Rates and Revenues in a Difficult Economic Environment
Agenda

- Importance of Financial Planning and Financial Policies
- Financial Planning Tools
- Case Studies
  - Mesa Consolidated Water District
  - Alameda County Water District
  - Santa Cruz Water Department
Financial Challenges of Managing a Water and Wastewater System

Properties of Utility System
- Capital intensive
- Highly fluctuating capital cost
- Unknown liability
- Increasing regulatory demand

A financial model can be a tool to navigate through these challenges

Political Acceptance on Rates
- Rate stability
- Affordability
- Equity
- Environmental stewardship
Why Financial Planning?

- Financial Sufficiency for the Short and Long-Term
  - Short-term operating expenses
  - Anticipated capital expenditures

- Preparation for the Future
  - Identify known facts and variables
  - Anticipate unknown variables and evaluate associated risks

- Tool for Agencies
  - Minimize rate fluctuations from year to year
  - Assess risks and develop financial policies, budget goals and objectives
Risk Assessment According to Donald Rumsfeld

- Things you know
- Things you know you don’t know
- Things you don’t know you don’t know

No Risk  |  Known Risk  |  Unknown Risk
Key Financial Plan Components

- **Revenue**
  - Operating
  - Non-Operating

- **Expenses**
  - O&M
  - Capital (CIP & Debt)

- **Financial Policies**
  - Reserve Balances
  - Debt Coverage

**Revenue Adjustment Schedule**

**Long-Term Financial Plan**
Financial Policies At A Glance

- Importance of Financial Policies
  - To maintain financial solvency
    - Provide a basis for coping with fiscal emergencies (revenue short-falls, asset failure, emergency etc ...)
  - To provide guidelines for sound financial management with an overall long-range perspective
  - To enhance financial management transparency
    - Improve public’s confidence and elected officials’ credibility
What Are Your Policy Objectives?

- Affordability
- Risk Mitigation
- Lowest Rates
- Rate Stability

Financial Policies should be determined by each agency based on what the agency values most.
Types of Reserves

- **Operations and Maintenance (O&M)**
  - Used to provide working capital to support the operation, maintenance and administration of the water and wastewater utilities
  - Ex. 90 days (25%) of Operating Budget

- **Rate Stabilization**
  - Used to smooth rate increases caused by decreasing sales or unexpected increases in third party cost
Types of Reserves (cont.)

- **Emergency**
  - Maintained to allow the utility to provide uninterrupted service in the event of a natural disaster or facility failure

- **Capital Refurbishment and replacement (R&R):** for future R&R expenditures / liabilities
  - Water is a capital intensive industry, reserve is used to ensure the maintenance of necessary infrastructure
  - Ex. % of total asset value
Financial Plan Model Overview

**Inputs**
- Current Rates
- Acct & Usage
- Key Assumptions
- Operating Budget
- Original CIP
- Current Debt Service

**Model Engine**
- Revenues from Current Rates
- Non-Operating Revenues
- O&M Expenses
- CIP Scenarios
- Debt (Current Debt Service)

**Key Variables on Dashboard**
- Rev Adjustments
- Demand Factors
- CIP Scenarios
- New Debt
- Reserve Policies

**Cash Flows for Each Enterprise Fund**

**Outputs**
- Graphical Results on Dashboard
- Numerical Results in Pro-Forma
  - For Each Fund
  - For Whole Agency

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WESTCAS 2013 - Rates & Revenues in a Difficult Economic Environment  
June 28, 2013
Financial Plan Dashboard Example

Key inputs for Financial Plan:
- Revenue adjustments
- New debt issues
- Demand factors
- Based on % of prior yr consumption
- Financial Policies
- Debt coverage
- Reserve requirements

Scenario analysis tools:
- O&M Expenses selector
- Budget vs. Forecast
- CIP Scenario selector
- Budget vs. Cash flow
- Excluding Desal project option
Financial Plan Dashboard Example

Chart 1 - Rev Adjustments and Debt Coverage
- Blue bars – 8.5% revenue adjustments
- Red line – Target debt coverage
- Dark green line – Water debt coverage

Chart 3 - CIP and Funding Sources for Fund 711 & 713
- Green bar – PayGo
- Red bar – new debt ($10M in FY 2015 and $14M in FY 2017)
- Purple bar – by other agencies
- Blue bar – by grants

Fund Balances

Rev Adjustments & Coverage Ratio

Fund Balances
Financial Plan Dashboard Example

**Chart 2 – Operating Financial Plan**
- Lines – revenues
  - Red – current rates
  - Green – proposed rates
- Stacked bars – expenses

**Chart 4 – Fund Balances**
- Green bar – selected fund’s projected ending balances without debt proceeds
- Red bar – Debt proceeds balances
- Red line – target balances (360 days cash)
- Red dot – alert balances when ending balances fall below target levels
Case Studies

Mesa Consolidated Water District
Alameda County Water District
Santa Cruz Water Department
Current Issues and Challenges

- Achieving strategic goal set by the Board – AAA credit ratings from all three rating agencies by FY 2016
  - 600 days cash by the end of FY 2016
  - 200% debt coverage

- Sufficient capital funding for 100-yr capital R&R

- Changes in water supply costs: Imported water supply is replaced by the groundwater treated by the newly-built Colored Water Treatment Plant
Financial Plan Model
The Dashboard

Key inputs for Financial Plan:
- Revenue adjustments
- New debt issues
- Demand factors (Based on % of prior-yr consumption)
- Target ratios
  - Debt coverage
  - Water loss
- Scenario Manager activator

User-friendly tools:
- Zero Selected Variables command button
- CIP Scenario selector
- Selector for no. of years to be displayed on charts
- Spin buttons to change multiple variables at various increments
Goals of Financial Plan

- Achieve 600 Days Cash in FY 2016
- Meet required debt coverage ratios
- Maintain designated funds (DF) at minimum target levels
30-year LRFP

Chart 1: Rev Adjustments & Coverage Ratio
- Rev Adj
- Projected Coverage Ratio
- Preferred Coverage Ratio

Chart 2: Operating Financial Plan
- O&M Expenses
- Water Supply Cost
- Debt Service
- DF Funding
- Current Rev
- Proposed Rev

Chart 3: CIP & Funding Sources
- Debt Financing
- PayGo

Chart 4: Days Cash Ratios
- Days Cash**
- Target Days Cash

WESTCAS 2013 - Rates & Revenues in a Difficult Economic Environment
June 28, 2013
100-year LRFP

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WESTCAS 2013 - Rates & Revenues in a Difficult Economic Environment  June 28, 2013
Current Issues and Challenges

- Complex water supply sources and costing scenarios
- Capital improvement uncertainties
  - Approved 25-yr CIP (Baseline)
  - Delta Fix ($5M/yr for 30 yrs)
  - Main Replacement Program (MRP) ($10M/yr for 30 yrs)
- Other cost drivers
  - OPEB Funding
Baseline Scenario
Baseline CIP + Average Water Supply Costs

Chart 1 - Water Rev Adjustments
- Fixed Rev Adjustments
- Commodity Rev Adjustments
- Overall Rev Adjustment

Chart 2 - Water Debt Coverage Ratios
- Water Debt Coverage
- Target Debt Coverage - 200%
- Alert Coverage

Chart 3 - General Fund Ending Balances

Chart 4 - CIP & Funding Sources

Selected CIP - Baseline CIP with smoothing
“Perfect Storm” Scenario
MRP & Delta Fix + High Water Supply Costs

Chart 1 - Water Rev Adjustments
- Fixed Rev Adjustments
- Commodity Rev Adjustments
- Overall Rev Adjustment

Chart 2 - Water Debt Coverage Ratios
- Water Debt Coverage
- Target Debt Coverage - 200%
- Alert Coverage

Chart 3 - General Fund Ending Balances
- Millions
- Ending Balances
- Underfund Balances
- Target Balances

Chart 4 - CIP & Funding Sources
- Selected CIP - Baseline + Delta + MRP with smoothing
- Millions
- PayGo GF CIP
- Existing Debt GF CIP
- New Debt GF CIP
- FIF CIP
- Total GF CIP

Debt Coverage Below Target
Depleting Reserves
Current Issues and Challenges
- SCWD does not have a financial policy in place to mitigate risks and to cope with fiscal emergencies
- Water demand has fallen significantly in the last 10 years (more than 20 percent reduction) with potential further mandatory water curtailment during severe drought

Goals of the Study
- Develop and evaluate financial policy options to maintain long-term financial solvency
- Assess risk profile of the financial policy options
## Case Study
Santa Cruz Water Department – Evaluated Financial Policy Options

<table>
<thead>
<tr>
<th></th>
<th>“Ideal” Financial Policy</th>
<th>“Practical” Financial Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Debt Coverage Ratio</td>
<td>150 %</td>
<td>150 %</td>
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<tr>
<td>Days Cash Target</td>
<td>360 days</td>
<td>175 days</td>
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</table>
Financial Plan and Financial Impact Analyses for Financial Policy Options

- To achieve the target days cash as set by the two financial policies, the Department needs to increase water rates and issue new debt.
- The table below shows the different rate increases and debt issuances.

<table>
<thead>
<tr>
<th>Financial Plan</th>
<th>“Ideal” Financial Policy</th>
<th>“Practical” Financial Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Debt Issues</td>
<td>$10M in FY 2015</td>
<td>$10M in FY 2015</td>
</tr>
<tr>
<td></td>
<td>$14M in FY 2017</td>
<td>$22M in FY 2017</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$22M in FY 2021</td>
</tr>
<tr>
<td>Revenue Adjustments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTS</td>
<td>8.5% per year (FY 2014 – FY 2022)</td>
<td>5% per year (FY 2014 – FY 2022)</td>
</tr>
<tr>
<td>Quantity</td>
<td>8.5% per year (FY 2014 – FY 2022)</td>
<td>5% per year (FY 2014 – FY 2022)</td>
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</tbody>
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Risk Assessments

20 Percent Per Year Reduction in Demand in FY 2018 & FY 2019

- Under “Ideal” Financial Policy
  - Reserves are below ideal target but well above the 175 days cash target even with the drop in water demand
  - No additional rate increases necessary

![Fund Balances for Funds 711 & 713](image)
Risk Assessments

20 Percent Per Year Reduction in Demand in FY 2018 & FY 2019

- Under “Practical” Financial Policy
  - In order to maintain necessary and healthy fund balances, rates need to be raised higher than originally planned

![Fund Balances for Funds 711 & 713](chart.png)

- Fund balances drop below target balances
Presented By

Sanjay Gaur
Senior Manager
Raftelis Financial Consultants
201 S Lake Av. Ste 301
Pasadena, CA 91101

Cell: 213 327 4405
Fax: 626 583 1411
Email: sgaur@raftelis.com
Credit Rating Criteria on Liquidity

- Debt rating agencies such as Standard & Poor’s & Fitch place an importance on liquidity

- Liquidity is described as:
  - Unrestricted cash balances available to meet working capital needs
    - Unrestricted cash balances include all cash and investments dedicated for working capital, rate stabilization or R&R needs
  - Criteria – measures in Days Cash
    - Days Cash = Unrestricted balances / average daily O&M expenses for the year

<table>
<thead>
<tr>
<th>Median Ratings</th>
<th>Days Cash on Hand</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBB</td>
<td>226</td>
</tr>
<tr>
<td>A</td>
<td>239</td>
</tr>
<tr>
<td>AA</td>
<td>354</td>
</tr>
<tr>
<td>AAA</td>
<td>415</td>
</tr>
</tbody>
</table>
Debt Coverage Requirements

- Debt Coverage = Ratio of cash available for debt service to interest and principal payments
  - Popular benchmark used in measuring an entity’s ability to issue new debt
  - Typical debt coverage equation = (Net Revenues / Debt Service)

- Criteria used by Standards & Poor’s (S&P) for credit ratings:
  - Insufficient 0x to 1.00x
  - Adequate 1.01x to 1.25x
  - Good 1.26x to 1.50x
  - Strong >1.50x