



Services of the San Francisco  
Public Utilities Commission

# SFPUC's Approach to Financial Modeling

Setting Goals, Creating Tools, Refining Planning

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# WATER



Delivering high  
quality water  
every day

# POWER



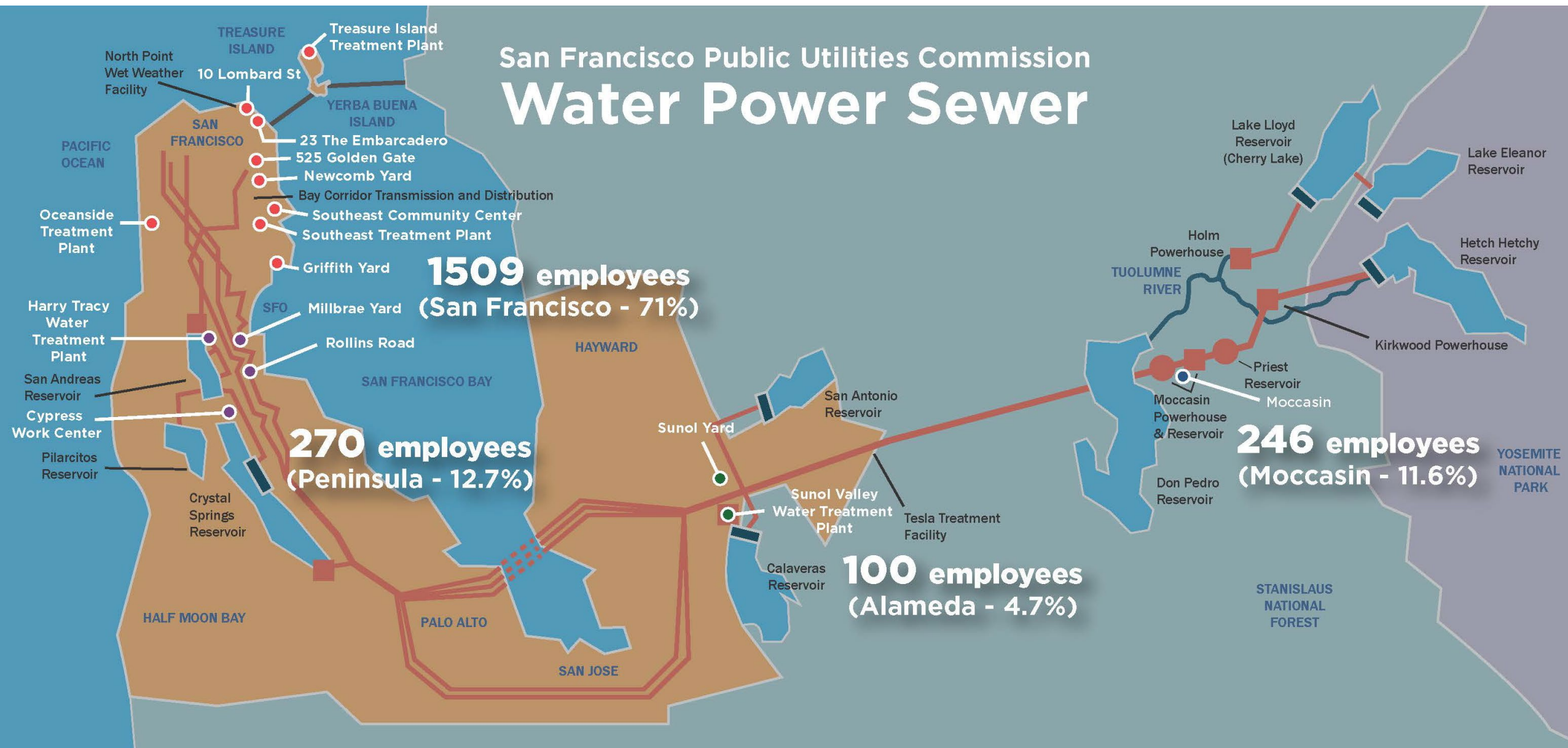
Generating clean  
energy for a  
brighter future

# SEWER



Protecting public  
health and the  
environment

# San Francisco Public Utilities Commission Water Power Sewer



# Financial Planning Process at SFPUC

*When Preparing our new model, we considered the multiple needs of the Agency*

## Annual 10-Year Financial Plan

- Summary of projected revenues and expenses
- Projection of annual rate adjustments

## 2-Year Operating and Capital Budget

- Budget prepared and authorized every other year by the Commission

## Rate Adoption

- Power Rates are adopted on a 1-2 year basis
- Water and Sewer Rates are adopted on a 3-5 year basis

## Quarterly Reporting

- Year end revenue and expense projections
- KPI projections

## Debt Issuance Support

- Reporting
- Disclosures
- Preparation of Official Statements

# Recent Update to Financial Modeling

## *Goals*

Standardized modeling platform for all 4 entities

Increase transparency of assumptions

Enhance ease of training new staff

Reduce data errors

- Transcription
- Forgotten updates

Enhance Scenario Testing for Operation and Capital Alternatives

Improve communication of key outputs

# Key Aspects in New Financial Model

## *Data Management and Model Organization*

Creation of backend data model system using PowerPivot

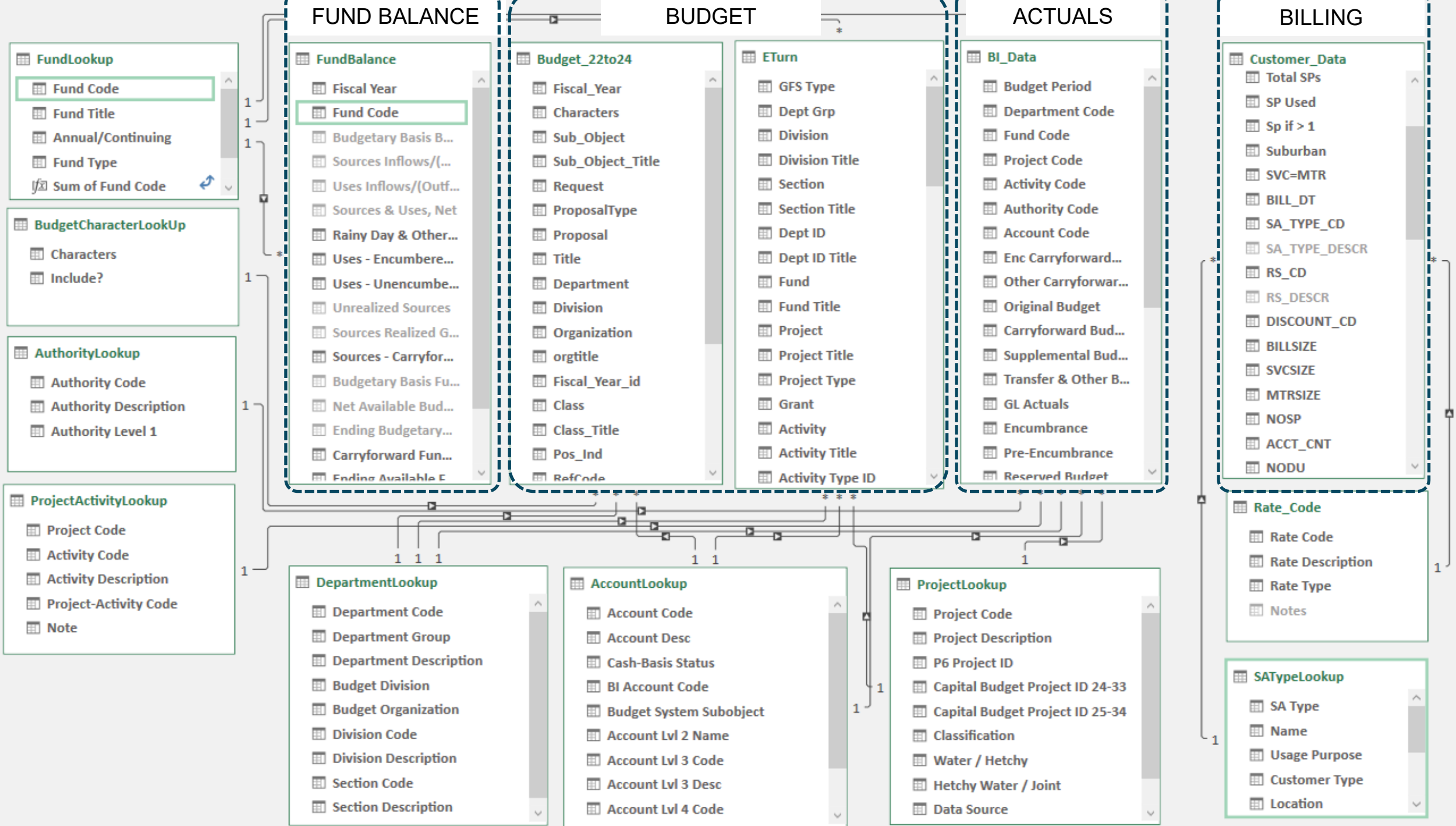
- Simplified loading of raw data
- Eliminate side calculations
- Use of dynamic functions instead of hard coded values

More refined calculation of revenues

Capture Inter-enterprise dynamics

Capture retail / wholesale dynamics

Multiple tabs that do discrete tasks



# Key Aspects in New Financial Model

## *Data Management and Model Organization*

Creation of backend data model system using PowerPivot

Modular approach to rate revenue calculation

- Create multiple tabs with discrete tasks
- Granular grouping of historic and projected count of accounts
- Historic tracking of volumes by customer groupings
- Projection of change in use by customer grouping

Capture Inter-enterprise dynamics

Capture retail / wholesale dynamics



# Key Aspects in New Financial Model

## *Capital Funding Controls*

### Create Flexible Capital Financing Controls

- Debt, cash, or mix of funding by project

### Refine Capital Spending Projections

- Move from capital spending authorization to discrete spending plans

### Capture Interim Financing Dynamics

- Incorporate the use of commercial paper (CP)
- CP refinancing with revenue bonds
- Allow for year to year adjustable borrowing assumptions

### Integrate Alternative Financing

- Use of SRF / WIFIA loans that have been recognized



# Key Aspects in New Financial Model *Evaluation of Outcomes*

## 50-year outlook capacity

- 15 to 20-year modeling
- 10-year plan

## Consolidated controls for key inputs

- Top line Rates
- % Cash/Debt funding for projects that are “mixed”
- Plug values for changes to operating or capital spending

## Dashboard with tables and charts of KPIs

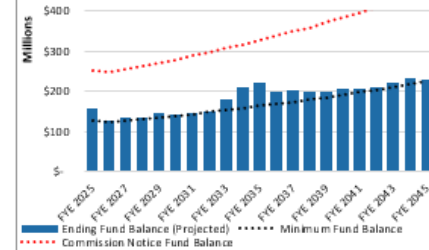
- Fund Balance
- Debt Service Coverage
- Affordability Metrics
- Timing and Sizing of Bonds

# Example Dashboard

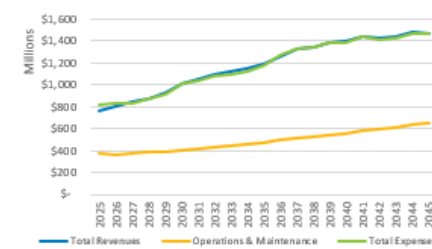
| Fiscal Year                                      | 10-Year Financial Plan Period |          |          |          |          |          |          |          |          |                |          |               |               |               |               |               |
|--------------------------------------------------|-------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------------|----------|---------------|---------------|---------------|---------------|---------------|
|                                                  | FYE 2025                      | FYE 2026 | FYE 2027 | FYE 2028 | FYE 2029 | FYE 2030 | FYE 2031 | FYE 2032 | FYE 2033 | FYE 2034       | FYE 2035 | FYE 2036      | FYE 2037      | FYE 2038      | FYE 2039      | FYE 2040      |
| Model Inputs                                     |                               |          |          |          |          |          |          |          |          |                |          |               |               |               |               |               |
| Modeled Rate increase                            | 5.0%                          | 5.0%     | 7.5%     | 7.5%     | 8.0%     | 8.0%     | 6.5%     | 6.0%     | 6.0%     | 3.5%           | 3.0%     | 3.5%          | 3.0%          | 2.0%          | 2.0%          | 2.0%          |
| Wholesale Rate Increase                          | 8.8%                          | 2.3%     | 0.0%     | 1.4%     | 4.4%     | 8.8%     | 2.5%     | 0.9%     | 0.0%     | 0.0%           | 4.2%     | 8.2%          | 10.0%         | -1.4%         | 3.7%          | 0.0%          |
| Key Metrics                                      |                               |          |          |          |          |          |          |          |          |                |          |               |               |               |               |               |
| Debt Service Coverage                            |                               |          |          |          |          |          |          |          |          |                |          |               |               |               |               |               |
| Debt Service Coverage - Current                  | 1.21                          | 1.21     | 1.27     | 1.31     | 1.28     | 1.26     | 1.34     | 1.31     | 1.24     | 1.26           | 1.26     | 1.26          | 1.23          | 1.28          | 1.32          | 1.32          |
| Fund Balance Reserve                             |                               |          |          |          |          |          |          |          |          |                |          |               |               |               |               |               |
| Budgetary Fund Balance Reserve (Days)            | 157                           | 128      | 131      | 128      | 134      | 127      | 128      | 127      | 146      | 164            | 169      | 147           | 145           | 139           | 134           | 135           |
| Budgetary Fund Balance Reserve (%)               | 43%                           | 35%      | 36%      | 35%      | 37%      | 35%      | 35%      | 35%      | 40%      | 45%            | 46%      | 40%           | 40%           | 38%           | 37%           | 37%           |
| Scenarios                                        |                               |          |          |          |          |          |          |          |          |                |          |               |               |               |               |               |
| Expense Scenarios                                |                               |          |          |          |          |          |          |          |          |                |          |               |               |               |               |               |
| Additional Operating Expenses - Regional         |                               |          |          | \$ 0     | \$ 0     | \$ 0     | \$ 0     | \$ 0     | \$ 0     | \$ 0           | \$ 0     | \$ 0          | \$ 0          | \$ 0          | \$ 0          | \$ 0          |
| Additional Operating Expenses - Local            |                               |          | \$ 0     | \$ 0     | \$ 0     | \$ 0     | \$ 0     | \$ 0     | \$ 0     | \$ 0           | \$ 0     | \$ 0          | \$ 0          | \$ 0          | \$ 0          | \$ 0          |
| Additional Capital Expenses - Regional           | Calculated                    |          |          |          |          |          |          |          |          | \$ (9,936,071) |          | \$ 50,000,000 | \$ 80,000,000 | \$ 80,000,000 | \$ 80,000,000 | \$ 80,000,000 |
| Additional Capital Expenses - Local              | Calculated                    |          |          |          |          |          |          |          |          | \$ (2,546,348) |          | \$ 50,000,000 | \$ 50,000,000 | \$ 50,000,000 | \$ 50,000,000 | \$ 50,000,000 |
| Capital Funding Inputs                           |                               |          |          |          |          |          |          |          |          |                |          |               |               |               |               |               |
| PAYGO % For "Calculated" CIP - Local Projects    | 47.7%                         | 5%       | 0%       | 20%      | 20%      | 40%      | 45%      | 55%      | 100%     | 90%            | 50%      | 50%           | 40%           | 50%           | 50%           | 50%           |
| PAYGO % For "Calculated" CIP - Regional Projects | 1%                            | 36%      | 20%      | 30%      | 40%      | 55%      | 60%      | 100%     | 100%     | 100%           | 50%      | 60%           | 65%           | 80%           | 90%           | 70%           |
| Summary Charts                                   |                               |          |          |          |          |          |          |          |          |                |          |               |               |               |               |               |

**Scenario Controls**  
FY24 Input Source

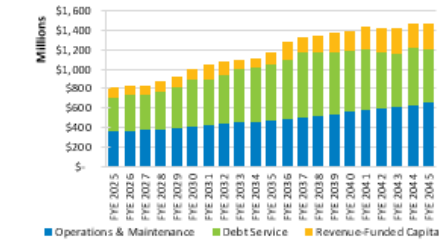
**End of Year Fund Balance**



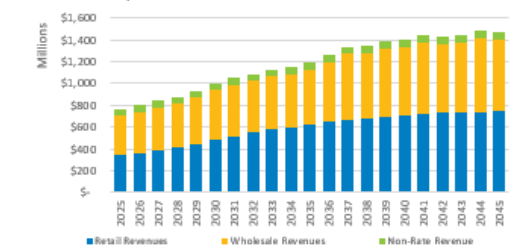
**Cash Flow**



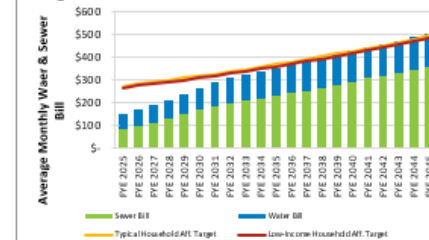
**Expense Composition**



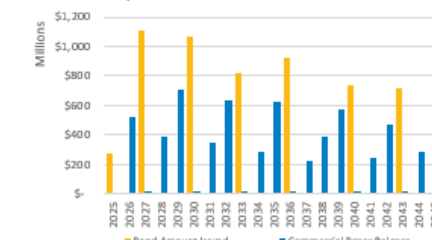
**Revenue Composition**



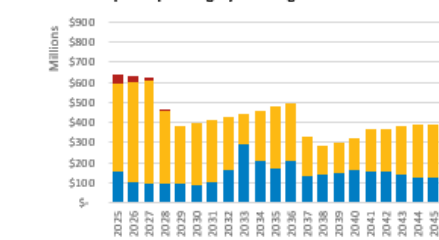
**Average Bill**



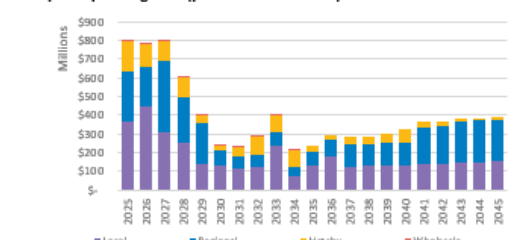
**Commercial Paper Balance and Bond Issuance**



**Executed Capital Spending by Funding Source**



**Capital Spending Plan (pre-execution factor)**



# Key Consideration when Building a Financial Model

## Build for Purpose

- Financial Planning
- Scenario Planning
- Capital Financing
- Cost of Service / Rate Design
- Reporting
- Communications Support

## Measure What Matters

- Track KPIs (Fund Balance, Debt Service Coverage, etc.)
- KPIs should be well understood
- KPIs should be able to inform management decisions

## Development and Maintenance

- Plan before you build
- Understand interconnections with data
- Understand how to organize key modules
- Balance of complexity / technicality and operational simplicity
- Consider how you will update your tool as you build



San Francisco  
**Water Power Sewer**

Services of the San Francisco Public Utilities Commission

# Thank You

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