572,100	3,217,500	2,802,500	2,419,500	2,623,200	
Chinquapin Well		834,338	1,248,900	1,571,990	1,012,190	320,830	559,260	
TOTAL		22,048,328	19,349,740	22,549,430	18,586,720	17,409,460	15,490,058	
USE								
Location		2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	
<u>PPA (not pro-rated)</u>								
PPA Shop		75,400	52,000	50,100	48,300	42,800	27,600	
PPA WW Plant-chg to WW acct		1,098,438	850,700	904,930	663,999	1,107,788	1,687,638	
SS Bleeder		164,320	314,310	1,078,590	330,920	291,970	141,560	
Employee Residences					40,000	40,000	40,000	
Leaks at 1.5/1.0/1.25 gals/min		788,400	788,400	788,400	525,600	525,600	657,000	
Fire Dept. Trng.		20,000	20,000	20,000	20,000	20,000	20,000	
ADMIN USES TOTAL		2,146,558	2,025,410	2,842,020	1,628,819	2,028,158	2,573,798	2,573,798
	REMAINDER FOR USERS	19,901,770	17,324,330	19,707,410	16,957,901	15,381,302	12,916,260	
<u>USFS (retail sale)</u>								
USFS Cross Connection		0	0	0	10,000	15,000	0	
USFS Pioneer Camp		23,800	17,400	17,800	18,400	15,900	40,600	
USFS-Construction						15,000	0	
<u>Utilities (retail sale)</u>								
SBC Phone Co.		2,010	2,460	2,490	1,220	1,630	5,890	
Tuolumne Co.		431,900	21,100	31,400	42,500	55,290	28,500	
RETAIL SALES TOTAL		25,810	19,860	20,290	29,620	47,530	46,490	46,490
	REMAINDER FOR MEMBERS	19,875,960	17,304,470	19,687,120	16,928,281	15,333,772	12,869,770	

	MEMBER USE							
<u>Camps (metered)</u>								
Chinquipin	352,900	246,600	295,500	246,600	221,900	35,400??		
Sylvester	282,300	172,900	237,600	244,600	263,500	310,640	346,040	
<u>Lair of the Bear (metered)</u>								
Blue & Gold #1	1,851,800	1,266,000	1,218,100	1,539,100	1,232,165	882,000		
Blue & Gold #2	70,200	44,960	44,540	63,990	44,845	103,670		
Blue & Gold #3	1,320,100	1,177,900	801,900	1,950,100	1,091,615	917,400		
Blue & Gold #4	124,100	83,500	129,100	172,000	99,800	92,200		
Blue & Gold #5 [new meter 2009]		29,000	100,800	115,600	92,440	109,900		
Oski #1	445,583	412,746	451,194	468,547	538,156	598,026		
Oski #2	2,386,120	212,810	209,800	238,800	172,220	182,100	2,885,296	
Chalet [to Cal 2009]		751,800	831,700	736,900	620,000	622,600		
Blue & Gold Maint. Bldg.	22,280	15,620	14,540	14,940	13,441	11,720	634,320	
<u>Commercial (metered)</u>								
PLR/Shell Stn	2,020,100	1,653,300	2,310,500	1,650,100	1,436,490	1,444,790	1,444,790	
ADMIN USE	2,146,558	2,025,410	2,842,020	1,628,819	2,028,158	2,573,798	2,573,798	
RETAIL SALES	25,810	19,860	20,290	29,620	47,530	46,490	46,490	
CAMP/COMM-METERED USE	6,855,383	4,413,836	4,334,774	5,791,177	4,390,082	5,310,446	5,310,446	
						SUBTRACTION	METER	
CABIN USE	13,020,577	12,890,634	15,352,346	11,137,104	10,943,690	7,559,324	6,867,748	
			check>	16,928,281	15,333,772	12,869,770	12,178,194	
			cabin %	0.65789929	0.7136985	0.58737056	0.56393813	
			LOSSES??	>>	>>	>>	691,576	

ACTUAL FOUR YEAR AVERAGES + 2014 PROPOSED

GEN FUND	\$ 341,995	36%
SEWER	\$ 434,827	45%
SNOW	\$ 27,000	3%
GARBAGE	\$ 35,673	4%
ADMIN	\$ 119,793	12%
TOTAL	\$ 959,288	100%



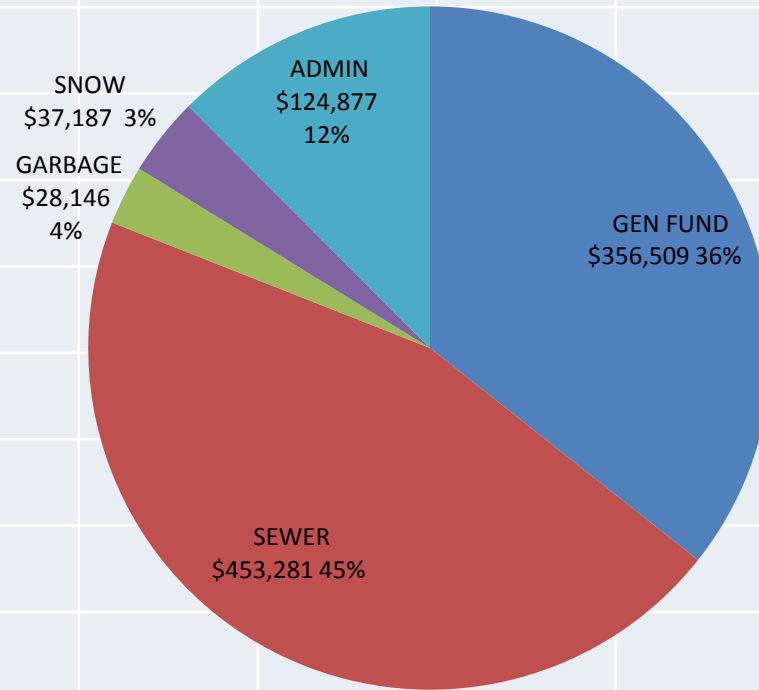
ACTUAL>>

Using a \$1M for trial scenarios is reasonable ..

SAMPLE \$1M BUDGET

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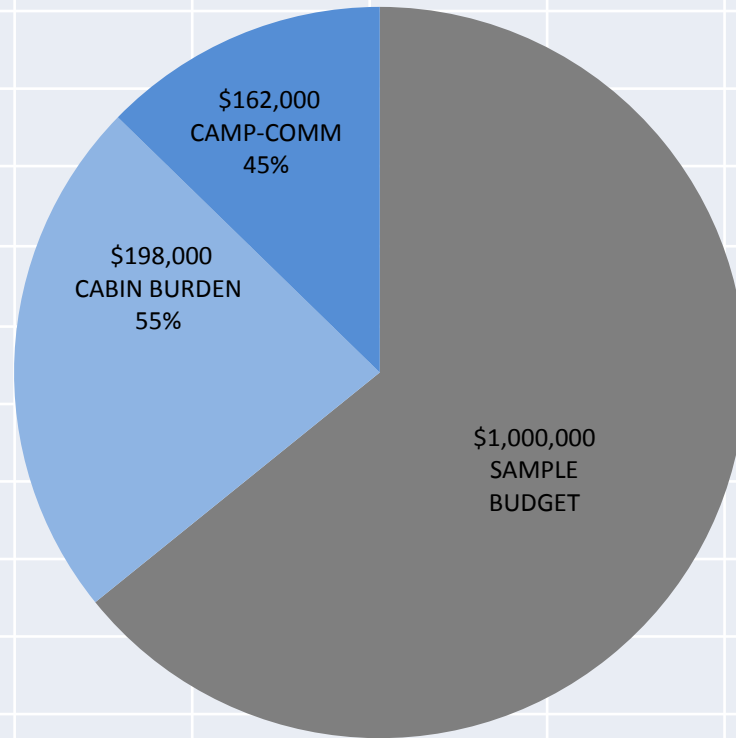
GEN FUND	\$	356,509	36%
SEWER	\$	453,281	45%
SNOW	\$	28,146	3%
GARBAGE	\$	37,187	4%
ADMIN	\$	124,877	12%
TOTAL	\$	1,000,000	100%



SAMPLE BUDGET	GEN FUND % of BUDGET	CABIN BURDEN
100%	36%	55%
\$ 1,000,000	\$ 360,000	\$ 198,000
	19.8% of Total Budget	
	_____ % of Fee	

NOTE: ACTUAL WATER USEAGE 53.76%

ACTUALBUDGET TBD



2013-14 WATER USAGE				
Range	Gals	Cabin s		Avg Use
< 10,000	961,172	172		5,588
< 20,000	1,150,716	82		14,033
>30,000	77,250	30	2,189,138	2,575
<40,000	587,800	17	2,776,938	34,576
<50,000	444,540	10	3,221,478	44,454
<60,000	278,890	5		55,778
<70,000	329,340	5		65,868
<80,000	79,050	1		79,050
<90,000	172,330	2		86,165
<100,000	0	0		-
<300,000	1,682,840	9	5,763,928	186,982
TOTAL USE	5,763,928	333		
Metered SS	480,300	25		19,212
Non-Mtrd SS	307,392	16 extrapolated		19,212
	6,551,620	374		
North Shore	0	12		
		386		

BASED ON A SAMPLE \$1M BUDGET

NOT ACTUAL

ASSUME \$1M BUDGET

Gen Fund	\$	356,509		
Cabin Share			\$	198,000
Sewer	\$	453,281		
Admin	\$	124,877		
3-FUND TOTAL	\$	934,667		
Snow/Garbage	\$	65,333		
	\$	1,000,000		

MODIFYING CONSIDERATIONS

Cabin Census (for Final TOTAL Fee Assesments)

	All Cabins	Water Service	SS Pro-Rated	
North Shore	12			
South Shore	41		41	34.85
Town-No Snow	58		58	58
Town-Snow Plow	275		275	275
	386		374	367.85
	assumed CABIN COUNT for now >>>		370	
Year Round ??		4 [3 are currently < 30KGals]		

SAMPLE SCENARIOS-MYHTICAL BUDGET

100% RECOVERY	GALLONS AVAILABLE for BASE TIERS		
	<30K/Gals	<40K/Gals	<50K/Gals
CABIN BURDEN	<30K/Gals	<40K/Gals	<50K/Gals
\$ 198,000	2,189,138	2,776,938	3,221,478
GEN FUND	COST/Gal		
	<30K/Gals	<40K/Gals	<50K/Gals
	\$ 0.090	\$ 0.071	\$ 0.061
			Gals
GEN FUND	FEE-All Cabins for		6,867,748
	<30K/Gals	<40K/Gals	<50K/Gals
	\$621,164	\$489,681	\$422,109
Gen Fund FEE/Cabin	370 Cabins		
	<30K/Gals	<40K/Gals	<50K/Gals
	\$1,678.82	\$1,323.46	\$1,140.83

SAMPLE SCENARIOS-MYHTICAL BUDGET

95% RECOVERY

GALLONS AVAILABLE for BASE TIERS

CABIN BURDEN	<30K/Gals	<40K/Gals	<50K/Gals
\$ 203,210	2,189,138	2,776,938	3,221,478
GEN FUND	COST/Gal		
	<30K/Gals	<40K/Gals	<50K/Gals
	\$ 0.093	\$ 0.073	\$ 0.063
			Total Gals
GEN FUND	FEE-All Cabins for		6,867,748
	<30K/Gals	<40K/Gals	<50K/Gals
	\$637,510	\$502,567	\$433,216
Gen Fund FEE/Cabin	370 Cabins		
	<30K/Gals	<40K/Gals	<50K/Gals
	\$1,723.00	\$1,358.29	\$1,171

SAMPLE SCENARIOS-MYHTICAL BUDGET

90% RECOVERY			
GALLONS AVAILABLE for BASE TIERS			
CABIN BURDEN	<30K/Gals	<40K/Gals	<50K/Gals
\$ 192,515	2,189,138	2,776,938	3,221,478
GEN FUND	COST/Gal		
	<30K/Gals	<40K/Gals	<50K/Gals
	\$ 0.088	\$ 0.069	\$ 0.060
			Gals
GEN FUND	FEE-All Cabins for		6,867,748
	<30K/Gals	<40K/Gals	<50K/Gals
	\$603,957	\$476,116	\$410,415
Gen Fund FEE/Cabin	370 Cabins		
	<30K/Gals	<40K/Gals	<50K/Gals
	\$1,632.32	\$1,286.80	\$1,109.23

BASED ON LAST YEAR'S CHARGES ..

MODIFYING CONSIDERATIONS

Cabin Census (for 2014 TOTAL Fee Assesments)

		Gen Fund	Sewer	Snow	Garbage	Admin		
North Shore	12	270	0	0	100	0		
South Shore	41	825	750	0	100	0		
Town-No Snow	58	900	800	0	100	0		
Town-Snow Plow	275	900	800	100	100	0		
	386						buried in FUNDS [12%]	

MAKE-UP CHARGES				
	BASE TIER SET AT	<30KGals	<40KGal	<50KGals
NEXT TIER RECOVERY		< 40KGals	<50KGals	<70 Kgals
100% \$	-	0	0	0
	FUNDS SHORT↓	GALS SHORT↓	GALS SHORT↓	GALS SHORT↓
95% \$	9,900.00	4,576	4,454	5,778
		SURCHARGE	SURCHARGE	SURCHARGE
	surcharge at lower tier cost>	\$ 393.23	\$ 317.58	\$ 355.13
	surcharge at 20% charge	\$ 471.88	\$ 381.09	\$ 426.16
	FUNDS SHORT↓	GALS SHORT↓	GALS SHORT↓	GALS SHORT↓
90% \$	19,800.0	4,576	4,454	5,778
		SURCHARGE	SURCHARGE	SURCHARGE
	surcharge at lower tier cost>	\$ 372.53	\$ 285.82	\$ 319.62
	surcharge at 20% charge	\$ 447.04	\$ 342.98	\$ 383.54

BOARD DECISIONS NEEDED:

- Methodology Approval
- Determine 'RECOVERY RATE'
- Establish 'TIERS' [LEVEL & NUMBER OF TIERS]
- Establish 'TIER RATES'

OUTLINE OF CALCULATION PROCESS:

Total SAMPLE Budget = \$1M > ~39% x SAMPLE BUDGET = GEN FUND portion > ~60% of GEN FUND = \$ CABIN BURDEN [All Cabins]

RECOVERY

- 100% CABIN BURDEN/ TIER GALS = ALL CABINS COST > ALL CABINS COST /CABINS [386 cabins] = GEN FUND FEE/CABIN
- 95% CABIN BURDEN/ TIER GALS = ALL CABINS COST > ALL CABINS COST /CABINS [386 cabins] = GEN FUND FEE/CABIN
- 90% CABIN BURDEN/ TIER GALS = ALL CABINS COST > ALL CABINS COST /CABINS [386 cabins] = GEN FUND FEE/CABIN
- 85% CABIN BURDEN/ TIER GALS = ALL CABINS COST > ALL CABINS COST /CABINS [386 cabins] = GEN FUND FEE/CABIN

SECOND TIER DEFICIT ABATEMENT [in addition to BASE TIER FEES]

[CABIN BURDEN - BASE TIER RECOVERY = DEFICIT]

- 5% X \$ CABIN BURDEN [All Cabins] = 2nd TIER DEFICIT > DEFICIT/2nd TIER GALS= NEXT TIER ADDN'L COST/ GAL > ADDN'L COST/ GAL X CABIN USE = ADDED FEE
- 10% X \$ CABIN BURDEN [All Cabins] = 2nd TIER DEFICIT > DEFICIT/2nd TIER GALS= NEXT TIER ADDN'L COST/ GAL > ADDN'L COST/ GAL X CABIN USE = ADDED FEE
- 15% X \$ CABIN BURDEN [All Cabins] = 2nd TIER DEFICIT > DEFICIT/2nd TIER GALS= NEXT TIER ADDN'L COST/ GAL > ADDN'L COST/ GAL X CABIN USE = ADDED FEE

THIRD TIER DEFICIT ABATEMENT [in addition to BASE TIER & 2nd TIER FEES]

[CABIN BURDEN – (BASE TIER RECOVERY+ 2nd TIER RECOVERY) =3rd TIER DEFICIT]

- 5% X \$ CABIN BURDEN [All Cabins] = DEFICIT > DEFICIT-2nd TIER DEFICIT= 3rd TIER DEFICIT >3rd TIER DEFICIT / 3rd TIER GALS= 3rd TIER ADDN'L COST/ GAL > ADDN'L COST/ GAL X CABIN USE = ADDED FEE
- 10% FEE X \$ CABIN BURDEN [All Cabins] = DEFICIT > DEFICIT-2nd TIER DEFICIT= 3rd TIER DEFICIT >3rd TIER DEFICIT / 3rd TIER GALS= 3rd TIER ADDN'L COST/ GAL > ADDN'L COST/ GAL X CABIN USE = ADDED FEE
- 15% X \$ CABIN BURDEN [All Cabins] = DEFICIT > DEFICIT-2nd TIER DEFICIT= 3rd TIER DEFICIT >3rd TIER DEFICIT / 3rd TIER GALS= 3rd TIER ADDN'L COST/ GAL > ADDN'L COST/ GAL X CABIN USE = ADDED FEE

Etc. [if desired]