Agenda

Sacramento Suburban Water District

Special Board Meeting

3701 Marconi Avenue, Suite 100
Sacramento, California 95821

Wednesday, October 16, 2019
6:00 p.m.

Where appropriate or deemed necessary, the Board may take action on any item listed on the agenda, including items listed as information items. Public documents relating to any open session item listed on this agenda that are distributed to all or a majority of the members of the Board of Directors less than 72 hours before the meeting are available for public inspection in the customer service area of the District's Administrative Office at the address listed above.

The public may address the Board concerning an agenda item either before or during the Board's consideration of that agenda item. Persons who wish to comment on either agenda or non-agenda items should fill out a Comment Card and give it to the General Manager. The President will call for comments at the appropriate time. Comments will be subject to reasonable time limits (3 minutes).

In compliance with the Americans with Disabilities Act, if you have a disability, and you need a disability-related modification or accommodation to participate in this meeting, then please contact Sacramento Suburban Water District Human Resources at 916.679.3972. Requests must be made as early as possible, and at least one full business day before the start of the meeting.

Call to Order

Pledge of Allegiance

Roll Call

Announcements

Public Hearing on Proposed Increase in Water Service Charges

1. Public Hearing on Proposed Increase in Water Service Charges
   Recommendation: Receive staff presentation, open Public Hearing, receive public comment on the Proposed Increase in Water Service Charges, and close Public Hearing.

Items for Discussion and Action

2. Comprehensive Water Cost of Service Study Report
   Recommendation: Consider accepting report from District's water rate consultant – Raftelis Consulting, Inc.

3. Resolution No. 19-14 Amending Regulation No. 3 of the Regulations Governing Water Service
   Recommendation: Consider adopting a resolution that amends sections A, D and E of Regulation No. 3 to increase certain water service rates and charges.

Adjournment

* *

Upcoming Meetings

Monday, October 21, 2019 at 6:00 p.m., Regular Board Meeting

* *

I certify that the foregoing agenda for the October 16, 2019 meeting of the Sacramento Suburban Water District Board of Directors was posted by October 11, 2019 in a publicly-accessible location at the Sacramento Suburban Water District office, 3701 Marconi Avenue, Suite 100, Sacramento, California, and was made available to the public during normal business hours.

Dan York
General Manager/Secretary
Sacramento Suburban Water District

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SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 1

Date: October 3, 2019

Subject: Public Hearing on Proposed Increase in Water Service Charges

Staff Contact: Daniel A. Bills, Director of Finance and Administration

Recommended Board Action:
Approve the proposed increases in water rates.

Discussion:
The Board approved a formal Public Hearing on District water rates and its rate structure at the June 17th regular Board Meeting. The format of the Public Hearing will be as follows:

1. Opening of Public Hearing by the President of the Board of Directors and the General Manager (Exhibit 1 – Outline of Public Hearing, Exhibit 2 - Notifications.)

2. Presentation of the proposed changes in water rates and privately owned fire service rates (Exhibit 3)
    a. Director of Finance and Administration
    b. District's Rate Consultant – Raftelis Consulting, Inc.

3. Comments from the General Manager on input received from the public by mail, email and telephone (Exhibit 4.)

4. Public comment.

5. Adjourn Public Hearing

Fiscal Impact:
If adopted as proposed, water rate revenues will increase by roughly $2.3 million in 2020, $1.9 million in 2021, and $0.5 million per year, for each year, beginning with 2022 and ending in 2024 (e.g., in 2024 total revenues will be roughly $8.7 million more than in 2019.)

Strategic Plan Alignment:
Goal C – Ensure fiscal responsibility and affordable rates.

EXHIBIT 1

Public Hearing
of the Board of Directors of the Sacramento Suburban Water District
on Adopting Proposed Increases to Water Service Rates and Charges Provided in
Sections A, D and E of Regulation No. 3 of the District's
Regulations Governing Water Service

October 16, 2019

President "I hereby open the public hearing on proposed restructuring and increasing of water service charges. This Public Hearing is being held under the applicable provisions of Proposition 218 and the California Government and Water Codes. Under those laws, members of the public are invited to protest or support the proposed increases in water service rates and charges by either filing written comments by the close of this public hearing with Mr. Dan York, General Manager of the District, or by addressing their comments to the Board of Directors at this hearing tonight. Please be advised, however, if you wish to register a formal protest of the proposed new water rates, you must submit a written protest in the form described in the rate notice that you received.

I now would like to call on the District's General Manager to give a short summary of what will be occurring and the actions that have led to this hearing.

GM "At the June 17, 2019 regular Board meeting, the Sacramento Suburban Water District Board authorized a Public Hearing to consider changes to Sections A, D and E of Regulation Number 3, of its Regulations Governing Water Service. Sections A, D and E of regulation Number 3 set water service rates and charges, which the District is proposing to increase over the next five years. On August 26, 2019, District staff mailed a notice of the October 16, 2019 public hearing to all District customers and landowners. Notices also were posted on the District's website on July 12, 2019. Reminders of the public hearing were also made in the August and November 2019 bill inserts, in the Fall Newsletter and at the Open House on October 8, 2019.

The procedures to be followed during this hearing will be as follows:

Before taking public comment, District staff will present its findings and recommendations relative to the regulations governing water service under consideration. Staff will also summarize verbal and written comments and the number of protests on these proposals received to date by the District.

The Board President will then open the hearing to take public comment.

After receiving all public comment, the public hearing will be closed.

The Board will then discuss and consider the proposed increases in water service rates and charges provided in Sections A, D and E of Regulation Number 3."

President Optional *(Introduces staff to make presentations.)*

"Director of Finance and Administration, Dan Bills and the District's rate consultant, Habib Isaac of Raftelis Consulting, will now make a presentation."

DB *(Introduce changes to Regulation 3, Sections A, D and E.)*

DB/HI *(Discuss rate changes: 1) restructuring, 2) revenue increase and 3) primary rate drivers.)*

President "Will the General Manager please summarize the verbal and written comments received regarding the proposed increases in water service rates and charges that would be included in Sections A, D and E of Regulation Number 3 of the District's Regulations Governing Water Service."

GM *(Reads summary of written and verbal communication(s) received.)*

President "The Board will now receive comments from the public on the proposed rate increases. I would ask that those who wish to speak to fill out a speaker card and give the card to the General Manager. You will be called in turn to speak at the podium. Although it is not required, the Board requests that you give your name and address for the record. If your comments are similar to those made by a previous individual, please briefly mention that your comments echo the previous speaker's. If there are many speakers, I reserve the right to limit comments to a reasonable time (3 minutes)."

(Public comment is received from the public.)

(When there appears to be no further comment.)

"Are there any further comments from the public? Before I formally close the hearing, are there any property owners or water users who still wish to file a written protest? If so, they must be filed with the General Manager, Mr. York, now. For the purpose of determining if a majority protest exists, only written protests filed by this time will be counted."

[*The President waits a few moments to permit any members of the audience to file any final written protests. Then* --]

If not, I declare the public hearing closed. On behalf of the entire Board, I want to thank the public for its willingness to take time from their evening to participate in this hearing."

President "At this time, I direct the General Manager to tabulate the written protests that have been submitted, to announce the number of valid protests that were submitted and to advise if the protests were sufficient to comprise a majority protest of the proposed new water service rates. A protest is only valid if 50 percent plus one of all parcels in the District receiving water service protest against the proposed rates."

(*Pause for tabulation of the protests*.)

GM "I have tabulated all of the valid protests and have determined that a total of 21 valid protests were filed. A total of 50% plus 1 protests must be filed to constitute a valid protest vote. Because the number of protests is less than the 50% plus 1 required, the protest fails."

President (*Move to Agenda Items 2 and 3, which are the items for the Board's consideration of the proposed rate increases and related approvals.*)

EXHIBIT 2

SACRAMENTO SUBURBAN WATER DISTRICT

3701 Marconi Ave
Sacramento, CA 95821

CUSTOMER NOTIFICATION OF PROPOSED RATE INCREASE FOR WATER SERVICES

Public Hearing Date

The SSWD Board of Directors will hold a Public Hearing to receive input from customers and consider recommendations in a Water Rate Study to increase rates in the calendar years 2020 through 2024. All owners and tenants of property and users receiving District water service and all interested persons are invited to attend the Public Hearing to make comments regarding the proposed water rate adjustments.

The Public Hearing will take place on Wednesday, October 16, 2019, at 6:00 pm in the SSWD Administration Building at 3701 Marconi Avenue, Suite 100, Sacramento, CA 95821.

Instructions for submitting a written protest are included in this document.

Written protests must be received by SSWD prior to the close of the Public Hearing on October 16, 2019, in order to be considered part of the official record.

For more information about the Rate Study, its recommendations, or how to provide input, please visit sswd.org, or call the SSWD office at 916.972.7171, or send an email to feedback@sswd.org.



PROPOSITION 218 NOTIFICATION
Proposed Rate Increase for Water Services

SACRAMENTO SUBURBAN WATER DISTRICT

PUBLIC HEARING ON PROPOSED RATE INCREASE

Wednesday, October 16, 2019, at 6:00 pm
SSWD Boardroom at 3701 Marconi Avenue, Suite 100, Sacramento, CA 95821

Sacramento Suburban Water District (SSWD) is proposing a water rate adjustment to help meet the ongoing operational costs and inflationary pressures of providing potable water to SSWD customers. You are receiving this notice in compliance with Proposition 218, which requires SSWD to inform property owners and tenants that a proposed rate increase is being considered; the amount of the proposed rate adjustment; the basis on which the rates are calculated; and the reason for the adjustment.

About Sacramento Suburban Water District

SSWD traces its roots to two neighboring water providers with long-standing operations in the community—Arcade Water District formed in 1954 and Northridge Water District formed in 1956. Decades later, in 2002, Arcade Water District and Northridge Water District merged to become SSWD.

Today, SSWD serves high-quality surface water and groundwater supplies to nearly 180,000 residential, commercial, and industrial customers through 46,300 connections. SSWD's service area includes portions of Citrus Heights, Carmichael, North Highlands, City of Sacramento, and Antelope, as well as McClellan Business Park (formerly McClellan Air Force Base). SSWD is governed by a dedicated five-member Board of Directors elected by the voters within the division they represent to serve four-year staggered terms.

Proposed Rate Adjustment: Reason and Amount

SSWD has prepared a Water Rate Study (Rate Study), which provides a detailed review of SSWD's costs and the rates needed to support the delivery of safe, high-quality, and reliable water service. The Rate Study, prepared by an independent financial consulting firm (Raftelis), includes an in-depth look at current revenues, operation and maintenance costs, capital investment plan, and reserves during the study. Raftelis determined that SSWD's income and planned expenses are well balanced and managed and recommends a small rate increase of 3 to 5 percent in each of the next five years to primarily cover the costs of inflation.

(Continued next page.)

The rate increase recommended in the study is:

5%	4%	3%
in 2020	in 2021	in 2022, 2023 & 2024

If approved by the SSWD Board of Directors, the proposed rate increase would take effect on January 1 of each year, beginning January 1, 2020.

Other recommendations include:

- Updating SSWD's rate structure for single-family, multi-family, and commercial accounts to fairly distribute costs of providing service among rate classes.
- Minor increases to SSWD's financial reserves (its savings account) to cover fluctuations in capital improvement needs or unexpected contingencies.

Additionally, the Rate Study relied on information presented in certain SSWD reports, such as the 2017 Water System Master Plan and 2019 Budget. These documents, along with the Rate Study, are available for review at sswd.org or the District's main office at 3701 Marconi Avenue, Suite 100, Sacramento, CA 95821.

As the Board considers the Rate Study's recommendations, SSWD continues to work diligently to make sure expenses are kept as low as possible while still delivering safe, reliable, high-quality water to its customers.

The Rate Study considered areas where SSWD could reduce or optimize costs before considering if rates should be adjusted. The Rate Study determined that roughly $47 million of Capital Improvement Program expenditures needed to make improvements in the water system could be deferred over the next 10 years, but operational costs would continue to increase at or slightly above the estimated overall rate of inflation during the study period.

HOW PROPOSED ADJUSTMENTS WERE CALCULATED

The proposed five-year water rate increase is based on the comprehensive financial analysis in the Rate Study completed in June 2019. The study includes an in-depth look at:

- Projected costs for operation and maintenance and capital improvement projects under various scenarios that consider inflation, pending state and federal regulations, and other potential impacts.
- Total water revenues needed to address projected costs and to maintain prudent reserves for capital and emergency purposes.
- How rates are fairly allocated among single-family and multi-family residential and business customers.
- Options for structuring rates, including scenarios that would maintain rates at current levels and those focused on tiered pricing, which charges customers according to the amount of water used.

Instructions for Written Protests

An owner or tenant of property receiving SSWD water service may protest the proposed 2020-2024 water rates by submitting a written protest by mail or deliver in-person to SSWD by the close of the public hearing on October 16, 2019, at 3701 Marconi Avenue, Suite 100, Sacramento, CA 95821. To be deemed valid, according to Proposition 218 requirements, written protests must include:

- The owner or tenant name
- Address of the property receiving water service
- The assessor's parcel number (unless the protest is from a tenant, in which case the assessor parcel number is not required)
- Customer's SSWD account number for the parcel served
- A statement that the proposed rate adjustment is being protested
- A signature by the property owner or tenant

Note that protests submitted by email or other means do not count as formal written protests. Only one written protest per identified parcel will be counted for purposes of determining whether there is a majority protest. SSWD's Secretary, or his designee, will tabulate the protests, and any member of the public may observe the tabulation. All protests are public records and will be retained for a minimum of two years.

Current Rates and Amount of Proposed Rate Adjustment

PROPOSED FIXED CHARGES
(after meter conversion)

Meter Size	Existing Metered Fixed Charge	Existing Non-Metered Fixed Charge	2020 Proposed Fixed Charges	2021 Proposed Fixed Charges	2022 Proposed Fixed Charges	2023 Proposed Fixed Charges	2024 Proposed Fixed Charges
5/8"	$26.73	$22.52	$32.01	$33.65	$35.04	$36.13	$37.21
3/4"	$39.71	$50.99	$44.40	$46.68	$48.61	$50.13	$51.63
1"	$66.09	$81.36	$69.19	$72.75	$75.75	$78.12	$80.45
1 1/2"	$131.32	$159.50	$131.17	$137.90	$143.60	$148.11	$152.53
2"	$209.99	$226.13	$205.53	$216.08	$225.01	$232.07	$238.99
3"	$393.66	$336.10	$403.85	$424.59	$442.15	$456.03	$469.62
4"	$655.94	$560.30	$626.95	$659.16	$686.42	$707.97	$729.07
6"	$1,311.12	$1,120.26	$1,246.68	$1,310.72	$1,364.95	$1,407.81	$1,449.77
8"	$2,359.84	$2,016.60	$2,238.25	$2,353.23	$2,450.59	$2,527.55	$2,602.87
10"	$3,801.98	$3,249.22	$2,981.93	$3,135.11	$3,264.82	$3,367.35	$3,467.69
12"	$5,636.44	$4,817.07	$4,190.40	$4,405.66	$4,587.93	$4,732.02	$4,873.03

PROPOSED 5-YR VARIABLE RATES

Customer Class	Tier Width	Existing Variable Rates		2020 Proposed Variable Rates ($/ccf)	2021 Proposed Variable Rates ($/ccf)	2022 Proposed Variable Rates ($/ccf)	2023 Proposed Variable Rates ($/ccf)	2024 Proposed Variable Rates ($/ccf)
SFR								
Tier 1	0-15 ccf		$0.94	$0.88	$0.93	$0.97	$1.00	$1.03
Tier 2	16 + ccf		$1.17	$1.15	$1.21	$1.26	$1.30	$1.34
Uniform		$0.95	$1.18	$1.26	$1.33	$1.39	$1.44	$1.49
NON-RESIDENTIAL		$0.95	$1.18	$1.33	$1.40	$1.46	$1.51	$1.56

PROPOSED INCREASES TO PRIVATE FIRE SERVICE CHARGES AND BACKFLOW CHARGES

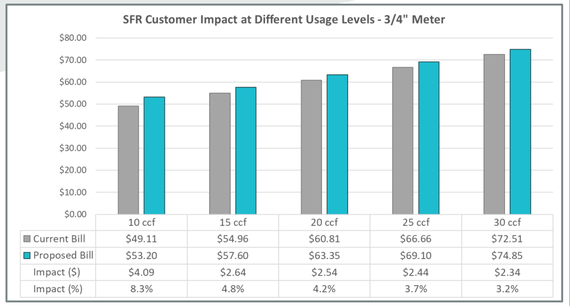
Connection Size	Existing Charge	2020 Proposed Charge	2021 Proposed Charge	2022 Proposed Charge	2023 Proposed Charge	2024 Proposed Charge
2"	$13.28	$13.95	$14.51	$14.95	$15.40	$15.87
3"	$24.92	$26.17	$27.22	$28.04	$28.89	$29.76
4"	$40.59	$42.62	$44.33	$45.66	$47.03	$48.45
6"	$80.78	$84.82	$88.22	$90.87	$93.60	$96.41
8"	$142.90	$150.05	$156.06	$160.75	$165.58	$170.55
10"	$223.27	$234.44	$243.82	$251.14	$258.68	$266.45
12"	$248.83	$261.28	$271.74	$279.90	$288.30	$296.95
Backflow Charge Per Connection	$2.20	$2.31	$2.41	$2.49	$2.57	$2.65

2019 FLAT RATE

Non-Metered Flat Charge	Existing Flat Charge	2020 Proposed Flat Charge	2021 Proposed Flat Charge	2022 Proposed Flat Charge	2023 Proposed Flat Charge	2024 Proposed Flat Charge
$/1,000 sq ft	$1.06	$2.35	$2.47	$2.57	$2.65	$2.73
Fixed Charge Per Connection Size						
3/4"	$50.99	$44.40	$46.68	$48.61	$50.13	$51.63
1"	$81.36	$69.19	$72.75	$75.75	$78.12	$80.45
1 1/2"	$159.50	$131.17	$137.90	$143.60	$148.11	$152.53
2"	$226.13	$205.53	$216.08	$225.01	$232.07	$238.99

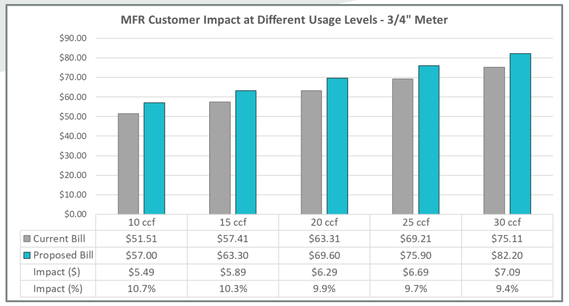
Projected 2020 Customer Impact At Different Usage Levels

SINGLE-FAMILY RESIDENTIAL - SFR



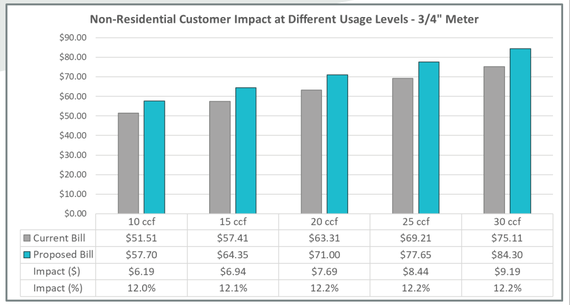
	10 ccf	15 ccf	20 ccf	25 ccf	30 ccf
Current Bill	$49.11	$54.96	$60.81	$66.66	$72.51
Proposed Bill	$53.20	$57.60	$63.35	$69.10	$74.85
Impact ($)	$4.09	$2.64	$2.54	$2.44	$2.34
Impact (%)	8.3%	4.8%	4.2%	3.7%	3.2%

MULTI-FAMILY RESIDENTIAL - MFR



	10 ccf	15 ccf	20 ccf	25 ccf	30 ccf
Current Bill	$51.51	$57.41	$63.31	$69.21	$75.11
Proposed Bill	$57.00	$63.30	$69.60	$75.90	$82.20
Impact ($)	$5.49	$5.89	$6.29	$6.69	$7.09
Impact (%)	10.7%	10.3%	9.9%	9.7%	9.4%

COMMERCIAL



	10 ccf	15 ccf	20 ccf	25 ccf	30 ccf
Current Bill	$51.51	$57.41	$63.31	$69.21	$75.11
Proposed Bill	$57.70	$64.35	$71.00	$77.65	$84.30
Impact ($)	$6.19	$6.94	$7.69	$8.44	$9.19
Impact (%)	12.0%	12.1%	12.2%	12.2%	12.2%

Fall 2019, Volume 17 No. 2

SACRAMENTO SUBURBAN WATER DISTRICT

Water Matters

Give Your Yard A Makeover This Fall

Fall is the perfect time of year to add new plants to your yard. The days are shorter and getting cooler, but the soil is still warm, which encourages root growth. Plants also require less water than they do in the spring when temperatures are increasing. Fall planting gives your new additions plenty of time to spread their roots and get ready for a busy growing season in the spring. Here are some helpful tips to consider before you dig in:

Upgrade your sprinkler system

Before you begin planting, review your existing sprinkler system and make sure it will be able to properly water your new additions. Consider replacing your older sprinklers with efficient rotator sprinklers and drip irrigation.

You could also replace your old sprinkler timer with a WaterSense-labeled weather-based model. They use local weather conditions to control how long your sprinklers run and can save you thousands of gallons of water a year. (SSWD has rebates available to help offset costs for upgrades.)

Yard Makeover | *page 2*

Wells: A Mighty Deep Subject | What it takes to access groundwater for delivery to SSWD customers

The Sacramento region is surrounded by two beautiful rivers—the American and Sacramento. But did you know that there is immense groundwater aquifer right under our feet? That's where SSWD draws most of its water. In fact, the District in 2018 pumped 6,655 million gallons for its nearly 180,000 customers from 72 groundwater wells.

Groundwater, as its name suggests, exists deep under the ground in water-bearing zones called aquifers. To access the water in these aquifers, SSWD utilizes groundwater wells located throughout its service area.

As SSWD continues working to deliver high-quality, reliable water to customers, we are also continually looking for new locations for groundwater wells as older ones reach the end of their useful life (about 50 to 60 years).

Here's an inside look at what it takes to construct a new groundwater well to deliver water straight to your tap:

Wells: A Mighty Deep Subject | *page 2*

Yard Makeover from page 1

Look for native and low-water use plants

Native plants and ones suited for our climate will require less water, fertilizer and care. The native plants will also attract local wildlife and beneficial insects. You'll spend less time tending to your plants and more time enjoying how they look. You can find a great list of low-water use plants perfect for our region at **bewatersmart.info**.

Make a plan

It's important to group your plants according to their water and sun needs and to also consider how tall they will grow. It will save you time with pruning them in the future and create less green waste.

SSWD Board of Directors

President
David A. Jones, Division 1
Vice President
Kevin M. Thomas, Division 4

Craig M. Locke, Division 5
Kathleen McPherson, Division 2
Robert P. Wichert, Division 3
General Manager
Dan York

Contact SSWD

Monday - Friday, 8:00 am - 4:30 pm
916.972.7171 Fax 916.972.7639
sswd.org **feedback@sswd.org**

Wells: A Mighty Deep Subject from page 1

Land acquisition

Many of SSWD's wells were constructed decades ago on what was once open land and are on very small parcels that are not large enough to accommodate the construction of a new, modern well. To help find new locations, SSWD uses a "Well Siting Tool" that analyzes data from a variety of maps and other sources to identify parcels of land that meet our specific criteria for future well sites.

Well design and construction

The well itself is basically a long pipe extending into the ground with screened sections to allow water to enter from specific zones of the aquifers. Once land is identified, SSWD drills a well, which goes down to depths ranging from 300 to 550 feet. We then insert a casing, which stabilizes the sides of the well and keeps it from caving in.

Pump station design and construction

After well construction, pumping equipment is built to move water from the aquifer to the surface for treatment and delivery. The pump station includes the pump and motor, a power source, treatment system and housing to keep the well safe.

Ultimately, constructing a new well takes between three and four years. In 2019, SSWD completed construction of the Palm Well Pump Station in the North Service Area, and also began design of both the Butano/Cottage Pump Station and the Verner/Panorama Pump Station. These new pump stations will be online and pumping water in 2020 and 2021, respectively, helping to meet the present and future water needs of our customers.

SSWD Considers Water Rate Increase Recommendations

The SSWD Board of Directors is currently considering recommendations found in SSWD's 2020-2024 Water Rate Study (Rate Study), which provides a detailed review of the District's costs and the rates needed to support the delivery of safe, high-quality and reliable water service. The study, prepared by an independent financial consulting firm, includes an in-depth financial plan and analysis of current revenues, operation and maintenance costs, capital investment plan, and reserves.

Based on the Rate Study's analysis, small rate increases are recommended each year in 2020 through 2024 to allow SSWD to ensure its revenues keep pace with the costs of providing water service to you. The rate increase recommended in the study is:

- 5 percent in 2020
- 4 percent in 2021
- 3 percent per year in 2022, 2023 and 2024

If approved by the SSWD Board of Directors, the proposed rate increases would take effect on January 1 of each year, beginning January 1, 2020.

*See **Rate Increase FAQ** | page 3*

Rate Increase FAQ from page 2

Frequently Asked Questions

What do water rates fund?

SSWD provides water service to more than 180,000 residential and business customers. Monthly water rates paid by customers are SSWD's primary source of revenue. Rates fund operations and maintenance, and capital investments to maintain and upgrade SSWD's water system, including groundwater pumps, distribution and transmission mains, and other infrastructure needed to supply water to homes and businesses.

Are there other ways to meet rising costs besides raising rates?

The Rate Study considered where SSWD could reduce or optimize costs before considering if rates should be adjusted. The Rate Study determined that roughly $47 million of Capital Improvement Program expenditures needed to make improvements in the water system could be deferred over the next 10 years, but that operational costs would continue to increase at or slightly above the overall rate of inflation.

Where can we see a copy of the Water Rate Study?

A complete copy of the Water Rate Study is available at **sswd.org**.

Public Hearing | Wednesday, October 16th, 6 p.m. in the SSWD Boardroom, 3701 Marconi Ave., Suite 100

The SSWD Board of Directors is currently considering recommendations found in SSWD's 2019 Water Rate Study. The study found that SSWD's income and planned expenses are well-balanced and managed, and recommends a rate increase of 3 to 5 percent in each of the next five years to primarily cover the costs of inflation.

Please join us for the public hearing on the proposed rate increase. You will have a chance to learn more about proposed rate increases and be able to provide verbal or written comments.

If you are not able to attend the public hearing, you may mail or deliver your comments to the SSWD Main Office at 3701 Marconi Avenue, Suite 100, Sacramento, CA 95821.

If you have any questions about the Rate Study, its recommendations or how to provide input, please call the office at 916.972.7171 or send an email to **feedback@sswd.org**.

SSWD Fall Events

Fall Speaker's Series

Water Supplies and Pressure 101: The Highs and Lows of Pressure at Your Home or Business

Friday, September 27th, 12:00 p.m. to 1:00 p.m., SSWD Administrative Office Boardroom, 3701 Marconi Avenue., Sacramento, CA

Curious about water pressure and how to maximize it at your home or business? Come to our Fall Speaker's Series. SSWD engineering staff will discuss:

- Sources of SSWD's water supply
- The infrastructure that delivers water to your home or business
- Factors that impact water pressure and what you can do

Attendees will receive a high-efficiency showerhead and be entered into a raffle for a rain watering wand.

Carmichael Founders Day

Saturday, September 28th, Carmichael Park, 5750 Grand Avenue, in Carmichael, CA

Join SSWD in celebrating the 110th anniversary of the founding of Carmichael at the Founders Day celebration.

The day kicks off with a pancake breakfast from 8:00 a.m. to 11:30 a.m. The main celebration begins at 10:00 a.m. and lasts until 3:00 p.m. Be sure to stop by the SSWD booth and say hi. We'll be giving away water-wise fixtures for your home as well as plenty of great advice.

SSWD's 2nd Annual Open House

Tuesday, October 8,
5:30 p.m. to 7:30 p.m.

Mark your calendars! SSWD will hold its 2nd Annual Open House on Tuesday, October 8th from 5:30 p.m. to 7:30 p.m. You will have an opportunity to:

- Meet our dedicated staff, management team and Board Members
- Learn about our capital improvement projects for next year
- Find out more about the proposed water rate increases
- Talk to our Conservation team about ways to be more efficient inside and outside of your home
- Find out about careers in the water industry
- Hear about all the rebates we have available
- Enter our raffle to win a weather-based sprinkler timer
- Enjoy refreshments and take home special giveaways

sswd.org

Inside...

SACRAMENTO SUBURBAN WATER DISTRICT
3701 Marconi Avenue, Suite 100
Sacramento, CA 95821

PRSRT STD.
US POSTAGE
PAID
Sacramento, CA
Permit No. 516

00233391

SACRAMENTO SUBURBAN WATER DISTRICT

H2O on the Go

August 2019

SSWD Considers Water Rate Adjustment Recommendations

The SSWD Board of Directors is currently considering recommendations found in SSWD's 2019 Water Rate Study, which provides a detailed review of the District's costs and the rates needed to support the delivery of safe, high-quality and reliable water service.

The yearlong study, prepared by independent financial consulting firm Raftelis, includes an in-depth look at current revenues, operation and maintenance costs, capital investment plan, and reserves. The study found that SSWD is in a strong financial position, and recommends modest revenue adjustments over the next five years, primarily to cover the costs of inflation.

There are several ways to learn more and provide your feedback to the SSWD Board as they consider the rate adjustment recommendations over the next several months:

Learn more: The 2019 Water Rate Study and its recommendations are available on our website at **sswd.org**. Detailed information about the proposed changes and how recommendations would affect water bills will be mailed directly to customers and posted to **sswd.org** in August. In addition, SSWD will be hosting an Open House on October 8, 2019 at from 5:30 p.m. to 7:30 p.m. in the SSWD Boardroom at 3701 Marconi Avenue, Suite 100, Sacramento, CA 95821 where you can learn more about SSWD's operations and programs.

Provide input: The Board of Directors will host a public hearing to collect input from customers and consider the study's recommendations on Wednesday, October 16, 2019 at 6:00 p.m. in the SSWD Board room at 3701 Marconi Avenue, Suite 100, Sacramento, CA 95821. Customers may appear at the public hearing to provide verbal or written comments. You may also mail or deliver comments to the SSWD Main Office at 3701 Marconi Avenue, Suite 100, Sacramento, CA 95821.

Rate Adjustment | *page 2*

Delivering With Every Turn | Minimizing Disruptions to Service

As SSWD works to improve its infrastructure and transition more customers to metered accounts, we do our best to minimize service disruptions and inconveniences.

Water Main Installation

One of our most important improvement projects is the installation of new water mains to replace those that have reached the end of their service life. New mains are no longer placed in backyards, but are located beneath a roadway. This allows us to keep the existing water main in service while the new main, meter and service lines are constructed. The only disturbance to water service occurs when the new main is linked to your home's service connection.

Meter Installation

Prior to installing a new meter, SSWD contacts each customer to let

Deliving With Every Turn | *page 2*

sswd.org

Phone: 916.972.7171

Fax: 916.972.7639

3701 Marconi Avenue, Suite 100

Sacramento, CA 95821-5346

Hours: M-F, 8:00 a.m. to 4:30 p.m.

Rate Adjustment | *from page 1*

If you have any questions about the Rate Study, its recommendations or how to provide input, please call the office at 916.972.7171 or send an email to **feedback@sswd.org**.

Saving Water Saves Energy

According to the California Energy Commission, nearly a fifth of all the electricity produced in California goes toward water-related uses. From treating, pumping and delivering water to your home, to heating it up for your morning shower or washing machine, it all adds up to a lot of energy used. In fact, energy costs are one of SSWD's highest costs.

You can make a difference by following these tips:

1) Check and Save

Check the soil moisture level before you run your sprinklers. Most of the water we use goes towards watering our yards and about 30 percent of that is wasted due to overwatering and evaporation.

2) Cover Your Pool

Covering your pool when not in use can reduce evaporation by 95 percent, saving thousands of gallons of water a year and reducing the amount of money you spend on heating.

3) Upgrade Your Sprinkler System

Installing a WaterSense-labeled weather-based sprinkler timer and efficient rotator sprinklers can save you thousands of gallons of water a year and help you have a healthier yard.

4) Look for the WaterSense Label

WaterSense-labeled fixtures and appliances are certified to be 20 percent more water efficient than average products in that category. By using water more efficiently, your water heater has less water to heat, reducing the amount of energy needed.

2019 Fall Speaker's Series | Water Supplies and Pressure 101: The Highs and Lows of Pressure at Your Home or Business

Join us on Friday, September 27th from 12:00 P.M. to 1:00 P.M., as SSWD's Engineering team shares the art and science of providing high-quality water to your home or business.

The team will provide an overview of the District's water sources, water system and improvements projects, and discuss water pressure—the factors that impact pressure and what you can do if it's too high or low.

The talk will take place in the Boardroom at the District's Administrative office at 3701 Marconi Avenue.

Delivering With Every Turn | *from page 1*

them know the work will be taking place. Our staff then works with the customer to determine where the new meter should be placed and reconnected to the existing service. We notify customers in advance about when the work will begin and any projected shutdowns. After installation, we then return the landscape to its original condition.

Replacing existing mains provides many benefits, including improving system efficiency and reliability and increasing flow capacity. Water meters help customers and SSWD better manage water usage and are an invaluable tool for detecting leaks.

For more information visit our website at **http://www.sswd.org/capitalimprovementprogram.**

2019 Strategic Plan

Our Vision for the Future

SSWD has developed a new Strategic Plan outlining our goals and vision for the next five years. The plan was developed to support our core mission of providing a high-quality, reliable water supply and superior customer service at the lowest responsible rate, and created with input from staff, management and external shareholders.

You can review the 2019 Strategic Plan online at: **sswd.org/about/strategicplan**.

00228078

SACRAMENTO SUBURBAN WATER DISTRICT

H2O on the Go

September 2019

Fall Speaker Series: Water Supplies and Pressure 101 | The Highs and Lows of Pressure at Your Home or Business

When: Friday, September 27th from 12:00 p.m. to 1:00 p.m.

Where: SSWD Administrative Office Boardroom: 3701 Marconi Avenue

SSWD Engineering staff will hold a special presentation on the mechanics and process that go into providing high-quality water to your home or business 24 hours a day, seven days a week. They will discuss:

- The state of the water system
- The District's water sources and the current health of the groundwater basin
- Current and planned infrastructure improvement projects, including new wells, water mains and meter installs
- Factors that impact water pressure and the steps you can take to maximize the use of the pressure at your home or business

The presentation will include a question-and-answer section. You are welcome to bring a lunch. If you have any questions or would like additional information, please call 916.972.7171.

Delivering With Every Turn | Making Every Dollar Count

The SSWD Finance Department is responsible for overseeing the District's financial health. The three-member department works closely with all of the other SSWD departments, including Conservation, Engineering, Field Operations and Distribution to provide the expertise needed to make sure their needs are met and enable the District to provide the highest quality of service at the best possible price.

The Finance Department for the past seven years has received top honors from the Government Finance Officers Association for the completeness and readability of our annual report.

Thanks to their stewardship, the District was able to invest more than $18 million into the water system in 2018 to upgrade and

Deliving With Every Turn | page 2

sswd.org

Phone: 916.972.7171

Fax: 916.972.7639

3701 Marconi Avenue, Suite 100

Sacramento, CA 95821-5346

Hours: M-F, 8:00 a.m. to 4:30 p.m.

Let SSWD Help Save You Money

SSWD has a wide range of rebates available to help you save money on home improvements, including:

- $150 rebate for a new high-efficiency toilet
- $500 for sprinkler system upgrades
- $100 for a rain sensor
- $75 for Energy Star-rated clothes washer
- $100 for pool covers
- $150 for a WaterSense-labeled weather-based sprinkler timer

Complete details at sswd.org/rebates.

SSWD's Second Annual Open House

Mark your calendars! SSWD will hold its second annual Open House on Tuesday, October 8th from 5:30 p.m. to 7:30 p.m. You will have an opportunity to:

- Meet our dedicated staff, management team and Board Members
- Learn about the capital improvement projects scheduled for 2020
- Talk to our Conservation team about ways to be more efficient inside and outside your home
- Find out about careers in the water industry
- Hear about all the rebates we have available
- Enter our raffle to win a weather-based sprinkler timer
- Enjoy refreshments and take home special giveaways

Deliving With Every Turn | *from page 1*

improve operations; refinance a bond, which will save the District $1.36 million over the next nine years; and generate $1.46 million in additional income from investments, leases and facility development charges.

Public Hearing | Wednesday, October 16th at 6:00 p.m.

Where: SSWD Boardroom: 3701 Marconi Avenue, Suite 100

The SSWD Board of Directors is currently considering recommendations found in SSWD's 2019 Water Rate Study. The study found that SSWD's income and planned expenses are well-balanced and managed, and recommends a rate increase of 3 to 5 percent in each of the next five years to cover the costs of inflation.

Please join us for a public hearing on the proposed rate increase. You will have a chance to learn more about the proposed increases, the reasons they are recommended and be able to provide verbal or written comments.

If you are not able to attend the public hearing, you may mail or deliver your comments to the SSWD Main Office at 3701 Marconi Avenue, Suite 100, Sacramento, CA 95821.

If you have any questions about the Rate Study, its recommendations or how to provide input, please call the office at 916.972.7171 or send an email to **feedback@sswd.org**.

Water Wonderline

Q: I have a fire hydrant on my property. Are there any special steps I should take?

A: One of SSWD's critical responsibilities is to install, maintain and provide water service to fire hydrants. Home and business owners who have a fire hydrant situated on their property also play an important role by making sure the hydrant is easily accessible.

Please keep a minimum three-foot clear space around the fire hydrant. Low growing groundcover and grass may be closer than three feet as long as they do not impact the fire department's ability to access the fire hydrant. Being able to quickly locate and use a fire hydrant can make all the difference in case of an emergency.

Sacramento Suburban **Water District**

Cost of Service Water Rate Study – Public Hearing

October 16, 2019

Agenda

- Proposed Financial Plan
- Summary of Cost of Service Report
- Proposed Rate Schedule

Recommended Financials

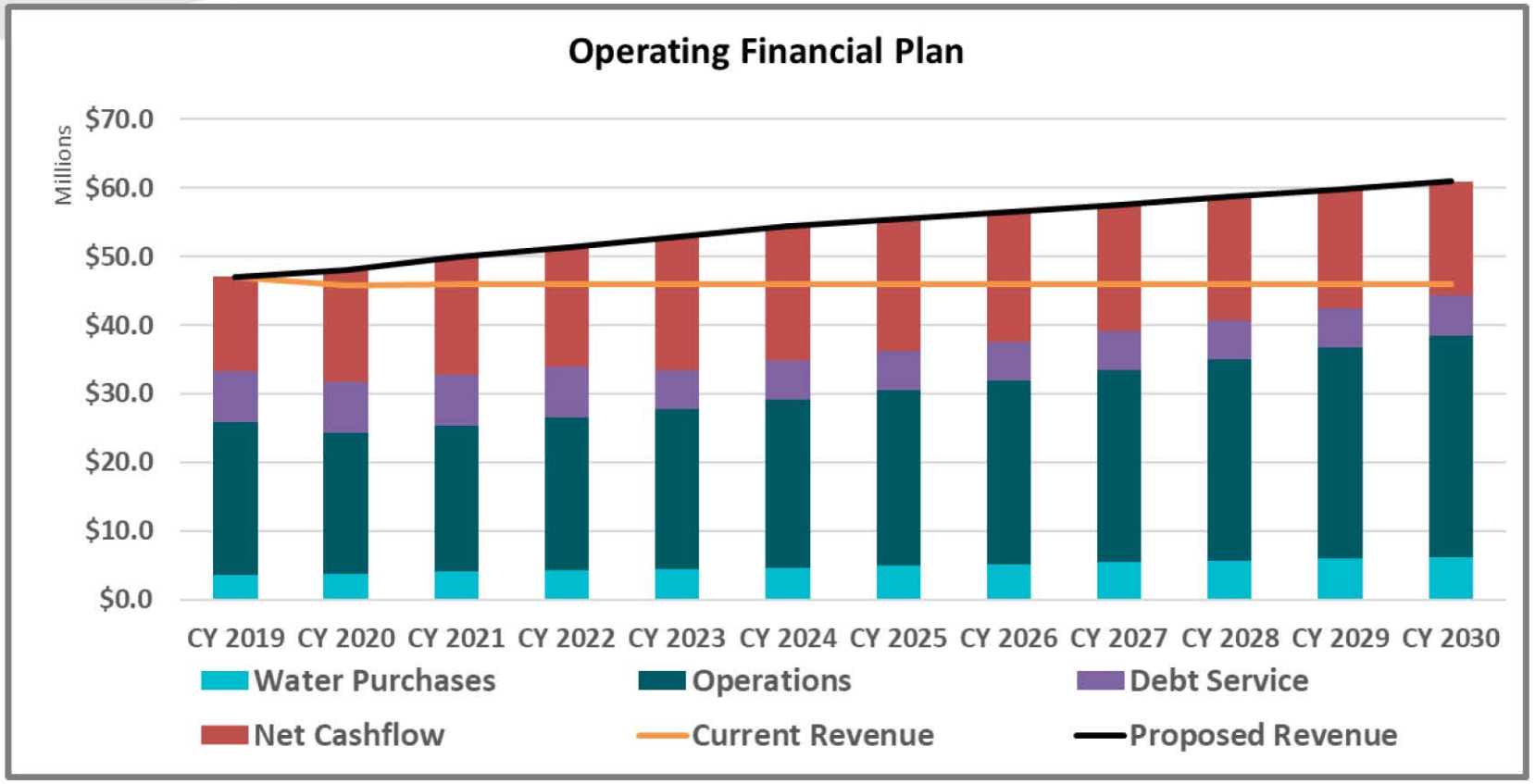
Rev Adj (CY 2020:24): 5%, 4%, 3%, 3%, 3%

Considerations

- There were no rate adjustments from 2009-2014
- Need to cover not only operational costs but also continue to reinvest in the system (capital)
- Reserves should be used to offset certain years with CIP spikes, but limit downward trend and replenish over 5-year planning period
- **Note:** revised reserve targets reduced minimum target by approximately $5M

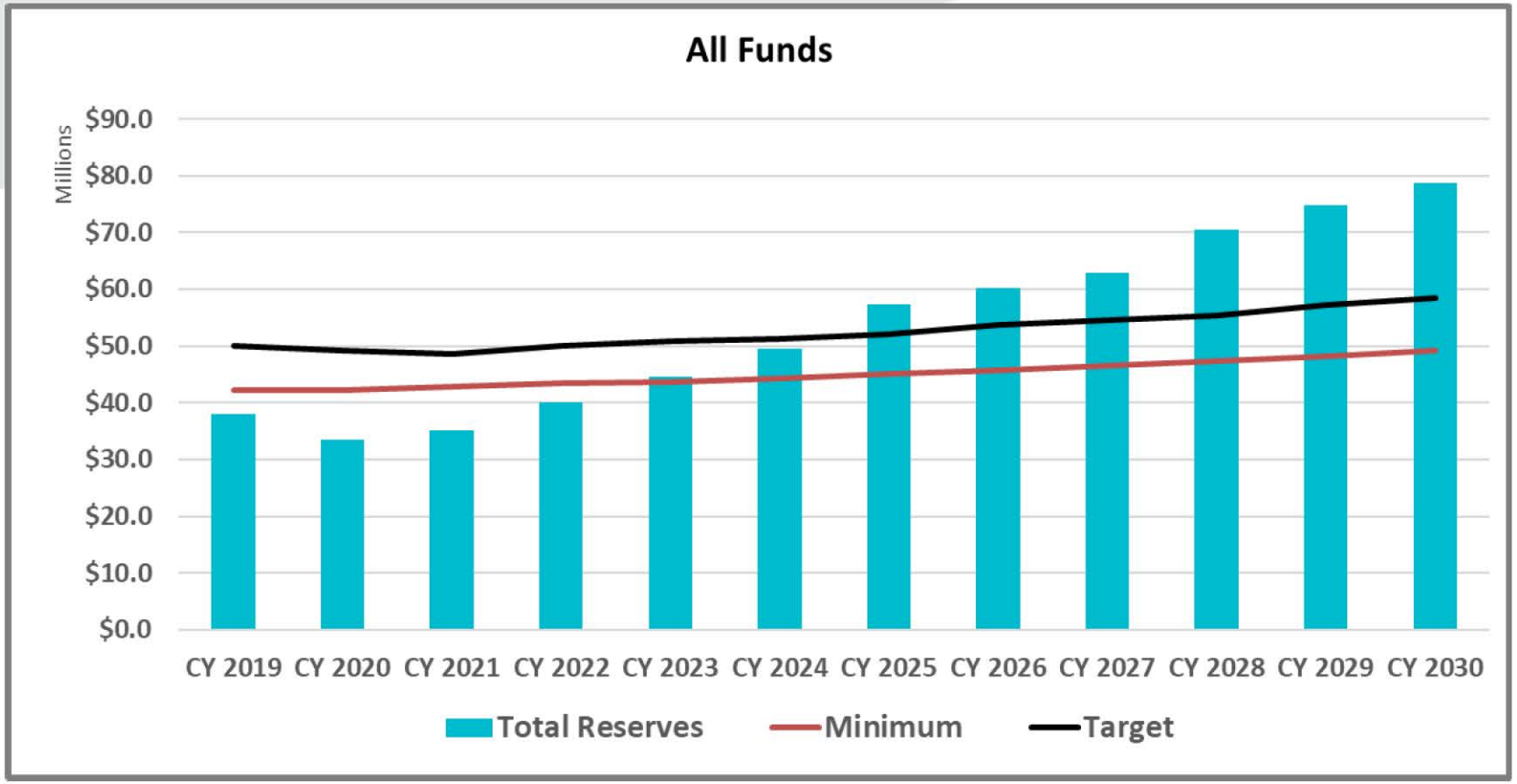
Recommended Financial Plan

- Revenue adjustments (January 1st of each year):
  - 5% for CY 2020, 4% for CY 2021, 3% for CY 2022 - CY 2024



- 2% adjustments are assumed in outer years to keep up with inflation

Reserves based on adjustments



- Still leveraging reserves in CY 2020, but eliminated multiple years
- Reserves do not fall below $33M
- Begin to recover in CY 2021
- Minimum target is met in CY 2023

Proposed Rates & Customer Impacts

Proposed Fixed Charges
(after meter conversion)

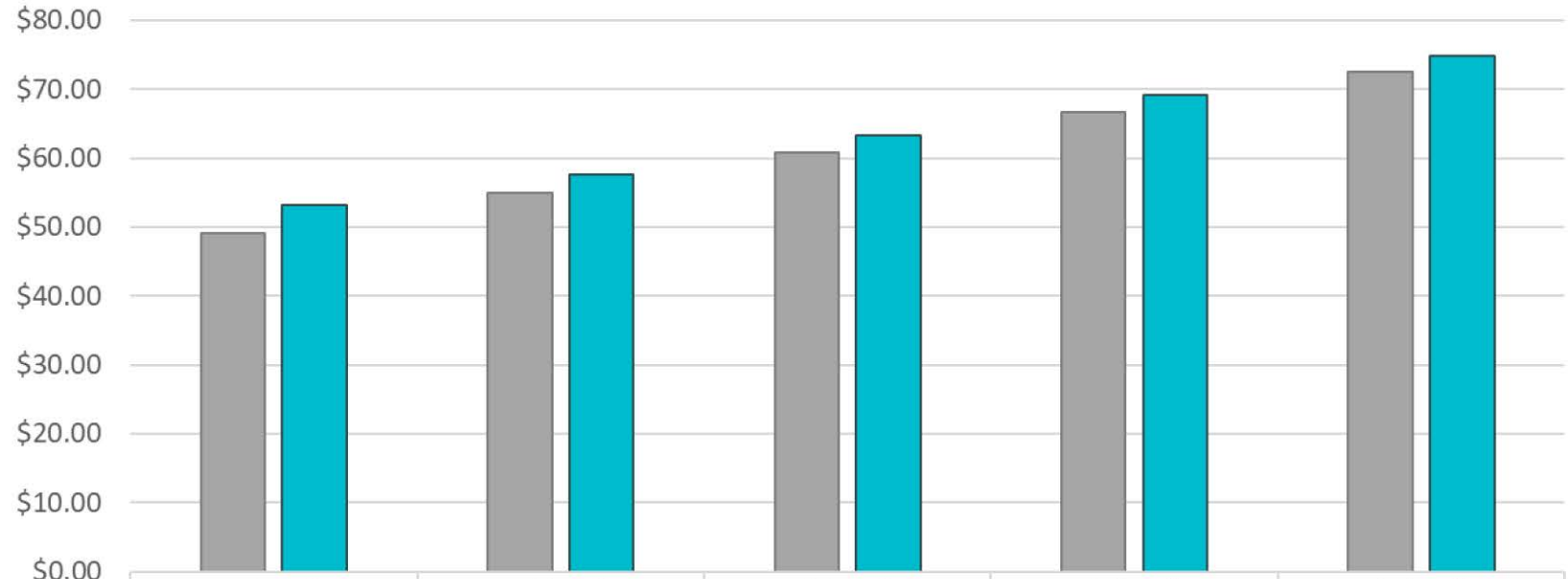
Meter / Connection Size	2020 Proposed Fixed Charge	2021 Proposed Fixed Charge	2022 Proposed Fixed Charge	2023 Proposed Fixed Charge	2024 Proposed Fixed Charge
Conversion Rate ($/ME)	$ 0.07	$ 0.11	$ 0.15	$ 0.19	$ 0.19
5/8"	$32.01	$33.65	$35.04	$36.13	$37.21
3/4"	$44.40	$46.68	$48.61	$50.13	$51.63
1"	$69.19	$72.75	$75.75	$78.12	$80.45
1 1/2"	$131.17	$137.90	$143.60	$148.11	$152.53
2"	$205.53	$216.08	$225.01	$232.07	$238.99
3"	$403.85	$424.59	$442.15	$456.03	$469.62
4"	$626.95	$659.16	$686.42	$707.97	$729.07
6"	$1,246.68	$1,310.72	$1,364.95	$1,407.81	$1,449.77
8"	$2,238.25	$2,353.23	$2,450.59	$2,527.55	$2,602.87
10"	$2,981.93	$3,135.11	$3,264.82	$3,367.35	$3,467.69
12"	$4,190.40	$4,405.66	$4,587.93	$4,732.02	$4,873.03

Proposed 5-Yr Variable Rates

Customer Class	Proposed Tier Width	2020 Proposed Variable Rates ($/hcf)	2021 Proposed Variable Rates ($/hcf)	2022 Proposed Variable Rates ($/hcf)	2023 Proposed Variable Rates ($/hcf)	2024 Proposed Variable Rates ($/hcf)
SFR						
Tier 1	0-15 ccf	$0.88	$0.93	$0.97	$1.00	$1.03
Tier 2	>15 ccf	$1.15	$1.21	$1.26	$1.30	$1.34
MFR	Uniform	$1.26	$1.33	$1.39	$1.44	$1.49
Non-Res		$1.33	$1.40	$1.46	$1.51	$1.56

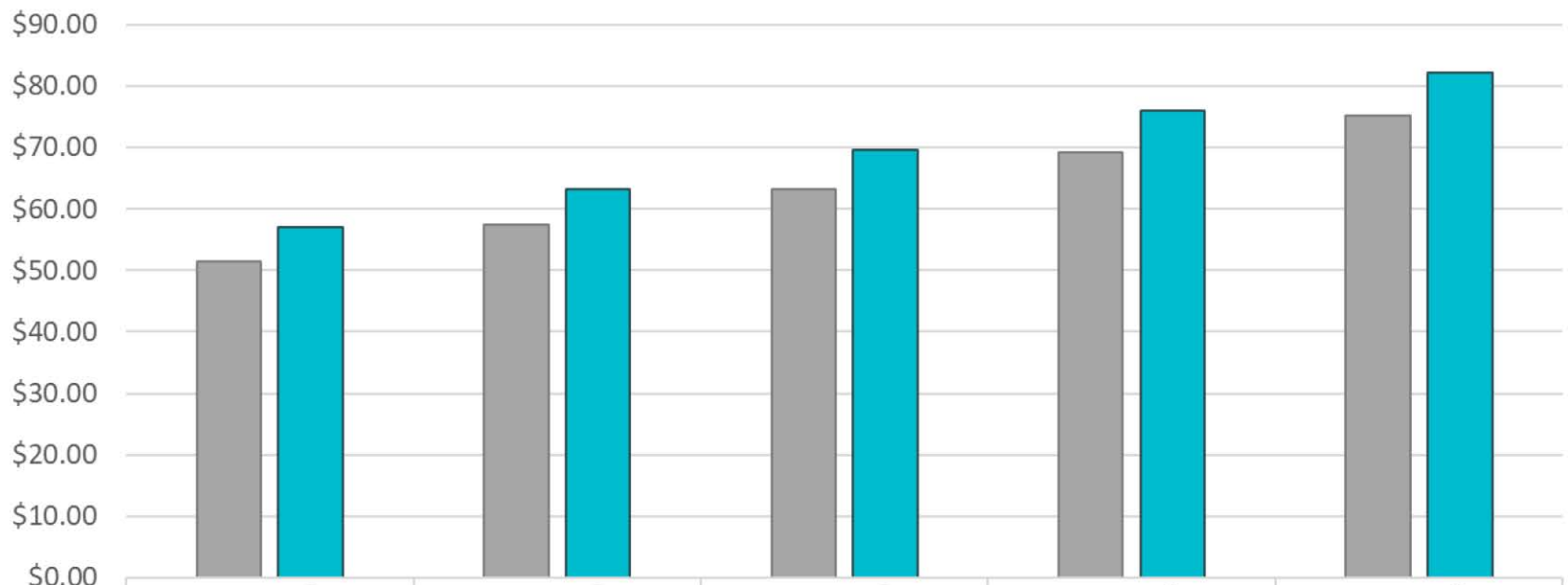
Non-Metered	Current Flat Charge	2020 Proposed Flat Charge	2021 Proposed Flat Charge	2022 Proposed Flat Charge	2023 Proposed Flat Charge	2024 Proposed Flat Charge
$/1,000 sqft	$1.06	$2.35	$2.47	$2.57	$2.65	$2.73

Customer Impact - SFR



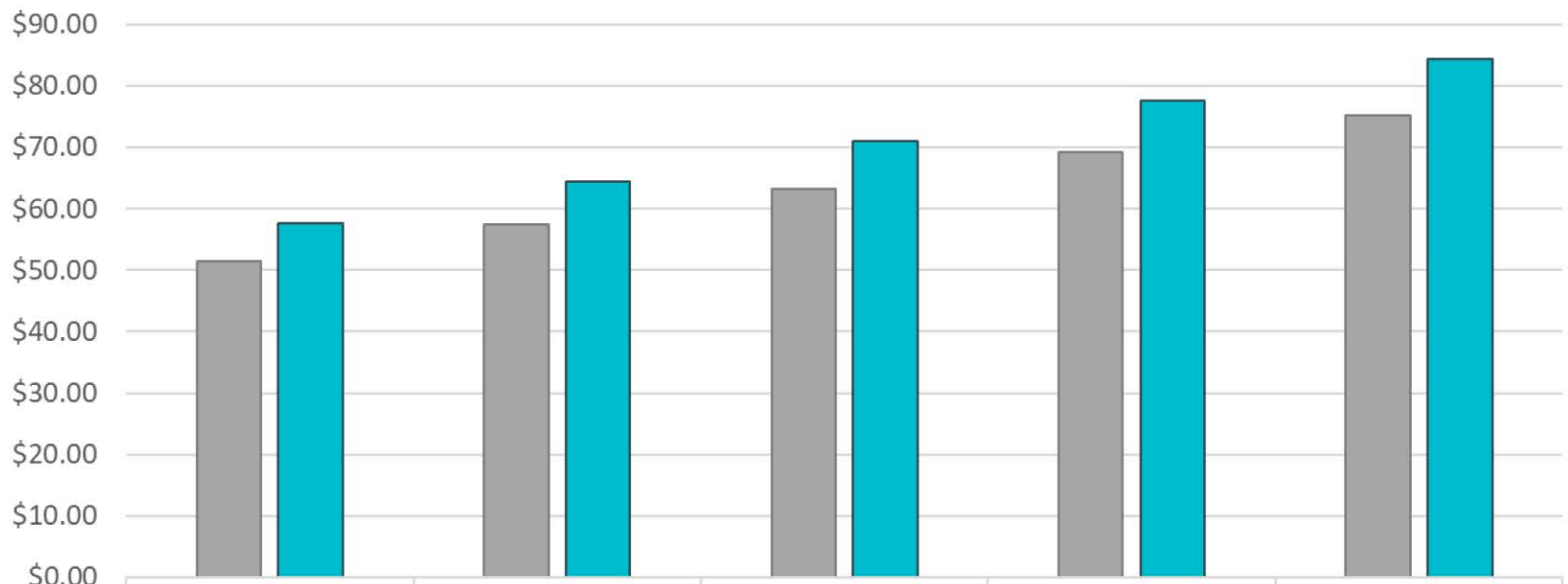
	10 ccf	15 ccf	20 ccf	25 ccf	30 ccf
Current Bill	$49.11	$54.96	$60.81	$66.66	$72.51
Proposed Bill	$53.20	$57.60	$63.35	$69.10	$74.85
Impact ($)	$4.09	$2.64	$2.54	$2.44	$2.34
Impact (%)	8.3%	4.8%	4.2%	3.7%	3.2%

Customer Impact - MFR



	10 ccf	15 ccf	20 ccf	25 ccf	30 ccf
Current Bill	$51.51	$57.41	$63.31	$69.21	$75.11
Proposed Bill	$57.00	$63.30	$69.60	$75.90	$82.20
Impact ($)	$5.49	$5.89	$6.29	$6.69	$7.09
Impact (%)	10.7%	10.3%	9.9%	9.7%	9.4%

Customer Impact – Com



	10 ccf	15 ccf	20 ccf	25 ccf	30 ccf
Current Bill	$51.51	$57.41	$63.31	$69.21	$75.11
Proposed Bill	$57.70	$64.35	$71.00	$77.65	$84.30
Impact ($)	$6.19	$6.94	$7.69	$8.44	$9.19
Impact (%)	12.0%	12.1%	12.2%	12.2%	12.2%

EXHIBIT 4

SACRAMENTO SUBURBAN WATER DISTRICT

Memorandum

Date: October 11, 2019

Subject: Correspondence Regarding Proposed Rate Increase

Staff Contact: Daniel A. Bills, Director of Finance and Administration

Attached for the Board's review is a summary of the correspondence received from customers regarding the proposed rate increase. Following this memo are copies of the correspondence received up to 4:30 p.m. on October 10, 2019.

Emails Received (attached)	1	Opposed Rate Increase
Letters Received (attached)	20	Opposed Rate Increase
Verbal Responses	0	Opposed Rate Increase

August 28, 2019

RECEIVED
SEP 2 2019
Sacramento Suburban Water District

Sacramento Suburban Water District

3701 Marconi Avenue

Suite 100

Sacramento, CA 95821

Re: **Protest to Proposition 218**

Sacramento County Parcel #

SSWD acct #

Please consider this my written protest to Proposition 218 - water fee increases.

For many years my property has been on a water meter. But only two of the six residents on the cul de sac have meters.

I attend the SSWD lectures on how to save water; I have had a SSWD representative come to my residence and provide me with a survey/analysis of my water usage, happily finding no leaks or over-uses; I have installed as many of the SSWD cost-saving devices as are available.

A raise in my water service seems in equitable and punitive. Thus, I write this letter in protest.

Roma

Azure Court

Sacramento, CA

Raley's

Family of Fine Stores

Raley's Supermarkets and Drug Centers BEL AIR NOB HILL FOODS FOOD SOURCE

To: SSWD

Subject: Rate Protest

From: STEVE

Date: 9-1-2019

I PROTEST THE Rate INCREASE YOU PROPOSE.

OWNER STEVE

PROP ADDRESS WOODLEIGH Dr.

CARMICHAEL, CA

ACCOUNT #

APN

S

RECEIVED

SEP 4 2019

Sacramento Suburban Water District

Writing Tablets - Forms Corp. Small

RECEIVED
SEP 4 2019
Sacramento Suburban Water District

August 31, 2019

SSWD
3701 Marconi Ave Suite 100
Sacramento, CA 95821

Address recieving water service: Rochdale Drive, Carmichael, CA

Customer's SSWD account number:
Assessor's parcel number:
Property owner: Nancy

To Sacramento Suburban Water District,

As owner of the above referenced property I protest the proposed 2020- 2024 water rates.

Nancy

Sacramento Suburban
Water District
3701 Marconi Avenue
Sacramento, CA 95821

August 31, 2019

RECEIVED
SEP 4 2019
Sacramento Suburban Water District

Gentlemen:

I am against an increase in water services because I am paying $81.30 per month and I am on limited income. I am a widow and cannot continue to have my water rates increased.

I have always paid my water bills on time and I feel any more increases will be devastating to me. I no longer rent either residence. The front and back houses are needing repairs and I am trying to find someone to repair termite damage.

Please consider that the front house I do not use $45.65. I do not water the lawns on either houses. I only water a few trees and plants on both houses.

I am very conservative and I do know that I do not use $81.30 on both houses. The front house is vacant and I only water some plants and my back house I feel I can afford the $45.65 on the back house.

Very truly yours,

Ruby
Orange Grove Ave
Sacramento, CA

From: James
Sent: Saturday, September 7, 2019 5:18 PM
To: feedback <feedback@sswd.org>
Subject: Water rate increase comments

In formulating your proposed water rate increases have you considered the loss of revenue due to conservation restrictions on water usage? Perhaps by suspending some of the restrictions such as limiting days for landscaping watering you could reduce the need for rate increases. You have a lot of fixed costs and should try to cover some of them by increasing you sales revenue by delivering more water rather than less.

Thank you for the opportunity to comment.

James
Hillrise Drive,
Carmichael, CA

Sacramento Suburban Water District

3701 Marconi Avenue, Suite 100

Sacramento, CA 95821

RECEIVED
SEP 10 2019
Sacramento Suburban Water District

RE: Proposed 2020-2024 Water Rates

Owner: Eric & Lauren

Address: Sandringham Road, Sacramento, CA

Assessor's Parcel Number: .

SSWD Account Number:

We **oppose** the proposed rate increase.

Thank you,

Eric & Lauren

RECEIVED
SEP 10 2019
Sacramento Suburban Water District

Protest of proposed 2020-2024 rate increase:

To Whom it May Concern:

I am protesting the 2020-2024 water rate increase. I am a senior on a very limited income and if the rates continue to increase this will be very difficult for me. I am just one person, live alone and do all I can now to keep my water bill as low as I can.

I don't think the board has considered the hardship to seniors and those on limited income.

Thank you,

Tracey (owner)

property address: Markos Court
Sacramento, . . .

SSWD Account #

meter #

Parcel #

RECEIVED
SEP 10 2019
Sacramento Suburban Water District

September 5, 2019

To the SSWD:

This letter is our written statement to protest the proposed rate increase for water services. Included below is the pertinent information to validate our protest.

Owner name: Gloria and Jason

Address: Shasta Way, Sacramento CA

Parcel number:

Customer SSWD account number:

Yours sincerely,

Gloria and Jason

RECEIVED
SEP 11 2019
Sacramento Suburban Water District

McClellan Drive
North Highlands, CA
September 7, 2019

Sacramento Suburban Water District
3701 Marconi Ave, Suite 100
Sacramento, CA 95821

Re: Proposed Water Increase

To: Whom It May Concern

I am opposing the rate increase on my 3 properties:

McClellan Drive, North Highlands, CA
Poplar Blvd, North Highlands, CA
Dexter Circle, North Highlands, CA

Mike

RECEIVED
SEP 13 2019
Sacramento Suburban Water District

Laura
Flaming Arrow Drive
Citrus Heights, CA

Acct:
September 11, 2019

Sacramento Suburban Water District
3701 Marconi Avenue
Suite 100
Sacramento, CA 95821

To the Board of the Sacramento Suburban Water District:

This is a formal and written protest to the proposed rate increase as indicated in the Proposition 218 Notification that was released to all SSWD service properties. SSWD has already increased rates by 4% in 2015, 2016, 2017, and 2018. To propose that there is an additional 8% increase necessary to cover the cost of operations over the next 5 years is absolutely ludicrous.

Sincerely,

Laura Sept. 11, 2019
Laura

September 12, 2019

This is a written protest to the proposed 2020-2024 water rates

my name (I am the owner)

Heidi

Address of property service:
Edison Avenue
Sacramento, California

Parcel Number

SSWD account number

RECEIVED
SEP 16 2019
Sacramento Suburban Water District

my signature

Heidi

9/12/19

RECEIVED
SEP 16 2019
Sacramento Suburban Water District

SSWD
3701 Marconi Avenue #100
Sacramento, CA 95821

Official written protest regarding proposed 2020-2024 water rates.

Owner: Lisa
Address: Scoter Way
Sacramento, CA
Parcel Number:
Acct:

Please be advised I am protesting any increase in water rates.

Sincerely,

Lisa
property owner

RECEIVED
SEP 18 2019
Sacramento Suburban Water District

August 28, 2019

Mr. Daniel York, General Manager
Mr. Daniel Bills, Finance Director
Board of Directors
Sacramento Suburban Water District
3701 Marconi Avenue, Suite 100
Sacramento, CA 95821

Subject: Customer Response to Proposed Rate Increase in Years 2020-2024

Dear Mr. York, Mr. Bills, and all members of the Board of Directors,

As a customer of Sacramento Suburban Water District, I am writing to express my opposition to the proposed water rate increase for services in the years 2020-2024. Regrettably, I am unable to attend the public hearing on October 16, 2019, but would appreciate this letter being considered in your deliberations. In making a decision in support or opposition of the proposal, I reviewed your 2019 Annual Budget, historical financial statements, the 2019 Comprehensive Water Cost of Service Study Report, as well as additional external data. My conclusion is that this revenue proposal will directly fund an overly conservative increase to the reserve balance and overestimates expected inflationary pressure, while underestimating consumer growth and conservation efforts. Additionally, the study shows that current rates are sufficient to cover expected cost increases while still maintaining positive cash flow. Rather than increasing rates 3-5% over the next five years, I urge the Board of Directors to consider a vote against the proposal in order to reconsider the specific percentage increases in favor of a more moderated proposal.

As shown in section 4.5 and figure 4-1, of the 2019 Water Study[1], the current rates are sufficient to meet ongoing operating expenses and debt service while still maintaining a positive cash flow through the entirety of the figure's data, calendar year 2030. When comparing this to Figure 4-4, the Proposed Operating Financial Plan, the new rates would dramatically increase revenues, entirely supporting additional cashflow or reserve balance. While maintaining prudent reserves is a responsible business practice, especially in an industry with high capital expenditures, rapid and extreme revenue growth that directly supports a corresponding growth in reserves places an undue burden on the consumer to support this cashflow. As a consumer of a responsibly managed water district, I appreciate maintaining prudent reserves, but do not support the idea that cost increases I will bear are directly funding reserves that are excessively conservative.

As cited in the 2019 Water Study, SSWD's financial position is "well balanced and managed" but the study recommends the rate increase primarily to cover the costs of inflation. I agree with having to adjust prices in response to macroeconomic conditions and inflationary pressure. However, if

[1] Comprehensive Water Cost of Service Study Report. Sacramento Suburban Water District. 2019. Accessed August 28, 2019. Retrieved from http://www.sswd.org/home/showdocument?id=9103.

responding to expected inflationary costs is the logic supporting the rate increase, the proposed rates are excessive. In the United States, inflation rates over the last decade have hovered between 1.7% and 2.2%, averaging about 2%.[2] California's inflation rates are slightly higher, but only averaged 0.3% higher than the US, as a whole.[3] The proposed rate increase of between 3 and 5% over the next five years outpaces average inflation rates and shifts this additional cost onto a consumer that is already experiencing cost increases in every area of their household expenditures.

Additional assumptions cited in the 2019 Water Study cause concern and suggest that the rates proposed are based on overly conservative consumer growth and water efficiency estimates. Table 3-2 in the 2019 Water Study shows that consultants assumed no new account growth and no new efficiencies or water conservation efforts in any year through 2024. However, SSWD's population served increased an average of 0.96% annually since January 2015, and 1.06% annually since January 2017.[4] As such, the assumption of 0% new growth over the next 5 years is inconsistent with historical data and leads to revenue growth rates that are too conservative. Using the same data set to examine water usage, 2018 average daily water usage declined 1.5% over 2017. This is a trend that, when combined with conservation efforts supported with the recent passage of AB 1668 and SB 606[5], show the assumption of no new water conservation efficiencies is too cautious and will lead to an overstated water-related operating cost. While it is necessary to be cautious with revenue and operating cost forecasts, assuming 0% growth in both customers and conservation is too conservative and leads to a proposal of rate increases that are more aggressive than necessary.

Adopting this rate proposal, which has the goal of increasing reserves to extremely conservative levels, would be understandable if its customers were benefitting from economic success that exceeded expectations. If SSWD customers were seeing wage growth that outpaced inflation and experiencing housing price stability, it would be reasonable to ask the customers to pay these increased rates. However, assuming customers of the Sacramento Suburban Water District are consistent with Sacramento County's average consumer, wage growth over the past decade has only averaged approximately 2.5%. This growth is only barely keeping pace with inflation, and in many years, wage growth has fallen behind.[6] Additionally, the region is experiencing a housing affordability crisis that is placing additional stress on families.[7] Asking consumers to bear an excessive increase to our water rates when we are already experiencing economic duress is a request that I oppose.

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[2] U.S. Bureau of Labor Statistics. CPI-All Urban Consumers (Current Series). Accessed August 28, 2019. https://data.bls.gov/timeseries/CUUR0000SA0L1E?output_view=pct_12mths

[3] California Department of Finance. Consumer Price Index – Calendar Year Averages. Data from 2008-2018. Accessed August 28, 2019. http://www.dof.ca.gov/Forecasting/Economics/Indicators/Inflation/

[4] California State Water Resources Control Board. Water Conservation and Production Reports. 2014-2019. Raw Data. Accessed August 28, 2019. Retrieved from https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/conservation_reporting.html.

[5] "California Statutes Making Conservation a California Way of Life." California State Water Resources Control Board. 2018. Accessed August 28, 2019. https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/california_statutes.html

[6] California Employment Development Department. Quarterly Census of Employment and Wages. 2004 – 2019. Raw Data. Accessed August 28, 2019. https://data.edd.ca.gov/Industry-Information-/Quarterly-Census-of-Employment-and-Wages-QCEW-/fisq-v939.

[7] LAO Housing Publications. Legislative Analyst's Office: The California Legislature's Nonpartisan Fiscal and Policy Advisor. Various Articles Accessed August 28, 2019. https://lao.ca.gov/LAOEconTax/Housing.

Industry studies, such as the 2019 Water Study, are valuable tools to guide fiscal and operational responsibility, both of which are practices that I appreciate in my utility providers. Additionally, moderate rate increases are something that I expect of a prudently managed company that aims to provide a stable and sustainable service for its customers. However, I am expressing my opposition to the percentage points proposed in the 2019 Water Study. When considering the average and forecasted rate of inflation in both the United States and California, the District's ability to cover expenses and maintain a positive cashflow at current rates through 2030, and the additional macroeconomic pressures facing customers of the District, it is my conclusion that the rate proposal increase of 5% in 2020, 4% in 2021, and 3% in 2022-2024 places an undue burden and hardship on myself and my fellow customers. I urge you to vote against this rate increase proposal in favor of delaying a potential rate increase to 2021 or later, allowing for more in-depth analysis and a more moderate proposal that does not place such an undue hardship on consumers.

Sincerely,

Kaitlin

Customer, Account Number:
Homeowner and Resident: Northbrook Way, Fair Oaks, CA,
Assessor Parcel Number:

To: SSWD

3701 Marconi Avenue, Suite 100

Sacramento, CA 95821

RECEIVED
SEP 23 2019
Sacramento Suburban Water District

September 19, 2019

Re: Protest the proposed 2020-2024 water rates

I am protesting the proposed 2020-2024 rate increase for water services.

Owner: Nadezhda

The address of property receiving SSWD water service: Jackson Street, North Highlands, CA

SSWD account Number:

The assessor's parcel Number:

Sincerely,

Nadezhda

Offield Ct

Sacramento, CA

RECEIVED
SEP 23 2019
Sacramento Suburban Water District

October 14, 2019

Sacramento Suburban Water District
Board of Directors
3701 Marconi Ave. Suite 100
Sacramento, CA 95821

Re: Public Hearing on Proposed Rate Increase
Eric/Karin
Wildflower Circle
Carmichael, CA
APN
SSWD Acct.

On December 21, 2015, SSWD Board of Directors held a meeting to receive input on the 4% capital facilities rate increase. The Board approved this increase, which was implemented in yearly rate increases.

Now, as soon as the above rate increase timed out, the SSWD board once again is convening to listen to mandated public input on their newest proposed rate increase. The Water Rate Study prepared by a financial consulting firm, looks at the financial standing of the district and of course recommends an increase, which they say is "small", of 3-5% in each of the next five years to primarily "cover the costs of inflation."

When have customers last received a 3 to 5 % cost of living increase I wonder? These constant, relentless rate increases are punitive in nature to your customers. For example, over the past five years, we have followed many of SSWD's suggestions for water conservation as put forth in your "H20 On The Go," newsletter. We have stripped out our lawn, spending lots of money on preparing the soil for native and drought tolerant plants, invested in ecological landscape consultants, drip consultants, purchased plants, did the whole SSWD audit procedure to get a bit of a refund to help defray the costs of this project, continue to follow guidelines to reduce our water consumption with new appliances and strictly following watering guidelines, etc.
And what have we noticed? Yes, water consumption is down, but our bill continued to rise because of your capital improvements. Each month we pay considerably more for Capital Facilities than water usage. And now you are actually going to increase this again. What will the line item say on

our bill this time? Can it go into Capital Facilities or will you line item it as Inflation Padding or We Want More Money In Our Bank Account while customers continue to be pressured to use less water and send out happy newsletters about the joys of reducing water consumption?

This is untimely. We suggest you wait at least another year before opening the discussion.

Eric, Karin

Eric and Karin

RECEIVED
SEP 25 2019
Sacramento Suburban Water District

To: Sacramento Suburban Water District (SSWD)
3701 Marconi Avenue, Suite 100, Sacramento

Written Protest of the Proposed Water Rate Increases (2020-2024)

Owner: Victor and Janice
Address: Stillmeadow Wav. Sacramento CA
Assessors Parcel Number:
Account Number:

Protest regarding the rate increase:

Your proposed rate for water in 2024 (approximately a 40% proposed increase) over rates in 2019 is way out of line for this service and for a basic necessity. Please reconsider this outrageous proposal and offer an increase that is more in line with a normal cost of living increase (1.5%/ year).

Signed Victor

Janice

September 25, 2019

RECEIVED
OCT 2 2019
Sacramento Suburban Water District

Sacramento Suburban Water District
3701 Marconi Avenue; Suite 100
Sacramento, CA 95821

Dear Sir,

I am writing to you in regard to the 2019 Water Rate Study. While every business and nonprofit has the right to raise rates to cover expenses, you indicate in your literature that your proposed rate increase of three to five percent in the next five years is to "cover the costs of inflation". No one can accurately predict the future however we can look into the past to see the inflation rate. Below is the inflation rates in the United States for each of the last four years:

2018--1.9%
2017--2.1%
2016--2.1%
2015--0.7%

As you can clearly see, there was not a single year in which the inflation rate was three to five percent which is the rate at which you intend to increase future water rates. So indicating that you intend to increase the water rates to "cover the cost of inflation" is an incorrect statement. In addition, some economists are predicting a recession over the next few years so the current inflation rate would greatly decline.

If you truly do want to raise rates to match the inflation rate as you indicated in your proposal then increase your customers bills by 1.9 % to 2.1%. I protest the proposed 2020-2024 rate increase. Your only justification for the increased rates is the cost of inflation and you are deceiving your rate payers with false data regarding the true inflation rate.

SSWD
3701 Marconi Av - Suite 100
Sacramento, CA 95821

RECEIVED
OCT 7 2019
Sacramento Suburban Water District

Daniel Navarro
4409 Belmont Place Ln
Sacramento, CA 95841

9/30/2019

Re: Protest of Proposed Rate Increase

To Whom It May Concern:

This is to inform you I am protesting the proposed "Five Year" rate increase.

Parcels Owned:

Address: Orange Grove Av - Sacramento, CA
Parcel #:

Address: Belmont Place Ln - Sacramento, CA
Parcel #:

In the future, **please consider allowing protests submitted via email to be counted as formal written protests,** as **well as forego the requirement of including a parcel # with the protest** (parcel # is something you already have access to and is not always readily accessible to customers). This would be a fairer approach, and provide more accurate data on what your customers are really thinking about a particular rate increase.

We do appreciate the services you provide, but costs need to be reined in.

Regards,

Daniel

Daniel ---------- 9/30/2019

RECEIVED
OCT 3 2019
Sacramento Suburban Water District

Sept 27, 2019

Suburban Water District
3701 Marconi Avenue, Ste 100
Sacramento, Ca. 95821

Dear Board,
I would like to protest the proposed rate increase for water services for Rhode Island Drive, # , Sacramento, CA

This is a multi-family residential unit and I feel the current water rates reflect appropriate costs for this address. A single mother and her child are minimal users of water and costs I incur as the owner of the property would be passed on to the tenant. Rent is already high in our City and this water rate increase would further impact this tenant.
I strongly oppose this rate increase.
Sincerely,
Kristine

Rhode Island Dr,
Sacramento, CA
APN

RECEIVED
OCT 3 2019
Sacramento Suburban Water District

To Whom it may concern:

We are a retired couple on a fixed income. Our budget is already stretched to the max.

You have been charging us a $33.57 Capital Facilities charge for months. Is that ever going to end? Plus our water usage.

We cannot afford another increase, what you are asking for is just to much.

If we have a say, we say No.

Sincerely

James + Kathy

Fredrick Way

Sacramento, CA

Acct #

RECEIVED
OCT 10 2019
Sacramento Suburban Water District

Date: 10/07/2019

Owner: Thomas and Holly

Parcel Number:

SSWD Account Number:

We are protesting the proposed rate adjustment. Over five years, that compounds to about a 22.91% rate increase. That is a huge increase for anyone to absorb in personal monthly expenses and especially for those of us who may or may not get a raise, those who just get by (working poor), and for those on fixed incomes.

We appreciate you providing safe and reliable water, but something else needs to be figured out.

Thank you,

Thomas

Holly

Back to Agenda

SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 2

Date: October 3, 2019

Subject: Comprehensive Water Cost of Service Study Report

Staff Contact: Daniel A. Bills, Director of Finance and Administration

Recommended Board Action:

Adopt the attached Comprehensive Water Cost of Service Study Report as the basis for the approved water rate increases for years 2020 to 2024 discussed at the Public Hearing held on October 16, 2019.

Discussion:

At the June 17, 2019 Regular Board Meeting, the Board accepted the attached Comprehensive Water Cost of Service Study Report (Report) as the basis for the proposed water rate increases for years 2020 to 2024 to be discussed at a Public Hearing (Hearing) scheduled for October 16, 2019. Presuming the Hearing approved the recommendations of the Report, staff requests the Board approve the Report as the basis for the newly adopted rates.

Fiscal Impact:

$77,580 was the original contracted amount for the Study, the final amount will be $94,580.

Strategic Plan Alignment:

Goal C – Ensure fiscal responsibility and affordable rates.

Sacramento Suburban Water District

Draft-Final

RAFTELIS

SACRAMENTO SUBURBAN WATER DISTRICT

RAFTELIS

June 10, 2019

Mr. Daniel A. Bills
Finance Director
Sacramento Suburban Water District
3701 Marconi Avenue, Suite 100
Sacramento, CA 95821

Subject: Comprehensive Water Cost of Service Study Report

Dear Mr. Bills,

Raftelis Financial Consultants, Inc. (Raftelis) is pleased to provide this Comprehensive Water Cost of Service Report (Report) for the Sacramento Suburban Water District (District). This Report includes a comprehensive review of the District's financial plan, available usage data, customer accounts, capital improvement plan, and reserves in both the short-term and long-term planning horizons. The proposed rate structures and resulting rates were derived based on the cost of service principles and are proportionate and in compliance with Proposition 218.

The major objectives of the study include the following:

- Develop financial plans for the water utility to ensure financial sufficiency, meet operation and maintenance (O&M) costs, meet debt obligations, and ensure sufficient funding for system improvement and capital needs.
- Develop sound and sufficient reserve fund targets and meet minimum reserves during planning period.
- Review current rate structures for the water utility and determine any adjustments to the rates to more closely reflect costs incurred and adequately recover the revenue requirements over the planning period.

The Report summarizes the key findings and recommendations related to the development of rates for the water utility.

It has been a pleasure working with you, and we thank you and District Staff for the support provided during this study.

Sincerely,

Habib Isaac
Senior Manager

Andrea Boehling
Manager

24640 Jefferson Avenue, Suite 207
Murrieta, CA 92562
www.raftelis.com

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1. Executive Summary

1.1. BACKGROUND

In 2018, Sacramento Suburban Water District (District) engaged Raftelis to conduct a Comprehensive Water Cost of Service Study (Study) to develop a financial plan and design rates for the District's utilities over the next five years. The District is located in northern Sacramento County, California and provides water to portions of the unincorporated area of Sacramento County, Antelope, Carmichael, Citrus Heights, Foothill Farms; small portions of the cities of Sacramento and Citrus Heights; and all of McClellan Business Park serving approximately 46,000 customer accounts.

1.1.1. Objectives of the Study

The major objectives of the study include the following:

- Develop financial plan for the water utility to ensure financial sufficiency, meet operation and maintenance (O&M) costs, ensure sufficient funding for capital replacement and refurbishment (R&R) needs, and maintain the financial health of the utility.
- Develop sound and sufficient reserve fund targets and meet minimum reserves during planning period.
- Review current rate structures for the water utility and determine any adjustments to the rates to more closely reflect costs incurred and adequately recover the utility's revenue requirements over the planning period.

1.2. CURRENT RATES

The current water rate structure consists of the following components:

1. Monthly Meter Service Charge that varies by meter size
2. Monthly Flat Service Charge that varies by connection size for Non-Metered accounts
3. Monthly Capital Facilities Charge that varies by meter or connection size
4. Flat Usage Charge that varies per 1,000 square feet for Non-Metered accounts
5. Usage Charge for metered customers that varies by customer class and water usage

In addition to the four main components, the District also charges a Private Fire Service Line protection charge to those customers with private fire protection lines and a Backflow Device charge to connections with a backflow device. Private fire protection customers are charged a monthly fixed charge that varies by connection size and backflow device customers are charged a monthly fixed charge per connection. The following tables summarize the current rate structure of the District. Table 1-1provides a summary of the monthly charges by meter or connection size. Table 1-2 summarizes the current variable unit[1] charges by customer class and by tier as well as the tier widths. As shown, the District's current commodity rate structure is comprised of a flat usage charge for Non-Metered customers, inclining tiers (2 tiers) for Residential customers, and a uniform, seasonal rate for Non-Residential customers. Table 1-3 shows the monthly Private Fire Service Line charges by connection size and Table 1-4 shows the monthly Backflow Device Charge per connection.

[1] One unit of water is equal to 748 gallons or 100 cubic feet (1 ccf)

Table 1-1: Current Monthly Service Charges

Meter or Connection Size	CY 2018 Meter Service Charge	CY 2018 Flat Service Charge	CY 2018 Capital Facilities Charge
5/8"	$4.21		$22.52
3/4"	$6.14	$17.42	$33.57
1"	$9.94	$25.21	$56.15
1 1/2"	$19.42	$47.60	$111.90
2"	$30.88	$47.02	$179.11
3"	$57.56		$336.10
4"	$95.64		$560.30
6"	$190.86		$1,120.26
8"	$343.24		$2,016.60
10”	$552.76		$3,249.22
12”	$819.37		$4,817.07

Table 1-2: Current Usage Charges

Customer Class/Tiers	Units	CY 2018 Usage Charge
Flat Usage Charge	Per 1,000 sq ft	$1.06
Residential		
Tier 1	0 – 10 ccf	$0.94
Tier 2	11+ ccf	$1.17
Non-Residential – Off Peak	Uniform (ccf)	$0.95
Non-Residential - Peak	Uniform (ccf)	$1.18

Table 1-3: Current Monthly Private Fire Service Line Charge

Connections Size	CY 2018 Monthly Charge
2"	$13.28
3"	$24.92
4"	$40.59
6"	$80.78
8"	$142.90
10”	$223.27
12”	$248.83

Table 1-4: Currently Monthly Backflow Device Charge

	CY 2018 Monthly Charge
Per Connection	$2.20

1.3. FINANCIAL HEALTH AND PROPOSED RECOMMENDATIONS

As part of the financial plan development, Raftelis first reviewed the District's projected revenue requirements over a 10-year planning horizon to determine the financial health of the utility over the short-term and long-term to determine if the current rates could support the utility's revenue needs.

For Calendar Year 2019 (CY 2019) the District's total beginning reserve balance for the water utility is approximately $42.8 million. As part of Best Management Practices of utilities, it is recommended that a utility have at least 90-180 days of operating reserves as well as sufficient funds available to ensure that the utility's capital plan can move forward as scheduled and is not delayed due to insufficient funds on hand. As part of this study, Raftelis reviewed the District's reserves policies with District staff to determine if any adjustments should be made based on historical and current revenue recovery, commonly accepted industry standards, and futured planned revenue requirements. The District's primary unrestricted reserves include: 1) Operating Reserve with an ending balance target of 25% of current year annual expenditures, 2) Capital Assets Reserve with a target based on the budgeted capital needs for the upcoming calendar year, 3) Emergency Reserve set at 25% of following year's anticipated revenues, and 4) Rate Stabilization Reserve set at 50% of commodity revenue. These District reserves ensure the utility has adequate funding throughout the fiscal year and provides a strong financial position in connection with the District's credit worthiness and reflects a pro-active approach to its ongoing financial planning.

After our review and discussions with staff, we had a few minor modifications to the four (4) reserves which included a higher target for the Operating Reserve and Capital Asset Reserve with the inclusion of a minimum target, and slight changes to the Emergency target and Rate Stabilization target to more closely reflect the purpose of those reserves. The recommended Operating Reserve target is set at 180 days of operating expenses with a minimum of the current 90-day target. The recommended Capital Asset Reserve target is set at the average annual capital expenditures of the current 5-year capital plan with a minimum target of the District's annual depreciation to ensure appropriate reinvestment. The Emergency Reserve should be more closely tied to the District's system, age of system, and current value of system in today's dollars which reflects the potential need in addressing and fixing any unexpected system failures that may occur. Therefore, the recommended Emergency Reserve target is set as 3% of the District's asset value in today's dollars by taking the replacement cost of the system less depreciation. The recommended Rate Stabilization Reserve target is still based on commodity revenue but reduced to 35% as current commodity revenue fluctuates around thirty percent. Table 1-5 provides a summary of the current reserve targets and recommended reserve target adjustments.

Table 1-5: Existing and Recommended Primary Reserves Policies

Reserve	Existing Policy	Recommended Policy
Operating Fund	25% of current year's budgeted annual expenditures	**Minimum -** 90 days or 25% of Operating expenses **Target -** 180 days of 50% of Operating expenses
Capital Assets	Sufficient to fund CIP above the CIP funding amount anticipate at rate setting or budget preparation	**Minimum –** Annual Depreciation **Target –** 5-Year Average CIP
Emergency	25% of following year's anticipated revenues	**3% of Asset Value**
Rate Stabilization	50% of upcoming water consumption revenue	**35% of Consumption Revenue**

Based on the financial plan review, the District is currently in a strong financial position and only modest revenue adjustments are needed to ensure that the District maintains its healthy financial position moving forward and can continue to reinvest in the water utility system. The proposed revenue adjustments are 5% for Calendar Year 2020, 4% for Calendar Year 2021, and 3% for Calendar Years 2022 through 2024.

1.3.1. Rate Design Adjustments

To determine the appropriate rate structure for meeting the District's revenue requirements, Raftelis reviewed the current rate structure and consumption data, worked closely with District staff, and, where possible, incorporated feedback on policies and objectives. As such, Raftelis recommends the following proposed adjustments to the current structure:

- Maintain the 2-tiered rate structure for SFR accounts with modifications to the Tier 1 and Tier 2 allotments (also referred to as tier widths). For Tier 1, the recommended allotment is based on the average amount of groundwater production the District generates to serve annual demand equal to approximately 19,800 acre feet (AF) evenly allocated to all accounts, which translates to 15 ccf or units of water. Tier 2 would capture any water usage above Tier 1.
- Establish a separate customer class for MFR accounts with a uniform rate structure. MFR accounts are distinguished from other customer classes in the billing records and, therefore, it is possible to allocate their proportionate share of the costs of providing service based on the total volume of water used, peak demand on the system, and burdens the class places on staff and customer service. A uniform rate provides the most appropriate and equitable rate structure between accounts within this customer class.
- Move from a seasonal rate structure to a uniform rate for all Non-Residential accounts. Although implementing uniform rates is recommended, it is important to note that non-residential customer classes are still paying their proportionate share of the costs of providing the service based on the total volume of water used, peak demand on the system, and burdens the class places on staff and customer service similar to Single-Family Residential and Multi-Family Residential. A uniform rate provides the most appropriate and equitable rate structure between accounts within this customer class.
- When implementing rate adjustments, it is common practice for public utilities to include authorization for 5 years of proposed rate increases versus a shorter timeframe. Therefore, as part of the proposed rate increases, Raftelis recommends including all 5 years of the proposed rates for inclusion within the Proposition 218 Notice as the ceiling the District may not exceed without going through the Proposition 218 procedures for updating utility rates. The proposed rates are the maximum amount that the District may charge without re-noticing and holding another Proposition 218 Public Hearing but is not required to implement the maximum and may set annual rates at a lower amount if warranted.

The proposed rate structure is set forth in Table 1-6. The proposed Monthly Service Charge and Variable Usage Charges are shown in Table 1-7 and Table 1-8, respectively. Table 1-9 shows the proposed monthly Private Fire Line charges by connection size and Table 1-10 shows the proposed monthly Backflow Charge per connection.

Table 1-6: Current and Proposed Water Rate Structure

Customer Class/Tiers	Current Tier Width	Proposed Tier Width (ccf)
METERED		
Residential		
Tier 1	0 – 10 ccf	0-15
Tier 2	11+ ccf	16+
Multi-Family Residential	N/A	Uniform
Non-Residential – Off Peak	Uniform	Uniform
Non-Residential - Peak	Uniform	N/A
NON-METERED		
Flat Usage Charge	Per sq ft	Per sq ft

Table 1-7: CY 2020-2024 Proposed Monthly Service Charges

Meter or Connection Size	CY 2020 Proposed Monthly Service Charge	CY 2021 Proposed Monthly Service Charge	CY 2022 Proposed Monthly Service Charge	CY 2023 Proposed Monthly Service Charge	CY 2024 Proposed Monthly Service Charge
5/8"	$32.01	$33.65	$35.04	$36.13	$37.21
3/4"	$44.40	$46.68	$48.61	$50.13	$51.63
1"	$69.19	$72.75	$75.75	$78.12	$80.45
1 1/2"	$131.17	$137.90	$143.60	$148.11	$152.53
2"	$205.53	$216.08	$225.01	$232.07	$238.99
3"	$403.85	$424.59	$442.15	$456.03	$469.62
4"	$626.95	$659.16	$686.42	$707.97	$729.07
6"	$1,246.68	$1,310.72	$1,364.95	$1,407.81	$1,449.77
8"	$2,238.25	$2,353.23	$2,450.59	$2,527.55	$2,602.87
10”	$2,981.93	$3,135.11	$3,264.82	$3,367.35	$3,467.69
12”	$4,190.40	$4,405.66	$4,587.93	$4,732.02	$4,873.03

Table 1-8: CY 2020-2024 Proposed Usage Charges

Customer Class / Tiers	Units	CY 2020 Proposed Usage Charge	CY 2021 Proposed Usage Charge	CY 2022 Proposed Usage Charge	CY 2023 Proposed Usage Charge	CY 2024 Proposed Usage Charge
Flat Usage Charge	Per 1,000 sq ft	$2.35	$2.47	$2.57	$2.65	$2.73
Single-Family Residential						
Tier 1	0 – 15 ccf	$0.88	$0.93	$0.97	$1.00	$1.03
Tier 2	16+ ccf	$1.15	$1.21	$1.26	$1.30	$1.34
Multi-Family Residential	Uniform (ccf)	$1.26	$1.33	$1.39	$1.44	$1.49
Non-Residential	Uniform (ccf)	$1.33	$1.40	$1.46	$1.51	$1.56

Table 1-9: CY 2020-2024 Proposed Monthly Fire Line Service Charge

Connection Size	CY 2020 Proposed Monthly Charge	CY 2021 Proposed Monthly Charge	CY 2022 Proposed Monthly Charge	CY 2023 Proposed Monthly Charge	CY 2024 Proposed Monthly Charge
2"	$13.95	$14.51	$14.95	$15.40	$15.87
3"	$26.17	$27.22	$28.04	$28.89	$29.76
4"	$42.62	$44.33	$45.66	$47.03	$48.45
6"	$84.82	$88.22	$90.87	$93.60	$96.41
8"	$150.05	$156.06	$160.75	$165.58	$170.55
10”	$234.44	$243.82	$251.14	$258.68	$266.45
12”	$261.28	$271.74	$279.90	$288.30	$296.95

Table 1-10: CY 2020-2024 Proposed Monthly Backflow Charge

	CY 2020 Proposed Monthly Charge	CY 2021 Proposed Monthly Charge	CY 2022 Proposed Monthly Charge	CY 2023 Proposed Monthly Charge	CY 2024 Proposed Monthly Charge
Per Connection	$2.31	$2.41	$2.49	$2.57	$2.65

2. Introduction

2.1. STUDY APPROACH

This report was prepared using principles established by the American Water Works Association (AWWA). The AWWA *"Principles of Water Rates, Fees, and Charges: Manual of Water Supply Practices M1* Manual (M1 Manual) establishes commonly accepted professional standards for cost of service studies. The M1 Manual principles of rate structure design and the objectives of the Study are described below.

According to the M1 Manual, the first step in ratemaking analysis is to determine the adequate and appropriate level of funding for a given utility. This is referred to as determining the "revenue requirement". This analysis typically considers the short-term and long-term service objectives of the utility over a given planning horizon, including capital facilities, system operations and maintenance, and financial reserve policies to determine the adequacy of a utility's existing rates to recover its costs. A number of factors may affect these projections, including the number of customers served, water-use trends, nonrecurring sales, weather, conservation, water use restrictions, inflation, interest rates, wholesale contracts, capital finance needs, changes in tax laws, and other changes in operating and economic conditions, among others.

After determining the utility's revenue requirement, the next step was determining the cost of service. Utilizing the District's approved budget, financial reports, operating data, and capital improvement plans, a rate study generally categorizes (functionalizes) **system costs** (e.g., treatment, storage, pumping, etc.), including operating and maintenance and asset costs, among **major operating functions** to determine the cost of service.

After the asset values and operating costs are properly categorized by function, these functionalized costs are allocated first to cost causation components, and then distributed to the various customer classes (e.g., single-family residential, multi-family residential, and non-residential) by determining the characteristics of those classes and the contribution of each to cost causation components such as customer costs, supply costs, peaking costs, delivery costs, and fire protection.

Rate design is the final element of the rate-making procedure and uses the revenue requirement and cost of service analysis to determine rates for each customer class that reflect the cost of providing service to those customers. Rates utilize "rate components" that build-up to the total commodity rates, and fixed charge rates, for the various customer classes. In the case of tiered rates, the rate components allocate the cost of service *within* each customer class, effectively treating each tier as a sub-class and determining the cost to serve each tier.

2.2. LEGAL REQUIREMENTS

2.2.1. California Constitution - Article XIII D, Section 6 (Proposition 218)

Proposition 218, reflected in the California Constitution as Article XIII D, was enacted in 1996 to ensure that rates and fees are reasonable and proportional to the cost of providing service. The principal requirements for fairness of the fees, as they relate to public water or wastewater services are as follows:

1. Revenues derived from the charge shall not exceed the costs required to provide the property related service.
2. Revenues derived from the charge shall not be used for any purpose other than that for which the charge was imposed.
3. The amount of the charge imposed upon any parcel shall not exceed the proportional cost of service attributable to the parcel.

4. No charge may be imposed for a service unless that service is actually used or immediately available to the owner of property.
5. No charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners.
6. A public agency must hold a public hearing to consider the adoption of the proposed new or increase in an existing charge; written notice of the public hearing and proposed charge shall be mailed to the record owner of each parcel at least 45 days prior to the public hearing; if the public agency receives written protests to the proposed charge from a majority of the property owners, the charge may not be imposed.

As stated in AWWA's *M1 Manual*, "water rates and charges should be recovered from classes of customers in proportion to the cost of serving those customers." Prop 218 requires that water rates cannot be "arbitrary and capricious," meaning that the rate-setting methodology must be sound and that there must be a nexus between costs and the rates charged. Raftelis followed industry standard rate setting methodologies set forth by the AWWA *M1 Manual* to ensure this study meets Proposition 218 requirements and creates rates that do not exceed the proportionate cost of providing water services.

In addition, the San Juan Capistrano decision (*Capistrano Taxpayers Assn v. City of San Juan Capistrano*, Cal.App.4 (Apr 20, 2015, 4th DCA Case No. G048969) clarifies Proposition 218 requirements so that tiered rates (as well as rates for the remaining classes) need to be based on the proportionate costs incurred to provide water to each customer class and each tier in order to achieve compliance with Proposition 218.

2.2.2. California Constitution - Article X, Section 2

Article X, Section 2 of the California Constitution states the following:
"It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare."

Article X, section 2 of the State Constitution institutes the need to preserve the State's water supplies and to discourage the wasteful or unreasonable use of water by encouraging conservation. As such, public agencies are constitutionally mandated to maximize the beneficial use of water, prevent waste, and encourage conservation.
In connection with meeting the objectives of Article X, section 2, Water Code Sections 370 and 375 et seq. authorize a water purveyor to utilize its water rate design to incentivize the efficient use of water. Although incentives to conserve water may be provided by implementing a higher rate as consumption increases, a nexus between the rates and costs incurred to provide the water must be developed to achieve compliance with Proposition 218.

Tiered Rates – "Inclining" tier water rate structures (synonymous with "tiered" rates) when properly designed and differentiated by customer class, allow a water utility to send consistent price signals to customers. Tiered rates meet the requirements of Proposition 218 as long as the tiered rates reasonably reflect the proportionate cost of providing service to users in each tier.

2.2.3. Cost-Based Rate Setting Methodology

As stated in the AWWA M1 Manual, "the costs of water rates and charges should be recovered from classes of customers in proportion to the cost of serving those customers." To develop utility rates that comply with Proposition 218 and industry standards while meeting other emerging goals and objectives of the District, there are four major steps discussed below.

1. **Calculate Revenue Requirement**
   The rate-making process starts by determining the test year (rate setting year) revenue requirement, which for this study is CY 2020. The revenue requirement should sufficiently fund the utility's O&M, debt service, capital expenses, and reserves.

2. **Cost of Service Analysis (COS)**
   The annual cost of providing service is distributed among customer classes commensurate with their service requirements. A COS analysis involves the following:
   a) Functionalize costs. Examples of functions are supply, treatment, transmission, distribution, storage, meter servicing, and customer billing and collection.
   b) Allocate functionalized costs to cost causation components. Cost causation components include, but are not limited to, supply, base[2], maximum day, maximum hour[3], meter capacity, and customer service .
   c) Distribute the cost causation components. Distribute cost components, using unit costs, to customer classes in proportion to their demands on the system. This is described in the M1 Manual.

   A COS analysis for water considers both the average quantity of water consumed (base costs) and the peak rate at which it is consumed (peaking or capacity costs as identified by maximum day and maximum hour demands).[4] Peaking costs are costs that are incurred during peak times of consumption. There are additional costs associated with designing, constructing, and operating and maintaining facilities large enough to meet peak demands. These peak demand costs need to be allocated to those imposing such costs on the utility. In other words, not all customer classes share the same responsibility for peaking related costs.

3. **Rate Design and Calculations**
   Rates do more than simply recover costs. Within the legal framework and industry standards, properly designed rates should support and optimize a blend of various utility objectives, such as deterring water waste, supporting affordability for essential needs, and ensuring revenue stability among other objectives. Rates may also act as a public information tool in communicating these objectives to customers.

4. **Rate Adoption**
   Rate adoption is the last step of the rate-making process to comply with Proposition 218. Raftelis documents the rate study results in this Study Report to serve as the District's administrative record and a public education tool about the proposed changes, the rationale and justifications behind the changes, and their anticipated financial impacts.

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[2] Base costs are those associated with meeting average day demands and unrelated to meeting peaking demands.
[3] Collectively maximum day and maximum hour costs are known as peaking costs or capacity costs.
[4] System capacity is the system's ability to supply water to all delivery points at the time when demanded. Peak demand is calculated for each customer class and may not occur during same period. Both the operating costs and capital asset related costs incurred to accommodate the peak demand is generally allocated to each customer class based upon the class's relative peak demand.

3. Key Assumptions

The Study uses the District's CY 2019 budget as the base year and the model projects the District's revenue requirements through CY 2038; however, the proposed water rates herein are for CY 2020 through CY 2025. Certain cost escalation assumptions and inputs were incorporated into the Study to adequately model expected future costs of the District expenses. These assumptions were based on discussions with and/or direction from District management and are presented in Table 3-1 and Table 3-2.

Table 3-1: Inflationary Factor Assumptions

Inflationary Factors	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
General	2.00%	2.00%	2.00%	2.00%	2.00%
Salaries	5.00%	5.00%	5.00%	5.00%	5.00%
Utilities	5.00%	5.00%	5.00%	5.00%	5.00%
Capital	3.11%	3.11%	3.11%	3.11%	3.11%
Purchased Water	5.00%	5.00%	5.00%	5.00%	5.00%
Benefits	6.54%	6.53%	6.52%	6.51%	6.51%
Non-Inflated	0.00%	0.00%	0.00%	0.00%	0.00%
Water Loss [5]	7.1%	7.1%	7.1%	7.1%	7.1%

Table 3-2: Account Growth, Demand, and Revenue Assumptions

Escalation Factors	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Account Growth[6]					
Metered Accounts					
Single Family	0%	0%	0%	0%	0%
Multi Family	0%	0%	0%	0%	0%
Non-Residential	0%	0%	0%	0%	0%
Non-Metered Accounts					
Single Family	0%	0%	0%	0%	0%
Multi Family	0%	0%	0%	0%	0%
Demand Factors[7]					
Metered Accounts					
Single Family	100%	100%	100%	100%	100%
Multi Family	100%	100%	100%	100%	100%
Non-Residential	100%	100%	100%	100%	100%
Non-Metered Accounts					
Single Family	100%	100%	100%	100%	100%
Multi Family	100%	100%	100%	100%	100%
Revenue Factors					
Non-Rate Revenues	2.00%	2.00%	2.00%	2.00%	2.00%
Reserve Interest Rate	2.00%	2.00%	2.00%	2.00%	2.00%

[5] For the cost of service analysis and determining the amount of expected water use from non-metered accounts, water loss for Calendar Year 2019 was set at 3.5%.
[6] For financial planning purposes, account growth was conservatively set at 0% which means that the District is not relying on growth to help fund ongoing operating and maintenance costs.
[7] Demand factors can be used to project changes in water usage patterns. For the purposes of this Study, no changes were made to the water usage patterns. Through discussions with District staff, they are not expecting customers to reduce

4. Financial Plan

This section describes the development of the water utility's financial plan, the results of which were used to determine the revenue adjustments needed to meet ongoing expenses and provide fiscal sustainability to the District. Establishing a utility's revenue requirement is a key step in the rate setting process. The review involves analysis of projected annual operating revenues under the current rates, O&M expenses, capital expenditures, transfers between funds, and reserve requirements. This section of the report provides a discussion of the projected revenues, O&M and capital expenditures, the capital improvement financing plan, and overall revenue requirements required to ensure the fiscal sustainability of the Water Utility.

4.1. REVENUE FROM CURRENT RATES

The current water rate structure consists of the following components:

1. Monthly Meter Service Charge that varies by meter size (Table 4-1 summarizes the current meters by size, the current monthly fixed charges, and projected revenue).
2. Monthly Flat Service Charge that varies by connection size for Non-Metered accounts. Customers with more than one dwelling unit pay an additional flat charge for each additional dwelling unit. (Table 4-2 summarizes the current connections by size, current monthly flat service charge, and projected revenue).
3. Monthly Capital Facilities Charge that applies to both Metered and flat accounts and varies by meter or connection size (Table 4-3 summarizes the current meters/connections by size, the current monthly capital facilities charge, and projected revenue).
4. Flat Usage Charge that varies per 1,000 square feet for Non-Metered accounts (Table 4-4 summarizes the number of square feet, the current flat usage charge per 1,000 square feet, and projected usage revenue).
5. Usage Charge that varies by customer class and water usage (Table 4-4 summarizes the rate structure, usage by tier and customer class, current water usage rates, and projected usage revenue).

In addition to these components, the District also charges a fire protection charge and backflow charge to those customers with private fire protection lines and backflow connections. Private fire protection customers are charged a monthly fixed charge that varies by connection size. Table 4-5 summarizes the connections by size, the current monthly Private Fire Service Line charges, and the projected private fire protection revenue. Backflow connection customers are charged a monthly fixed charge per connection. **Error! Reference source not found.** summarizes the number of connections, the current monthly Backflow Device charge, and the projected backflow charge revenue.

usage in the upcoming year. As drought conditions improve, the District anticipates there will be modest increases in water use as behaviors revert to non-drought conditions, however, it is not known how soon or to what extent this will occur

Table 4-1: Projected Annual Meter Service Charge Revenue

Meter Size	# of Meters [A]	Current Monthly Water Service Charges [B]	Projected Annual Water Service Charge Revenue [A x B x 12]
5/8"	2,174	$4.21	$109,830
3/4"	30,609	$6.14	$2,255,271
1"	3,927	$9.94	$468,413
1 1/2"	1,012	$19.42	$235,836
2"	1,403	$30.88	$519,896
3"	306	$57.56	$211,360
4"	104	$95.64	$119,359
6"	27	$190.86	$61,839
8"	4	$343.24	$16,476
10”	1	$552.76	$6,633
12”		$819.37	$0
Total	**39,567**		**$4,004,913**

Table 4-2: Projected Annual Flat Service Charge Revenue

Connection Size	# of Connections [A]	Current Flat Service Charges [B]	Projected Annual Flat Service Charge Revenue [A x B x 12]
3/4"	5,939	$17.42	$1,241,489
1"	20	$25.21	$6,050
1 1/2"		$47.60	$0
2"		$47.02	$0
Total	**5,959**		**$1,247,539**
Multiple Unit Charge[8]	**354**	$9.39	**$39,889**

Table 4-3: Projected Annual Capital Facilities Charge Revenue

Meter / Connection Size	# of Meters / Connections [A]	Current Monthly Capital Facilities Charges [B]	Projected Annual Capital Facilities Charge Revenue [A x B x 12]
5/8"	2,174	$22.52	$587,502
3/4"	36,548	$33.57	$14,722,996
1"	3,947	$56.15	$2,659,489
1 1/2"	1,012	$111.90	$1,358,914
2"	1,403	$179.11	$3,015,496
3"	306	$336.10	$1,234,159
4"	104	$560.30	$699,254
6"	27	$1,120.26	$362,964
8"	4	$2,016.60	$96,797
10”	1	$3,249.22	$38,991
12”		$4,817.07	$0
Total	**45,526**		**$24,776,562**

[8] $/additional dwelling unit

Table 4-4: Projected Annual Usage Charge Revenue

Customer Classes	Current Units	Projected Sq ft / Annual Usage [A]	Current Rate ($/1,000 sq ft / $/ccf) [B]	Projected Usage Charge Revenue [A x B]
Flat Usage Charge	Per 1,000 sq ft	43,062	$1.06	$547,749
Residential				
Tier 1	0 – 10 ccf	2,663,329	$0.94	$2,503,529
Tier 2	11+ ccf	3,301,829	$1.17	$3,863,140
Non-Residential – Off Peak	Uniform	2,033,312	$0.95	$1,931,646
Non-Residential - Peak	Uniform	3,953,251	$1.18	$4,664,836
Total				**$13,510,900**

Table 4-5: Projected Annual Private Fire Service Line and Backflow Device Charge Revenue

Connection Size	# of Connections [A]	Current Charges [B]	Projected Annual Charge Revenue [A x B x 12]
Private Fire Service Lines			
2"	18	$13.28	$2,868
3"	7	$24.92	$2,093
4"	231	$40.59	$112,515
6"	355	$80.78	$344,123
8"	261	$142.90	$447,563
10"	30	$223.27	$80,377
12"	4	$248.83	$11,944
Backflow Device Charge	4,314	$2.20	$113,890
Total			**$1,115,373**

Using account growth, water demand factors, and other revenue assumptions from Table 3-1 and Table 3-2, Raftelis projected the revenues for the water utility[9]. Table 4-6 summarizes the rate revenue (Line 6) as well as other revenues. As shown in the table, since Raftelis assumed zero growth and no increase in water demand, the rates and rate revenue remained constant during the Study Period. The projected water sales by customer class and tier remained constant and was based on the total CY 2017 usage.

Table 4-6: Projected Water Revenues

Line #		CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
1	**Water Utility Revenues**					
2	Meter Service Charge Revenue	$4,004,913	$4,004,913	$4,004,913	$4,004,913	$4,004,913
3	Non-Metered Flat Charge Revenue	$1,287,428	$1,287,428	$1,287,428	$1,287,428	$1,287,428
4	Capital Facilities Charge Revenue	$24,776,562	$24,776,562	$24,776,562	$24,776,562	$24,776,562
5	Usage Charge Revenue	$13,510,895	$13,510,895	$13,510,895	$13,510,895	$13,510,895
6	**Subtotal Rate Revenue**	**$43,579,797**	**$43,579,797**	**$43,579,797**	**$43,579,797**	**$43,579,797**
7	Other Revenues	$2,283,361	$2,369,969	$2,368,797	$2,373,511	$2,372,119
8	**Total Revenues**	**$45,863,158**	**$45,949,766**	**$45,948,594**	**$45,953,308**	**$45,951,916**

[9] Although only the Study Period is shown here, Raftelis projected the revenues through FYE 2038.

4.2. O&M EXPENSES

The District's CY 2019 budget values and the assumed inflation factors (Table 3-1) for the study period were used as the basis for projecting O&M costs. Table 4-7 shows the total projected O&M expenses for CY 2020 through CY 2024[10]. As shown in the table (Line 15), the water utility currently has outstanding debt obligation.

Table 4-7: Projected O&M Expenses

Line #		CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
1	**Expenditures**					
2	Water Costs	$3,847,131	$4,039,488	$4,241,462	$4,453,535	$4,676,212
3	Groundwater	$498,745	$523,682	$549,866	$577,359	$606,227
4	Electrical Costs	$1,711,381	$1,796,950	$1,886,797	$1,981,137	$2,080,194
5	Water Conservation	$31,620	$32,252	$32,897	$33,555	$34,227
6	Salaries	$5,602,298	$5,770,367	$5,943,478	$6,121,782	$6,305,436
7	Benefits	$5,301,610	$5,647,686	$6,015,836	$6,407,588	$6,824,574
8	Supplies	$1,274,290	$1,302,635	$1,331,636	$1,361,309	$1,391,670
9	Finance & Administration	$2,247,764	$2,292,719	$2,338,573	$2,385,345	$2,433,052
10	Engineering	$2,382,533	$2,431,785	$2,482,072	$2,533,416	$2,585,839
11	General	$591,945	$604,569	$617,486	$630,702	$644,226
12	Maintenance	$682,436	$703,655	$725,534	$748,093	$771,353
13	Meters	$861,000	$881,000	$775,000	$0	$0
14	**Total Operating Expenses**	**$25,032,753**	**$26,026,788**	**$26,940,639**	**$27,233,823**	**$28,353,010**
15	Debt Service	$7,426,107	$7,432,995	$7,404,113	$5,668,864	$5,712,244
16	**Total Expenses**	**$32,458,859**	**$33,459,783**	**$34,344,751**	**$32,902,687**	**$34,065,254**

4.3. CAPITAL IMPROVEMENT PLAN

The District provided the projected capital expenditures by category (supply, transmission, distribution, storage, and special projects) to address future capital improvement project needs. Raftelis worked closely with District staff to adjust the Capital Improvement Plan (CIP) to reflect a measured multi-year approach. Table 4-8 summarizes the adjusted CIP (Line 1), the cumulative inflationary factor[11] (Line 2), and the total anticipated CIP costs (Line 3). The detail capital improvement plan by category can be found in Appendix A – Exhibit A-1.

Table 4-8: Capital Improvement Plan

Line #		CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
1	Adjusted CIP Projections	**$20,765,000**	**$15,263,000**	**$12,662,000**	**$16,071,000**	**$16,271,000**
2	Cumulative Inflationary Factor	100%	100%	100%	100%	100%
3	**Total CIP**	**$20,765,000**	**$15,263,000**	**$12,662,000**	**$16,071,000**	**$16,271,000**

[10] Although only the Study Period is shown here, Raftelis projected the expenses through CY 2038.
[11] Per directions from District Staff, CIP costs were not inflated.

4.4. RESERVE REQUIREMENTS

For CY 2019, the District's projected total beginning reserve balance for the water utility is approximately $42.8 million. Currently, the District maintains a water Operating Fund, an Emergency Fund, a Rate Stabilization Fund, and a Capital Assets Fund. As part of Best Management Practices of utilities, it is recommended that a utility have at least 90 days of operating reserves as well as sufficient funds available to ensure that the utility's capital plan can move forward as scheduled and is not delayed due to insufficient funds on hand.

4.5. FINANCIAL OUTLOOK AT CURRENT RATES

Revenues generated from current rates and other revenues exceed the operational expenses for the Study Period. Based on the financial plan review, the District is currently in a strong financial position, however, modest revenue adjustments are needed each year to ensure that the District maintains a its financial position moving forward and can continue to reinvest in the water utility system in the out years. Figure 4-1 illustrates the operating position of the water utility, where expenses, inclusive of reserve funding, are shown by stacked bars; and the total revenues at current rates are shown by the horizontal orange trend line.

Figure 4-1: Water Operating Financial Position at Current Rates

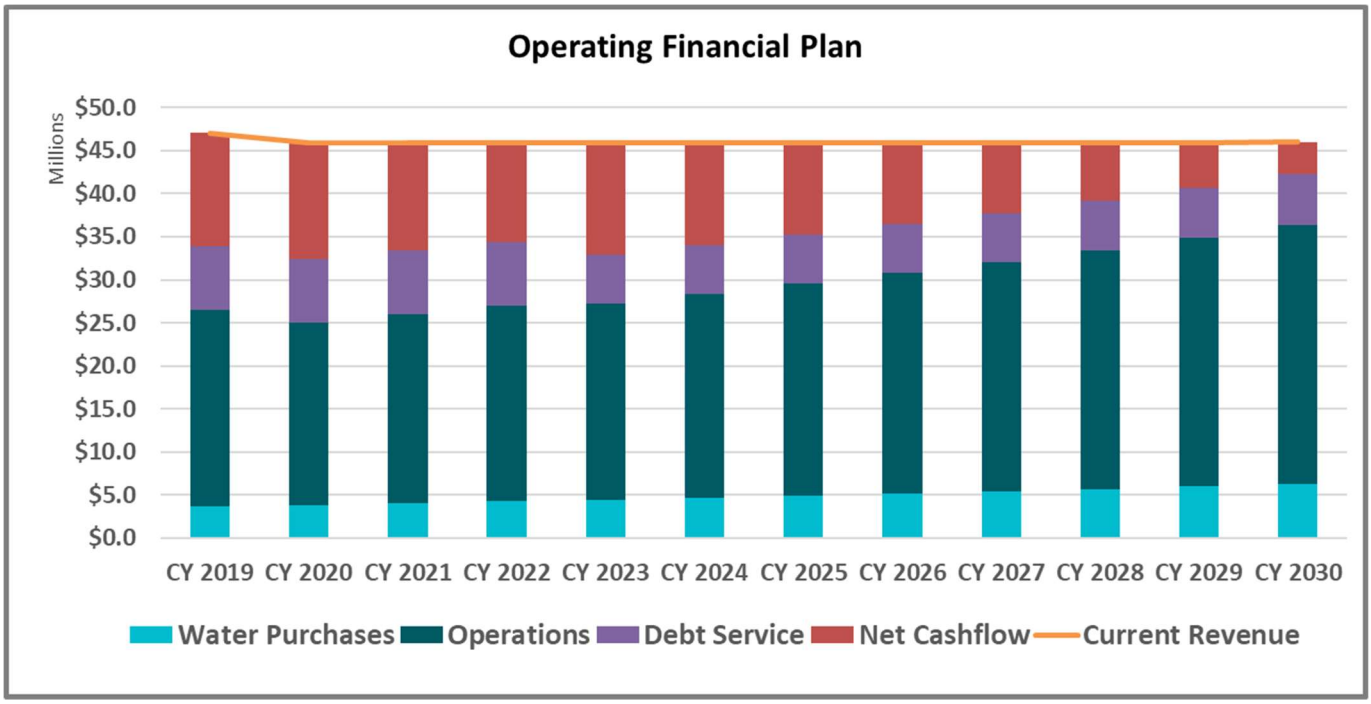


Figure 4-2 summarizes the baseline CIP and its funding sources by fiscal year.

Figure 4-2: Baseline Water Capital Improvement Plan and Funding Source

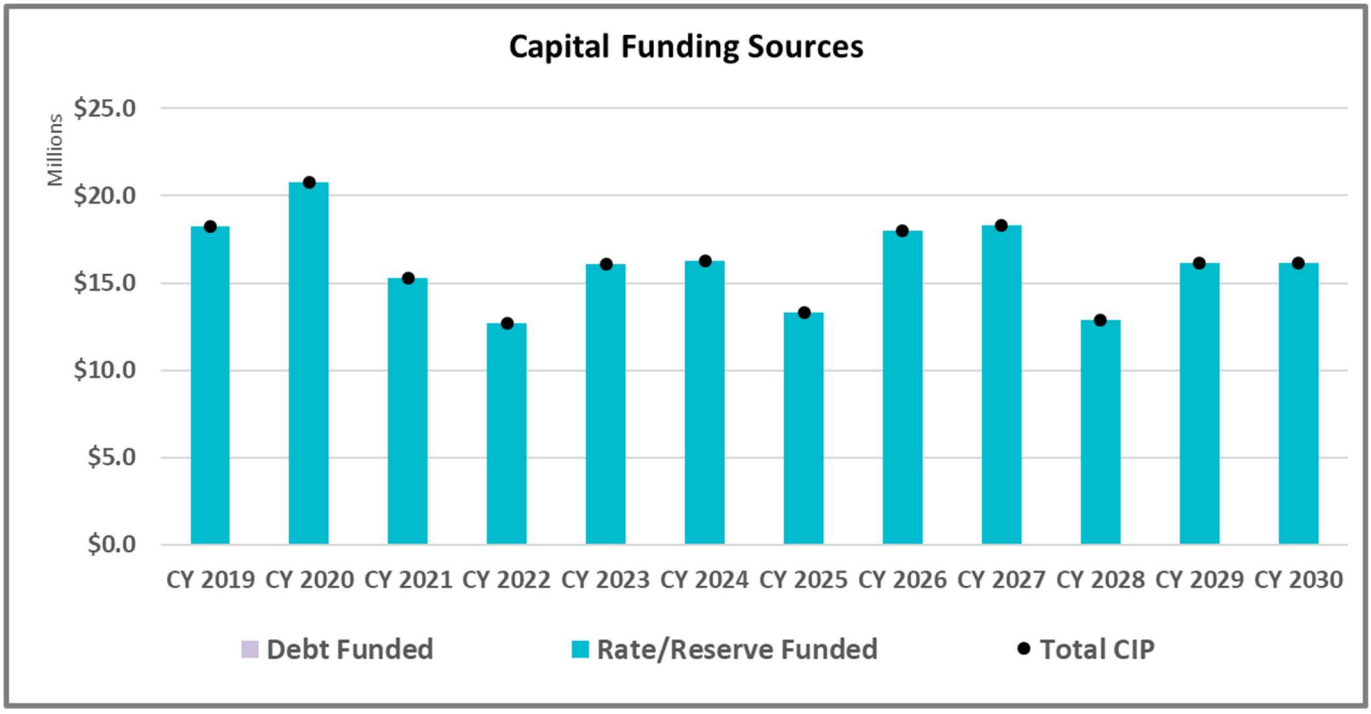
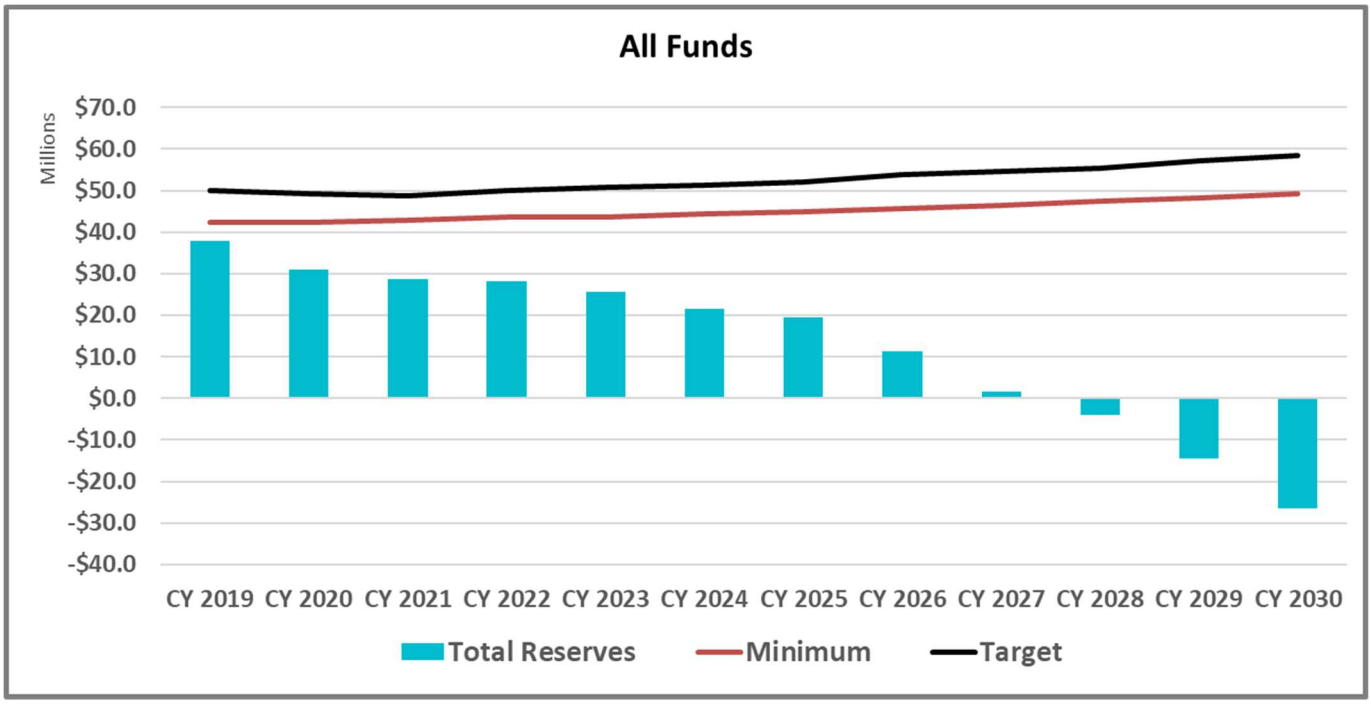


Figure 4-3 illustrates the ending total reserve balance for each calendar year after operating and capital are funded.

Figure 4-3: Projected Ending Water Utility Reserves



4.6. FINANCIAL PLAN RECOMMENDATIONS

After reviewing the District's revenue requirements, reserve policies, capital planning schedule, and current revenues, a financial plan was developed to meet the following criteria:

- Positive net operating cash income each CY of the planning period (CY 2020-CY 2029)
- Fully fund capital projects through Pay-As-You-Go (PAYGO) or cash on hand over the five-year plan
- Maintain the following reserves by the end of both the Study Period (CY 2020 – CY 2024) and the planning period (i.e. through CY 2029):
    - Operating Fund – target of 180 of operating expenses with a minimum target of 90 days.
    - Capital Assets Fund –target of one years' average annual capital expenses based on the District 's upcoming five-year capital plan with a minimum target of the District's annual depreciation in today's dollars.
    - Emergency Reserve – target of 3% of asset value in today's dollars less depreciation.
    - Rate Stabilization Reserve – target of 35% of commodity revenue.

4.6.1. Recommended Reserves

As part of this study, we reviewed the District's reserves policies with District staff to determine if any adjustments should be made based on historical and current revenue recovery, commonly accepted industry standards, and futured planned revenue requirements. The District primary unrestricted reserves include: 1) Operating Reserve with an ending balance target of 25% of current year annual expenditures, 2) Capital Assets Reserve with a target based on the budgeted capital needs for the upcoming calendar year, 3) Emergency Reserve set at 25% of following year's anticipated revenues, and 4) Rate Stabilization Reserve set at 50% of commodity revenue. These District reserves ensure the utility has adequate funding throughout the fiscal year and provides a strong financial position in connection with the District's credit worthiness and reflects a pro-active approach to its ongoing financial planning.

After our review and discussions with staff, we had a few minor modifications to the four (4) reserves which included a higher target for the Operating Reserve and Capital Asset Reserve with the inclusion of a minimum target, and slight changes to the Emergency Target and Rate Stabilization Target to more closely reflect the purpose of those reserves.

Raftelis recommends maintaining the following reserves:

Operating Fund– The operating reserve is used primarily to meet ongoing cash flow requirements. Raftelis recommends establishing an operating reserve target of 180-days of annual O&M expenses while maintaining a minimum reserve target of 90 days of annual O&M expenses. The operating Reserve ensures working capital to support the operation, maintenance, and administration of the utility. Maintaining this level of reserves also provides liquid funds for the continued ongoing operations of the utility in the event of unforeseen operating costs or interruption with the utility or the billing system.

Capital Assets Fund– The capital reserve is used primarily to meet the District's capital improvement requirements. The District's revised capital improvement plan—over the five-year period—is approximately $81.2M. The recommended target for the capital reserve should be to have a reserve sufficient to fund one year of capital based on the average annual capital expenses of the District 's upcoming five-year capital plan while maintaining a minimum target equal to the District's annual depreciation in today's dollars. The Capital Asset Fund ensures that the District can continue to reinvest in the water system's necessary capital repair and replacement without any delays or deferments due to cash flow concerns. This reserve also provides assurance when awarding construction contracts as well as matching funds when applying and securing potential grants.

Emergency Reserve – The emergency reserve is used primarily to meet mitigate risk in system failures that may occur from time-to-time while mitigating any significant rate impacts to District customers to fix the system. The District's current emergency target is set as a percent of total revenues; however, the target should be more closely related to system existing assets and potential cost of improvements when system failures occur. Therefore, the recommended target for the emergency reserve is 3% percent of the District's asset value in today's dollars by taking the replacement cost of the system less depreciation.

Rate Stabilization Reserve – A rate stabilization reserve is used to fund costs in the event of any unforeseen circumstances or mitigate significant rate increases by offsetting certain expenses. The District's rate stabilization target is currently set at 50% of commodity revenue and we recommend adjusting it to 35% percent of commodity revenue as current commodity revenue fluctuates around thirty percent of total revenue recovery.

4.6.2. Proposed Financial Plan

Overall, the proposed financial plan for the water system aims to strike a balance between maintaining a strong financial position and minimizing rate increases to its customers through a multi-year measured approach. The District will utilize a portion of its reserves to fund a portion of its capital expenses in Calendar Year 2019 and 2020 as a rate adjustment is not planned for the remainder of Calendar Year 2019. Through this temporary use of reserves, the District's revenue adjustments are 5% in CY 2020, with 4% adjustments in CY 2021, followed by 3% adjustments in CY 2022 through 2024. The proposed calculated rates herein, were based on an effective date of January 1, 2020. Each additional adjustment will occur on each January 1. Under the proposed plan, the District will maintain a positive net income and will meet the 5-year financial reserve targets by Calendar Year End 2023. Although these are the anticipated revenue adjustments for each year of the Study Period, the District will review and confirm the required revenue adjustments on a yearly basis, which will account for any water transfer revenue to mitigate rate increases and/or reach minimum reserve levels prior to CY 2023.

Applying these adjustments results in the proposed financial plan in Table 4-9 (see Appendix A – Exhibit A-2 for a detailed financial plan). The line for Rate Revenues includes the additional revenue from the revenue adjustments assuming they become effective January 1 of each year. The rates presented in Section 5.4 are based on this financial plan.

Table 4-9: Recommended Water Financial Plan

Line #	Category	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
1	**Revenues**					
2	Rate Revenues	$45,758,787	$47,589,138	$49,016,812	$50,487,317	$52,001,936
3	Other Revenues	$2,283,361	$2,369,969	$2,368,797	$2,373,511	$2,372,119
4	**Total Revenues**	**$48,042,148**	**$49,959,108**	**$51,385,609**	**$52,860,828**	**$54,374,055**
5						
6	**Less: Expenditures**					
7	Water Costs	$3,847,131	$4,039,488	$4,241,462	$4,453,535	$4,676,212
8	Groundwater	$498,745	$523,682	$549,866	$577,359	$606,227
9	Electrical Costs	$1,711,381	$1,796,950	$1,886,797	$1,981,137	$2,080,194
10	Water Conservation	$31,620	$32,252	$32,897	$33,555	$34,227
11	Salaries	$5,602,298	$5,770,367	$5,943,478	$6,121,782	$6,305,436
12	Benefits	$5,301,610	$5,647,686	$6,015,836	$6,407,588	$6,824,574
13	Supplies	$1,274,290	$1,302,635	$1,331,636	$1,361,309	$1,391,670
14	Finance & Administration	$2,247,764	$2,292,719	$2,338,573	$2,385,345	$2,433,052
15	Engineering	$2,382,533	$2,431,785	$2,482,072	$2,533,416	$2,585,839
16	General	$591,945	$604,569	$617,486	$630,702	$644,226
17	Maintenance	$682,436	$703,655	$725,534	$748,093	$771,353
18	Meters	$861,000	$881,000	$775,000	$0	$0
19	**Subtotal Operating Expenditures**	**$25,032,753**	**$26,026,788**	**$26,940,639**	**$27,233,823**	**$28,353,010**
20	Total Debt Service	$7,426,107	$7,432,995	$7,404,113	$5,668,864	$5,712,244
21	**Total Expenditures**	**$32,458,859**	**$33,459,783**	**$34,344,751**	**$32,902,687**	**$34,065,254**
22						
23	**Net Cashflow** *(Line 4 – Line 21)*	**$15,583,288**	**$16,499,324**	**$17,040,858**	**$19,958,141**	**$20,308,801**
24						
25	**Reserves**					
26	Beginning Reserve Balance	$38,055,990	$33,417,612	$35,169,855	$40,126,387	$44,686,808
27	Net Cashflow *(Line 23)*	$15,583,288	$16,499,324	$17,040,858	$19,958,141	$20,308,801
28	Interest Income	$543,333	$515,919	$577,674	$673,281	$766,694
30	CIP Expenditures *(Table 4-8)*	($20,765,000)	($15,263,000)	($12,662,000)	($16,071,000)	($16,271,000)
31	**Ending Reserve Balance**	**$33,417,612**	**$35,169,855**	**$40,126,387**	**$44,686,808**	**$49,491,303**

Figure 4-4 through Figure 4-6 display the CY 2020 through CY 2024 financial plan in graphical format. Figure 4-4 illustrates the operating position of the District where expenses, inclusive of reserve funding, are shown by stacked bars and total revenues at both current rates and recommended rates are shown by the horizontal trend lines.

Figure 4-4: Proposed Operating Financial Plan

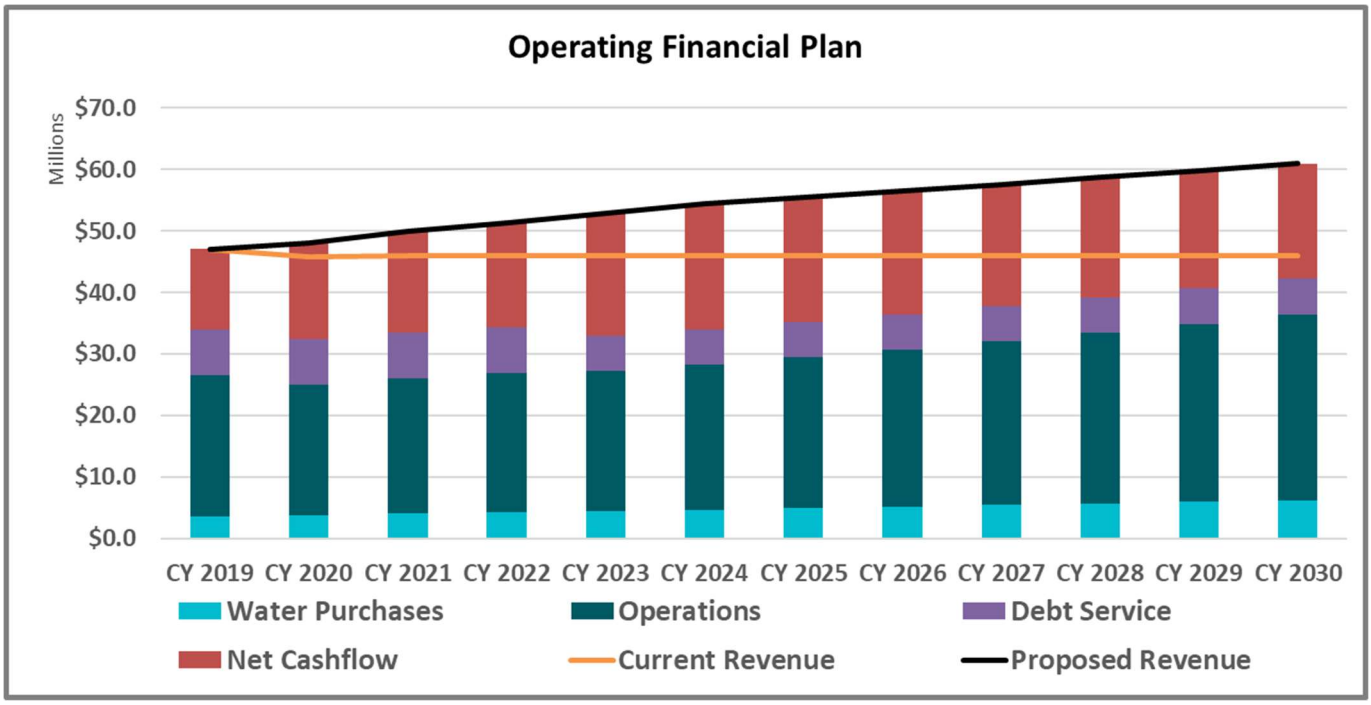


Figure 4-5 summarizes the projected CIP and its funding sources (100% PAYGO).

Figure 4-5: Projected Capital Improvement Plan and Funding Source

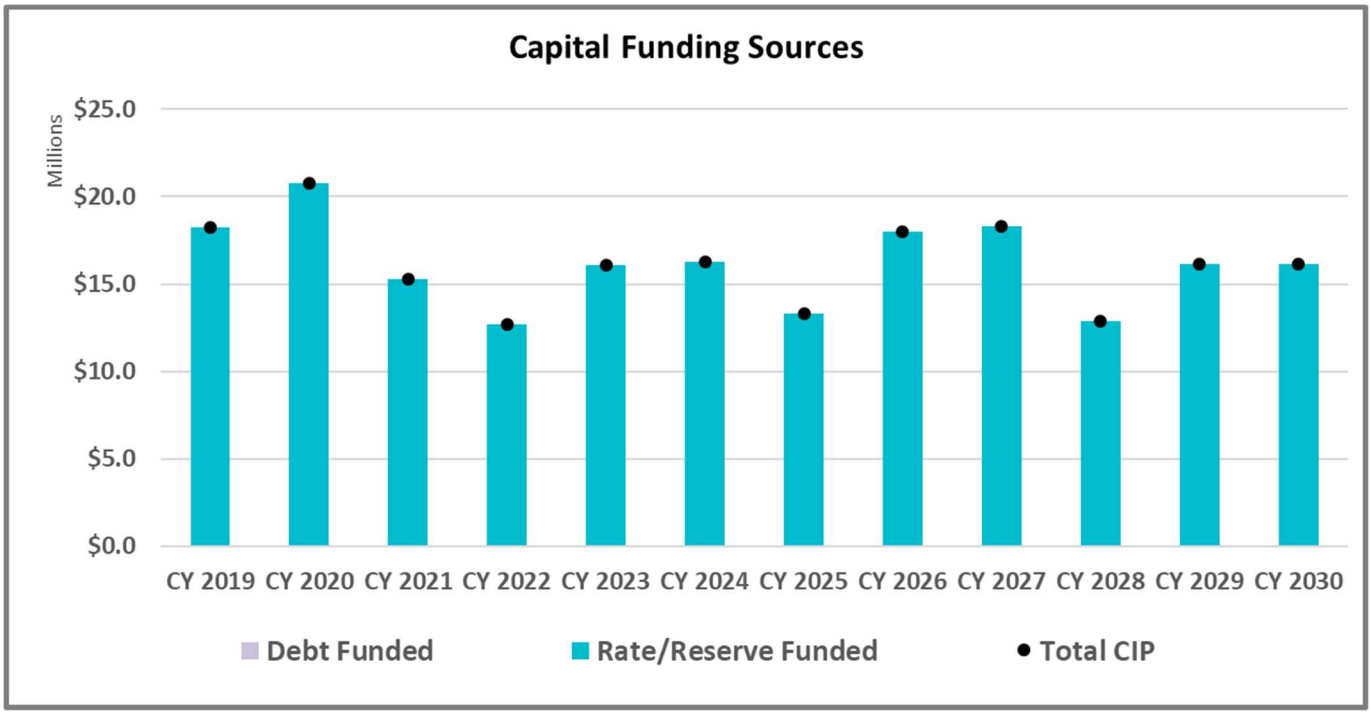
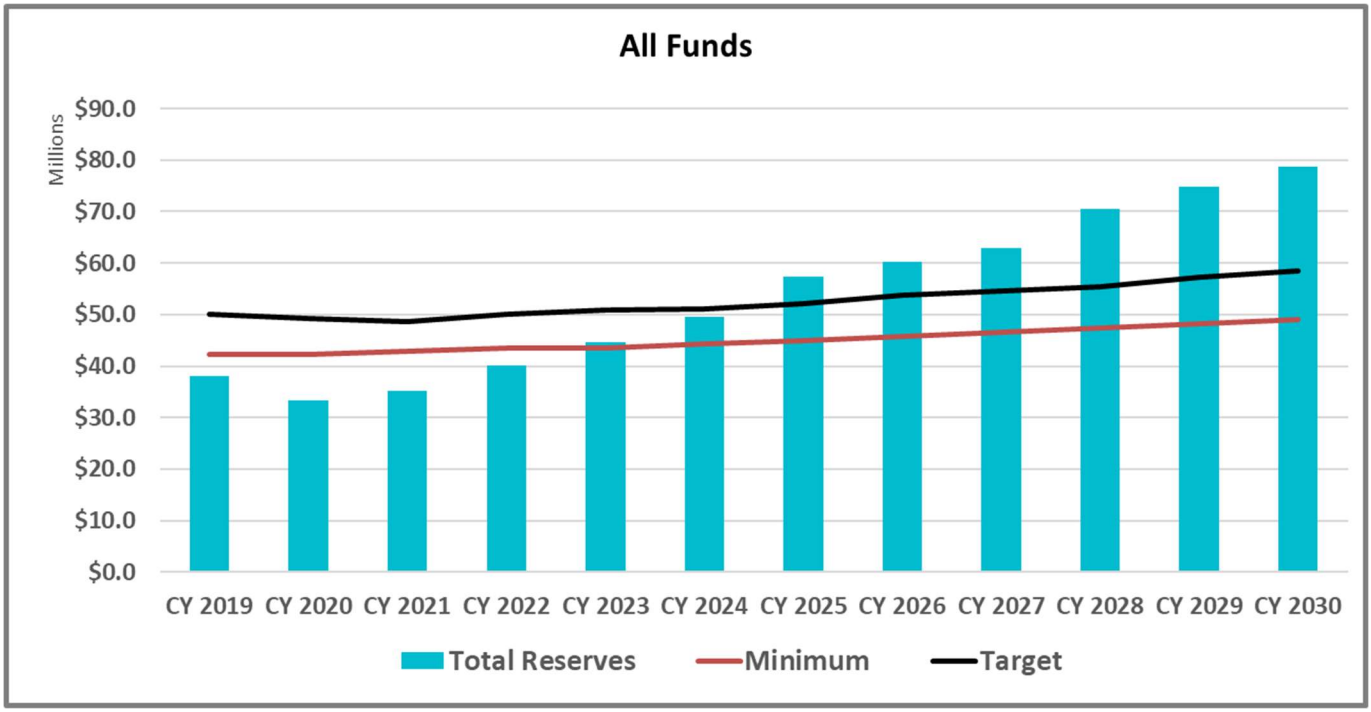


Figure 4-6 displays the ending total reserve balance for the water utility, inclusive of operating and capital funds. The horizontal trend lines indicate the minimum and target reserve balances and the bars indicate ending reserve balance. No new debt is proposed to be issued as part of the proposed five-year financial plan.

Figure 4-6: Projected Operating Fund Ending Balances



5. Cost of Service Study

This Rate Study conforms to the principles set forth in the enabling statutes and the rates abide by the cost-of-service provisions of Proposition 218.

5.1. PROPORTIONALITY

Demonstrating proportionality when calculating rates is a critical component of ensuring compliance with Proposition 218. For costs that are recovered through the District's proposed fixed meter charge, the Study spread the costs either over all accounts or by meter size, depending on the type of expense. As such, customer classes and usage are not considered nor necessary for calculating each customer's fixed charge. Conversely, costs that were determined as variable, are allocated among customer classes based on their demand on the system and water supply. As stated in the Manual M1, the AWWA Rates and Charges Subcommittee agree with Proposition 218 that "the costs of water rates and charges should be recovered from classes of customers in proportion to the cost of serving those customers." The District's revenue requirements are, by definition, the cost of providing service. This cost is then used as the basis to develop unit costs for the water components and to allocate costs to the various customer classes in proportion to the water services rendered.

Individual customer demands vary depending on the nature of the utility use at the location where service is provided. For example, water service demand for a family residing in a typical single-family home is different than the water service demand for another customer class, primarily due to peak use behavior which drives the need for and costs of sizing infrastructure to meet this demand. The concept of proportionality requires that cost allocations consider both the average quantity of water consumed (base) and the peak rate at which it is consumed (peaking). Use of peaking is consistent with the cost of providing service because a water system is designed to meet peak demands, and the additional costs associated with designing, constructing and maintaining facilities required to meet these peak demands need to be allocated to those customers whose usage requires the need to size facilities to meet peak demand.

In allocating the costs of service, the industry standard, as promulgated by AWWA's M1 Manual, is to group customers with similar system needs and demands into customer classes. Rates are then developed for each customer class, with each individual customer paying the customer class' proportionate, average allocated cost of service.

Generally speaking, customers place the following demands on the District's water system and water supply:

- The system capacity[12] (for treatment, storage, and distribution) that must be maintained to provide reliable service to all customers at all times
- The level of water efficiency as a collective group
- The number of customers requiring customer services such as bill processing, customer service support, and other administrative services

A customer class consists of a group of customers, with common characteristics, who share responsibility for certain costs incurred by the utility. Joint costs are proportionately shared among all customers in the system based on their service requirements.

[12] System capacity is the system's ability to supply water to all delivery points at the time when demanded.

5.2. COST OF SERVICE PROCESS

A cost of service analysis distributes a utility's revenue requirements (costs) to each customer class. Figure 5-1provides a general overview of a cost-of-service analysis. Each step shown below will be described in greater detail in the next section.

Figure 5-1: Cost of Service Process

5.3. COST OF SERVICE ANALYSIS

5.3.1. Step 1 – Determine Revenue Requirement

In this Study, water rates are calculated for CY 2020 (known as the Test Year), by calculating water purchase costs and by using the District's CY 2019 budget and inflationary factors. Test Year revenue requirements are used in the cost allocation process. Subsequent years' revenue adjustments are incremental and the rates for future years are based on 4.0% revenue adjustments in CY 2021 and 2022 and 3.0% revenue adjustments in CY 2022 and 2023 and are applied across-the-board. The District should review the cost of service analysis at least once every five years to ensure that the rates are consistent with the costs of providing service.

The revenue requirement determination is based upon the premise that the utility must generate annual revenues to meet Supply, O&M expenses, any debt service needs, reserve levels, and capital investment needs. Deductions are made to account for the required net cashflows (found in Table 4-9 – Line 23) [13] and any mid-year adjustment[14]. CY 2018 cost of service to be recovered from the District's water customers is shown in Table 5-1.

[13] For the purposes of this Study, capital investments are funded through the Capital Assets Fund. Meeting the minimum reserve target ensures the capital projects can be funded each year of the Study Period.
[14] The revenue requirement needs to be based on the revenue needs for a full calendar year. Since the rates in CY 2020 were assumed to be in effect for 12 months, there is no mid-year adjustment.

Table 5-1: Revenue Requirements

Line #	Revenue Requirements	Specific Allocation	Operating	Capital	Total
1	**Operating Costs**				
2	Water Costs	$3,847,131			$3,847,131
3	Groundwater	$498,745			$498,745
4	Electrical Costs	$1,711,381			$1,711,381
5	Water Conservation		$31,620		$31,620
6	Salaries		$5,602,298		$5,602,298
7	Benefits		$5,301,610		$5,301,610
8	Supplies		$1,274,290		$1,274,290
9	Finance & Administration		$2,247,764		$2,247,764
10	Engineering		$2,382,533		$2,382,533
11	General		$591,945		$591,945
12	Maintenance		$682,436		$682,436
13	**Subtotal Operating Costs**	**$6,057,257**	**$18,975,496**	**$0**	**$25,512,535**
14					
15	**Debt Service**				
16	2009A Adjustable Rate Refunding COPS			$1,534,308	$1,534,308
17	2012A Refunding Revenue Bond			$2,848,225	$2,848,225
18	2018A Taxable Refunding Revenue Bonds			$3,043,573	$3,043,573
19	**Subtotal Debt Service**	**$0**	**$0**	**$7,426,107**	**$7,426,107**
20					
21	**Total Revenue Requirements**	**$18,975,496**	**$7,426,107**	**$32,458,859**	**$18,975,496**
22					
23	**Less: Revenue Offsets**				
24	Wheeling Revenue	$730,000			$730,000
25	Interest Income		$79,361		$79,361
26	Other Revenue		$400,000		$400,000
27	Backflow Device Revenue		$112,000		$112,000
28	Private Fire Service Line Revenues		$962,000		$962,000
29	**Total Revenue Offsets**	**$730,000**	**$1,553,361**	**$0**	**$2,283,361**
30					
31	**Less: Adjustments**				
32	Adjustment for Cash Balance		($1,558,329)	($14,024,960)	($15,583,288)
33	Adjustment for Mid-Year Increase		$0		$0
34	**Total Adjustments**	**$0**	**($1,558,329)**	**($14,024,960)**	**($15,583,288)**
35					
36	**Revenue Requirements from Rates**	**$5,327,257**	**$18,980,464**	**$21,451,066**	**$45,758,787**

5.3.2. Step 2 – Functionalize O&M Costs

O&M Functionalized Expenses

A cost of service analysis distributes a utility's revenue requirements (costs) to each customer class. After determining a utility's revenue requirement, the total cost of water service is analyzed by system functions to proportionately distribute costs in relation to how that cost is generally incurred. The water utility costs were categorized into the following **functions**:

- **Water Costs** – Costs incurred to purchase water
- **Groundwater** – Costs incurred related to pumping and treating groundwater
- **Electrical Costs** – Utilities, gas, and lights related to water pumping
- **Water Conservation** – Rebates for water efficiency
- **Salaries** – Salaries & wages
- **Benefits** – Employee benefits and training
- **Supplies** – Operating supply and material costs
- **Finance & Administration** – Includes costs for insurance, legal, financial, and consulting services
- **Engineering** - Includes construction and contract services, licenses, permits, inspection, and leases
- **General** – Overhead costs
- **Maintenance** – Includes maintenance expenses for equipment, vehicles, and buildings
- **Debt Service** – Principle and Interest costs related to existing/outstanding debt

Table 5-2 summarizes the functionalized costs prior to any offset adjustments (Lines 24 to 28 Table 5-1).

Table 5-2: Functionalized Expenses

Functionalized Expenses	CY 2020 Functionalized Expenses
Water Costs	$3,847,131
Groundwater	$498,745
Electrical Costs	$1,711,381
Water Conservation	$31,620
Salaries	$5,602,298
Benefits	$5,301,610
Supplies	$1,274,290
Finance & Administration	$2,247,764
Engineering	$2,382,533
General	$591,945
Maintenance	$682,436
Debt Service	$7,426,107
Total O&M Expenses	**$32,458,859**

Functionalized Assets

Similar to O&M, assets are also functionalized. The District provided Raftelis with a comprehensive listing of assets[15] for the water utility, which were functionalized based on the asset's purpose. Table 5-3 summarizes the functionalized assets.

[15] A detailed asset listing is on file with the District.

Table 5-3: Functionalized Assets

Functionalized Assets	CY 2020 Functionalized Assets
Build Imp	$1,039,226
Building	$2,211,858
Capacity Entitl	$3,107,034
Computer	$371,592
Easements	$4,843,707
Fleet	$550,670
Land	$2,702,484
Land Imp	$226,535
M & E	$160,347
Meters	$15,594,926
O F & F	$83,383
Reservoirs	$13,930,421
Software	$512,605
T & D < 75 Yrs	$85,545,564
T & D > 75 Yrs	$200,520,245
Wells	$53,467,646
Build Imp	$1,039,226
Total Assets	**$384,868,244**

5.3.3. Step 3 – Allocate Functionalized Costs to Cost Components

The functionalization of costs allows us to better allocate the costs based on how the costs are incurred. This is commonly referred to as **cost causation**. Essentially, cost causation means that the District incurs a cost of providing service because of the demands or burdens the customer places on the system and water resources. Raftelis used the Base-Extra Capacity method to allocate the functionalized costs to various rate components (cost causation components), as described in the M1 Manual. The District's costs were allocated to the following cost causation components:

1. **Customer Service** includes customer related costs such as billing, collecting, customer accounting, and customer call center. These costs are incurred at the same level regardless of the type of land use or the total amount of water that the utility delivers.
2. **Meter Capacity** includes maintenance and capital costs associated with serving meters. These costs are assigned based on the meter size or equivalent meter capacity.
3. **Capital Facilities** is a cost component dedicated to funding a portion of capital repair and replacement that is recovered as part of the fixed charge
4. **Purchased Water** is the cost associated with imported water costs from other agencies, including but not limited to, San Juan Water District, Placer County Water Agency (PCWA) and US Bureau of Reclamation.
5. **Groundwater** includes the cost of energy and chemicals related to the production of local groundwater
6. **Base** are those operating and capital costs of the water system associated with serving customers at a constant, or average, rate of use. These costs tend to vary with the total quantity of water used.
7. **Peaking Costs** or Extra Capacity Costs represent those costs incurred to meet customer peak demands for water in excess of average day usage. Total extra capacity costs are associated with maximum day and maximum hour demands. The maximum day demand is the maximum amount of water used in a single day in a year. The maximum hour (Max Hour) demand is the maximum usage in an hour on the maximum usage day (Max Day). Various facilities are designed to meet customer peaking needs. For example, reservoirs are designed to meet Max Day requirements and have to be designed larger than they would be if

the same amount of water were being used at a constant rate throughout the year. The cost associated with constructing a reservoir is based on system wide peaking factors. For example, if the Max Day factor is 2.0, then certain system facilities must be designed larger than what would be required if the system only needed to accommodate average daily demand. In this case, half of the cost would be allocated to Base (or average day demand) and the other half allocated to Max Day. The calculation of the Max Hour and Max Day demands is explained below.

Allocating costs into these components allows us to distribute these cost components to the various customer classes based on their respective base, extra capacity, and customer requirements for service.

To allocate costs to delivery and peaking cost components, system peaking factors are used. The base demand is assigned a value of 1.0 signifying no peaking demands. The Max Day and Max Hour factors shown in Table 5-4 were based on the District's Waster Master Plan Update. A max day peaking factor of 2.0 means that the system delivers approximately 2.0 times the average daily demand during a peak day.

Table 5-4: System-Wide Peaking Factors

	Factor	Base	Max Day	Max Hour
Base	1.00	100%	0%	0%
Max Day	2.00	50%	50%	0%
Max Hour	3.00	33%	33%	33%

Specific Allocation

The Specific expenses consists of three functionalized categories: Water Costs, Groundwater, and Electrical Costs. Table 5-5 details the breakdown of these specific allocation costs. The resulting Specific Allocation (%) will be used to allocate the Specific Allocation Requirement, including any revenue offsets that directly connect to the costs incurred, such as wheeling within Table 5-1. The Water Costs were allocated 100% to the Purchased Water cost component as these costs are directly related to the cost of purchasing water. The Groundwater costs were allocated 100% to the Groundwater cost component as these costs are directly related to the cost of groundwater production. To ensure the electrical costs only reflects the costs incurred to pump water to the District, Raftelis specifically allocated Electrical Costs. This prevents the electrical costs from being impacted by revenue adjustments, revenue offsets, or mid-year adjustments. Electrical costs are allocated between groundwater and base. The majority of the electrical costs are related to pumping groundwater with the portion allocated to Base reflecting the electrical costs associated with administration buildings.

Table 5-5: Specific Allocation

Functionalized Expenses	Cost Components			
	Purchased Water	Groundwater	Base	Total
% Allocation				
Water Costs	100%			**100%**
Groundwater		100%		**100%**
Electrical Costs		90%	10%	
$ Allocation				
Water Costs	$3,847,131			**$3,847,131**
Groundwater		$498,745		**$498,745**
Electrical Costs		$1,540,243	$171,138	**$1,711,381**
Total Specific Allocation	**$3,847,131**	**$2,038,987**	**$171,138**	**$6,057,257**
Specific Allocation (%)	**63.5%**	**33.7%**	**2.8%**	**100%**

O&M Allocation

The O&M expenses consist of eight functionalized categories: Salaries, Supplies, Finance & Administration, Engineering, General, Maintenance, Water Conservation, and Meters. Raftelis reviewed the budget details related to the Operating Expenses to determine the most appropriate method for allocating the functional costs to cost causation components. Table 5-6 summarizes the percent allocations for the District O&M Expenses, the costs (prior to offsets and adjustments) allocated to the cost components, and the resulting O&M Allocation (%). The O&M Allocation (%) will be used to allocate the Operating Requirement, including any revenue offsets or adjustments, from the revenue requirements (Table 5-1). Table 5-6 allocates the O&M expenses to each cost causation component.

Salaries were allocated between fixed recovery and variable recovery. Half of the Salary expenses were allocated as a fixed cost and recovered over meter capacity to meet the recommended 6 months operating reserve target by recovering salary expenses in a stable and consistent manner. The remaining 50% of salary expenses were allocated to variable recovery based on the District's max day allocations to account for the District's daily staffing requirements to meet max day demands on the system. Supplies were also allocated to fixed and variable with 50% to fixed based on meter capacity and 50% to variable and recovered as base service need to meet ongoing operation needs. Finance & Administration and General costs related to customer service and billing were allocated to the Customer Service cost component. Engineering, Maintenance, and Water Conservation were allocated based on Max Hour since the system was designed to meet max hour requirements.

Table 5-6: O&M Allocation

Functionalized Expenses	Cost Components					Total
	Customer Service	Meter Capacity	Base	Max Day	Max Hour	
% Allocation						
Salaries		50%	25%	25%		**100%**
Supplies		50%	50%			**100%**
Finance & Administration	100%					
Engineering			33%	33%	33%	
General	100%					
Maintenance			33%	33%	33%	
Water Conservation			33%	33%	33%	
Meters		100%				**100%**
$ Allocation						
Salaries		$2,801,149	$1,400,575	$1,400,575		**$5,602,298**
Supplies		$637,145	$637,145			**$1,274,290**
Finance & Administration	$2,247,764					**$2,247,764**
Engineering			$794,17	$794,178	$794,178	**$2,382,533**
General	$591,945					**$591,945**
Maintenance			$227,479	$227,479	$227,479	**$682,436**
Water Conservation			$10,540	$10,540	$10,540	**$31,620**
Meters		$861,000				**$861,000**
Total O&M Expense	**$2,839,708**	**$4,299,294**	**$3,069,916**	**$2,432,771**	**$1,032,196**	**$13,673,885**
O&M Allocation (%)	**20.8%**	**31.4%**	**22.5%**	**17.8%**	**7.5%**	**100%**

Capital Allocation

It is appropriate to allocate capital costs based on the allocation of system assets. Allocating capital costs individually from year to year would cause the costs to different cost causation components to change significantly from year to year based on the type of projects and would lead to rate spikes. Using the assets for allocation allows a consistent stream of costs to the different cost causation components, and is a rational methodology, consistent with industry practice, given that the assets all must be replaced over time. Table 5-7 summarizes the percent allocations for the capital assets, the replacement cost asset values by asset category as provided within the District's detailed asset listing[16] allocated to the Capital Facilities cost component, and the resulting Capital Allocation (%). The Capital Allocation (%) will be used to allocate debt service (since it will be used to cover capital costs), including any revenue offsets or adjustments, from the revenue requirements (Table 5-1).

[16] Detailed Asset listing is on file with the District.

Table 5-7: Capital Allocation

	Cost Components	
Capital Assets	**Capital Facilities**	**Total**
% Allocation		
Build Imp	100%	**100%**
Building	100%	**100%**
Capacity Entitl	100%	**100%**
Computer	100%	**100%**
Easements	100%	**100%**
Fleet	100%	**100%**
Land	100%	**100%**
Land Imp	100%	**100%**
M & E	100%	**100%**
Meters	100%	**100%**
O F & F	100%	**100%**
Reservoirs	100%	**100%**
Software	100%	**100%**
T & D < 75 Yrs	100%	**100%**
T & D > 75 Yrs	100%	**100%**
Wells	100%	**100%**
$ Allocation		
Build Imp	$1,039,226	**$1,039,226**
Building	$2,211,858	**$2,211,858**
Capacity Entitl	$3,107,034	**$3,107,034**
Computer	$371,592	**$371,592**
Easements	$4,843,707	**$4,843,707**
Fleet	$550,670	**$550,670**
Land	$2,702,484	**$2,702,484**
Land Imp	$226,535	**$226,535**
M & E	$160,347	**$160,347**
Meters	$15,594,926	**$15,594,926**
O F & F	$83,383	**$83,383**
Reservoirs	$13,930,421	**$13,930,421**
Software	$512,605	**$512,605**
T & D < 75 Yrs	$85,545,564	**$85,545,564**
T & D > 75 Yrs	$200,520,245	**$200,520,245**
Wells	$53,467,646	**$53,467,646**
Total Capital Assets	**$384,868,244**	**$384,868,244**
Capital Allocation (%)	**100%**	**100%**

The next step is to use the allocation percentages developed in the preceding section to allocate the Test Year revenue requirements to cost components. The Revenue Requirements (Table 5-1, Line 36) were allocated to cost components as summarized in Table 5-8. Specific revenue requirements were allocated based on the Specific Allocation percent from Table 5-5. Operating revenue requirements were allocated based on the O&M Allocation percent from Table 5-6 and Capital revenue requirements were allocated based on the Capital Allocation percent from Table 5-7.

Table 5-8: Cost of Service Requirements

Revenue Requirement	Customer Service	Meter Capacity	Capital Facilities	Purchased Water	Groundwater	Base	Max Day	Max Hour	Total
Specific Water Costs				$3,847,131	$2,038,987	$171,138			**$6,057,257**
Specific Water Offsets				($730,000)					**($730,000)**
Operating	$3,941,746	$5,967,769				$4,261,293	$3,376,884	$1,432,772	$18,980,464
Capital			$21,451,066						$21,451,066
Cost of Service Requirement	**$3,941,746**	**$5,967,769**	**$21,451,066**	**$3,117,131**	**$2,038,987**	**$4,432,431**	**$3,376,884**	**$1,432,772**	**$45,758,787**

Before we can allocate the net revenue requirements from Table 5-8 to customer class we first need to define the rate structure. Therefore, Step 4 will be discussed in Section 5.4.5.

5.4. RATE DESIGN

A key component of the Study includes evaluating the current rate structures and determining the most appropriate structures to model moving forward. In this step, we have some flexibility as Proposition 218 does not specify the type of rate structure so long as the rates are based on the cost of service (as developed in the preceding section). The following subsections discuss the proposed rate structures, customer classes, and tier definitions for the water utility. Similar to the District's current rate structure, the proposed rates will include a monthly Meter Service Charge for Metered customers, a monthly Flat Service Charge for unmetered customers, a monthly Capital Facilities Charge for all meters or connections, a variable Usage Charge for Metered customers, and a Flat Usage Charge per 1,000 square feet for unmetered.

Tiered Rates, when properly designed and differentiated by customer class as done in this Study, allow a water utility to send consistent price incentives for conservation to customers. Due to the heightened interest in water conservation, tiered rates have seen widespread use, especially in the State of California. The proposed variable rate structures vary by customer class and are discussed below.

5.4.1. Single-Family Residential Water Rate Structure

Metered Single-Family Residential (SFR) customers are currently charged a volumetric use charge on an inclining 2-tier rate structure, where price per unit increases with each tier. Raftelis recommends retaining the 2-tiered rate structure for all residential customers as it provides a straight-forward connection between available water supplies and tiered allotments. The first tier is based on the amount of groundwater allocated to the number of residential accounts. Through this method, the Tier 1 allotment is 15 ccf and is designed to recover the costs associated with delivering groundwater for all providing water for all SFR accounts. Tier 2 would capture any usage above 15ccf, which would be fulfilled through purchased water supplies. The current and recommended tier widths are shown in Table 5-9.

Table 5-9: Single-Family Residential Tier Adjustments

Customer Class / Tiers	Current Tier Width (ccf)	Recommended Tier Width (ccf)
Single-Family Residential		
Tier 1	0-10 ccf	0-15 ccf
Tier 2	>11 ccf	>16 ccf

5.4.2. Multi-Family Residential Water Rate Structure

Raftelis recommends creating a Multi-Family Residential (MFR) customer class with a uniform rate structure. For this Study, MFR accounts are those with more than three residential units. Because the number of units vary between multi-family complexes and each complex has a master meter to serve the total units, a uniform rate structure based on a blended rate is more equitable between MFR accounts. The blended uniform rate would account for groundwater available per account and the amount of purchased water needed to cover the remaining demand. Although implementing uniform rates is recommended, it is important to note that the customer class is still paying its proportionate share of the costs of providing the service based on the demand and burdens the class places on the system and is not being subsidized by another customer class.

5.4.3. Non-Residential Water Rate Structure

Raftelis recommends moving from a seasonal rate structure to a uniform rate for Commercial or Non-Residential accounts. Although implementing uniform rates is recommended, similar to Multi-Family Residential customer class, it is important to note that the customer class is still paying its proportionate share of the costs of providing the service based on the demand and burdens the class places on the system and is not being subsidized by another customer class. A uniform rate provides the most appropriate and equitable rate structure between accounts within this customer class.

5.4.4. Usage Under Proposed Rate Structure

The proposed customer class usage and tiered usage is shown in Table 5-10. Since the recommended Tier 1 allotment increases the width of Tier 1 for SFR customers, usage in Tier 1 will increase when compared to the current rate structure (assuming the same level of usage). For example, a SFR customer using 20 units under the current structure would be billed 10 units at the Tier 1 rate and 10 units at the Tier 2 rate. Under the proposed tier structure, the same customer using 20 units would be billed 15 units at the Tier 1 rate and 5 units at the Tier 2 rate. Table 5-10 shows the usage under the current tier structure by customer class and the usage under the proposed tier structure by customer class. Note that the total usage of 13,137,767 ccf is the same regardless of tier structure – only the usage distribution in each tier is affected.

Table 5-10: Usage by Customer Class and Tier

Customer Class	Current Tier Structure (ccf)	Proposed Tier Structure (ccf)
Single-Family Residential		
Tier 1	2,663,329	3,404,114
Tier 2	3,301,829	2,561,044
Multi-Family Residential	2,989,542	2,989,5420
Non-Residential	2,997,020	2,997,020
Non-Metered	1,186,046	1,186,046
Total	**13,137,767**	**13,137,767**

5.4.5. Step 4 – Distribute Cost Components to Customer Classes and Tiers

To allocate costs to different customer classes, unit costs of service need to be developed for each cost causation component. The unit costs of service are developed by dividing the total annual costs allocated to each parameter by the total annual service units of the respective component. The annual units of service for each cost component from Table 5-8 are derived below and have been rounded up to the nearest whole penny.

Fixed Charge Recovery

Customer Service Component

These costs are incurred at the same level regardless of the type of land use or the total amount of water that the utility delivers, therefore, the Customer Service component is based on the number of bills and does not fluctuate with increases in meter size. The number of bills can be determined by multiplying the number of accounts, 45,526 (39,567 Metered + 5,959 Non-Metered), times the number of billing periods, twelve (12), in a year. The total Customer Service revenue requirement from Table 5-8 of $3,941,746 is divided by the number of bills to determine the unit cost of service shown in Table 5-11.

Table 5-11: Customer Service Component – Unit Rate

Customer Service Component	
Customer Service Revenue Requirements	$3,941,746
÷ # of Bills (45,526 x 12)	546,312
Monthly Unit Rate	**$7.22**

Meter Capacity Component

The Meter Capacity Component includes costs related to maintenance and capital costs. Raftelis allocated these cost components based on meter size. In order to create parity across the various meter sizes, each meter size is assigned a factor relative to a 5/8" meter, which is given a value of one (1). Larger meters have the potential to demand more capacity, or said differently, exert more peaking characteristics compared to smaller meters. The potential capacity demand (peaking) is proportional to the potential flow through each meter size. For the purposes of this study, the safe maximum operating capacity by meter type, as identified in the AWWA M1 Manual, 6th Edition, Table B-2, was used as a basis for calculating the equivalent meter ratio. As shown in Table 5-12, the safe maximum operating capacity for each meter was divided by the base meters safe operating capacity (20 gpm) to determine the equivalent meter ratio. The ratios represent the potential flow through each meter size compared to the flow through a 5/8" meter. Multiplying the number of meters by the AWWA Ratio results in the Equivalent Meter Units (EMUs).

Table 5-12: Equivalent Meter Units

Meter Size	AWWA Capacity (gpm) [A]	Capacity Ratio [B] (A ÷ 20)	Number of Metered Accounts [C]	Number of Non-Metered Accounts [D]	Total Number of Accounts [E]	Equivalent Meter Units [F] (B x E)	Annual EMUs [G] (F x 12)
5/8"	20	1.00	2,174		2,174	2,174	26,088
3/4"	30	1.50	30,609	5,939	36,548	54,822	657,864
1"	50	2.50	3,927	20	3,947	9,868	118,410
1-1/2"	100	5.00	1,012		1,012	5,060	60,720
2"	120	6.00	1,403		1,403	11,224	134,688
3"	300	15.00	306		306	4,896	58,752
4"	600	30.00	104		104	2,600	31,200
6"	1,350	67.50	27		27	1,350	16,200
8"	1,800	90.00	4		4	360	4,320
10"	2,400	120.00	1		1	120	1,440
12"	3,375	168.75	0		0	0	0
Total			**39,567**	**5,959**	**45,526**	**92,474**	**1,109,682**

Based on these ratios and taking into consideration the number of billing periods, the total annual equivalent meters equals 1,109,682 (see Table 5-12). Table 5-13 shows the Meter Capacity costs from Table 5-8 allocated over the total annual equivalent meters.

Table 5-13: Meter Capacity Component – Unit Rate

Meter Capacity Component	
Meter Capacity Revenue Requirements	$5,967,769
÷ Annual EMU's	1,109,682
Monthly Unit Rate	**$5.38**

Capital Facilities Component

The Capital Facilities revenue requirement of $21,451,066 from Table 5-8 was allocated over the annual equivalent meters of 1,109,682 (Table 5-12). Table 5-14 summarizes the determination of the unit rate for the Capital Facilities Component.

Table 5-14: Capital Facilities Component – Unit Rate

Capital Facilities Component	
Capital Facilities Revenue Requirements	$21,451,066
÷ Annual EMU's	1,109,682
Monthly Unit Rate	**$19.34**

Variable Charge Recovery

The District provided Raftelis with the CY 2017 water production and metered sales (consumption) data. This was used to determine the expected amount of water usage generated by non-metered accounts. Table 5-15 summarizes the total water production data and takes into account a 3.5% water loss during this particular year as well as metered usage to derive the amount of expected water usage from non-metered accounts equal to approximately 1.18M ccf. This non-metered usage amount will be used when allocating the variable cost components between metered customer classes and non-metered customers.

Table 5-15: Water Production

	Volume (ccf)
Production	**13,614,266**
Less: Water Loss of 3.5%	(476,499)
Total Available	**13,137,767**
Less: Metered Sales	(11,951,721)
Expected Remaining Water Sales	**1,186,046**

Groundwater Component

The District recovers all of its groundwater costs (as shown in Table 5-5) through a variable rate from its water customers; therefore, the groundwater cost is based on the total units of groundwater available for customers irrespective of customer class. Table 5-16 shows the groundwater costs from Table 5-8 allocated over the total projected units of groundwater available to customers (less water loss) to determine the groundwater unit rate.

Table 5-16: Groundwater Component – Unit Rate

Purchased Water Component	
Groundwater Revenue Requirements	$2,038,987
÷ Total Projected Available Groundwater (ccf)	8,194,680
Unit Rate (per ccf)	**$0.25**

Purchased Water Component

The District recovers all of its purchased water costs (as shown in Table 5-5) through a variable rate from its water customers; therefore, the purchased water cost is based on the total units of purchased water available for sale irrespective of customer class. shows the purchased water costs from Table 5-8 allocated over the total projected units of water available to customers (water purchased less water loss) to determine the purchased water unit rate.

Table 5-17: Purchased Water Component – Unit Rate

Purchased Water Component	
Purchased Water Revenue Requirements	$3,117,131
÷ Total Projected Available Purchased Water (ccf)	4,398,255
Unit Rate (per ccf)	**$0.71**

Base/Delivery Component

Delivery costs are those operating and capital costs of the water system associated with delivering water to all customers at a constant average rate of use. Therefore, delivery costs are spread over all units of water, irrespective of customer class, tiers or source, to calculate a uniform rate. Table 5-18 summarizes the determination of the unit rate for the Base/Delivery Component.

Table 5-18: Base/Delivery Component – Unit Rate

Base/Delivery Component	
Base/Delivery Revenue Requirements	$4,432,431
÷ Total Projected Water Sales (ccf)	13,137,767
Unit Rate (per ccf)	**$0.34**

Peaking Component

Extra capacity or peaking costs represent those costs incurred to meet customer peak demands for water in excess of a baseline usage. Total extra capacity costs are apportioned between maximum day and maximum hour demands based on the type of expense. The maximum day demand is the maximum amount of water used in a single day in a year. The maximum hour demand is the maximum usage in an hour on the maximum usage day. Different facilities are designed to meet different peaking characteristics. Therefore, extra capacity costs include capital improvements and power related costs, and have been apportioned between base, maximum day, and maximum hour. Costs allocated to base are part of the delivery costs as defined above. The Peaking Revenue Requirements, $4,809,656, was determined by adding the Max Day Requirements of $3,376,884 and the Max Hour Requirements of $1,432,772.

Costs associated with peaking are apportioned to each defined customer class based on its total demand (total water used, weighted by a peaking factor). Peaking was calculated for four customer classes: Single-Family Residential, Multi-Family Residential, Non-Residential, and Non-Metered. Peaking for these four customer classes is based on District consumption data, which ensures that accounts within each customer class will only recover the costs allocated to their respective customer class in proportion to the cost of providing service. Table 5-19 provides the peak factor for each customer class by taking the max month usage compared to the average month usage. Table 5-20 shows the peaking costs allocated to each customer class as well as the derivation of the unit rate. The peaking cost allocated to each customer class is derived by weighting the peaking factor based on the total amount of water usage (Table 5-10) that is generating the peaking factor (product of Usage and Peaking Factor). The result is the weighted peaking factor and peak costs are apportioned based on the percentage of peak (Table 5-20 & Table 5-21). Table 5-22 summarizes the Metered and Non-Metered variable revenue requirements by component

Table 5-19: Customer Class Peaking Factors

Customer Class	Max Month Usage [A]	Average Month Usage [B]	Peaking Factor [A ÷ B]
Single-Family Residential	**942,234**	**497,097**	**1.90**
Tier 1	374,045	272,889	1.37
Tier 2	568,189	224,207	2.53
Multi-Family Residential	**366,065**	**249,129**	**1.47**
Non-Residential	**444,133**	**249,752**	**1.78**
Non-Metered[17]			**1.90**

Table 5-20: Peaking Costs Allocated to Classes

Customer Class	Projected Usage (ccf) [A]	Peaking Factor [B]	Weighted Peaking Factor (A x B) = [C]	% Allocation [D]	Revenue Requirements ($4,809,656 x D) [E]	Unit Rate (E ÷ A) = [F]
Single-Family Residential	5,965,158	1.90	11,306,814	49%	$2,336,261	*Further Allocated to Tiers*
Multi-Family Residential	2,989,542	1.47	4,392,780	19%	$907,655	$0.31
Non-Residential	2,997,020	1.78	5,329,596	23%	$1,101,223	$0.37
Non-Metered	1,186,046	1.90	2,248,122	10%	$464,516	*Further Allocated*
Total	**13,137,767**		**23,277,312**	**100.0%**	**$4,809,656**	

Table 5-21: Peaking Costs Allocated to Tiers

Tiers	Projected Usage (ccf) [A]	Peaking Factor [B]	Weighted Peaking Factor (A x B) = [C]	% Allocation [D]	Revenue Requirements ($2,336,261 x D) [E]	Unit Rate (E ÷ A) = [F]
Single-Family Residential						
Tier 1	3,404,114	1.37	4,665,971	42%	$977,118	$0.29
Tier 2	2,561,044	2.53	6,490,230	58%	$1,359,143	$0.54
Total	**5,965,158**		**11,156,201**	**100.0%**	**$2,336,261**	

Table 5-22: Variable Component Revenue Requirements

Account Type	Groundwater	Purchased Water	Base	Peaking	Total
Metered	$1,772,100	$3,422,877	$4,032,281	$4,345,139	$13,572,397
Non-Metered	$266,888	$80,388	$400,149	$464,516	$1,211,941
Total	**$2,038,987**	**$3,503,264**	**$4,432,431**	**$4,809,656**	**$14,784,338**

[17] Non-Metered customers are assumed to have similar peaking as metered Single-Family Residential customers as almost all non-metered accounts are residential customers.

Non-Metered Variable Component

The total cost of service allocations to Non-Metered accounts are summed to determine the total revenue requirement. Table 5-22 shows the Non-Metered variable revenue requirements by component. The total cost of service allocation of $1,233,495 is allocated to the annual number of square feet (projected square feet from Table 4-4 multiplied by 12) the Non-Metered properties on a per 1,000 square ft basis. Table 5-23 identifies the monthly variable charge for Non-Metered customers.

Table 5-23: Non-Metered Variable Charge – Unit Rate

Base/Delivery Component	
Non-Metered Variable Revenue Requirements	$1,211,941
÷ Annual square footage (**Table 4-4** x 12)	516,739
Unit Rate (per 1,000 sq ft)	**$2.35**

5.5. PROPOSED WATER RATES

5.5.1. Fixed Charges

Currently, the District's fixed monthly water charges generate approximately 70% of total rate revenues. The new rate structure will recover approximately the same percentage of rate revenues on the fixed monthly charges. Table 5-24 summarizes the Monthly Service Charges by meter/connection size based on the unit rates developed in the Rate Design section. The Monthly Service Charges apply to both Metered and Non-Metered customers/accounts.

Table 5-24: CY 2020 Proposed Monthly Service Charges ($/Meter or $/Connection)

Meter Size	Capacity Ratio	Metered Accounts	Non-Metered Accounts	Customer Service Charge [A]	Meter Service Charge [B]	Capital Facilities Charge	CY 2020 Proposed Service Charge (A + B) = [C]
5/8"	1.00	2,174		$7.22	$5.38	$19.34	**$31.94**
3/4"	1.50	30,609	5,939	$7.22	$8.07	$29.01	**$44.30**
1"	2.50	3,927	20	$7.22	$13.45	$48.35	**$69.02**
1-1/2"	5.00	1,012		$7.22	$26.90	$96.70	**$130.82**
2"	8.00	1,403		$7.22	$43.04	$154.72	**$204.98**
3"	16.00	306		$7.22	$86.08	$309.44	**$402.74**
4"	25.00	104		$7.22	$134.50	$483.50	**$625.22**
6"	50.00	27		$7.22	$269.00	$967.00	**$1,243.22**
8"	90.00	4		$7.22	$484.20	$1,740.60	**$2,232.02**
10"	120.00	1		$7.22	$645.60	$2,320.80	**$2,973.62**
12"	168.75			$7.22	$907.88	$3,263.63	**$4,178.72**

As shown in the table above, the Customer Service Components do not vary based on meter size whereas the Meter Service and Capital Facilities charges increase as the size of the meter increases. The Meter Service Charge and Capital Facility Charge are determined by multiplying the unit costs of $5.54 and $19.30, respectively, by the appropriate capacity ratios. Applying the proposed revenue adjustments to the proposed Monthly Service Charges for each of the remaining years of the Study Period yields the proposed Monthly Service Charges shown in Table 5-25.

Table 5-25: Proposed 5-Year Monthly Fixed Monthly Charges ($/Meter or $/Connection)

Meter / Connection Size	CY 2020 Proposed Fixed Charge	CY 2021 Proposed Fixed Charge	CY 2022 Proposed Fixed Charge	CY 2023 Proposed Fixed Charge	CY 2024 Proposed Fixed Charge
Effective Date	1/1/2020	1/1/2021	1/1/2022	1/1/2023	1/1/2024
5/8"	$31.94	$33.54	$34.89	$35.94	$37.02
3/4"	$44.30	$46.52	$48.39	$49.85	$51.35
1"	$69.02	$72.48	$75.38	$77.65	$79.98
1-1/2"	$130.82	$137.37	$142.87	$147.16	$151.58
2"	$204.98	$215.23	$223.84	$230.56	$237.48
3"	$402.74	$422.88	$439.80	$453.00	$466.59
4"	$625.22	$656.49	$682.75	$703.24	$724.34
6"	$1,243.22	$1,305.39	$1,357.61	$1,398.34	$1,440.30
8"	$2,232.02	$2,343.63	$2,437.38	$2,510.51	$2,585.83
10"	$2,973.62	$3,122.31	$3,247.21	$3,344.63	$3,444.97
12"	$4,178.72	$4,387.66	$4,563.17	$4,700.07	$4,841.08

No changes were made to the rate structure for the District's Private Fire Service Line and Backflow Device charges during the COS analysis outlined in the previous section. Applying the proposed revenue adjustments to the existing charges for each of the remaining years of the Study Period yields the proposed Monthly Private Fire Line Service Charge and Monthly Backflow Device Charge shown in Table 5-28 and Table 5-29, respectively.

Table 5-26: CY 2020-2024 Proposed Monthly Private Fire Line Service Charge

Connection Size	CY 2020 Proposed Monthly Charge	CY 2021 Proposed Monthly Charge	CY 2022 Proposed Monthly Charge	CY 2023 Proposed Monthly Charge	CY 2024 Proposed Monthly Charge
2"	$13.95	$14.51	$14.95	$15.40	$15.87
3"	$26.17	$27.22	$28.04	$28.89	$29.76
4"	$42.62	$44.33	$45.66	$47.03	$48.45
6"	$84.82	$88.22	$90.87	$93.60	$96.41
8"	$150.05	$156.06	$160.75	$165.58	$170.55
10"	$234.44	$243.82	$251.14	$258.68	$266.45
12"	$261.28	$271.74	$279.90	$288.30	$296.95

Table 5-27: CY 2020-2024 Proposed Monthly Backflow Charge

	CY 2020 Proposed Monthly Charge	CY 2021 Proposed Monthly Charge	CY 2022 Proposed Monthly Charge	CY 2023 Proposed Monthly Charge	CY 2024 Proposed Monthly Charge
Per Connection	$2.31	$2.41	$2.49	$2.57	$2.65

5.5.2. Variable Rates

The components of the variable rate are added together to produce rates for each customer class. Table 5-28 shows each component rate and the final proposed CY 2020 commodity rates. Applying the proposed revenue adjustments to the proposed District commodity rates yields the proposed five-year rate schedule shown in Table 5-29.

Table 5-28: CY 2020 Proposed Monthly Commodity Rates ($/ccf)

Customer Class	Proposed Tier Width	Water Supply Component	Base Component	Peaking Component	Proposed CY 2020 Commodity Rates
Single-Family Residential					
Tier 1	0-15 ccf	$0.25	$0.34	$0.29	**$0.88**
Tier 2	>16 ccf	$0.27	$0.34	$0.54	**$1.15**
Multi-Family Residential	Uniform	$0.61	$0.34	$0.31	**$1.26**
Non-Residential	Uniform	$0.62	$0.34	$0.37	**$1.33**

Table 5-29: Proposed 5-Year Monthly Usage Charges ($/ccf)

Customer Class	CY 2020 Proposed Usage Charge	CY 2021 Proposed Usage Charge	CY 2022 Proposed Usage Charge	CY 2023 Proposed Usage Charge	CY 2024 Proposed Usage Charge
Effective Date	**1/1/2020**	**1/1/2021**	**1/1/2022**	**1/1/2023**	**1/1/2024**
Single-Family Residential					
Tier 1	$0.88	$0.93	$0.97	$1.00	$1.03
Tier 2	$1.15	$1.21	$1.26	$1.30	$1.34
Multi-Family Residential	$1.26	$1.33	$1.39	$1.44	$1.49
Non-Residential	$1.33	$1.40	$1.46	$1.51	$1.56
Flat Usage Charge (per 1,000 sq ft)	$2.35	$2.47	$2.57	$2.65	$2.73

5.5.3. Non-Metered Conversions

The District is in the process of converting its Non-Metered accounts, with plans to fully convert all remaining customers, 5,959 accounts (Table 4-2) and 43,062 square feet (Table 4-4), over the next five years with a conversion rate of 1,192 meters and 8,612 square feet per year. Table 5-30 details the number of accounts, assumed square footage, and Metered consumption that will be converted during the Study Period. Assumed square footage conversions shown on Line 2 were obtained by multiplying 8,612 square feet by 12 months. Based on 1,192 Non-Metered to Metered conversions per year at an assumed 16 ccf of metered usage (current average monthly usage of metered SFR), the amount of usage in Tier 1 would be 214,560 ccf annually (Line 5) and the amount of usage in Tier 2 would be 14,304 ccf annually (Line 6). Lines 8 and 9 in Table 5-30 reflect the cumulative usage of all Non-Metered conversions through CY 2023 and Line 18 shows the fiscal impact generated by the Non-Metered to Metered conversion.

Table 5-30: Provisional Schedule of Meter Conversions

Line #		CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
1	**Meter Conversions**	1,192	1,192	1,192	1,192	1,192
2	**Assumed Sq ft Conversions**	103,344	103,344	103,344	103,344	103,344
3						
4	**Metered Consumption (ccf)**[18]					
5	Tier 1	214,560	214,560	214,560	214,560	214,560
6	Tier 2	14,304	14,304	14,304	14,304	14,304
7						
8	**Cumulative Tier 1 (ccf)**	214,560	429,120	643,680	858,240	1,072,620
9	**Cumulative Tier 2 (ccf)**	14,304	28,608	42,912	57,216	71,508
10						
11	**SFR Metered Rates ($/ccf)**					
12	Tier 1	$0.88	$0.93	$0.97	$1.00	$1.03
13	Tier 2	$1.15	$1.21	$1.26	$1.30	$1.34
14	**Non-Metered Rate ($/1,000 sq ft)**	$2.35	$2.47	$2.57	$2.65	$2.73
15						
16	Projected Converted Meter Revenue	$205,262	$433,697	$678,439	$932,621	$1,200,619
17	Non-Metered Flat Revenue[19]	$242,858	$510,519	$796,782	$1,095,446	$1,410,711
18	**Cumulative Fiscal Impact**	**($37,596)**	**($76,822)**	**($118,344)**	**($162,826)**	**($210,092)**

The shortfall of revenue shown on Line 18 of Table 5-30 will be recovered over the all monthly fixed charges. Table 5-31 shows the incremental amount added to the calculated projected number of EMUs.

Table 5-31: Adjustment to Monthly Fixed Charge Due to Conversions

Line #		CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
1	Cumulative Fiscal Impact	($37,596)	($76,822)	($118,344)	($162,826)	($210,092)
2	÷ Projected Annual EMU[20]	1,109,682	1,109,682	1,109,682	1,109,682	1,109,682
3	**Projected Rate per EMU**	**$0.03**	**$0.07**	**$0.11**	**$0.15**	**$0.19**

The increase per EMU results in a revised monthly fixed charge that will be assessed in subsequent years to adjust for Non-Metered accounts that have been converted to Metered accounts, as shown in Table 5-32.

[18] Estimated increase in consumption due to conversions.
[19] Prior to conversion.
[20] Projected Annual EMUs are calculated in Table 5-12

Table 5-32: Proposed 5-Year Fixed Monthly Charges ($/Meter or $/Connection) after Conversion of Non-Metered Customers

Meter Size	CY 2020 Proposed Fixed Charge	CY 2021 Proposed Fixed Charge	CY 2022 Proposed Fixed Charge	CY 2023 Proposed Fixed Charge	CY 2024 Proposed Fixed Charge
Effective Date	1/1/2020	1/1/2021	1/1/2022	1/1/2023	1/1/2024
5/8"	$32.01	$33.65	$35.04	$36.13	$37.21
3/4"	$44.40	$46.68	$48.61	$50.13	$51.63
1"	$69.19	$72.75	$75.75	$78.12	$80.45
1-1/2"	$131.17	$137.90	$143.60	$148.11	$152.53
2"	$205.53	$216.08	$225.01	$232.07	$238.99
3"	$403.85	$424.59	$442.15	$456.03	$469.62
4"	$626.95	$659.16	$686.42	$707.97	$729.07
6"	$1,246.68	$1,310.72	$1,364.95	$1,407.81	$1,449.77
8"	$2,238.25	$2,353.23	$2,450.59	$2,527.55	$2,602.87
10"	$2,981.93	$3,135.11	$3,264.82	$3,367.35	$3,467.69
12"	$4,190.40	$4,405.66	$4,587.93	$4,732.02	$4,873.03

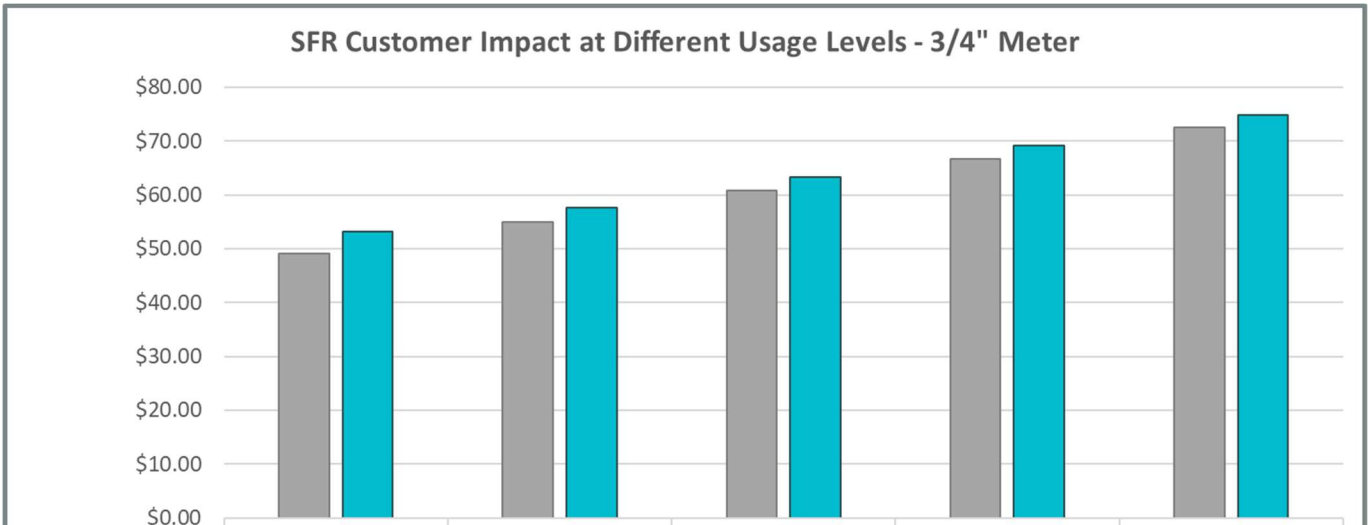
6. Customer Impacts

The following figures provide sample impacts to customers at various levels of usage. The grey bars represent the projected bills at current rates and the blue bars represent projected bills at proposed 2020 rates.

6.1. SINGLE-FAMILY RESIDENTIAL BILL IMPACTS

Figure 6-1 reflects the single-family residential (SFR) bill impacts at various usage levels for customers with a 3/4" meter.

Figure 6-1: SFR Bill Impact

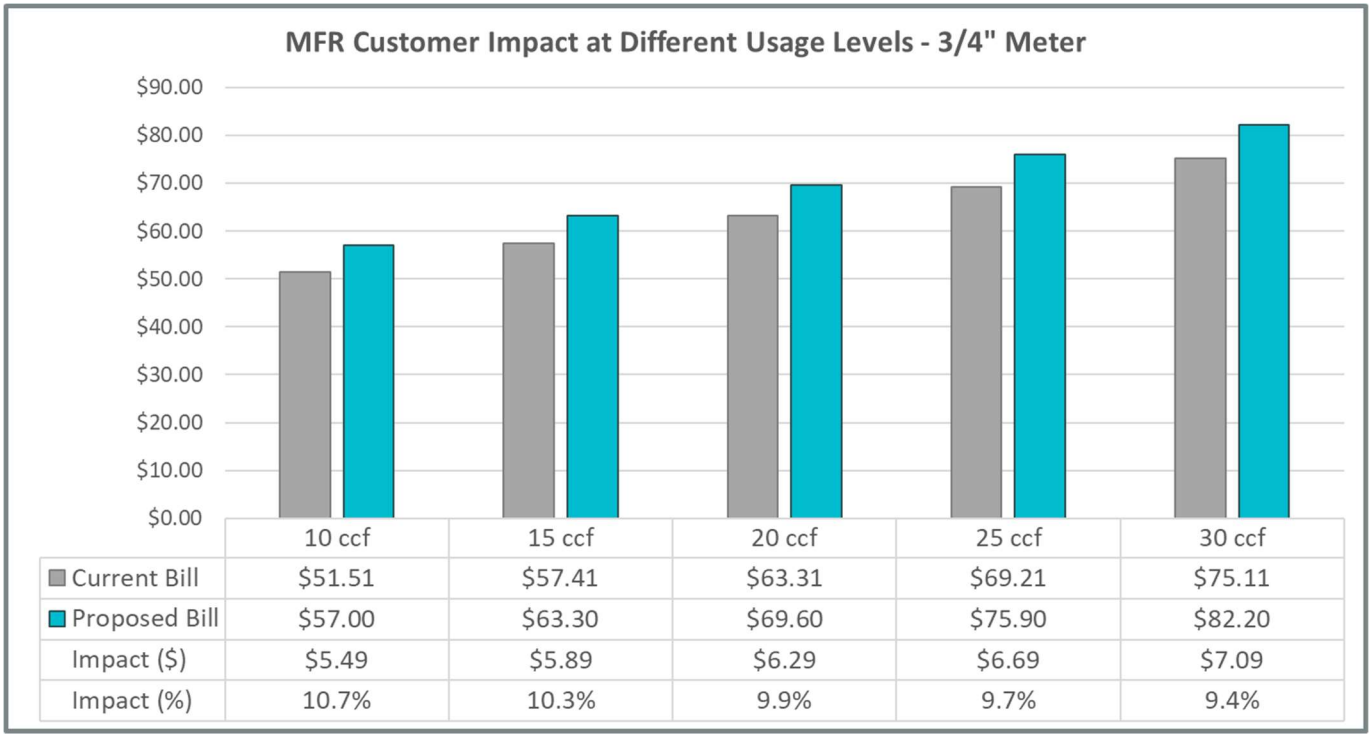


	10 ccf	15 ccf	20 ccf	25 ccf	30 ccf
Current Bill	$49.11	$54.96	$60.81	$66.66	$72.51
Proposed Bill	$53.20	$57.60	$63.35	$69.10	$74.85
Impact ($)	$4.09	$2.64	$2.54	$2.44	$2.34
Impact (%)	8.3%	4.8%	4.2%	3.7%	3.2%

6.2. MULTI-FAMILY RESIDENTIAL BILL IMPACTS

Figure 6-2 reflects the multi-family residential (MFR) impacts at various usage levels for customers with a 3/4" meter.

Figure 6-2: MFR Bill Impact

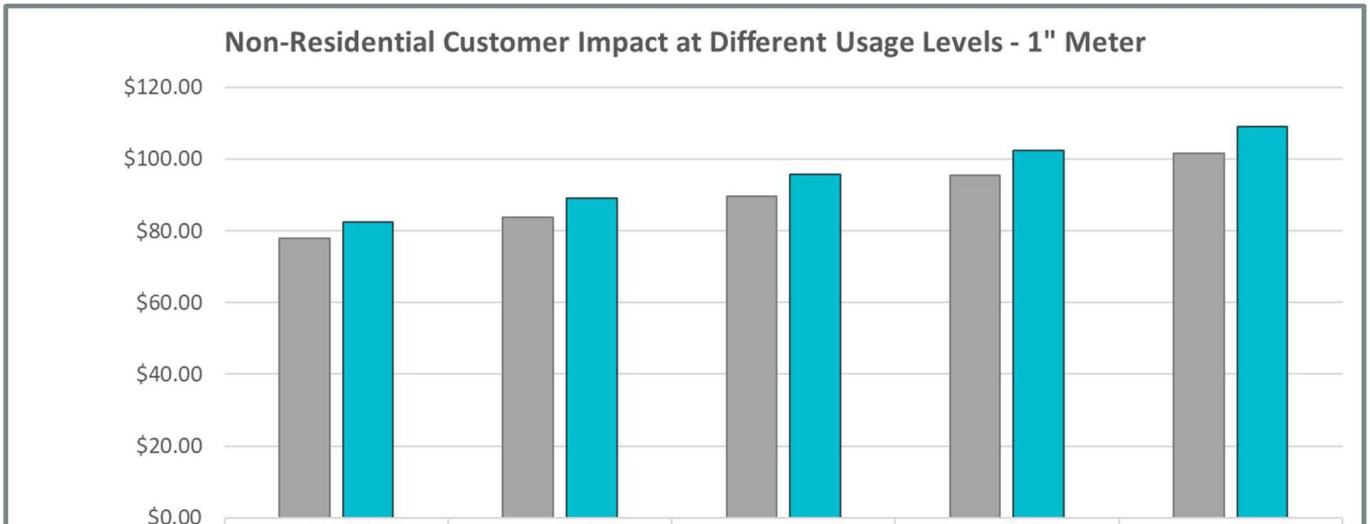


	10 ccf	15 ccf	20 ccf	25 ccf	30 ccf
Current Bill	$51.51	$57.41	$63.31	$69.21	$75.11
Proposed Bill	$57.00	$63.30	$69.60	$75.90	$82.20
Impact ($)	$5.49	$5.89	$6.29	$6.69	$7.09
Impact (%)	10.7%	10.3%	9.9%	9.7%	9.4%

6.3. NON-RESIDENTIAL BILL IMPACTS

Figure 6-3 reflects the Non-Residential impacts at various usage levels for customers with a 1" meter. This figure compares the current Peak commodity rate to the proposed CY 2020 commodity rate.

Figure 6-3: Non-Residential Bill Impact – No Pumping Zone



	10 ccf	15 ccf	20 ccf	25 ccf	30 ccf
Current Bill	$77.89	$83.79	$89.69	$95.59	$101.49
Proposed Bill	$82.49	$89.14	$95.79	$102.44	$109.09
Impact ($)	$4.60	$5.35	$6.10	$6.85	$7.60
Impact (%)	5.9%	6.4%	6.8%	7.2%	7.5%

Appendix A

Exhibit A-1 –Detailed Capital Improvement Plan

Scenario 3 - CIP Projections (adjusted)

Source: Updated based on CIP.xlsx provided by Dan Bills on 3/8/2019

Capital Improvement Plan		CY 2019	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029	CY 2030
Supply Projects													
Supply Projects		$3,870,000	$4,800,000	$4,751,000	$1,500,000	$4,751,000	$4,751,000	$1,500,000	$4,751,000	$4,751,000	$1,500,000		
Transmission Projects													
Transmission Projects		$50,000	$180,000	$500,000	$600,000	$100,000	$600,000	$3,000,000	$2,000,000	$2,000,000	$0		
Distribution Projects													
Distribution Project		$11,000,000	$12,510,000	$7,000,000	$7,000,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000		
Meter Retrofit		$2,500,000	$2,800,000	$2,092,000	$2,092,000	$0	$0	$0	$0	$0	$0		
Storage Projects													
Storage Projects		$735,000	$330,000	$20,000	$570,000	$320,000	$20,000	$380,000	$320,000	$620,000	$500,000		
Special Projects													
Special Projects		$105,000	$335,000	$900,000	$900,000	$900,000	$900,000	$900,000	$900,000	$900,000	$900,000		
CY 2017 & 2018													
10 Yr Avg (beyond 2028)	$16,440,400											$16,440,400	$16,440,400
Total Capital Improvement Plan		**$18,260,000**	**$20,955,000**	**$15,263,000**	**$12,662,000**	**$16,071,000**	**$16,271,000**	**$15,780,000**	**$17,971,000**	**$18,271,000**	**$12,900,000**	**$16,440,400**	**$16,440,400**

Exhibit A-2 –Detailed Financial Plan

Operating Cashflow

Rate Revenue + Adjustments	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029	CY 2030
Revenue from Rates	**$43,579,797**	**$43,579,797**	**$43,579,797**	**$43,579,797**	**$43,579,797**	**$43,579,797**	**$43,579,797**	**$43,579,797**	**$43,579,797**	**$43,579,797**	**$43,579,797**	**$43,579,797**
Additional Revenue												
Year												
CY 2019	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
CY 2020		$2,614,788	$2,614,788	$2,614,788	$2,614,788	$2,614,788	$2,614,788	$2,614,788	$2,614,788	$2,614,788	$2,614,788	$2,614,788
CY 2021			$1,847,783	$1,847,783	$1,847,783	$1,847,783	$1,847,783	$1,847,783	$1,847,783	$1,847,783	$1,847,783	$1,847,783
CY 2022				$1,921,695	$1,921,695	$1,921,695	$1,921,695	$1,921,695	$1,921,695	$1,921,695	$1,921,695	$1,921,695
CY 2023					$1,498,922	$1,498,922	$1,498,922	$1,498,922	$1,498,922	$1,498,922	$1,498,922	$1,498,922
CY 2024						$1,543,890	$1,543,890	$1,543,890	$1,543,890	$1,543,890	$1,543,890	$1,543,890
CY 2025							$1,060,137	$1,060,137	$1,060,137	$1,060,137	$1,060,137	$1,060,137
CY 2026								$0	$0	$0	$0	$0
CY 2027									$0	$0	$0	$0
CY 2028										$0	$0	$0
CY 2029											$0	$0
CY 2030												$0
Total Additional Revenue	**$0**	**$2,614,788**	**$4,462,571**	**$6,384,266**	**$7,883,188**	**$9,427,077**	**$10,487,215**	**$10,487,215**	**$10,487,215**	**$10,487,215**	**$10,487,215**	**$10,487,215**
Revenue	**CY 2019**	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**	**CY 2025**	**CY 2026**	**CY 2027**	**CY 2028**	**CY 2029**	**CY 2030**
Revenue from Rates	**$43,579,797**	**$46,194,585**	**$48,042,368**	**$49,964,063**	**$51,462,985**	**$53,006,874**	**$54,067,012**	**$54,067,012**	**$54,067,012**	**$54,067,012**	**$54,067,012**	**$54,067,012**
Other Revenue												
Wheeling Revenue	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000
Water Transfers	$940,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest Income	$72,398	$79,820	$168,086	$167,499	$172,849	$172,145	$172,190	$178,840	$185,670	$192,932	$200,746	$209,092
Grant Income	$275,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Revenue	$400,000	$400,000	$400,000	$400,000	$400,000	$400,000	$400,000	$400,000	$400,000	$400,000	$400,000	$400,000
Backflow Revenue	$112,000	$112,000	$112,000	$112,000	$112,000	$112,000	$112,000	$112,000	$112,000	$112,000	$112,000	$112,000
FireLine Revenues	$962,000	$962,000	$962,000	$962,000	$962,000	$962,000	$962,000	$962,000	$962,000	$962,000	$962,000	$962,000
Total Other Revenue	**$3,491,398**	**$2,283,820**	**$2,372,086**	**$2,371,499**	**$2,376,849**	**$2,376,145**	**$2,376,190**	**$2,382,840**	**$2,389,670**	**$2,396,932**	**$2,404,746**	**$2,413,092**
Total Revenue	**$47,071,195**	**$48,478,405**	**$50,414,454**	**$52,335,562**	**$53,839,834**	**$55,383,019**	**$56,443,201**	**$56,449,851**	**$56,456,682**	**$56,463,944**	**$56,471,758**	**$56,480,104**
Operating Expenditures	**CY 2019**	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**	**CY 2025**	**CY 2026**	**CY 2027**	**CY 2028**	**CY 2029**	**CY 2030**
Water Costs	$3,663,935	$3,847,131	$4,039,488	$4,241,462	$4,453,535	$4,676,212	$4,910,023	$5,155,524	$5,413,300	$5,683,965	$5,968,163	$6,266,571
Groundwater	$474,995	$498,745	$523,682	$549,866	$577,359	$606,227	$636,539	$668,366	$701,784	$736,873	$773,717	$812,403
Electrical Costs	$1,629,887	$1,711,381	$1,796,950	$1,886,797	$1,981,137	$2,080,194	$2,184,204	$2,293,414	$2,408,085	$2,528,489	$2,654,913	$2,787,659
Water Conservation	$31,000	$31,620	$32,252	$32,897	$33,555	$34,227	$34,911	$35,609	$36,321	$37,048	$37,789	$38,545
Salaries	$5,439,124	$5,711,081	$5,996,635	$6,296,466	$6,611,290	$6,941,854	$7,288,947	$7,653,394	$8,036,064	$8,437,867	$8,859,761	$9,302,749
Benefits	$5,343,184	$5,672,610	$6,022,686	$6,396,836	$6,794,588	$7,219,574	$7,671,539	$8,154,348	$8,669,000	$9,216,629	$9,850,691	$10,528,585
Supplies	$1,246,585	$1,274,290	$1,302,635	$1,331,636	$1,361,309	$1,391,670	$1,422,735	$1,454,522	$1,487,049	$1,520,333	$1,554,393	$1,589,247
Finance and Admin	$2,203,690	$2,247,764	$2,292,719	$2,338,573	$2,385,345	$2,433,052	$2,481,713	$2,531,347	$2,581,974	$2,633,614	$2,686,286	$2,740,012
Engineering	$2,334,294	$2,382,533	$2,431,785	$2,482,072	$2,533,416	$2,585,839	$2,639,366	$2,694,019	$2,749,824	$2,806,805	$2,864,986	$2,924,396
General	$579,604	$591,945	$604,569	$617,486	$630,702	$644,226	$658,066	$672,230	$686,728	$701,569	$716,761	$732,316
Maintenance	$661,857	$682,436	$703,655	$725,534	$748,093	$771,353	$795,337	$820,066	$845,564	$871,856	$898,964	$926,916
Settlement	$2,600,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Meters	$695,000	$861,000	$881,000	$775,000	$0	$0	$0	$0	$0	$0	$0	$0
Total Operating Expenditures	**$26,903,154**	**$25,512,535**	**$26,628,056**	**$27,674,627**	**$28,110,330**	**$29,384,428**	**$30,723,378**	**$32,132,841**	**$33,615,694**	**$35,175,046**	**$36,866,424**	**$38,649,397**
Debt Service												
2009A Adjustable Rate Refunding COPS	$1,534,308	$1,534,308	$1,534,308	$1,534,308	$2,679,308	$2,737,432	$2,741,997	$2,744,728	$2,750,624	$5,779,481	$5,815,865	$5,849,912
2012A Refunding Revenue Bond	$2,838,025	$2,848,225	$2,838,238	$2,818,838	$1,454,600	$1,436,850	$1,432,100	$1,419,600	$1,419,600	$0	$0	$0
2018A Taxable Refunding Revenue Bonds	$3,020,424	$3,043,573	$3,060,449	$3,050,967	$1,534,956	$1,537,962	$1,541,678	$1,531,584	$1,558,050	$0	$0	$0
Total Debt Service	**$7,392,758**	**$7,426,107**	**$7,432,995**	**$7,404,113**	**$5,668,864**	**$5,712,244**	**$5,715,775**	**$5,695,912**	**$5,728,274**	**$5,779,481**	**$5,815,865**	**$5,849,912**
Total Expenses	**$34,295,912**	**$32,938,642**	**$34,061,051**	**$35,078,740**	**$33,779,194**	**$35,096,673**	**$36,439,154**	**$37,828,753**	**$39,343,968**	**$40,954,527**	**$42,682,289**	**$44,499,309**
Net Cashflow *(after direct transfers)*	**$12,775,283**	**$15,539,763**	**$16,353,404**	**$17,256,822**	**$20,060,640**	**$20,286,346**	**$20,004,048**	**$18,621,098**	**$17,112,713**	**$15,509,416**	**$13,789,469**	**$11,980,795**

Detailed Financial Plan Continued

Fund Balances												
Reserve Interest Rate	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Accumulated Capital Inflationary Factor	103%	106%	110%	113%	117%	120%	124%	128%	132%	136%	140%	144%
Operating Fund	**CY 2019**	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**	**CY 2025**	**CY 2026**	**CY 2027**	**CY 2028**	**CY 2029**	**CY 2030**
Beginning Balance	$7,390,000	$8,573,978	$8,234,660	$8,515,263	$8,769,685	$8,444,799	$8,774,168	$9,109,788	$9,457,188	$9,835,992	$10,238,632	$10,670,572
Net Cashflow	$12,775,283	$15,539,763	$16,353,404	$17,256,822	$20,060,640	$20,286,346	$20,004,048	$18,621,098	$17,112,713	$15,509,416	$13,789,469	$11,980,795
Transfers to Capital Assets	($11,591,305)	($15,879,080)	($16,072,801)	($17,002,400)	($20,385,526)	($19,956,977)	($19,668,427)	($18,273,699)	($16,733,909)	($15,106,777)	($13,357,528)	($11,526,540)
Ending Balance	**$8,573,978**	**$8,234,660**	**$8,515,263**	**$8,769,685**	**$8,444,799**	**$8,774,168**	**$9,109,788**	**$9,457,188**	**$9,835,992**	**$10,238,632**	**$10,670,572**	**$11,124,827**
Interest Income	$79,820	$168,086	$167,499	$172,849	$172,145	$172,190	$178,840	$185,670	$192,932	$200,746	$209,092	$217,954
Operating Reserve Min Target	$8,573,978	$8,234,660	$8,515,263	$8,769,685	$8,444,799	$8,774,168	$9,109,788	$9,457,188	$9,835,992	$10,238,632	$10,670,572	$11,124,827
Operating Reserve Max Target	$17,147,956	$16,469,321	$17,030,525	$17,539,370	$16,889,597	$17,548,336	$18,219,577	$18,914,376	$19,671,984	$20,477,264	$21,341,145	$22,249,655
Capital Assets	**CY 2019**	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**	**CY 2025**	**CY 2026**	**CY 2027**	**CY 2028**	**CY 2029**	**CY 2030**
Beginning Balance	$17,960,655	$11,438,223	$6,540,309	$7,489,014	$12,022,599	$16,620,722	$20,675,973	$25,016,804	$25,822,866	$24,786,862	$27,511,444	$24,947,972
Transfers from Operating Fund	$11,591,305	$15,879,080	$16,072,801	$17,002,400	$20,385,526	$19,956,977	$19,668,427	$18,273,699	$16,733,909	$15,106,777	$13,357,528	$11,526,540
New Debt Proceeds	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capital Expenditures	($18,260,000)	($20,955,000)	($15,263,000)	($12,662,000)	($16,071,000)	($16,271,000)	($15,780,000)	($17,971,000)	($18,271,000)	($12,900,000)	($16,440,400)	($16,440,400)
Subtotal prior to transfer	$11,291,960	$6,362,303	$7,350,110	$11,829,414	$16,337,125	$20,306,699	$24,564,401	$25,319,503	$24,285,775	$26,993,639	$24,428,572	$20,034,111
Transfers to Emergency	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal after Transfer	$11,291,960	$6,362,303	$7,350,110	$11,829,414	$16,337,125	$20,306,699	$24,564,401	$25,319,503	$24,285,775	$26,993,639	$24,428,572	$20,034,111
Interest Income	$146,263	$178,005	$138,904	$193,184	$283,597	$369,274	$452,404	$503,363	$501,086	$517,805	$519,400	$449,821
Ending Balance	**$11,438,223**	**$6,540,309**	**$7,489,014**	**$12,022,599**	**$16,620,722**	**$20,675,973**	**$25,016,804**	**$25,822,866**	**$24,786,862**	**$27,511,444**	**$24,947,972**	**$20,483,932**
Remaining Proceeds	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*
Selected Capital Assets Min Target	$17,373,028	$17,373,028	$17,373,028	$17,373,028	$17,373,028	$17,373,028	$17,373,028	$17,373,028	$17,373,028	$17,373,028	$17,373,028	$17,373,028
Capital Assets Max Target	$16,642,200	$16,244,400	$15,209,400	$15,751,000	$16,872,800	$16,238,600	$16,272,480	$16,404,560	$16,098,440	$15,732,320	$16,440,400	$16,440,400
Emergency	**CY 2019**	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**	**CY 2025**	**CY 2026**	**CY 2027**	**CY 2028**	**CY 2029**	**CY 2030**
Beginning Balance	$11,255,000	$11,367,550	$11,594,901	$11,826,799	$12,063,335	$12,304,602	$12,550,694	$12,801,708	$13,057,742	$13,318,897	$13,585,275	$13,856,980
Transfers from Capital Assets	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal prior to transfer	$11,255,000	$11,367,550	$11,594,901	$11,826,799	$12,063,335	$12,304,602	$12,550,694	$12,801,708	$13,057,742	$13,318,897	$13,585,275	$13,856,980
Transfers to Rate Stabilization	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal after Transfer	$11,255,000	$11,367,550	$11,594,901	$11,826,799	$12,063,335	$12,304,602	$12,550,694	$12,801,708	$13,057,742	$13,318,897	$13,585,275	$13,856,980
Interest Income	$112,550	$227,351	$231,898	$236,536	$241,267	$246,092	$251,014	$256,034	$261,155	$266,378	$271,705	$277,140
Ending Balance	**$11,367,550**	**$11,594,901**	**$11,826,799**	**$12,063,335**	**$12,304,602**	**$12,550,694**	**$12,801,708**	**$13,057,742**	**$13,318,897**	**$13,585,275**	**$13,856,980**	**$14,134,120**
Emergency Target	$11,905,048	$12,275,211	$12,656,884	$13,050,424	$13,456,200	$13,874,593	$14,305,995	$14,750,811	$15,209,457	$15,682,364	$16,169,975	$16,672,748
Rate Stabilization	**CY 2019**	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**	**CY 2025**	**CY 2026**	**CY 2027**	**CY 2028**	**CY 2029**	**CY 2030**
Beginning Balance	$6,244,500	$6,306,945	$6,433,084	$6,561,746	$6,692,980	$6,826,840	$6,963,377	$7,102,644	$7,244,697	$7,389,591	$7,537,383	$7,688,131
Transfers from Emergency	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$6,244,500	$6,306,945	$6,433,084	$6,561,746	$6,692,980	$6,826,840	$6,963,377	$7,102,644	$7,244,697	$7,389,591	$7,537,383	$7,688,131
Interest Income	$62,445	$126,139	$128,662	$131,235	$133,860	$136,537	$139,268	$142,053	$144,894	$147,792	$150,748	$153,763
Ending Balance	**$6,306,945**	**$6,433,084**	**$6,561,746**	**$6,692,980**	**$6,826,840**	**$6,963,377**	**$7,102,644**	**$7,244,697**	**$7,389,591**	**$7,537,383**	**$7,688,131**	**$7,841,893**
Rate Stabilization Target	$4,537,103	$4,537,103	$4,537,103	$4,537,103	$4,537,103	$4,537,103	$4,537,103	$4,537,103	$4,537,103	$4,537,103	$4,537,103	$4,537,103

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Agenda Item: 3

Date: October 3, 2019

Subject: Resolution No. 19-14 Amending Regulation No. 3 of the Regulations Governing Water Service

Staff Contact: Daniel A. Bills, Director of Finance and Administration

Recommended Board Action:

Assuming a non-majority protest to the District's proposed increases in rates and charges, adopt Resolution No. 19-14 Amending Regulation No. 3 of the Regulations Governing Water Service.

Discussion:

The Regulations Governing Water Service are a District Ordinance that provide direction for governance of District business functions necessary to serve water to our customers. To effectuate the five-year increases in water service rates and charges discussed at the Public Hearing, the Board must adopt the proposed changes to Regulation 3, sections A, D and E as detailed in the resolution attached as Exhibit 1. The Board may adopt the increases proposed in the rate study and hearing notice mailed to District customers, modify the proposed rate increases, or reject them. If a majority of all affected District customers and water users protest the proposed increase, then the Board is prohibited by Proposition 218 from adopting any increase.

If the Board accepts the staff recommendation and adopts a five-year rate increase beginning on January 1, 2020, the District will impose each subsequent increase on January 1, 2021 through 2024 without further Board action. However, each year that the increase is in effect staff will provide advance notice of the increase to the Board through the annual Budget process. Staff also will provide advance notice of the next year's increase to District customers through bill inserts and notices posted on the District's website.

Fiscal Impact:

If the increases in rates and charges are adopted as proposed, water rate revenues will increase by roughly $2.3 million in 2020, $1.9 million in 2021, and $0.5 million per year, for each year, beginning with 2022 and ending in 2024 (e.g., in 2018 total revenues will be roughly $8.7 million more than in 2019.)

Strategic Plan Alignment:

Goal C – Ensure fiscal responsibility and affordable rates..

RESOLUTION NO. 19-14

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE SACRAMENTO SUBURBAN WATER DISTRICT AMENDING REGULATION NO. 3 OF THE REGULATIONS GOVERNING WATER SERVICE

WHEREAS, on July 19, 2004, the Board enacted Ordinance 2004-03, entitled "An Ordinance of the Board of Directors of Sacramento Suburban Water District Adopting Regulations Governing Water Service";

WHEREAS, the Board now desires to amend Regulation No. 3 of the Regulations Governing Water Service as described in this Resolution;

WHEREAS, the amendments to Regulation No. 3 to increase certain District water rates and charges adopted by this Resolution are subject to Proposition 218's notice and hearing requirements as provided in Article XIII D, section 6 of the California Constitution;

WHEREAS, Proposition 218 permits the District to impose a multi-year increase in water service rates and charges, not to exceed a total of five years in duration;

WHEREAS, on the date of adoption of this Resolution, the Board: (1) held a duly-noticed public hearing to receive comments and protests of property owners and water users affected by the proposed increase in rates and charges; (2) determined that a majority protest to the proposed increase was not filed; and (3) accepted the water rate study prepared by the District's rate consultant; and

WHEREAS, the Board hereby finds and determines that the proposed increases in rates and charges to be imposed on January 1, 2020 and each subsequent January 1 through 2024, with any modifications as may be directed by the Board, comply in all respects with Proposition 218 and properly reflect the District's estimated costs of service and are necessary for the District to continue meeting its costs of operation, accrual of prudent reserves, and obligations to repay its bonded indebtedness.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Sacramento Suburban Water District as follows:

1. Regulation No. 3 is hereby amended as shown in Exhibit A, which is attached to and made a part of this Resolution.

2. The Board authorizes and directs the General Manager and staff to take all actions necessary to amend Regulation No. 3 and to enforce such amended regulations in accordance with the authority granted by this Resolution.

3. Except as modified by the terms of this Resolution, the existing District Regulations Governing

Water Service shall remain in full force and effect. Any provisions in the existing regulations that conflict with the amendments set forth in this Resolution are deemed superseded and of no further effect.

4. This Resolution shall take effect immediately.

PASSED AND ADOPTED by the Board of Directors of the Sacramento Suburban Water District on the 16th day of October 2019, by the following vote:

AYES:
NOES:
ABSENT:

By: _____
Dave Jones
President, Board of Directors
Sacramento Suburban Water District

****

I hereby certify that the foregoing resolution was duly and regularly adopted and passed by the Board of Directors of Sacramento Suburban Water District at a regular meeting hereof held on the 16th day of October 2019.

By: _____
(SEAL)
Dan York
General Manager/Secretary
Sacramento Suburban Water District

Regulation No. 3
Water Service Charges and Rates

Adopted: March 15, 2004
Approved with Changes on: ~~September 17, 2018~~October 16, 2019

A. Charges for Water Service

The District charges all Customers on a monthly basis. Customers billed on a Residential Flat Rate are billed in advance, while Metered Rate Customers are billed in arrears. All charges are based on the District's costs of providing District Water Service. Therefore, the basis for charges and rates are categorized on the same basis as District costs. Explanations of each charge and the related District costs are as follows:

~~1. Flat Service Charge: This charge is based on connection size. The charge is intended to cover District operations and maintenance fixed costs, attributable to serving Residential Flat Rate Customers.~~

1.

Usage Charge: This charge is based on Parcel square footage. The charge is intended to cover District operations and maintenance variable costs, attributable to Residential Flat Rate Customers.

Fixed Charge: This charge is based on connection size. The charge is intended to cover District operations and maintenance fixed costs, attributable to serving Residential Flat Rate Customers.

Sacramento Suburban Water District Flat Rate Customers					
	01/01/~~20~~15	**01/01/~~21~~16**	**01/01/~~22~~17**	**01/01/~~23~~18**	**01/01/24~~1~~**
Usage Charge ($/1,000 sq. ft.)	$ ~~0.95~~2.35	$ ~~0.98~~2.47	$ ~~1.02~~2.57	$ ~~1.06~~2.65	$ 2.73
~~**Flat Service**~~**Fixed Charge**					
3/4" connection	$ ~~15.49~~44.40	$ 46.68~~16.11~~	$ 48.61~~16.75~~	$ 50.13~~17.42~~	$ 51.63
1" connection	$ ~~22.41~~69.19	$ 72.75~~23.31~~	$ 75.75~~24.24~~	$ 78.12~~25.21~~	$ 80.45
1 1/2" connection	$ ~~42.32~~131.17	$ 137.90~~44.01~~	$ 143.60~~45.77~~	$ 148.11~~47.60~~	$ 152.53
2" connection	$ 205.53~~41.80~~	$ 216.08~~43.47~~	$ 225.01~~45.21~~	$ 232.07~~47.02~~	$ 238.99

~~2. Meter Service Charge: This charge is based on meter size and property location. The charge is intended to cover District operations and maintenance variable costs attributable to serving Metered Rate Customers. This charge also covers District capital improvement costs and periodic principal and interest payments due on District debt.~~

2. Usage Charge: This charge is based on water usage. The charge is intended to cover District operations and maintenance ~~fixed~~ variable costs attributable to Metered Rate Customers, including the cost of water and treatment and pumping and conveyance costs. The Usage Charge is based on 100 cubic feet of water (748 gallons.).

Fixed Charge: This charge is based on meter size and property location. The charge is intended to cover District fixed operations and maintenance costs attributable to serving Metered Rate Customers. This charge also covers District capital improvement costs and periodic principal and interest payments due on District debt.

Sacramento Suburban Water District Metered Rate Customers					
Meter Usage Charge ($/CCF) – 1 CCF = 748 gallons	**01/01/20~~15~~**	**01/01/21~~16~~**	**01/01/22~~17~~**	**01/01~~10~~/23~~18~~**	**01/01/24**
~~Non-Residential Off Peak Rate (Nov-Apr)~~	~~$ 0.84~~	~~$ 0.88~~	~~$ 0.91~~	~~$ 0.95~~	
~~Non-Residential - Peak Rate (May-Oct)~~	~~$ 1.05~~	~~$ 1.09~~	~~$ 1.14~~	~~$ 1.18~~	
Residential - 1st Tier (0-15~~0~~ CCF)	$ 0.88~~0.83~~	$ 0.93~~0.87~~	$ 0.97~~0.90~~	$ 1.00~~0.94~~	$ 1.03
Residential - 2nd Tier (16~~1~~+ CCF)	$ 1.15~~1.04~~	$ 1.21~~1.08~~	$ 1.26~~1.12~~	$ 1.30~~1.17~~	$1.34
Multi-Family Residential - Uniform	$ 1.26	$ 1.33	$ 1.39	$ 1.44	$1.49
Non-Residential - Uniform	$ 1.33	$ 1.40	$ 1.46	$ 1.51	$ 1.56
~~Meter Service~~**Fixed Charge**					
5/8" meter	$ 32.01~~3.74~~	$ 33.65~~3.89~~	$ 35.04~~4.05~~	$ 36.13~~4.21~~	$ 37.21
3/4" meter	$ 44.40~~5.46~~	$ 46.68~~5.68~~	$ 48.61~~5.91~~	$ 50.13~~6.14~~	$ 51.63
1" meter	$ 69.19~~8.84~~	$ 72.75~~9.19~~	$ 75.75~~9.56~~	$ 78.12~~9.94~~	$ 80.45
1 1/2" meter	$ 131.17~~17.26~~	$ 137.90~~17.95~~	$ 143.60~~18.67~~	$ 148.11~~19.42~~	$ 152.53
2" meter	$ 205.53~~27.46~~	$ 216.08~~28.55~~	$ 225.01~~29.70~~	$ 232.07~~30.88~~	$ 238.99
3" meter	$ 403.85~~51.17~~	$ 424.59~~53.21~~	$ 442.15~~55.34~~	$ 456.03~~57.56~~	$ 469.62
4" meter	$ 626.95~~85.02~~	$ 659.16~~88.42~~	$ 686.42~~91.96~~	$ 707.97~~95.64~~	$ 729.07
6" meter	$ 1,246.68~~169.68~~	$ 1,310.72~~176.46~~	$ 1,364.95~~183.52~~	$ 1,407.81~~190.86~~	$ 1,449.77
8" meter	$ 2,238.25~~305.14~~	$ 2,353.23~~317.34~~	$ 2,450.59~~330.04~~	$ 2,527.55~~343.24~~	$ 2,602.87

10" meter	$ 2,891.93~~491.40~~	$ 3,135.11~~511.06~~	$ 3,264.82~~531.50~~	$ 3,367.35~~552.76~~	$ 3,467.69
12" meter	$ 4,190.40~~728.42~~	$ 4,405.66~~757.55~~	$ 4,587.93~~787.85~~	$ 4,732.02~~819.37~~	$ 4,873.03

~~3. Capital Facilities Charge (Applies to Residential Flat and Metered Rate Accounts): This charge is based on meter or connection size and property location. This charge covers District capital improvement charges and the periodic principal and interest payments due on District debt.~~

~~Sacramento Suburban Water District All Customers~~				
~~Capital Facilities Charge~~	~~01/01/15~~	~~01/01/16~~	~~01/01/17~~	~~01/01/18~~
~~5/8" meter~~	~~$ 20.02~~	~~$ 20.82~~	~~$ 21.65~~	~~$ 22.52~~
~~3/4" meter or connection~~	~~$ 29.85~~	~~$ 31.04~~	~~$ 32.28~~	~~$ 33.57~~
~~1" meter or connection~~	~~$ 49.92~~	~~$ 51.92~~	~~$ 53.99~~	~~$ 56.15~~
~~1 ½" meter or connection~~	~~$ 99.48~~	~~$ 103.46~~	~~$ 107.59~~	~~$ 111.90~~
~~2" meter or connection~~	~~$ 159.22~~	~~$ 165.59~~	~~$ 172.22~~	~~$ 179.11~~
~~3" meter or connection~~	~~$ 298.79~~	~~$ 310.74~~	~~$ 323.17~~	~~$ 336.10~~
~~4" meter or connection~~	~~$ 498.11~~	~~$ 518.03~~	~~$ 538.75~~	~~$ 560.30~~
~~6" meter or connection~~	~~$ 995.90~~	~~$ 1,035.74~~	~~$ 1,077.17~~	~~$ 1,120.26~~
~~8" meter or connection~~	~~$ 1,792.75~~	~~$ 1,864.46~~	~~$ 1,939.04~~	~~$ 2,016.60~~
~~10" meter or connection~~	~~$ 2,888.55~~	~~$ 3,004.09~~	~~$ 3,124.25~~	~~$ 3,249.22~~
~~12" meter or connection~~	~~$ 4,282.36~~	~~$ 4,453.65~~	~~$ 4,631.80~~	~~$ 4,817.07~~

~~4. Multiple Unit Charge~~

~~An additional monthly per unit charge will be imposed on all multi-family accounts (i.e. duplex, triplex, etc.) billed by the District on a flat rate basis as defined below.~~

~~Multiple Unit Charge~~				
	~~01/01/15~~	~~01/01/16~~	~~01/01/17~~	~~01/01/18~~
~~Per Unit Charge~~	~~$ 8.35~~	~~$ 8.69~~	~~$ 9.03~~	~~$ 9.39~~

B. Service Charges

1. For each new account to be established, a service charge shall be assessed and added to the first or opening water bill for payment in accordance with the following provisions:

Service charge with water service already on. $9.00

Service charge during regular business hours, which requires restoration of water.	$31.00

2. The following dispatch service charges shall be assessed in accordance to Section K.2, Regulation 5 and Section C, Regulation 6:

Dispatching personnel to deliver delinquency notice	$35.00
Dispatching personnel to terminate water service	$60.00

Other than in an emergency, to locate a service or shut-off water service after regular business hours the District will charge its actual cost of time and material.

C. Temporary Turn-On Charges

When water service has been terminated for non-payment or put into an inactive status, and temporary (24-hour maximum) service is required for third-party inspection purposes, a non-refundable charge of $40.00 shall be paid before service is turned on.

D. Cross-Connection Control Program

Monthly charges shall be paid to fund the District's Cross-Connection Control Program (CCCP). This charge shall be billed monthly per Backflow Prevention Assembly (Assembly) to each Account holder with one or more Assemblies. Each Assembly is the property of the Landowner. The services covered by this charge shall include, but are not limited to, administering/monitoring the program, notifying Customers, performing inspections, reviewing and recording test results and reporting to the State Water Resources Control Board Division of Drinking Water (DDW). The charge shall be determined each year based on program expenses and the number of Assemblies within the District. The ~~current~~ monthly charge for the CCCP shall be (see table below)~~$2.20~~ per Assembly for all connection sizes.

Monthly CCCP Charge					
	01/01/20	**01/01/21**	**01/01/22**	**01/01/23**	**01/01/24**
Per Unit Charge	$ 2.31	$ 2.41	$ 2.49	$ 2.57	$2.65

If a Customer requests Assembly testing or the District determines it is necessary to test an Assembly, the District will impose an Assembly test charge of $61.00 per Assembly. The charge includes the fee for the required District tag. While the District does not routinely perform repairs or replacements, labor and materials will be charged to the Account holder if the District is required to repair or replace an Assembly.

As part of the Assembly test, a District tag must be attached to the Assembly indicating whether it "passed" or "failed". These tags are to be purchased by the tester at the District office. The cost of the tag shall be determined each year based on the cost of producing the tag and overseeing the tag distribution. The current cost shall be $1.00 per tag.

E. Privately-Owned Fire Protection Systems

A monthly charge shall be paid for water service at un-metered connections to the District's Water System which supplies water to privately-owned and maintained sprinklers used exclusively for firefighting, irrespective of the quantity of water used and based on the size of the fire service assembly as follows:

Private Fire Service					
Size	**01/01/~~20~~15**	**01/01/~~21~~16**	**01/01/~~22~~17**	**01/01/~~23~~18**	**01/01/24**
2-inch	$ ~~11.80~~13.95	$ 14.51~~12.28~~	$ 14.95~~12.77~~	$ 15.40~~13.28~~	$15.87
3-inch	$ 26.17~~22.15~~	$ 27.22~~23.04~~	$ 28.04~~23.96~~	$ 28.89~~24.92~~	$29.76
4-inch	$ 42.62~~36.09~~	$ 44.33~~37.53~~	$ 45.66~~39.03~~	$ 47.03~~40.59~~	$48.45
6-inch	$ 84.82~~71.81~~	$ 88.22~~74.68~~	$ 90.87~~77.67~~	$ 93.60~~80.78~~	$96.41
8-inch	$ 150.05~~127.04~~	$ 156.06~~132.12~~	$ 160.75~~137.40~~	$ 165.58~~142.90~~	$170.55
10-inch	$ 234.44~~198.48~~	$ 243.82~~206.42~~	$ 251.14~~214.68~~	$ 258.68~~223.27~~	$266.45
12-inch	$ 261.28~~221.21~~	$ 271.74~~230.06~~	$ 279.90~~239.26~~	$ 288.30~~248.83~~	$296.95

F. Security Deposits

Whenever an Applicant's or Customer's credit rating or payment history is or becomes unacceptable to the District because of poor credit history, non-payment of water bills, or frequent delinquent bill payment, a cash deposit may be required in accordance with the schedule set below:

1. Residential Customers shall be required to pay the sum equal to two (2) months water charge, but not less than $90.00 (cost of ¾" flat base charges).

2. Business Customers shall be required to pay the sum equal to three (3) times the estimated water bill, but not less than $180.00 (cost of 1" meter base charges).

The District may apply the security deposit to any account of a Customer that is delinquent for more than 30 days and will notify the Customer of such application. Water service may be terminated if the account is not fully paid and the security deposit replenished, subject to the conditions and procedures described in Regulation 6, Section B.

The security deposit will be returned to the Customer without interest upon termination of the service and payment of all rates and charges owed to the District by the Customer, or at such earlier time as the District may determine that the credit of the Customer is satisfactory. Security deposits that remain unclaimed after five (5) years from the date the deposit became refundable will become property of the District.

For the purpose of this Regulation 3, the District shall determine whether a Customer's credit is satisfactory. The credit of a Customer who has paid all rates and charges without delinquency for twelve months shall be deemed satisfactory.

G. Application of Payments

Any monies received on an account will be applied first to the oldest outstanding charges.

H. Returned Payments

The District shall levy a charge for each returned payment as defined in Regulation 5, Section C. The amount shall be the District's actual Bank Service Charge plus $10.00.

I. Meter Testing Fee

This charge will be assessed to accounts that request a meter test with results within the range set by AWWA per Regulation 4, Section D. The fee will be $285.00 per meter test for large meters (3" and above), $200.00 for medium meters (1-1/2" and 2"), and $60.00 for small meters (1" and below).

J. Bacteriological Testing

The District will assess actual time and material costs but not less than a minimum charge of $25.00 for each bacteriological test as defined in Regulation 7, Section H.8.

K. Annexation Fees

The District will charge annexation fees for each Parcel located outside of the District's legal boundaries that desires to be annexed into the District. The fee will be charged on a time and materials basis and reflect all District costs to apply for and complete the annexation of a Parcel, including without limitation staff time, attorneys' and consultant fees, LAFCO application fees, and costs of studies and environmental review. Upon application for an annexation into the District, staff will estimate the costs to process the annexation and the applicant shall deposit the estimated costs with the District. Upon conclusion of the annexation proceedings, if a portion of the deposit remains, it will be refunded to the applicant. If the District has expended the entire deposit and advanced additional funds to pay costs of the annexation proceedings, the applicant will repay the entire amount of any funds advanced by the District as a condition of LAFCO's recording of the Certificate of Completion approving the annexation and of the District's approval of the applicant's Application for Water Service.

L. Water Conservation Violation

In accordance with Section B of Regulation 15, the following charges may be imposed for a Water User's violation of the District's water conservation regulations:

1. A charge of $50.00 will be added to the next billing for serving the second water conservation violation as defined in Regulation 15, Section B.

2. A charge of $100.00 will be added to the next billing for serving the third water conservation violation as defined in Regulation 15, Section B.

M. Variance Application Service Fees

1. A service fee of $300.00 will be charged to any person or entity for a filing variance application as provided in Regulation 17, Section B.

2. If an Applicant desires a hearing at a special Board of Directors meeting, a fee of $1,200.00 will be charged as provided in Regulation 17, Section E.

N. Facility Use Fees

District Facilities may be used only upon approval of the General Manager. Interested parties must apply for use of District Facilities by completing the District's "Facility Use Application." All charges for use of District Facilities, including insurance requirements, are as noted on the Application and are dependent on facility location, event duration and recovery of all District costs required for the event.

O. Public Information Request

A charge of $0.10 per page shall be charged for requests for copying of disclosable District records. Additional charges and terms of reproduction and delivery of copies of records are provided in the District's Records Inspection, Retention and Disposal Policy, PL-Admin 002.

P. Construction Water Charge

Water provided by the District for construction purposes will be charged subject to conditions of the service or project and in conformance with Regulation 12. The following charges will apply:

1. For construction water taken through a District Fire Hydrant Meter the contractor will be required to pay the current metered nonresidential peak usage rate per hundred cubic feet of water taken, a $50.00 permit fee and $2,300.00 deposit for the hydrant meter with backflow prevention assembly.

2. Use of District Fire Hydrants is authorized by a permit issued by the District only, as conditioned in Regulation 13, Section D. Illegal use of a Fire Hydrant may be subject to a $250.00 charge.

Q. Plan Check Fee

An hourly rate of $90.00 shall be assessed for review of an Applicant's construction plans as provided in Regulation 7 under Part H.1. The minimum plan check fee shall be $900.00.

R. Supervision and Inspection

An hourly charge of $87.00 shall be used to calculate the deposit for supervision and inspection of new or upgraded water facilities to be connected to the District system, as provided in Regulation 7, Section H.6. The minimum fee for Supervision and Inspection shall be $600.00.

S. Hydrant Flow Test

A completed application for hydrant flow test and $350.00 fee shall be paid in advance to supervise and perform a fire hydrant flow test and to provide written results of the test to the person or entity requesting it.

T. Abandonment of Service and Reinstallation of Abandoned Service

The District charge for abandoning an existing water service from the existing water main as provided in Regulation 7, Section K shall be calculated on a time and materials basis, with a minimum charge of $3,000.00. The estimated charge shall be paid to the District prior to scheduling the abandonment. In addition, if requested by a Landowner, the District will restore an abandoned service connection by charging on a time and materials basis, with a minimum charge of $3,000.00.

U. Administration Fee

This fee will be assessed to those accounts that participate in certain District programs, including without limitation the Large Irrigation Service, Wholesale Water, and Owner/Tenant Billing Agreement. Each fee is based on actual District costs for administering the individual program and is reviewed at least annually.

V. Locking Device Replacement Fee

If the District has installed a locking device on a water meter, curb stop or service valve and such a device is damaged or removed, then a $35.00 charge shall be imposed on the Landowner.

If installed locking devices on the same service connection continue to be damaged or removed, the District reserves the right to abandon the service. Charges for service abandonment and any subsequent reinstallation of service will be on time and materials for the abandonment of the service as provided in Section T of this Regulation 3. The charges will be added to the Customer's water bill and must be paid before service is restored.