Item V-D: Rate Study Presentations

ORIGINAL

GM Presentation
(Hansen Assoc.)

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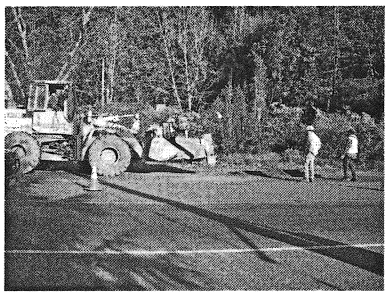
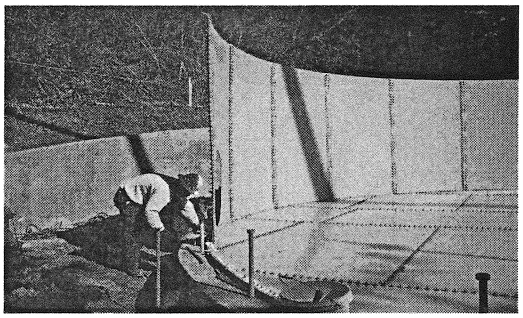


Sweetwater Springs Water District
Water Rate Plan

Guiding Principles

- Adequate income for
  - Reliable delivery of safe drinking water to customers
  - Maintain flow and pressure sufficient for fire suppression
  - Meet capital replacement requirements
- Equitable distribution of costs based on use of system resources

Five Years of Progress



Fiscal Responsibility

- Instituted preventive maintenance program
- Reduced District staff from 14 to 11.5
- Uses contract meter reading service
- Conducts aggressive leak prevention programs
- Deferred capital equipment replacement
- Lowered discretionary expenses

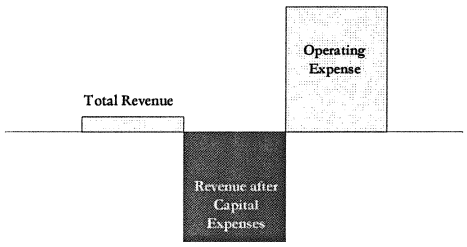
Aggressive Pursuit of Alternative Funding

- Obtained grants exceeding $2.25 million
- Used $1 million in low interest loans for capital funding
- Received $1 million in redevelopment funding
- Seeking Prop 50 grants

Factors Driving

- Asset replacement demands
- Power costs jumped 35 % during past five years
- Insurance rates tripled
- General increase in supplier costs
- Water consumption is declining

Not a Pretty Picture



Dealing with Fiscal Realities

- Set rates at levels that support operations and capital reinvestment
- Spread the burden according to use of system resources

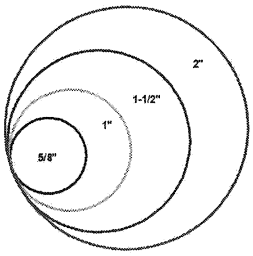
Current Relationship of Water Use to Payment

Account Types with 5/8" Meters	Average Daily Use	Percent of Water Use	Total Revenue
Commercial	160	16.7%	11.8%
Public	160	2.9%	2.3%
Duplex	135 + 72	14.8%	15.7%
SF Residential	135	65.6%	70.3%

Equalizing Use and Payment

- SF residential customer with 5/8" meter established as baseline
- AWWA flow rate of larger meters divided by AWWA flow rate of 5/8" to create a meter multiplier
- Commercial/public users consume on average 1.2 times more water than residential with same meter size
- Accounts equalized to ± 4,100 Equivalent Single Family Residential Customers from 3,808 actual customers

Meter Flows Equalized to ESFRC Meter



Components of Water Rates

- Capital debt reduction charge
- Base water rate charge
- Water Use Charge
- Multiple Unit Charge
- Flat charge

Capital Debt Reduction Charge

Current Rate

- Capital Debt Reduction Charge - $8.00 per actual account billed bi-monthly

Proposed Rate

- SFR $7.00
- Duplex $10.85

Commercial/Public

- 5/8" $7.00
- 1" Meter $17.50
- 1-1/2" Meter $35.00
- 2" Meter $56.00

How Did That Work?

Debt service: $170,500 / ± 4,100 ESFRC / 6 Bills = $7.00

Meter Type	Base Rate	SFR Meter Equivalent	Bi-Monthly Bill Amount
SFR 5/8"	$7.00	1	$7.00
Duplex 5/8"	$7.00	Plus .55	$10.85
Commercial / Public Customers			
5/8"	$7.00	1.0	$7.00
1"	$7.00	2.5	$17.50
1-1/2"	$7.00	5.0	$35.00
2"	$7.00	8.0	$56.00

Base Water Rate Charge

Current Rates

- 5/8" or 3/4" $45.85
- 1" $76.80
- 1-1/2" $183.40
- 2" $275.05

Proposed Rates

- SFR $50.00
- Duplex $50.00
  second unit $27.50

Commercial/Public

- 5/8" Meter $60.00
- 1" Meter $150.00
- 1-1/2" Meter $300.00
- 2" Meter $480.00

How Did That Work?

Non-production costs: $1.24 M / ± 4,100 ESFRC / 6 Bills = $50.00

Meter Type	Base Rate	SFR Meter Equivalent	Water Use Factor	Bi-Monthly Bill Amount
SFR 5/8"	$50.00	1	1	$50.00
Duplex 5/8"	$50.00	Plus .55	1	$77.50
Commercial / Public				
5/8"	$50.00	1.0	1.2	$60.00
1"	$50.00	2.5	1.2	$150.00
1-1/2"	$50.00	5.0	1.2	$300.00
2"	$50.00	8.0	1.2	$480.00

Water Use Charge

Current Rates

- **Tier 1**
  - 1 - 5 Units $1.10
- **Tier 2**
  - 6 - 15 Units $2.15
- **Tier 3**
  - 16 - 30 Units $2.25
- **Tier 4**
  - >30 Units $2.30

Proposed Rates

- Tier 1
  - 1 - 8 Units $1.10
- Tier 2
  - 6 - 20 Units $2.20
- Tier 3
  - >20 Units $3.00

How Tiers Are Applied

Class/Meter	Meter Factor	Tier 1	Tier 2	Tier 3
Base Use Level		<=8	<=20	>20
SFR	1	<= 8	<= 20	>20
Duplex	1.55	<= 12	<= 31	>31
Commercial/ Public				
5/8" Meter	1.0	<= 8	<= 20	>20
1" Meter	2.5	<= 20	<= 50	>50
1-1/2" Meter	5.0	<= 40	<= 100	>100
2" Meter	8.0	<= 64	<= 160	>160

Flat Charge

Current Rate

- USDA debt service - $198.00 per serviced parcel on the annual tax bill

Proposed Rate

- SFR $167.00
- Duplex $285.85

Commercial/Public

- 5/8" $167.00
- 1" Meter $417.50
- 1-1/2" Meter $835.00
- 2" Meter $1,336.00

How Did That Work?

Debt service: $682,000 / ± 4,100 ESFRC / 6 Bills = $167.00

Meter Type	Base Rate	SFR Meter Equivalent	Bi-Monthly Bill Amount
SFR 5/8"	$167.00	1	$167.00
Duplex 5/8"	$167.00	Plus .55	$285.85
Commercial / Public Customers			
5/8"	$167.00	1.0	$167.00
1"	$167.00	2.5	$417.50
1-1/2"	$167.00	5.0	$835.00
2"	$167.00	8.0	$1,336.00

WS Presentation

2/27/2008

ORIGINAL

SWEETWATER SPRINGS WATER DISTRICT

Water Rate Status & Adjustment Proposals

February 21, 2008

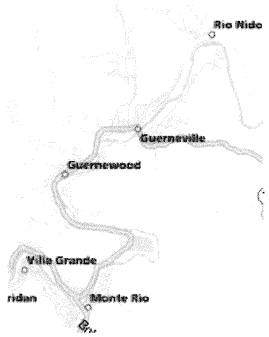
Presented by:
Presenter(s) [affiliation] &
Jack Locey, Brelje & Race Engineering Firm

Presentation Contents

- District Description & History
- District Composition
- District Water System
- Recent District Improvements
- Customer Classes
- Customer Charges
- Revenue Sources
- Revenue Status
- Water Rate Study
- Summary

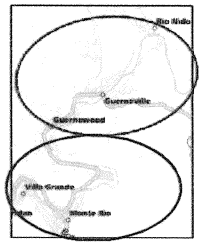
District Description & History

- SWSD is:
  - An independent, public, county water district.
  - Responsible for providing water to residents, businesses, and public facilities from Rio Nido to Villa Grande.
  - Unique district characteristics:
    - Tourism, floods, hilly terrain, no industry
    - Low growth customer base
    - Low water usage
    - High water loss due to 15%-20% leaks
- SWSD was:
  - Formed in 1988
  - Purchased in 1992 by Sweetwater Springs Water District



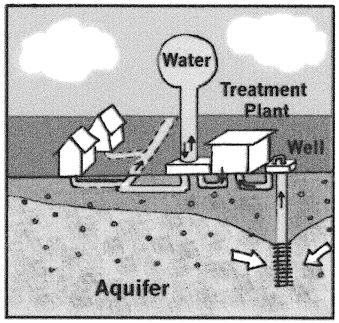
District Composition

- SWSD is composed of:
  - Two districts
    - Guerneville
    - Monte Rio
  - 11 square miles
  - 85 miles of piping
  - 5 wells
  - 10 storage tanks



SWEETWATER SPRINGS WATER DISTRICT

District Water System



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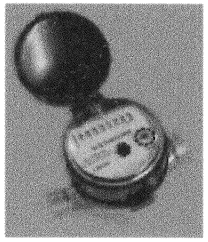
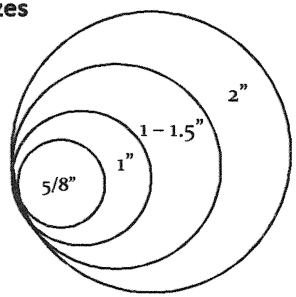
District Water System

Meter connection sizes





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Recent District Improvements

- Upgraded water system (water mains, storage tanks, filtering, etc.)
- Process control system
- Maintenance program
- Staff reduction (18%)
- Contractor to read meters

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Customer classes

Single family

Multiple family

Commercial
(stores, resorts, restaurants)

Public
(fire stations, parks, schools)

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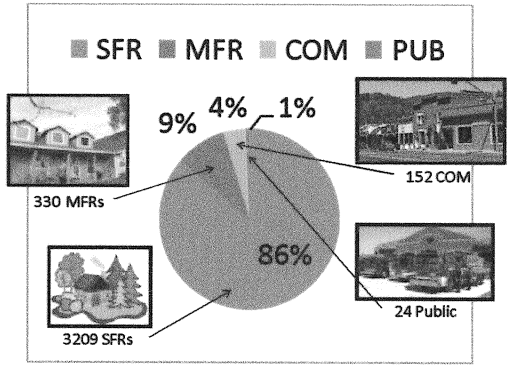
Customer Class Distribution



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Revenue Sources

- Customer charges
- Property rental
- Interest on reserves
- Grants (such as, RRROC)

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Revenue sources:
Customer Charges

Water bill includes:

- Base rate (basic bimonthly charge) +
  - Pays for general operating expenses
- Water usage (quantity used) +
  - Pays for production & delivery of water
- Capital debt reduction
  - Repays state construction loan ($170,500 / year)
  - Multiple unit charge (if applicable)

Property tax bill includes:

- Flat charge +
  - Primarily repays USDA loan ($682,000 / year)

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Water Rate Study
Why?

- Budget projections showed that District would need more revenue to offset rising costs
- Align revenue with cost of providing services
- Determine alternative ways to address revenue situation

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Water Rate Study

- **Contracted to most qualified engineering firm:**

Brelje & Race

www.brce.com

  - **Long term consultant to Sweetwater Springs District**
  - **Knowledgeable of SWSD:**
    - **Water system**
    - **Customers**
    - **Rates**
    - **Expenses**
    - **Projects & Needs**
  - **Cost - $18K**
  - **Used American Water Works Association (AWWA) standards**

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Water Rate Study

- **Contents:**
  - **Historical sales data and trend analysis**
  - **Revenue Model (rate calculation tool)**
  - **Calculation of revenues from different rate scenarios**
  - **Recommendations**

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Water Rate Study:

Historical data

Showed inequities between customer classes.

Commercial and **Public** accounts consume an average of **1.2 times more water** than **Single Family Resident** accounts (with same meter size).

Account	Average Daily Use	Water Usage	District Income	Difference
Single Family Residential (SFR)	135	65.5 %	70.3 %	4.8 %
Multiple Family Residential (MFR)	!35+72/unit	14.8 %	15.7 %	0.9 %
Commercial (COM)	160	16.7 %	11.8 %	4.9%
Public	160	2.9 %	2.3 %	0.6 %

SWEETWATER SPRINGS WATER DISTRICT

Water Rate Study:

Recommended change

- **Current base rate charge**
  - Example SFR: $48 bimonthly
- **Recommended changes:**

Account type	Recommended Change
Single Family Residential	$50
Multiple Family Residential	$50 + (55% x $50)/unit
Commercial & Public (based on meter size)	5/8" = $60 1" = $150 1-1.5" = $300 2"=$480

SWEETWATER SPRINGS WATER DISTRICT

Water Rate Study:

Recommended change

- **Current Capital Debt Reduction charge / account**
  - $8 bimonthly
- **Recommended changes:**

Account type	Recommended Change
Single Family Residential	$7
Multiple Family Residential	$10.85
Commercial & Public (based on meter size)	5/8" = $7 1" = $17.50 1-1.5" = $35 2"=$56

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Water Rate Study:

Recommended change

- **Current water usage charge**
  - 4 tier structure with charge per water use unit
    1) Low, 2) Medium, 3) Medium High , 4) High usage/ customer class
- **Recommended change:**
  - **Multiplier based on SFR**

Meter size	Multiplier
5/8"	1.0 x SFR tier rate
1"	2.5 x SFR tier rate
1 – 1.5"	5 x SFR tier rate
2"	8 x SFR tier rate

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SWEETWATER SPRINGS WATER DISTRICT

Water Rate Study:

Recommended change

- **Current Flat charge**
  - $198 / year tax on parcels receiving water
- **Recommended changes:**
  - **Establish base SFR flat charge**
  - **Multiplier for other accounts**
    - **MFR based on units**
    - **COM & Public based on meter size**

Meter size	Flat Rate	Multiplier
5/8"	$167	1.0 x SFR tier rate
1"	$417	2.5 x SFR tier rate
1 – 1.5"	$835	5 x SFR tier rate
2"	$1336	8 x SFR tier rate

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SWEETWATER SPRINGS WATER DISTRICT

Water Rate Study Summary

- **Historical data and model analysis showed inequities**
  - **Discrepancy between usage and charges**
- **Recommended changes include:**
  - **Reclassification of some accounts**
  - **Change in usage tiers**
  - **Change fees to better reflect District costs of supplying water**
  - **Base fees on Single Family Resident multipliers**
  - **Move Capital Reduction Charge to yearly property tax bill**

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SWEETWATER SPRINGS WATER DISTRICT

Where we are in the process ...

Assessing impact of recommended changes on specific customers.

Soliciting feedback from the community regarding implementation of changes to eliminate inequities.

We therefore welcome your comments.

Thank you in advance!

Sweetwater Springs Board of Directors

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