



Recycled Water Rates Discussion of Options

Napa Sanitation District
Board of Directors Meeting
January 11, 2012



Policy Direction

December 7, 2011 Direction:

1. Use Cost of Service Methodology
2. Sewer customers pay for treatment up to secondary quality
3. Sewer customers pay to meet non-discharge period
4. Lower winter rate to encourage use
5. Same rate inside and outside District



Policy Direction

December 7, 2011 (continued):

6. Sell water now, even if reserved for future users
7. Discounted rate for large users on “must pay” contracts
8. Monthly meter fees for fixed costs



Policy Options

Option 1

Cost of Service Calculation

	2016	
	All Costs	Modified Incremental
Operating Cost - Tertiary Component	\$367,942	
Distribution & Maintenance Cost	\$67,292	
→ Future O&M Costs	\$373,240	\$373,240
→ Future Distribution Cost	\$39,784	\$39,784
Existing Debt Service	\$411,450	
→ Future Debt Service	\$636,004	\$636,004
→ Average Capital Improvement Costs	\$735,270	\$735,270
TOTAL RECYCLED WATER COSTS	\$2,630,983	\$1,784,298
Total Sales (kgal)	593,968	593,968
Recycled Water Rate (\$/kgal)	\$4.43	\$3.00 ←



Policy Options

Option 1

- \$2.93/kgal – Commodity rate (5-yr avg)
- 25% reduction for large customers on “must pay” contracts - \$2.20/kgal
- \$1.20/kgal for Non-Peak period



Policy Options

Option 1

Advantages

- Commodity Rate = cost of service
- Established reserve for future renewal and replacement of pipeline and equipment

Disadvantages

- Significant rate increase may discourage future recycled water usage
- Significant cost impact to existing users



Policy Options

Option 2

Lowest rate possible to accomplish following:

- Pay operating costs
- Pay debt service
- No increase to sewer service charge
- Maintain positive balances in 10-Year Financial Forecast



Policy Options

Option 2

- \$2.00/kgal – Commodity Rate
- 25% reduction for large customers on “must pay” contracts - \$1.50/kgal
- \$1.20/kgal for Non-Peak period



Policy Options

Option 2

Advantages

- Recovers current costs
- No increase to sewer service charges

Disadvantages

- Does not generate revenue for future renewal and replacement of pipelines and equipment
- Large increase for existing users



Policy Options

Option 3

Calculated as:

the total cost of service (incl. R&R)
divided by
the total possible sales of recycled water



Policy Options

Option 3

- \$1.63/kgal – Commodity Rate
- 8% reduction for large customers on “must pay” contracts - \$1.50/kgal
- \$1.20/kgal for Non-Peak period



Policy Options

Option 3

Advantages

- Cost assumes all 3,700 AF of capacity is sold
- Less significant rate increase for existing users

Disadvantages

- Requires an increase to the sewer service charges in FY 2016/17 (additional 1.0%)
- Does not generate revenue for future renewal and replacement of pipelines and equipment



Policy Options

Option 4

Status Quo:

Leave rates at \$0.91 plus
annual CPI adjustment



Policy Options

Option 4

- \$0.91/kgal – Commodity Rate (estimated \$1.06 in 2016)
- No reduction for large customers on “must pay” contracts
- No reduction for Non-Peak period



Policy Options

Option 4

Advantages

- No increase in rate for existing customers
- Low rate for future customers

Disadvantages

- Requires an increase to the sewer service charges in FY 2016/17 (additional 2.5%)
- Does not generate revenue for future renewal and replacement of pipelines and equipment



Usage Assumptions

Existing RW Customers

2007 - 1,250 AF

2008 - 1,377 AF

2009 - 1,156 AF

2010 - 904 AF *(Chardonnay GC – from 27 to 18 holes)*

2011 - 843 AF

Rate Model: 900 AF per year



Usage Assumptions

Future RW Customers

	<u>Reserved/Peak</u>	<u>Model</u>
Montelcino	300	0
Valley Gate/Kirkland	100	100
MST	500/1,000	350
Infill	200	30
Napa State Hospital	250	75
Stanly Ranch	200	150



Usage Assumptions

Future RW Customers

	<u>Reserved/Peak</u>	<u>Model</u>
Suscol Mountain	150	0
Los Carneros WD	1,600	0



Upside / Downside

Estimate usage too conservatively:

- Rates may be too high for 2016
- Lower rates in future if set too high now
- May discourage future users from connecting

Estimate usage too optimistically:

- Rates may be too low for 2016
- Increase rates in future if set too low now



2016 – Matrix of Rates

AF Sold to Customers	kgal	Rate w/ R&R	Rate w/ 1/2 of R&R	Rate w/o R&R
Revenue Requirement		\$1,784,298	\$1,416,663	\$1,049,028
1,600	521,360	\$3.42	\$2.72	\$2.01
1,823	593,970	\$3.00*	\$2.39	\$1.77
2,000	651,700	\$2.74	\$2.17	\$1.61
2,400	782,040	\$2.28	\$1.81	\$1.34
2,800	912,380	\$1.96	\$1.55	\$1.15
3,200	1,042,720	\$1.71	\$1.36	\$1.01
3,360	1,122,200	\$1.63	\$1.26	\$0.93
3,700	1,205,650	\$1.48	\$1.18	\$0.87

No adjustments have been made for “must take” contracts

1,823 AF = assumptions in rate study

3,360 AF = theoretical maximum sales

* 5-year average for 1,823 AF is \$2.93



Summary of Options

	Option 1	Option 2	Option 3	Option 4
2016 Rate	\$2.93	\$2.00	\$1.63	\$1.06
“Must Pay”	\$2.20	\$1.50	\$1.50	na
Non-Peak	\$1.20	\$1.20	\$1.20	na
R&R	Yes	No	No	No
SSC Increase	-	-	1.0%	2.5%



Table 1. Planning Information for Allocation of Recycled Water

Type of User	Estimated Demand (acre-feet per year)	
Existing Uses/Commitments		
Existing Customers in Service Area	1,400	
Montelcino Golf Course (Somky)	300	
Valley Gate Vineyards	100	
MST (could be as little as 500 AF)	1,000	
District Use (Jameson Ranch)	100	
SUBTOTAL EXISTING USES/COMMITMENTS		2,900
Probable Commitments		
Infill (Kennedy Park, Industrial Parks)	300	
Napa State Hospital	250	
Stanly Ranch (St. Regis)	200	
SUBTOTAL PROBABLE COMMITMENTS		750
Other Areas Being Discussed in Near-Term		
Los Carneros Water District	1,650	
Suscol Mountain Vineyards	150	
SUBTOTAL OTHER POSSIBLE AREAS		1,800
TOTAL PROBABLE DEMAND (acre-feet per year)		5,450

Resolution of the Board of Directors of the Napa Sanitation District to
Provide Policy for Future Activities Associated with the Recycled Water Program