DATE: December 19, 2019

TO: Water Commission

FROM: Malcolm Hamilton, Administrative Analyst

SUBJECT: Introduction to Water Rate Development

Recommendation:

That Water Commission receive an introduction to water rate development, and receive feedback on the key policy considerations.

Background:

The City of Santa Barbara provides water service to most properties within the City limits, as well as several unincorporated areas, including Mission Canyon and the Barker Pass area. The service area is approximately 20 square miles with a population of approximately 91,416 and approximately 27,000 service connections. As with most governmental utilities, the City’s water utility is dependent on customer rate revenue to fund most of the operations, maintenance and capital improvements needed to keep the utility functioning reliably, and in compliance with federal and state regulations for drinking water.

To understand the revenue needs of the utility and ensure equity in the rate structure, the City has contracted with HDR Engineering, Inc. to conduct a comprehensive rate study and perform a cost-of-service analysis. The cost-of-service study will examine all current assumptions, supporting data, and policy points of the existing rate structure, and ensure that proposed rates are compliant with Article XIII D, Section 6 of the California Constitution. This section of California law is commonly referred to as Proposition 218, which was approved by voters in 1996 and includes the requirement that rates may not exceed the estimated cost of providing the service (i.e., cost-based), and must be reasonable, equitable, and proportional.

The current rate structure went into effect on August 15, 2017, and continues through June 30, 2020. After June 30, 2020, the rates in effect at that time will continue to be in effect up until new rates are adopted.

Discussion:

Rate Study Components

A comprehensive rate study uses three interrelated analyses to address the adequacy and equity of a utility’s rates. These three analyses are the revenue requirement, cost of service, and rate design. The first step in the rate study is to determine the amount of revenue that needs to be generated from the assessment of rates to sufficiently fund the costs of operations and maintenance, capital improvements, mandated standards of treatment, debt obligations, contributions to reserves, and other obligations. After this step, the rate study then moves to the cost-of-service analysis, which is forward-looking and
determines the equitable and proportional allocation of the revenue requirement to the various customer classes of service (i.e., residential, commercial). After determining the cost of service for each class, rates are then designed according to the proportionate share of costs and units of service to the classes and tiers within classes.

Key Policy Considerations
Although the City’s water supply condition has improved in the last year, there are still many dynamic factors to be modeled and policy issues to be considered in this rate study. Because of this, the rate study will likely cover a three-year period, which is a period of time that can be modeled more accurately given our current position in drought recovery, while also providing rate predictability for customers. Prior to developing the rate model and bringing final recommendations to the Water Commission, staff would like to inform the Commission members of the many areas of potential impact to the rate model, and receive early input and feedback on these different policy areas:

- Customer Water Demand/Conservation Levels
- Water Supply Outlook
- Water Source Priority Allocations
- Montecito Water District Water Supply Agreement
- Organizational Structure and Staffing Needs
- Water Distribution and Treatment Infrastructure Needs
- Implementation of Community Choice Energy
- Commercial Class Rate Structure – Potentially Uniform Rate
- Revenue Distribution Between Volumetric and Fixed Monthly Charges
- Water Bill Assistance Program
City of Santa Barbara
Setting Cost-Based Utility Rates
Water Rate Study
December 19, 2019
Overview of the Presentation

- Purpose of the Study
- Overview of the Rate Study Process
- Key Policy Issues
- Next Steps…
Purpose of the Study

- Provide long-term sustainable revenues for the water utility
- Meet the requirements of Article VIII D, Section 6 of California Constitution (Proposition 218)
  - Cost-based and proportional rate
  - Based on water resource costs
- Develop the analysis to reflect the City’s financial policies and metrics
- Evaluate rate impacts of changing costs and characteristics
  - Water supply agreement; proposed staffing changes; consumption projections
- Develop the study using generally accepted methodologies (AWWA M1) tailored to the City’s system and customer characteristics
Developing Cost-Based Water Rates

**Revenue Requirement**

*Compares the revenue of the utility to the expenses to evaluate the level of overall rates*

**Cost of Service**

*Equitably allocates the revenue requirement between the various customer classes of service*

**Rate Design**

*Design rates for each class of service to meet the revenue needs of the water utility, along with any other rate design goals and objectives*
Revenue Requirement
Overview of the Revenue Requirement

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compares utility revenues to expenses</td>
<td>• Determines the level of revenue (rate) adjustment necessary</td>
</tr>
<tr>
<td>Uses prudent financial planning criteria</td>
<td>• Adequate funding of renewal and replacements</td>
</tr>
<tr>
<td></td>
<td>• Maintaining sufficient ending reserve balances</td>
</tr>
<tr>
<td>Reviews a specific time period</td>
<td>• Typically a five to ten year period</td>
</tr>
<tr>
<td></td>
<td>• Rate Setting is often 2 – 5 years</td>
</tr>
<tr>
<td>Utilities is analyzed on a “stand-alone basis”</td>
<td>• No transfer of funds from other City funds</td>
</tr>
<tr>
<td></td>
<td>• Rates need to support operations and capital</td>
</tr>
<tr>
<td>Utilizes the “cash basis” methodology</td>
<td>• Generally accepted method for municipal utilities</td>
</tr>
</tbody>
</table>
Revenue Requirement – Policy Discussion

Meeting Financial Policies
- Debt service coverage ratio
- Target ending reserve balances
- Methodology and approach
- Use of long-term debt

Prudent Funding of Annual Capital Improvements
- Distribution renew. and replace.
- System improvements

Levels of Service
- Projection of future O&M
- Additional programs/practices
- Capital infrastructure needs

Consumption Levels for Revenue Projections
- Revenue stability
- Drought impacts
- Customer growth

Long-Term Financial Sustainability
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
- Meet the proportionality requirements of Proposition 218

Objectives of Cost of Service

- Determine if subsidies exist
- Develop average unit costs
Generic Water Cost of Service Methodology

Total Expenses
- Source
- Distribution
- Pumping
- Storage
- Etc.

Average Day Related
- Residential
- Multi-Family
- Non-Residential

Peak Day Related
- Residential
- Multi-Family
- Non-Residential

Customer Related
- Residential
- Multi-Family
- Non-Residential

Residential Customers
Multi-Family Customers
Non-Residential Customers
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 City with information for rate structure policy decisions
- Should be reviewed periodically to reflect changes in customer and system characteristics
Cost of Service – Policy Discussion

Review of customer characteristics
• Consumption levels
• Peak usage
• Seasonality

Review of the customer classes of service
• Review rate structure by class
• Based on customer characteristics

Equitable and Cost-Based Allocation of Costs

Identifies subsidies between customer classes of service
• Implementation or transition to cost of service results

Development of Cost Basis for Rate Design
• Water source – resource stacking
• Allocations and budgets
Rate Design
Overview of the Rate Design

- Reflect the findings of the revenue requirement and cost of service analyses
- Meet the rate design goals and objectives of the City
- Produce sufficient revenues to meet the target revenues of the utility, and each class of service
- Are cost-based and equitable
Typical Rate Setting Goals and Objectives

<table>
<thead>
<tr>
<th>Goals and Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Sufficiency and Stability</td>
</tr>
<tr>
<td>Easy to Understand (customer)</td>
</tr>
<tr>
<td>Easy to Administer (City)</td>
</tr>
<tr>
<td>Affordability</td>
</tr>
<tr>
<td>Efficient Use of the Resource</td>
</tr>
<tr>
<td>Equitable and Non-discriminating (cost-based)</td>
</tr>
<tr>
<td>Legally Defendable (Prop 218)</td>
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</table>
Rate Structure Terms Defined

**Structure vs. Level**
- Rate structure is how the customer is charged
- Rate level is how much revenue is collected

**Fixed Charges**
- Not based on usage
- Often varies by meter size
- May include multiple “fixed” charges

**Variable Charges**
- Based on water consumption
- Commonly charged per HCF or 1,000 gallon
Current Water Rates

**Residential**
- Fixed monthly service meter charge based on size of service line
- Metered water charge
  - Tier 1: 0 – 4 HCF
  - Tier 2: 5 – 16 HCF
  - Tier 3: 16 + HCF

**Commercial**
- Fixed monthly service meter charge based on size of service line
- Metered water charge
  - Tier 1: up to 100% of base allotment
  - Tier 2: all water above base allotment

**Multi-Family**
- Fixed monthly service meter charge based on size of service line
- Metered water charge (per DU)
  - Tier 1: 0 – 4 HCF
  - Tier 2: 5 – 12 HCF
  - Tier 3: 12 + HCF

**Irrigation**
- Fixed monthly service meter charge based on size of service line
- Metered water charge
  - Tier 1: up to 100% of base allotment
  - Tier 2: all water above base allotment
## Rate Structure – Policy Discussion

<table>
<thead>
<tr>
<th>Identification of primary goals and objectives</th>
<th>Rate Structure Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Revenue stability/sufficiency</td>
<td>• Fixed vs. variable charges</td>
</tr>
<tr>
<td>• Legal</td>
<td>• Tier sizing and pricing</td>
</tr>
<tr>
<td>• Cost-based</td>
<td></td>
</tr>
<tr>
<td>• Etc.</td>
<td></td>
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<table>
<thead>
<tr>
<th>Rate structure alternatives</th>
<th>Rate schedules</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Meet goals and objectives</td>
<td>• By customer class</td>
</tr>
<tr>
<td>• Allocations and budgets</td>
<td>• Reflect cost of service differences</td>
</tr>
</tbody>
</table>
RATE STUDY FOCUS AREAS
Revenue Requirement

- Water Supply Agreement – Montecito Water District
  - Executed agreement would require construction of conveyance pipeline - ~$20M
  - Commencement of deliveries would result in annual payments of ~$3.5M to City

- Proposed staffing changes

- Capital infrastructure needs
  - Regular capital maintenance and renewal
  - Water Distribution Infrastructure Plan

- Community Choice Energy
  - Annual administrative costs (~$250K)
  - Annual electric cost increases: 10-12% (~$300K)
Water Supply and Customer Demand

• Water Supply
  - *Current rate model uses long-term yields for water supply allocations*
    • Smooths annual changes in water supply sources
    • Requires regular monitoring of actual supply costs

• Customer Demand
  - *Current conservation at ~30%*
  - *Project 7-year recovery*
    • 10 percent less demand than average 2008-2013 demands

• HDR to perform sensitivity analysis
Rate Structure Considerations

- Commercial Class
  - Current volumetric structure
    - *Tier 1 Allotment*
      - based on January-June water use
    - *Tier 2 Discretionary*
  - Administrative Issues
    - Billing system limitations
    - Updating allotments and providing credits
  - Business Concerns
    - Allotment based on off-peak season
    - Difficulty conserving water to stay within allotments

- HDR to analyze uniform commercial rate
  - Potential bill impacts to low water users
  - Potential opportunities to phase-in changes
Rate Structure Considerations Cont.

• Council Adopted Priority Allocations
  - Allocation of water sources to classes and tiers based on priority level
  - Highest priority customers receive lower cost water

• Volumetric and Fixed Charges
  - Current revenue distribution
    - 30% fixed monthly charges
    - 70% volumetric charges
  - HDR to review revenue distribution
  - Considerations:
    • SRF/grant compliance and eligibility
    • Revenue stability versus incentives to conserve
    • Impacts to low water users
Water Bill Assistance Program

• Affordability is becoming a greater concern in the industry
• Approaches are limited by Proposition 218
• Study will review and provide a summary of programs
• Study will not result in a proposed program
• Outline of approaches to consider for future implementation
Next Steps

• Work with staff to develop preliminary analysis
• Develop draft water rate technical analysis
• Engage with Water Commission Ad-hoc committee
• Final policy and rate structure recommendations to Water Commission in February
• Finalize technical analyses
• Present final proposed rates to Water Commission
• Public Hearing in September/October timeframe
Questions?