

South Tahoe PUD Rate Study Update

Water & Sewer Cost of Service Study

January 17, 2019



Purpose of the Presentation

Familiarize the Board with the rate setting process

Discuss alternative capital scenarios analyses

- Gain feedback from the Board to move forward with the rate study analyses

Gain Board feedback/input on capital scenarios

Discuss next steps

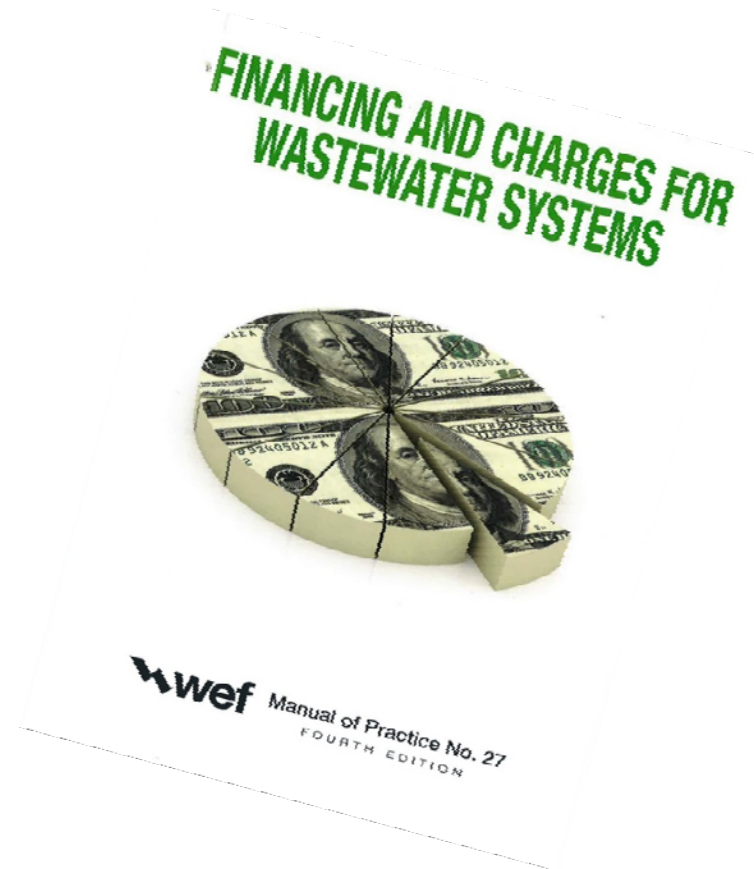
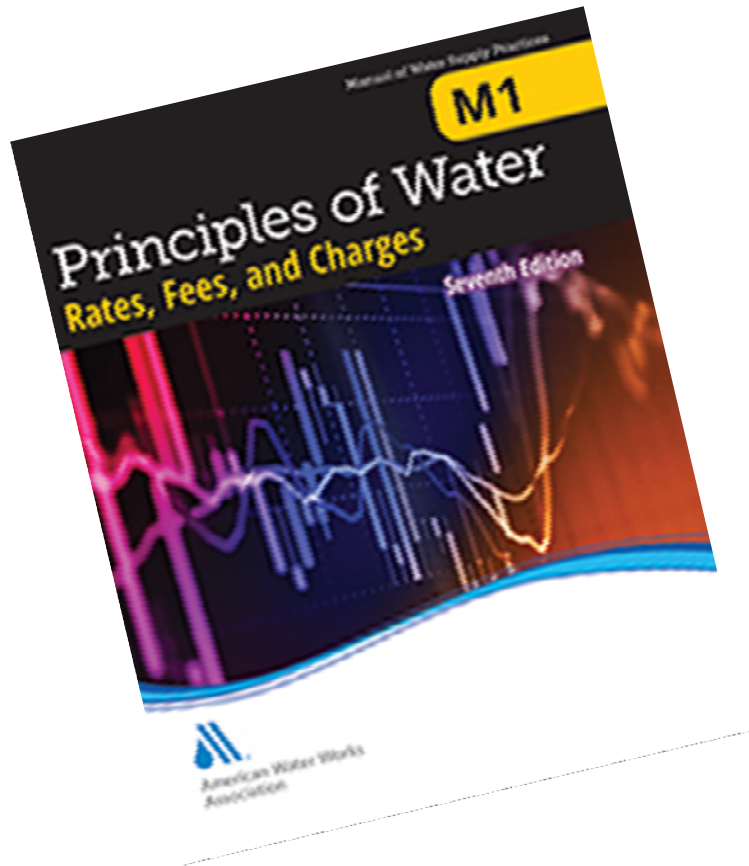


Purpose of The Study

- Update rates to provide sufficient revenue to operate and maintain the District's water and sewer systems
- Develop equitable and cost-based rates
 - Meet the intent of Proposition 218
- Reflect prudent financial planning criteria
 - Maintain target debt service coverage (DSC) ratio
 - Prudent rate funding of capital
 - Meet target reserve balances
- Develop the study using generally accepted methodologies tailored to the District's Utilities and customer characteristics.



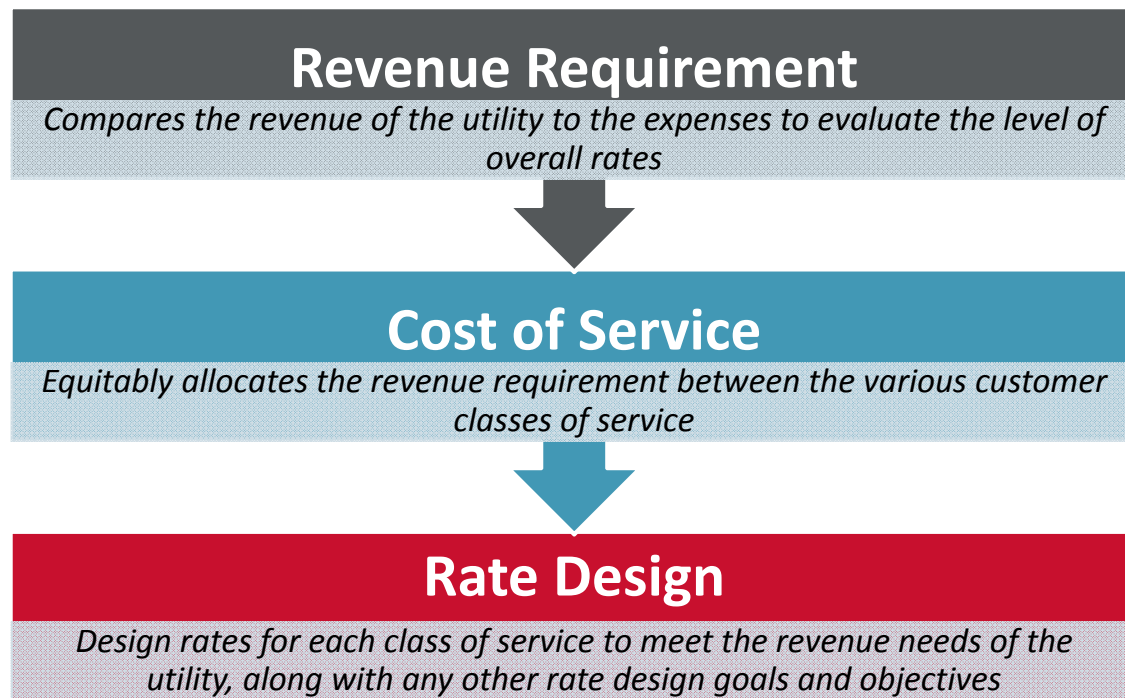
“What is Generally Accepted”?



Proposition 218 – Setting Cost-Based Rates

- A constitutional amendment designed to protect taxpayers by limiting the methods by which local governments can create or increase taxes, fees and charges without taxpayer consent
- Proposition 218 is not prescriptive in defining a “cost-based” rate
- In part, Proposition 218 requires
 - Fees shall not exceed the **reasonable cost** of providing the service
 - Fees shall not exceed the **proportional cost** of providing the service
- Cost of service analysis results (unit costs) are the foundation of the proposed rates
 - Nexus between cost (fixed / variable) to provide service (expenses) and rates (fixed / variable) charged (revenues)

Developing Cost-Based Rates



Revenue Requirement



Overview of the Revenue Requirement

Compares utility revenues to expenses

- Determines the level of revenue (rate) adjustment necessary

Uses prudent financial planning criteria

- Adequate funding of renewal and replacements
- Maintaining sufficient ending reserve balances

Reviews a specific time period

- Typically a five to ten year period

Utility is analyzed on a “stand-alone basis”

- No transfer of funds from other District funds
- Rates need to support operations and capital

Utilizes the “cash basis” methodology

- Generally accepted method for municipal utilities

Summary of the Revenue Requirement

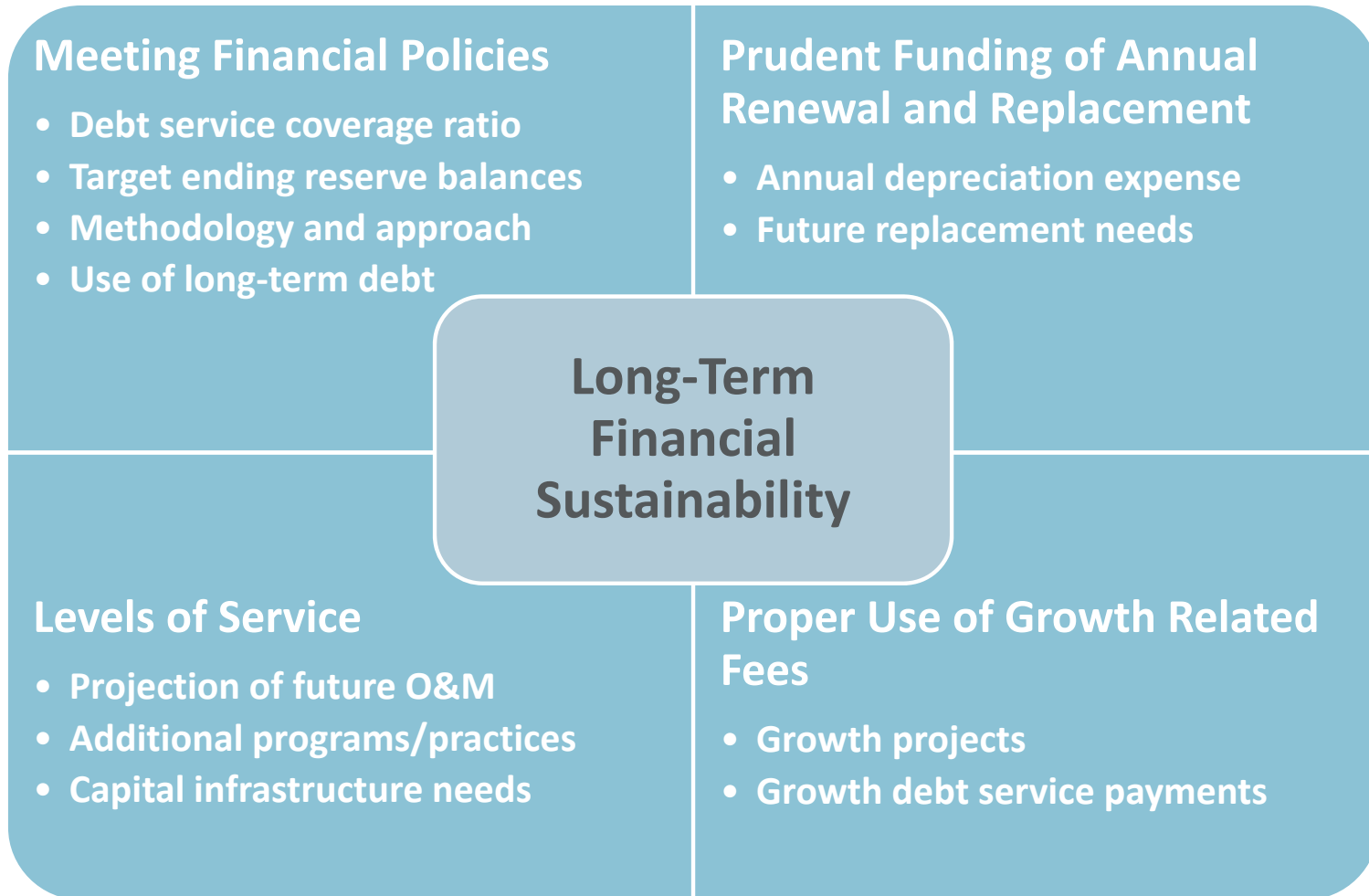
Developed based on overall utility financial objectives

Should be developed and based on “prudent” financial planning criteria

Revenue requirement analysis determines adequate funding for the utility to operate on a financially stable basis

District currently develops a long-term plan to meet these needs

Revenue Requirement – Policy Discussion



Cost of Service



Overview of the Cost of Service

What is cost of service?

- Analysis to equitably allocate the revenue requirement to the customer classes of service

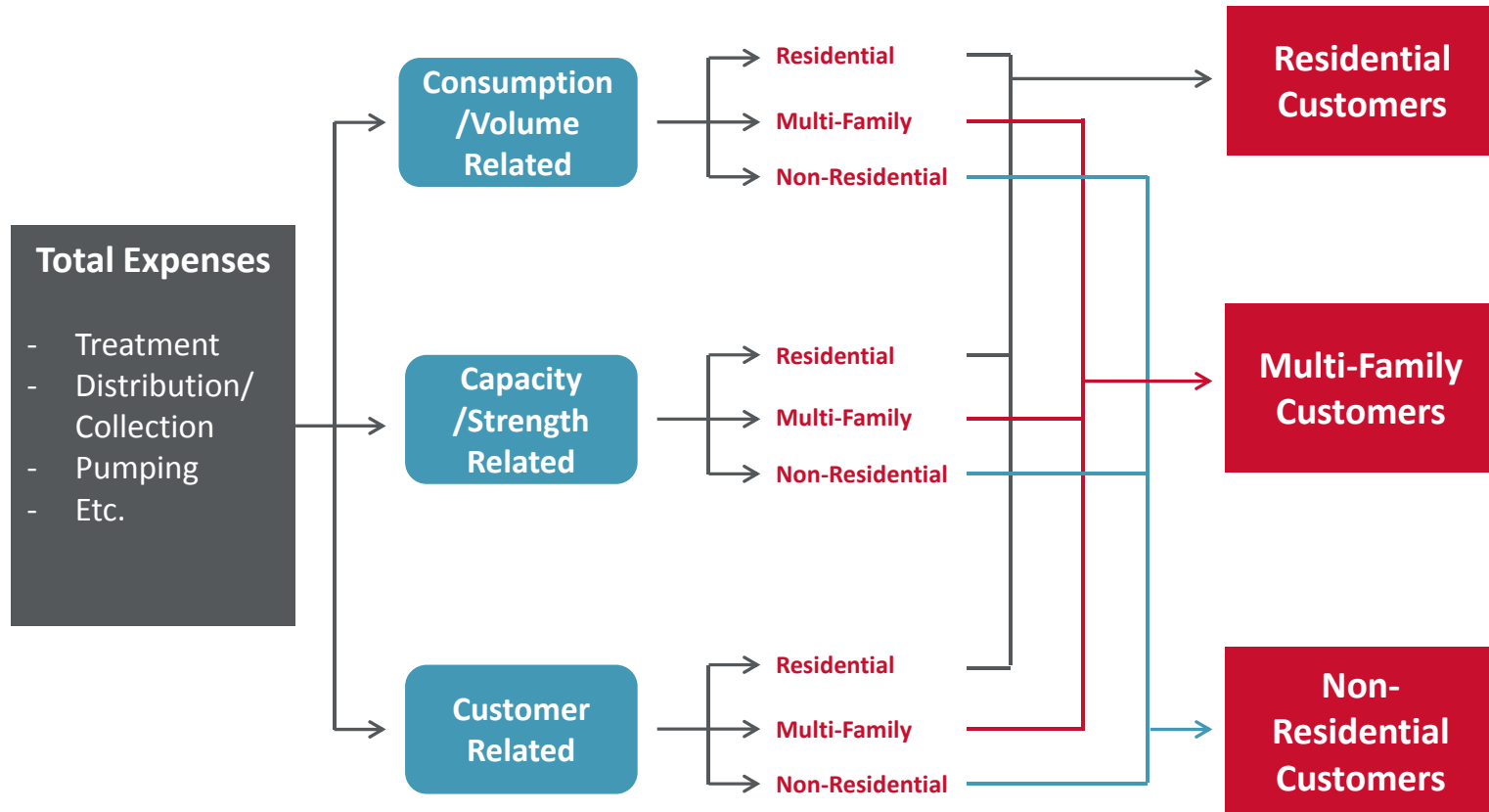
Why cost of service

- Generally accepted as “fair and equitable”
- Avoids subsidies
- Revenues reflect costs
- Meets the proportionality requirements of Proposition 218

Objectives of Cost of Service

- Determine if subsidies exist
- Develop average unit costs

Generic Water/Wastewater Cost of Service Methodology



Summary of the Cost of Service

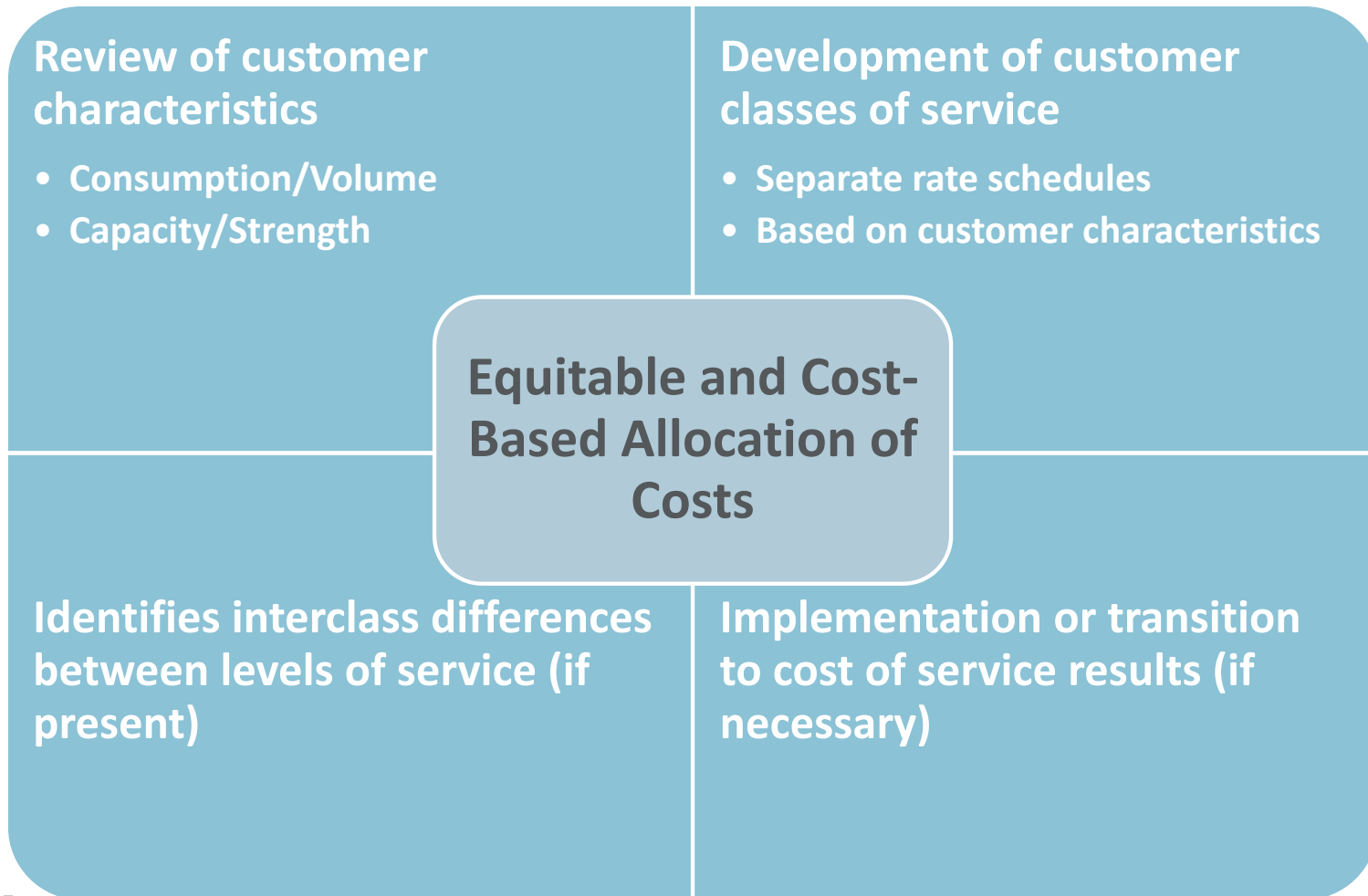
Reflects usage and facility requirements of each customer class

Results in fair and equitable rates for each customer class of service

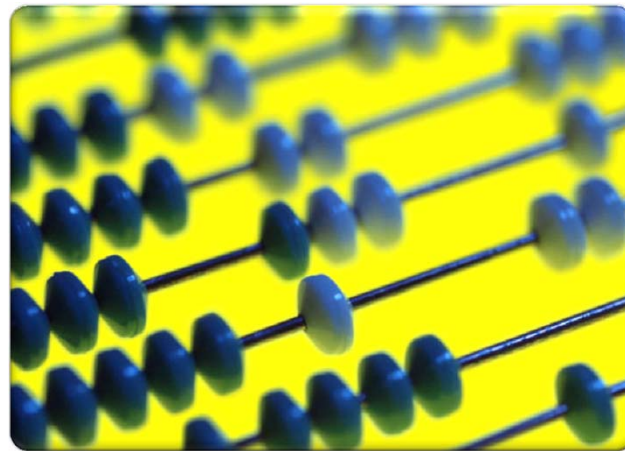
Provides the Board with information for rate structure policy decisions

Should be reviewed periodically to reflect changes in customer and system characteristics

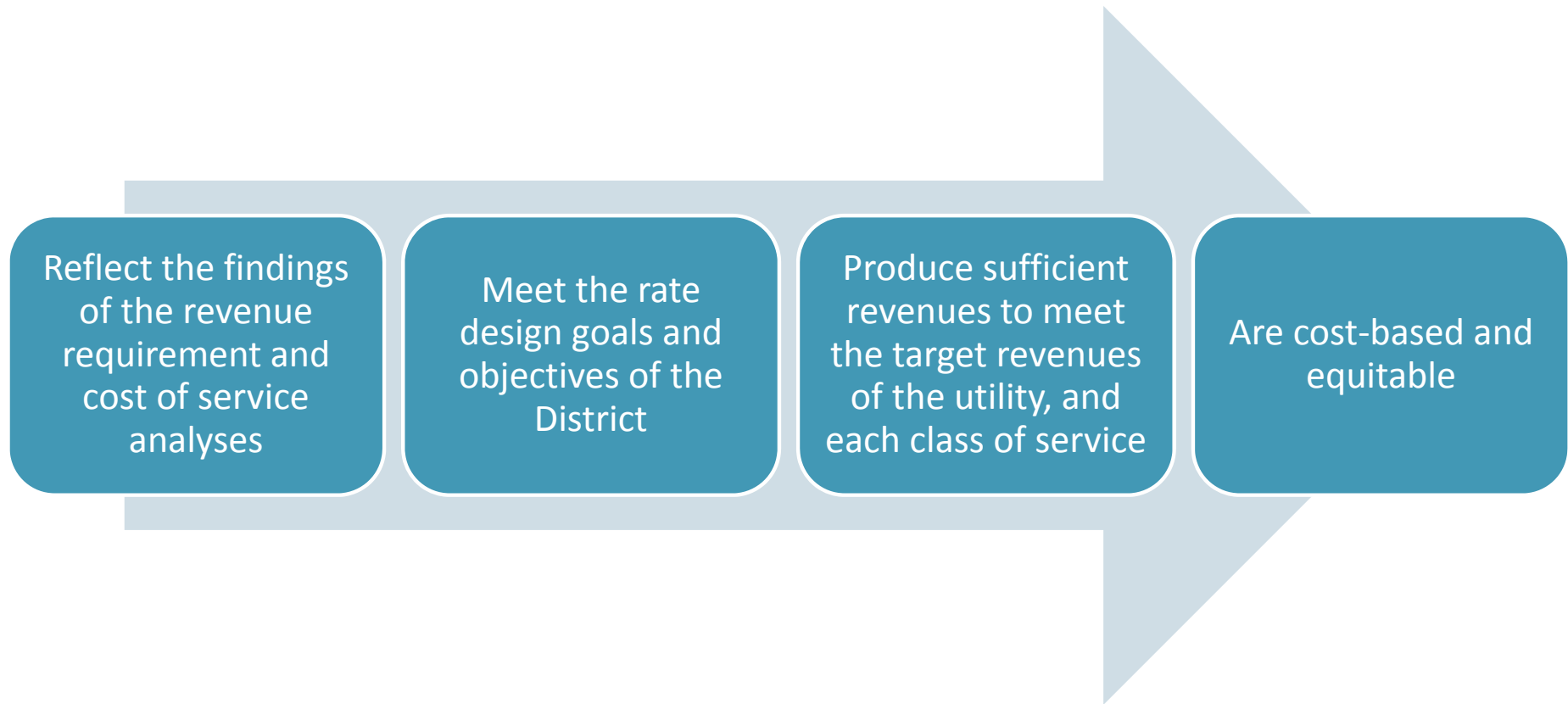
Cost of Service – Policy Discussion



Rate Design



Overview of the Rate Design



Typical Rate Setting Goals and Objectives

Revenue Sufficiency and Stability

Easy to Understand (customer)

Easy to Administer (District)

Affordability

Efficient Use of the Resource

Equitable and non-discriminating (cost-based)

Legally Defendable

Current Water Rates

| Unmetered Water Service | | |
|-------------------------|--------------------------|-----------------------|
| Customer Type | Quarterly Service Charge | Annual Service Charge |
| Single Family Dwelling | \$165.20 | \$660.80 |
| Duplex | \$293.70 | \$1,174.80 |
| Triplex | \$399.00 | \$1,596.00 |
| Four-Plex | \$516.20 | \$2,064.80 |
| Each Additional Unit | \$86.50 | \$346.00 |
| Business 3/4" Service | \$251.40 | \$1,005.60 |
| Business 1" Service | \$379.30 | \$1,517.20 |

| Metered Water Service | | |
|-----------------------|-----------------------|--------------------|
| Connection Size | Quarterly Base Charge | Annual Base Charge |
| 3/4" Metered | \$140.90 | \$563.60 |
| 1" Metered | \$235.20 | \$940.80 |
| 1-1/2" Metered | \$469.10 | \$1,876.40 |
| 2" Metered | \$750.80 | \$3,003.20 |
| 3" Metered | \$1,408.70 | \$5,634.80 |
| 4" Metered | \$2,348.20 | \$9,392.80 |
| 6" Metered | \$4,694.90 | \$18,779.80 |
| 8" Metered | \$7,512.20 | \$30,048.80 |
| 10" Metered | \$10,799.90 | \$43,199.60 |

| Metered Water Service | |
|--|----------------------------------|
| Consumption | Rate Per 100 Cubic Feet of Water |
| Single Family - Tier 1 (1 - 45 CCF) | \$1.09 |
| Single Family - Tier 2 (ABOVE 45 CCF) | \$1.64 |
| Multi Family | \$1.53 |
| Commercial | \$1.52 |

*100 Cubic Feet (CCF) = 748 Gallons

Current Sewer Rates

| Dwelling | Sewer Units | Quarterly Bill | Annual Service Charge |
|------------------------|-------------|----------------|-----------------------|
| Single Family Dwelling | 3 | \$126.27 | \$505.08 |
| Single Family Dwelling | 4 | \$168.36 | \$673.44 |
| Single Family Dwelling | 5 | \$210.45 | \$841.80 |
| Duplex | 6 | \$247.32 | \$989.28 |
| Triplex | 9 | \$370.98 | \$1,483.92 |
| Fourplex | 12 | \$494.64 | \$1,978.56 |

| Type of Connection | Quarterly Service Charge Per Sewer Unit | Annual Service Charge Per Sewer Unit |
|---|---|--------------------------------------|
| Single Family Dwelling | \$42.09 | \$168.36 |
| Multi-Family Residences | \$41.22 | \$164.88 |
| Motels/Hotels/Timeshares | \$40.69 | \$162.76 |
| Restaurants | \$43.72 | \$174.88 |
| Service Stations | \$43.72 | \$174.88 |
| Trailer/Mobile Home Parks and Campgrounds | \$38.73 | \$154.92 |
| Laundromats | \$43.72 | \$174.88 |
| Automobile Service Garage | \$43.72 | \$174.88 |
| Taverns without Food Facilities | \$43.72 | \$174.88 |
| All Other Commercial Establishments | \$43.72 | \$174.88 |

Rate Structure – Policy Discussion

Identification of primary goals and objectives

- Revenue stability/sufficiency
- Legally defensible
- Cost-based
- Etc.

Rate Structure Components

- Fixed vs. consumption/volumetric charges

**Promoting the District's
goals and objectives While
Meeting Prop. 218
Requirements**

Rate structure alternatives

- Meet goals and objectives

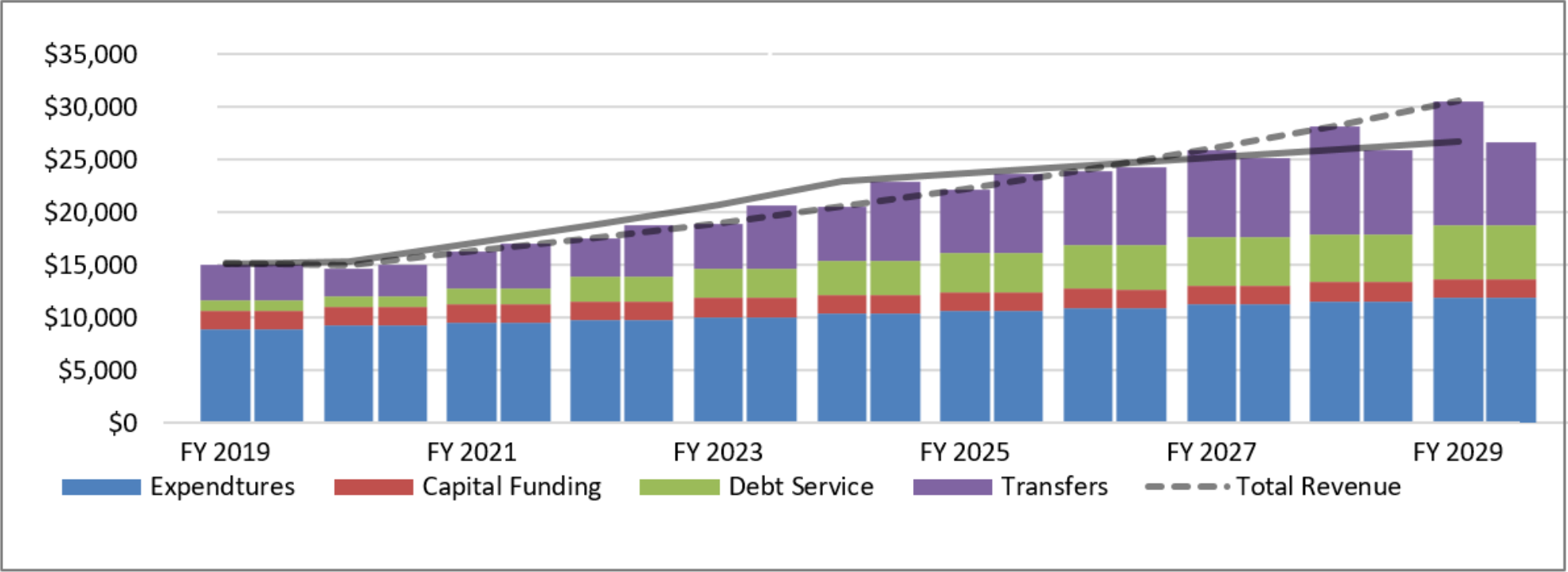
Rate schedules

- By customer class
- Reflect cost of service differences

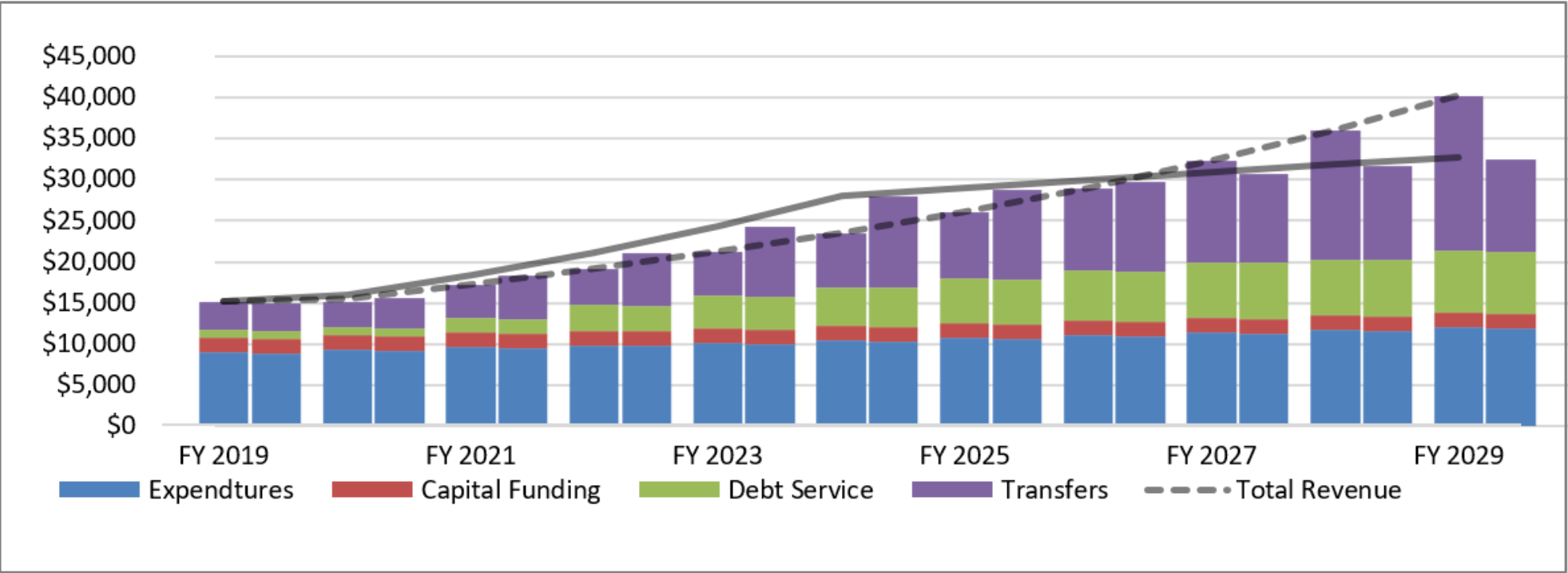
Capital Alternative Scenario Analyses

- Several alternatives capital plans were developed for both Water and Sewer
 - Water
 - All identified capital needs over the next 10-year period
 - 100 year life cycle replacement
 - Data driven replacement
 - Sewer
 - 100 year life cycle replacement
 - Data driven replacement
- Each of the capital scenario were further broken down into two rate adjustment alternatives
 - Even Rate adjustments over the 10 year analysis period
 - Five Years of catch up adjustments then, 3%(inflationary) for the following Five Years
- Based on the revenue requirement assumptions and methodology

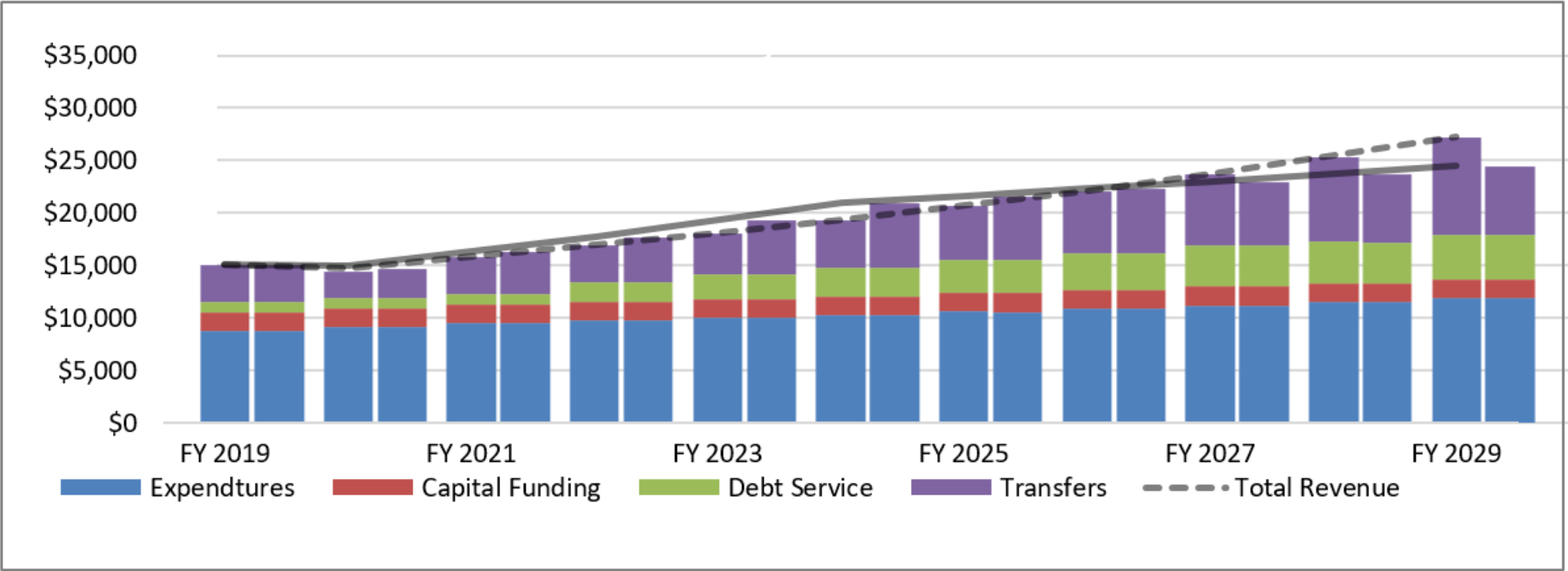
Water – All Identified Needs Comparison of Equal Adjustments and 5 year Catchup



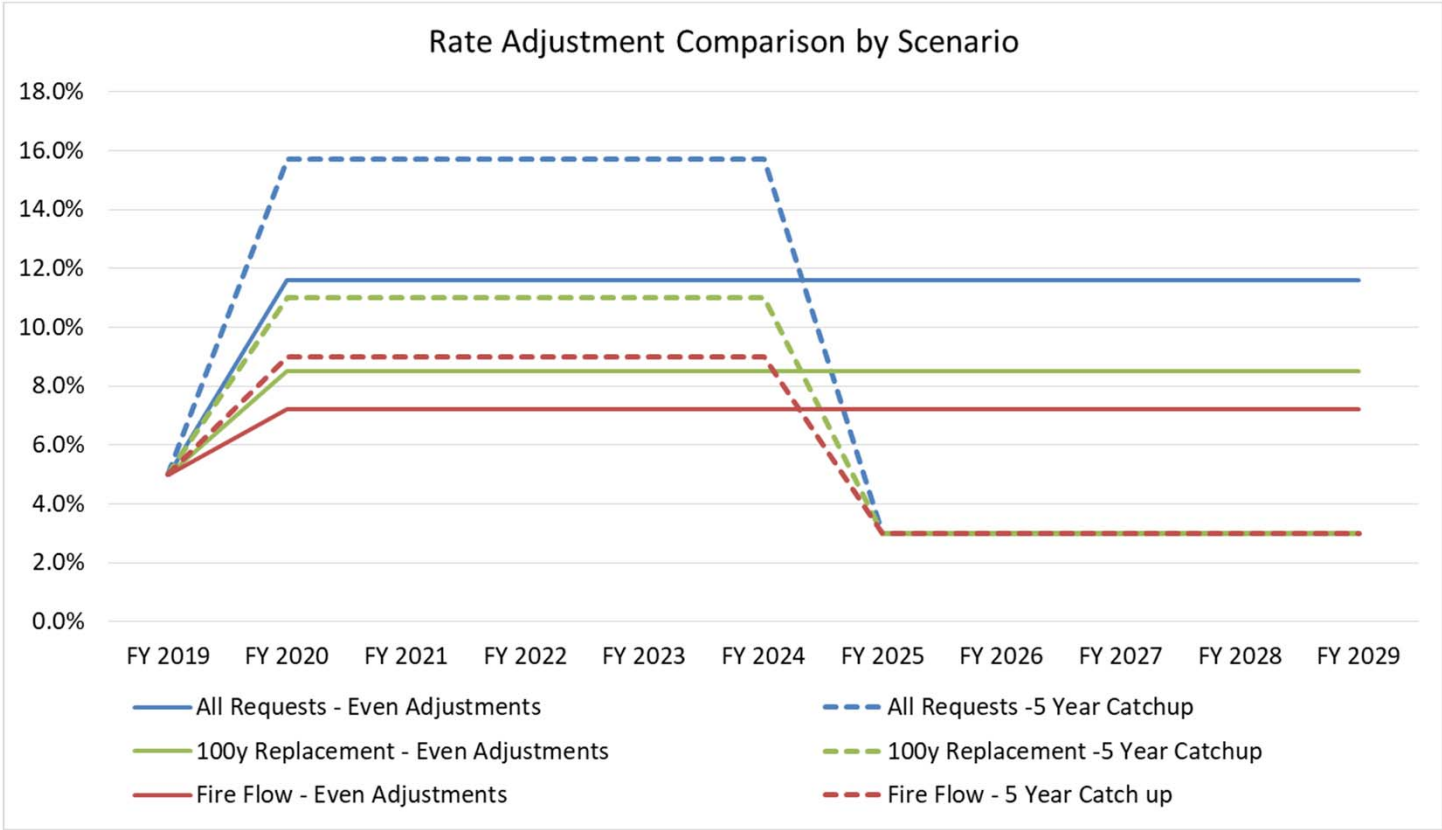
Water – 100 Year Replacement Comparison



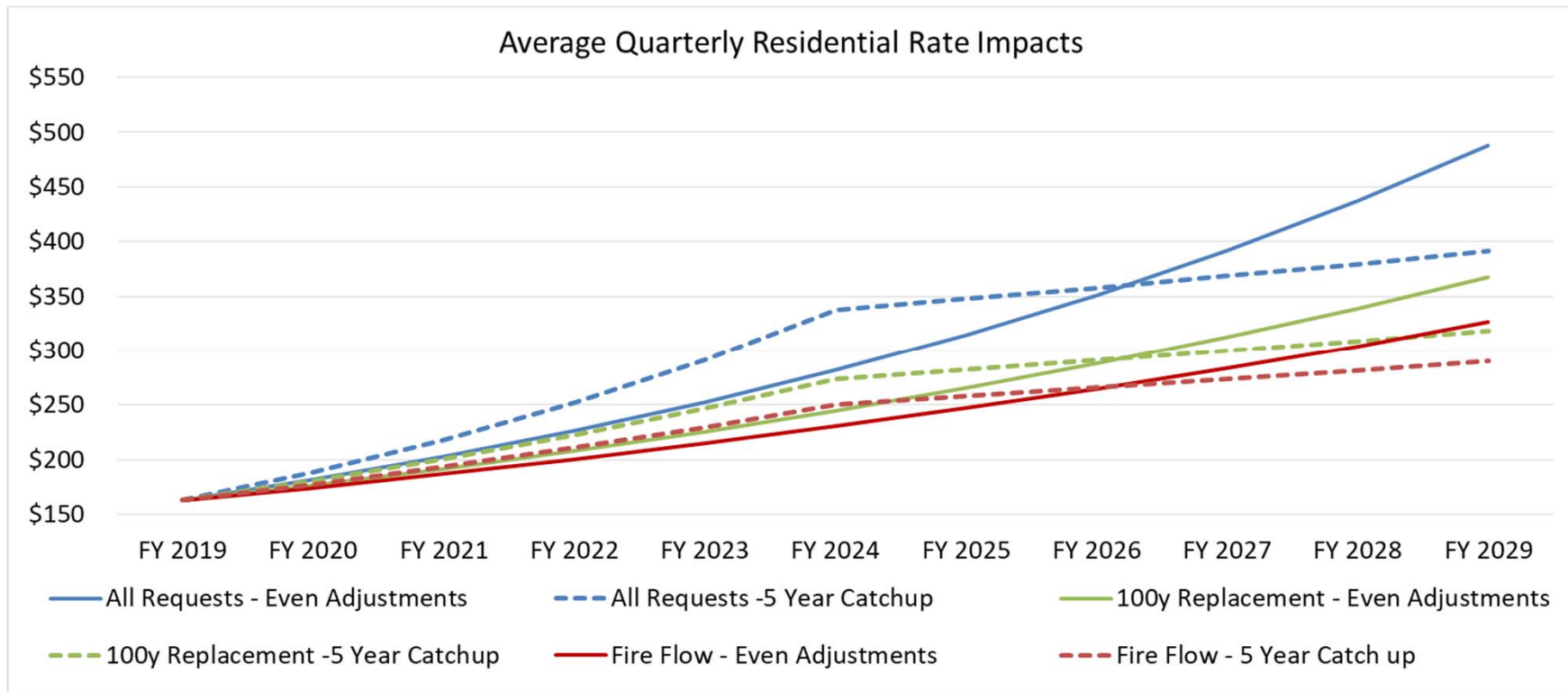
Water – Fire Flow Comparison



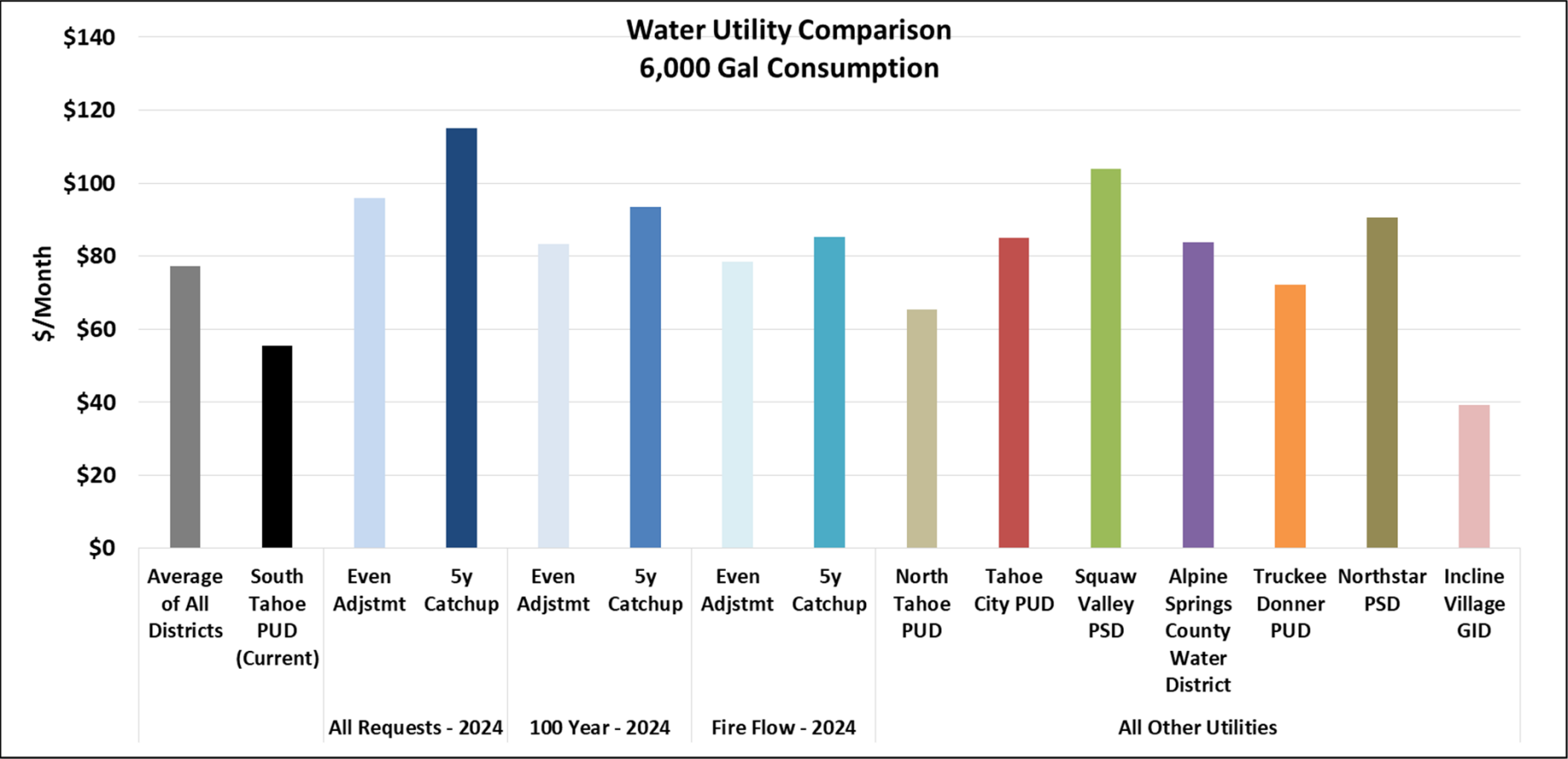
Average Annual Water Revenue (Rate) Impacts



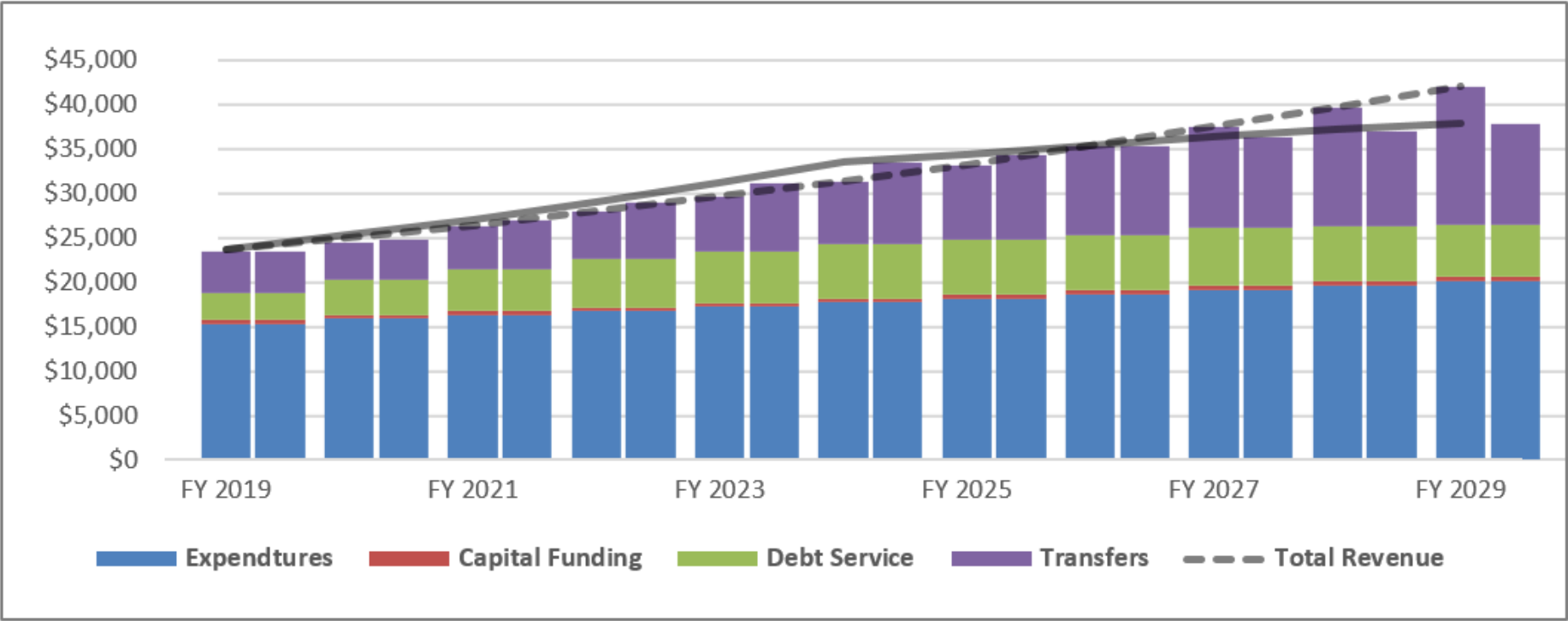
Average Quarterly Residential Water Rate Impact



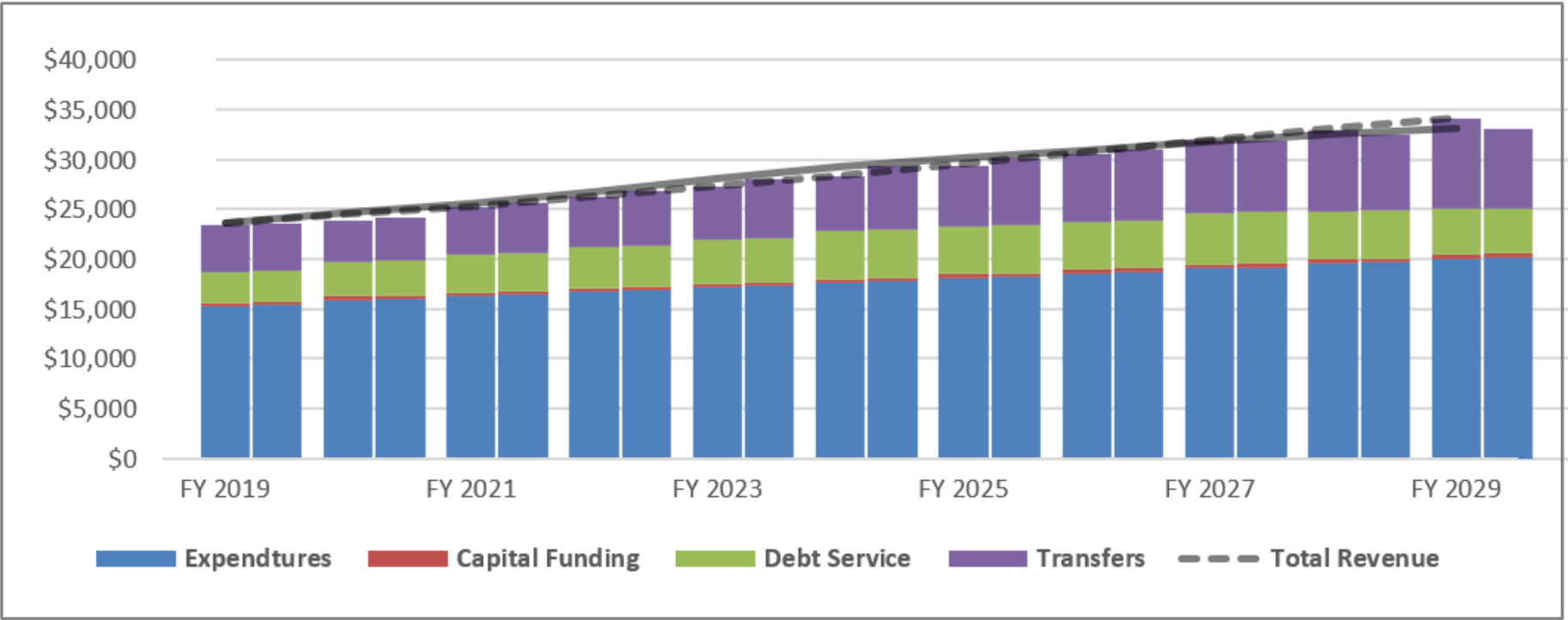
Water Utility Bill Comparison Vs. Other Districts



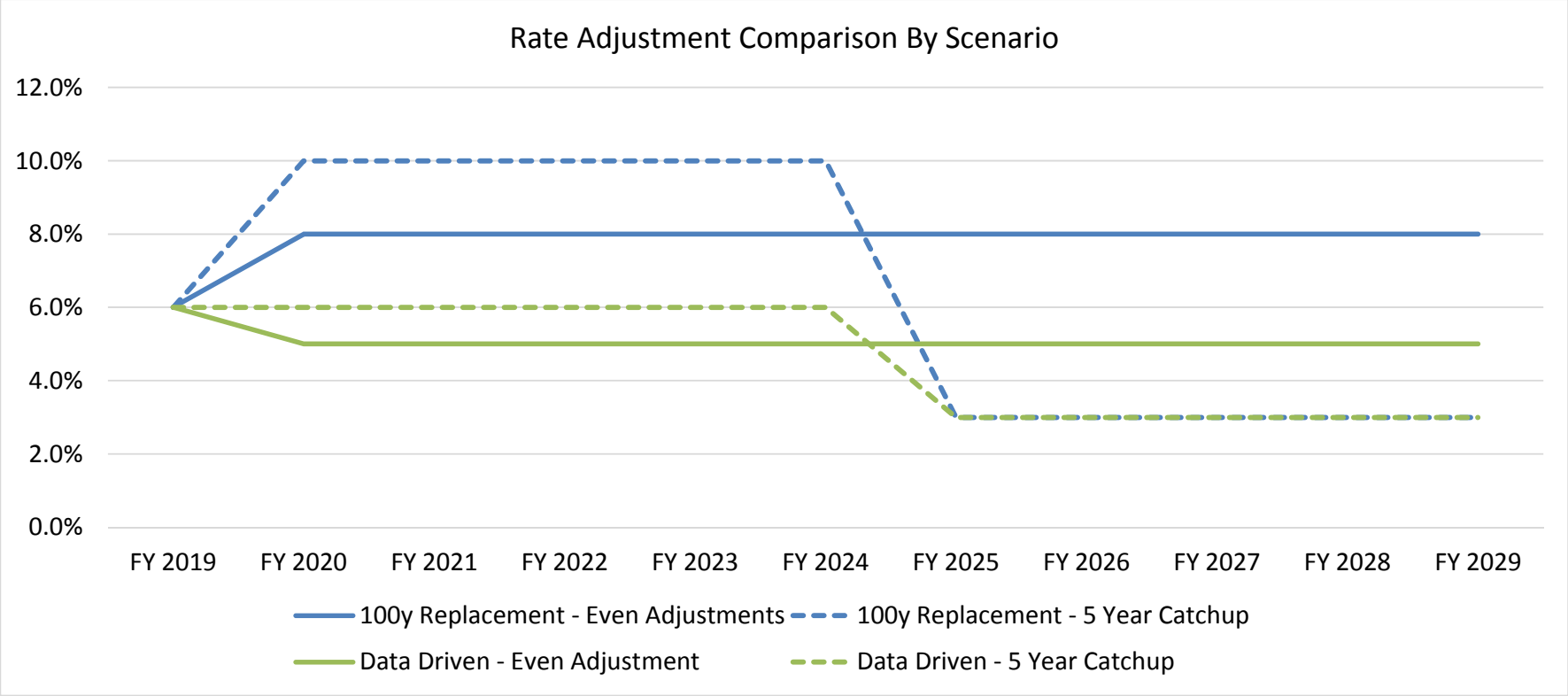
Sewer – 100 Year Life Cycle Replacement Comparison



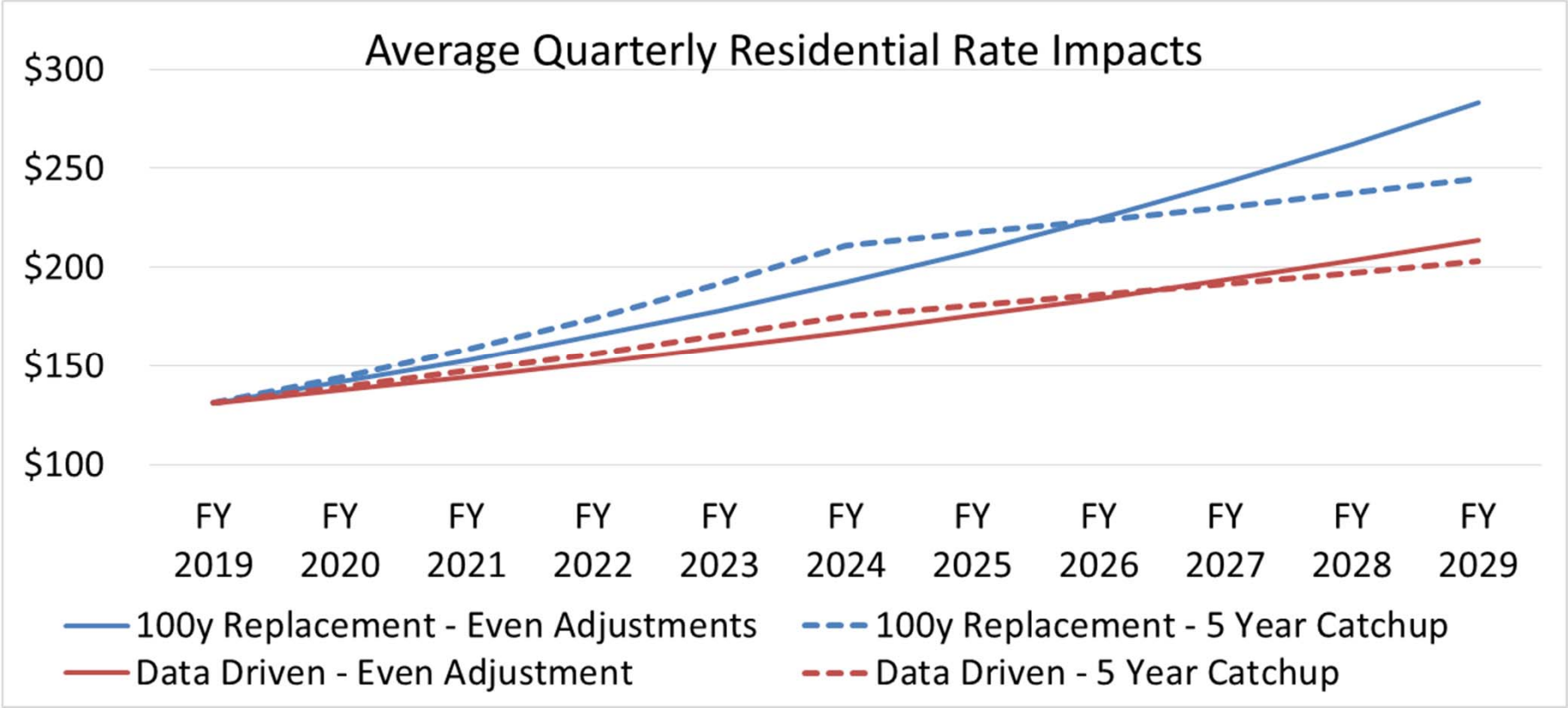
Sewer – Data Driven Replacement



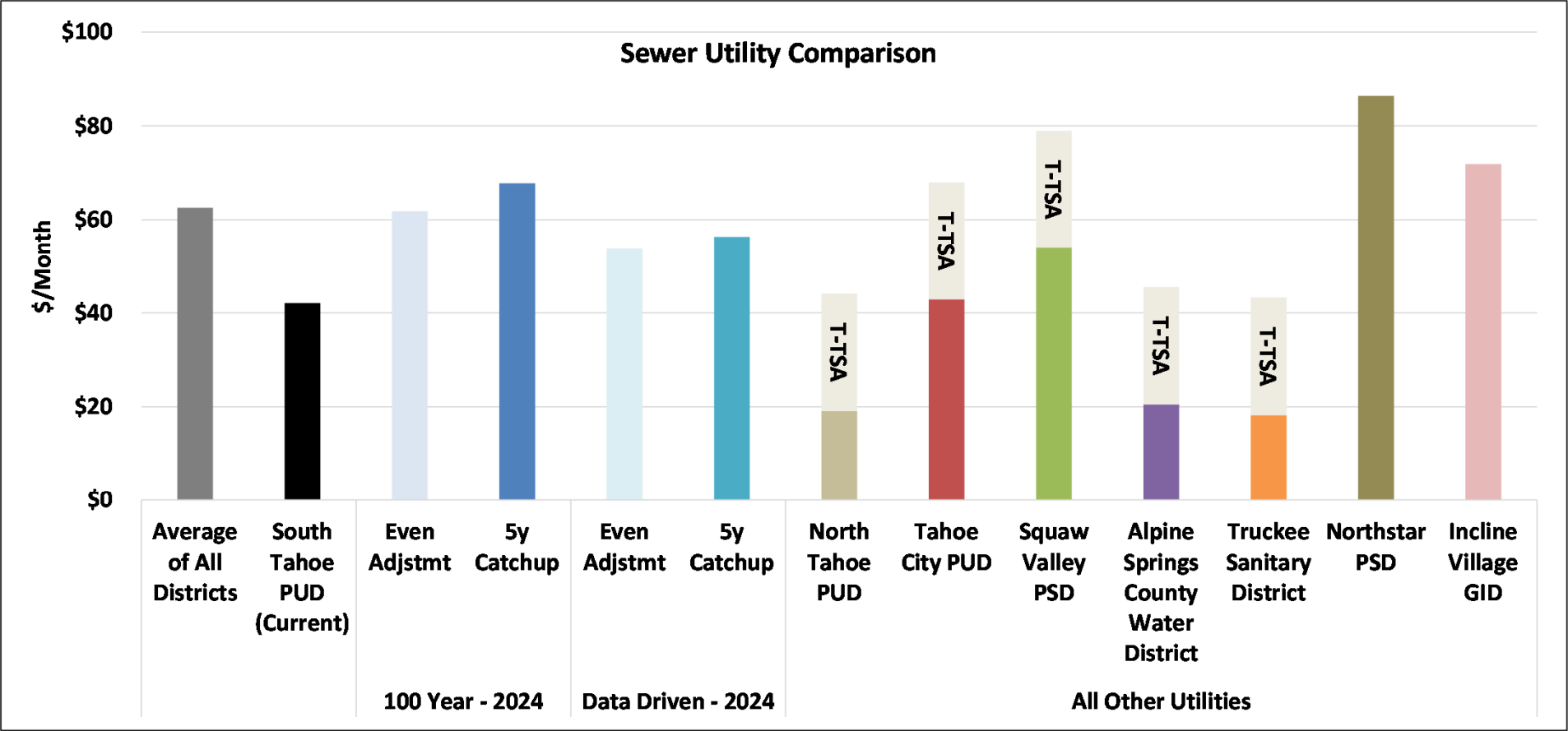
Average Annual Sewer Revenue (Rate) Impacts



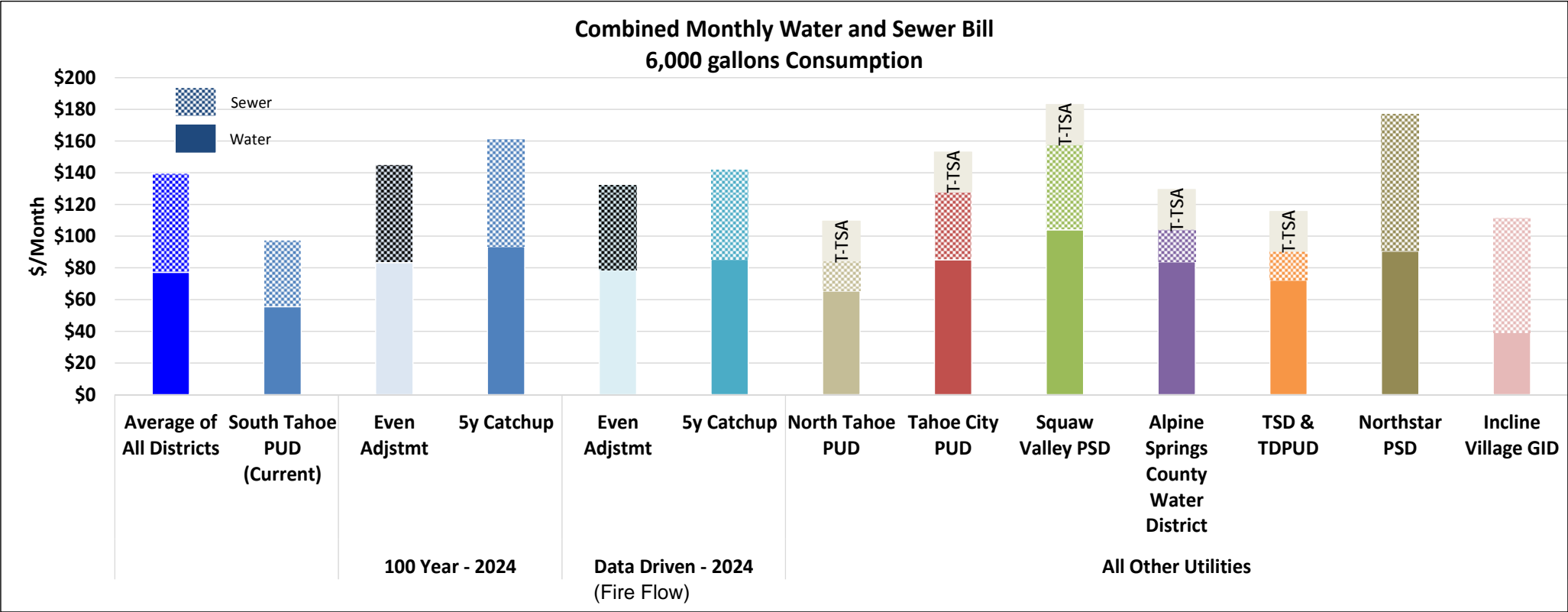
Average Quarterly Residential Sewer Rate Impact



Sewer Utility Bill Comparison Vs. Other Districts

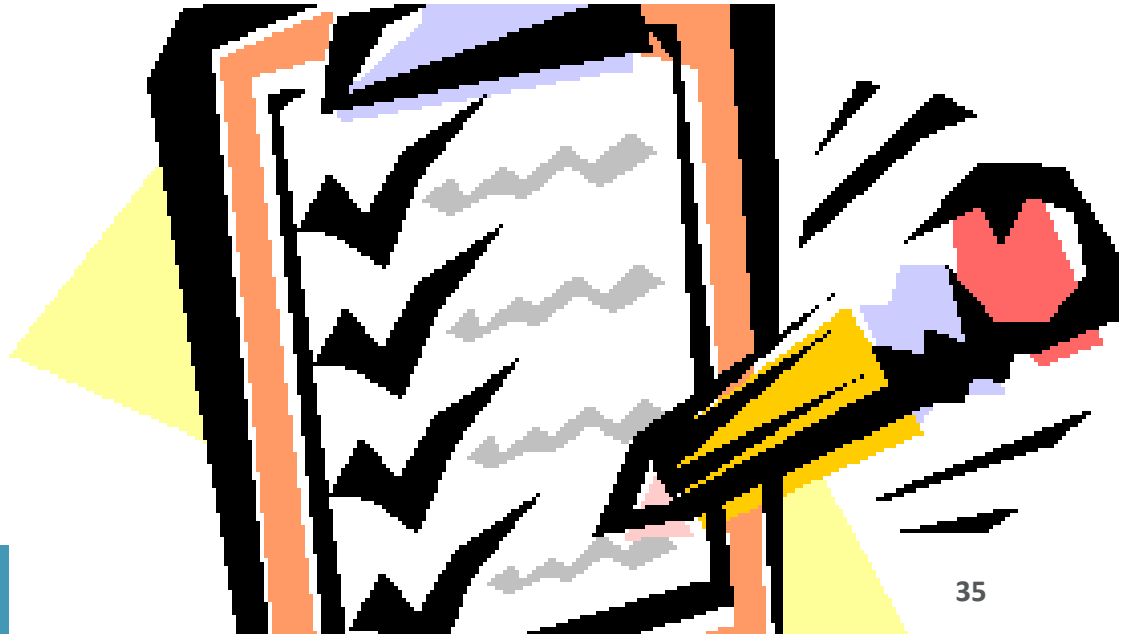


Combined Residential Water & Sewer Utility Bill Comparison vs. Other Districts



Next Steps

- Gain Board input/direction on appropriate preferred capital scenario
 - Necessary to move rate studies forward
- Develop draft rate study results for Board review and discussion
 - Develop overall rate transition plans (revenue requirement)
 - Develop cost of service analysis
 - Design rate structure alternatives



Discussion

