



# *Sausalito-Marin City Sanitary District*

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**RATE STRUCTURE REVIEW  
Technical Memorandum 1**

**April 30, 2012 Workshop**

# *Tonight's Agenda*

- Introduce the study objectives
- Review the study scope
- Review the results of Technical Memorandum No. 1
- Answer questions
- Receive public input
- Next steps and timeline



# *What are the overall study objectives?*

- Respond to customer inquiries
- Identify potential alternatives and refinements
- Understand the impacts of changing the current structure
  - Customer bill impacts
  - District financial impacts
  - District implementation requirements
- Maintain revenue neutrality
- Understand other studies underway by Marin County sewer agencies

# *Scope of Study*

- Technical Memorandum No. 1 – Background
  - Provide background information on the District's historical flow data, fixed and variable costs, and revenue generated by customer class by the current rates
- Technical Memorandum No. 2 – Alternative Structures
  - Develop alternative rate structures and evaluate the impact on customers based on the most recent winter water use data from MMWD.
- Technical Memorandum No. 3 – Rate Analysis
  - Update the District rate and financial model and conduct a cost of service analysis to determine each customer class' proportionate share of the revenue requirement.
- Technical Memorandum No. 4 – Findings
  - Present findings and recommendation of study to the public

# *Customer Rates Subject to Study*

- SMCSD wastewater treatment
  - Residential rates are a flat charge per parcel
  - Non-residential charges are based on flow and wastewater strength
  - Billed on the tax rolls (separate from City of Sausalito's collection system charge)
- SMCSD collection system
  - Marin City and other unincorporated customers pay a supplementary charge for O&M and capital renewal
  - Billed on tax rolls combined with wastewater treatment charge
- Previously adopted rate increases for 2013 and 2014 will be reviewed by SMCSD Board prior to implementation

# *Customer Rates Not Included in Study*

- City of Sausalito
  - Sets its own sewer rates for its collection system costs
  - Residential and non-residential customers are billed on tax rolls separately from SMCSD's charges
- Tamalpais Community Services District
  - SMCSD charges for wastewater treatment are established by contract
  - Sets its own rates for its collection system costs including SMCSD's charges
  - Residential and non-residential customers are billed on tax rolls
- National Park Service – Cavallo Point and Marin Headlands
  - Subject to easement extension agreement negotiations

# *Key Study Definitions*

- Domestic Wastewater
  - Wastewater discharged into sewer system from customers
  - Amounts to 89% of annual wastewater flow and 20% of peak wet weather flow
- Inflow and Infiltration
  - Storm water and groundwater that enters the sewer system through defective pipes and illegal connections
  - Amounts to 11% of annual wastewater flow and 80% of peak wet weather flow
- Water Usage Units (CCF = HCF)
  - This is the amount of water that flows through your water meter. One CCF (100 cubic feet) is equivalent to 748 gallons of water

# *Key Study Definitions*

- Winter Water Usage
  - Residential sewer flows are not metered, but water use is metered
  - Best estimate of sewer flow is to use the winter water billing period
- Equivalent Dwelling Unit (EDU)
  - An EDU is a unit of measure where one unit is equivalent to the wastewater discharge from a typical single dwelling unit. Each dwelling unit on a premise is charged one sewer service charge.
  - For example, a duplex, which has two dwelling units, is charged two sewer service charges.



# Sewer Charge Revenue by Customer Class (FY11-12)

- Residential customers are SMCSD's largest class comprising 57% of total revenue

Customer Class	EDUs Billed	Current Rate/EDU	Calculated Revenue	% Total Revenue
<b>Residential</b>				
Single-Family	1,436	\$563	\$ 808,733	14%
Single-Family Attached	1,228	\$563	691,099	12%
Houseboats	437	\$563	246,031	4%
Multi-Family Residential	2,713	\$563	1,527,599	27%
<b>Total Residential</b>	<b>5,814</b>		<b>3,273,462</b>	<b>57%</b>
<b>Non-Residential</b>				
Low	858	\$563	483,069	8%
Medium	49	\$563	27,436	0.5%
High	947	\$563	533,123	9%
<b>Total Non-Residential</b>	<b>1,854</b>		<b>1,043,627</b>	<b>18%</b>
Direct Billed	213	\$563	119,806	2%
Marin Housing Authority	240	\$535	137,522	2%
Tamalpais CSD	2,280		1,131,369	20%
National Parks Service	-		-	0%
<b>Grand Total</b>	<b>[1] 10,401</b>		<b>\$ 5,705,787</b>	<b>100%</b>

[1] Unincorporated customers in Marin City service area are calculated at 1.09 per EDU to include the collection system maintenance and renewal surcharge

# Summary of Fixed and Flow-based Revenue

Customer Classes	FY 11-12 Revenue					
	Fixed		Flow-Based		Total	
SFR	\$ 808,733	100%	\$ -	0%	\$ 808,733	100%
SFR Attached	691,099	100%	-	0%	691,099	100%
Houseboats	246,031	100%	-	0%	246,031	100%
MFR	1,527,599	100%	-	0%	1,527,599	100%
Marin Housing Authority	137,522	100%	-	0%	137,522	100%
Commercial - Low*	54,725	11%	428,329	89%	483,054	100%
Commercial - Medium*	3,108	11%	24,327	89%	27,436	100%
Commercial - High*	60,397	11%	472,726	89%	533,123	100%
Direct Billed	13,512	11%	106,294	89%	119,806	100%
Subtotal	3,542,726	77%	1,031,677	23%	4,574,403	100%
National Parks Service	-	0%	-	0%	-	0%
Tamalpais CSD	-	0%	1,131,369	100%	1,131,369	100%
Tax Allocation	500,000	100%	-	0%	500,000	100%
Total Revenue	\$ 4,042,726	65%	\$ 2,163,046	35%	\$ 6,205,772	100%

\* Fixed charge estimates based on percentage of low, medium and high strength commercial parcels billed on FY 11-12 tax roll

- Rate revenue from residential and commercial customers: 77% is billed based on fixed characteristics, 23% based on flow

# *Residential Flows per Dwelling Unit*

	2011 MMWD Winter Data (HCF)	2011 MMWD Winter Annualized (HCF)	2011 Units Billed (Dwelling Unit)	Annual Wastewater Flow per Unit (HCF)
Residential				
Single Family	16,202	97,212	1,436	68
Single Family - Attached	10,059	60,354	1,228	49
Multi-Family	18,196	109,174	2,713	40
Houseboats (estimated)	<u>1,894</u>	<u>11,366</u>	<u>437</u>	<u>26</u>
Total - Residential	46,351	278,106	5,814	48

- Variations in flow per dwelling unit depend on the size of dwelling units and associated occupancy
- Winter flows for single family dwellings may include some irrigation

# Recent Winter Water Use Trends

	2009 Data (HCF)	2010 Data (HCF)	Change from Prior Year (%)	2011 Data (HCF)	Change from Prior Year (%)
<u>Customer Classes</u>					
Residential (winter flow)					
Single Family	17,500	16,343	-7%	16,202	-1%
Single Family - Attached	9,624	9,507	-1%	10,059	6%
Multi-Family	17,866	16,805	-6%	18,196	8%
Houseboats [1]	<u>1,882</u>	<u>1,888</u>	<u>0%</u>	<u>1,894</u>	<u>0%</u>
Subtotal - Residential	46,872	44,544	-5%	46,351	4%
Non Residential (average use)	<u>28,204</u>	<u>25,878</u>	<u>-8%</u>	<u>26,255</u>	<u>1%</u>
Total Customer Flow	75,076	70,422	-6%	72,606	3%

[1] The 2010 houseboat data was smoothed using the average of 2009 and 2011 houseboat data to account for the anomalously high flow in 2010.

- Fluctuations in flow affect revenue from flow-based charges

- Residential flow data based on one two-month winter billing period
- Non residential data based on average of one two-month winter, one two-month summer billing period

# *Comparison with City of Belmont Residential Winter Water Use*

- Customer bills fluctuate with water use and the amount of revenue from the flow charge compared with the fixed charge
- Belmont receives 55% of its revenue from flow charges.

<b>MPWD Winter Data</b>	<b>Total Residential Flow (HCF)</b>	<b>Change from Prior Year (%)</b>
2007-08	91,060	
2008-09	86,859	-4.6%
2009-10	81,390	-6.3%
2010-11	87,969	8.1%

- In 2008-09, a 4.6% decrease in flow resulted in a 2.5% decrease in revenue
- In 2010-11, an 8.1% increase in flow resulted in a 4.4% increase in revenue

# *Fixed and Variable Expenses*

- Fixed Costs: do not vary with changes in flow or number of customers
- Variable Costs: vary with changes in flow or number of customers
  - Can also be costs that District has discretion to increase/decrease
- Some costs do not fit cleanly within fixed and variable categories

	FY 11-12 Budget	
	Fixed	Variable
O&M Expenses	\$ 2,741,270	\$ 452,500
Administration Expenses	\$ 198,580	\$ -
Debt Service	\$ 360,517	\$ -
Total Expenses	\$ 3,300,367	\$ 452,500
	88%	12%
Net Reserves Transfer	VARIES	
Capital Improvement Projects	VARIES	

- The majority of the District's costs are fixed and do not vary with flow

## *Summary*

- Revenue from the current rates is mostly fixed
  - 75% fixed versus 25%
  - Residential revenue represents 57% and commercial 18%
- District expenses are primarily fixed
  - 88% fixed versus 12%
- Customer Class Winter Water Use Trends
  - Residential highest, followed by multi-family and houseboats
- MMWD recent winter water use trends indicate small swings in flow
  - 6% decrease from 2009 to 2010; 3% increase from 2010 to 2011
  - Fluctuations in flow can affect revenue from flow based charges

# *Preview of Next Step*

- Tech Memo 2 – Alternative Structures
  - Surveys indicate a variety of methods are used by agencies to bill flow-based residential rates on tax rolls
    - The amount of revenue from fixed and flow charges
    - The use of minimum and maximum flow caps
    - The water use period used to determine each customer's flow
  - An alternative will be developed that meets SMCSD's rate-making objectives
    - Rate payer equity
    - Financial stability
    - Ease of administration



# *Timeline*

- April 30 - Tech Memo 1 - Background
- June – Tech Memo 2 – Alternative Structures
- June/July – Board confirmation of FY2012-13 rate increase and budget
- July/August – Tech Memo 3 – Rate Analysis
- September – Tech Memo 4 - Findings



Questions?