Agenda

Sacramento Suburban Water District

Regular Board Meeting

3701 Marconi Avenue, Suite 100
Sacramento, California 95821

Monday, June 17, 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 Comment
This is the opportunity for the public to comment on non-agenda items within the Board's jurisdiction. Comments are limited to 3 minutes.

Consent Items
The Board will be asked to approve all Consent Items at one time without discussion. Consent Items are expected to be routine and non-controversial. If any Board member, staff or interested person requests that an item be removed from the Consent Items, it will be considered with the Items for Discussion and/or Action.

1. Minutes of the May 20, 2019 Regular Board Meeting
   Recommendation: Approve subject minutes.

2. Reserve Policy (PL – Fin 004)
   Recommendation: Approve subject policy with changes.

3. Facility Development Charge Policy (PL – Fin 010)
   Recommendation: Approve subject policy with changes.

4. Resolution No. 19-07 Placing in Nomination General Manager Dan York for Association of California Water Agencies Region 4 Board Member
   Recommendation: Adopt subject Resolution.

Items for Discussion and/or Action

5. 2019 Water Rate Study
   Recommendation: Accept the 2019 Water Rate Study Report and provide direction to staff on scheduling a Proposition 218 hearing and preparing and mailing a notice of that hearing.

6. Water Facilities Development Charge Study
   Recommendation: Accept the draft final Water Facilities Development Charges report.

7. Del Paso Manor Water District's Request for Water System Operations Assistance
   Recommendation: Receive written staff report and direct staff as appropriate.

8. Discontinue the Asset Management Plan Summary Report
   Recommendation: Discontinue the Asset Management Plan Summary Report.

9. Distribution Main Asset Management Plan Condition Assessment
   Recommendation: Review the subject report and provide direction as appropriate.

10. Committee and Liaison Appointments – Board Consideration of an Employee Benefits Ad Hoc Committee
    Recommendation: The Board President will consider an Employee Benefits Ad Hoc Committee and the Committee Members.

General Manager's Report

11. General Manager's Report

    a. Regional Water Supply/Wheeling Opportunities

    b. Wholesale Water Rates and Area D Water Supply Map

    c. Meter Consortium Update

Department/Staff Reports

12. Financial Report

    a. Financial Highlights – May 2019

    b. Financial Statements – May 2019

    c. Investments Outstanding and Activity – May 2019

    d. Cash Expenditures – May 2019

    e. Credit Card Expenditures – May 2019

    f. District Reserve Balances – May 2019

    g. Information Required by LOC Agreement

    h. Financial Markets Report

13. District Activity Report

14. Engineering Report

    a. Major Capital Improvement Program (CIP) Projects

    b. Asset Management Plans

    c. Other

Director's Reports (Per AB 1234, Directors will report on their meeting activities)

15. a. Regional Water Authority (President Jones)
    Agenda from the May 22, 2019 meeting.

    Regional Water Authority Executive Committee (General Manager York)
    Agenda from the May 13, 2019, and May 22, 2019 meetings.

    b. Sacramento Groundwater Authority (Director Thomas)
    Agenda from the May 13 meeting.

    c. Water Caucus Meeting (General Manager York)
    Agenda from the June 12, 2019 meeting.

d. Water Forum Successor Effort (General Manager York)
None.

e. Other Reports – AB 1234

Committee Reports

16. a. Facilities and Operations Committee (Director Jones)
None.

b. Finance and Audit Committee (Director Wichert)
None.

c. San Juan Water District/Sacramento Suburban Water District Water Management/Re-Organization Committee (Director Locke and Director Jones)
None.

Information Items

17. Sacramento Suburban Water District / San Juan Water District Management/Re-Organization Committee Update

18. Legislative and Regulatory Update

19. Upcoming Water Industry Events

20. Upcoming Policy Review

a. Purchasing Card Policy (PL – Fin 006)

b. Impaired Capital Asset Policy (PL – Fin 008)

Director's Comments/Staff Statements and Requests
The Board and District staff may ask questions for clarification, and make brief announcements and comments, and Board members may request staff to report back on a matter, or direct staff to place a matter on a subsequent agenda.

Closed Session (Closed Session Items are not opened to the public)

21. Public employee performance evaluation involving the General Manager under Government Code section 54954.5(e) and 54957.

22. Conference with legal counsel--existing litigation; Government Code sections 54954.5(c) and 54956.9(a) and (d)(1); *In re LIBOR-Based Financial Instruments Antitrust Litigation*, and related cases, Case No. 11-md-2262 (So. Dist. New York).

Adjournment

* *

Upcoming Meetings

Thursday, June 20, 2019 at 4:00 p.m., SJWD/SSWD Water Management/Re-Organization Committee Meeting at the Sacramento Suburban Water District's Boardroom
Monday, July 15, 2019 at 6:00 p.m., Regular Board Meeting

* *

I certify that the foregoing agenda for the June 17, 2019 meeting of the Sacramento Suburban Water District Board of Directors was posted by June 14, 2019 in a publicly-accessible location at the Sacramento Suburban Water District office, 3701 Marconi Avenue, Suite 100, Sacramento, California, and was freely available to the public.

Dan York
General Manager/Secretary
Sacramento Suburban Water District

AGENDA ITEM: 1

Back to Agenda

Minutes

Sacramento Suburban Water District
Regular Board Meeting
Monday, May 20, 2019

Call to Order
President Jones called the meeting to order at 6:00 p.m.

Pledge of Allegiance
President Jones led the Pledge of Allegiance.

Roll Call

Directors Present:	Dave Jones, Craig Locke and Kevin Thomas.
Directors Absent:	Kathleen McPherson and Robert Wichert.
Staff Present:	General Manager Dan York, Assistant General Manager Mike Huot, Director of Finance and Administration Dan Bills, Heather Hernandez-Fort, Cassie Crittenden, Matt Underwood, Julie Nemitz and Dana Dean.
Public Present:	William Eubanks, Alan Driscoll, Ken Payne, Rob Swartz, Avery Wiseman, Marissa Burt, John Lenahan, and District Legal Counsel Josh Horowitz.

Announcements
President Jones announced that Director McPherson and Director Wichert were both absent due to being on vacation.

General Manager Dan York (GM York) announced:

- New Customer Service Manager, Julie Nemitz started that day.
- Annual Financial Report was at the dais.
- AWWA Source SGA Conjunctive Use was at the dais.
- Requested to pull Agenda Item 2 for minor edits.

Director Locke announced that EPA was having a resilience planning and adaptation seminar in June and provided fliers.

Public Comment
William Eubanks (Mr. Eubanks) commended President Jones for acknowledging his request to listen to the audio recording of the March 22, 2019 Finance and Audit Committee Meeting.

President Jones noted there would be an item on the June regular Board meeting agenda to discuss the concerns regarding the Finance and Audit committee.

Ken Payne (Mr. Payne) expressed his concern regarding a sinkhole located across the street from 4832 Arden Way.

GM York expressed that staff would look into his concern.

Director Thomas inquired if Mr. Payne had any updates on the Auburn Dam Project.

Mr. Payne expressed that they meet at 7:00 a.m. each first Friday of the month at Black Bear Diner on Madison Avenue.

Consent Items

1. **Minutes of the April 15, 2019 Regular Board Meeting**

2. **Communication and Team Building Policy (PL – Adm 008) – Previously Titled Employee Recognition and Retention Expense Policy (PL – Adm 008)**

3. **Legislative Response Policy (PL – Adm 004)**

4. **Unclaimed Check Policy (PL – Fin 007)**

   Director Thomas moved to approve all Consent Items except Item 2; Director Locke seconded. The motion passed by unanimous vote.

AYES:	Jones, Thomas, and Locke.	ABSTAINED:	
NOES:		RECUSED:	
ABSENT:	McPherson and Wichert.		

   Regarding Item 2, GM York noted the following two changes not included in the staff report.

   The first change was noting the title change of the Policy from Employee Recognition and Retention Expense Policy to Communications and Team Building Policy.

   The second edit was to delete section 200.00 of the Policy, first sentence where it states "for the following purposes" twice.

   Director Thomas moved to approve Item 2; Director Locke seconded. The motion passed by unanimous vote.

AYES:	Jones, Thomas, and Locke.	ABSTAINED:	
NOES:		RECUSED:	
ABSENT:	McPherson and Wichert.		

Items for Discussion and/or Action

5. **Sacramento Regional Water Bank Phase 1 and Aquifer and Storage Recovery Information Project Agreements**
Assistant General Manager Mike Huot (AGM Huot) presented the staff report and introduced Rob Swartz (Mr. Swartz) who presented the PowerPoint presentation.

Clarifying questions were asked.

Mr. Eubanks inquired if the City of Sacramento was participating in the study.

Mr. Swartz answered that they were.

Mr. Eubanks inquired about the City of Sacramento's water rights.

Mr. Swartz briefly explained the City of Sacramento's water rights.

Director Thomas moved to table the item until the June regular Board meeting to allow him time to gain further information about the subject agreements.

The motion died for a lack of a second.

President Jones moved to approve the staff recommendation; Director Locke seconded. The motion passed by a 2-1 vote.

AYES:	Jones and Locke.	ABSTAINED:	
NOES:	Thomas.	RECUSED:	
ABSENT:	McPherson and Wichert.		

6. **2019 Water Rate Study Timeline**
Dan Bills (Mr. Bills) provided a summary of the staff report.

Avery Wiseman (Mr. Wiseman) recommended to delay any projected rate adjustments for another year, expressing that he believed the study was flawed and further stated that the District needed to control costs better.

Director Thomas noted that there were reductions made to the budget to assist with lowering the rate projections.

Mr. Payne expressed he believed that ratepayers should be billed based on their water usage more than fixed charges.

Director Thomas moved to approve the staff recommendation; Director Locke seconded. The motion passed by unanimous vote.

AYES:	Jones, Thomas, and Locke.	ABSTAINED:	
NOES:		RECUSED:	
ABSENT:	McPherson and Wichert.		

7. **Water Fluoridation – South Service Area**
AGM Huot presented the staff report.

Director Thomas inquired if staff knew of any other agencies that have successfully gotten out of their fluoride contract with the First 5.

Legal Counsel Josh Horowitz (Mr. Horowitz) expressed that he was not aware of any.

Director Locke recommended to bring back the item when the full Board would be present.

GM York expressed to bring the item back later in the year.

Director Thomas requested staff look into if any other agencies that have successfully gotten out of their fluoride contract with the First 5.

Director Thomas moved to table the item until the July regular Board meeting; President Jones seconded. The motion passed by unanimous vote.

AYES:	Jones, Thomas, and Locke.	ABSTAINED:	
NOES:		RECUSED:	
ABSENT:	McPherson and Wichert.		

General Manager's Report

8. **General Manager's Report**
GM York presented the staff report.

a. *Grant of Easement and Right of Way*
GM York presented the staff report and provided an update.

b. *Pre-Capitol to Capitol Trip*
GM York presented the staff report and provided an update.

c. *Verizon Lease Update*
GM York presented the staff report and provided an update.

d. *Finance and Audit Committee Status*
GM York presented the staff report and provided an update.

e. *Del Paso Manor Water District Request for Assistance*
GM York presented the staff report and provided an update.

Department/Staff Reports

9. **Financial Report**
   A written report was provided.

   a. *Financial Highlights – April 2019*
      A written report was provided.

   b. *Financial Statements – April 2019*
      A written report was provided.

   c. *Investments Outstanding and Activity – April 2019*
      A written report was provided.

   d. *Cash Expenditures – April 2019*
      A written report was provided.

   e. *Credit Card Expenditures – April 2019*
      A written report was provided.

   f. *District Reserve Balances – April 2019*
      A written report was provided.

   g. *Information Required by LOC Agreement*
      A written report was provided.

   h. *Financial Markets Report – April 2019*
      A written report was provided.

10. **District Activity Report**
    A written report was provided.

11. **Engineering Report**
    A written report was provided.

    a. *Major Capital Improvement Program (CIP) Projects*
       A written report was provided.

    b. *Asset Management Plans*
       A written report was provided.

    c. *Other*
       A written report was provided.

Director's Reports (Per AB 1234, Directors will report on their meeting activities)

12. a. Regional Water Authority (President Jones)
The agenda for the May 2, 2019 meeting was provided.

Regional Water Authority Executive Committee (General Manager York)
The agenda for the April 24, 2019 meeting was provided.

b. Sacramento Groundwater Authority (Director Thomas)
None.

c. Water Caucus Meeting (General Manager York)
None.

d. Water Forum Successor Effort (General Manager York)
None.

e. Other Reports – AB 1234

Director Thomas provided oral reports on the following meetings he attended:

- April 22, 2019 meeting with the General Manager.
- April 24, 2019 Future of CA Water – Stanford Woods meeting.
- April 30, 2019 Delta Science Board meeting
- May 15, 2019 AeroJet CAG meeting.
- May 16, 2019 meeting with the General Manager.

President Jones provided oral reports on the following meetings he attended:

- April 8, 2019 meeting with the General Manager regarding the Agenda
- April 16, 2019 meeting with Dan Bills and General Manager regarding the F&A Committee.
- April 24, 2019 Future of CA Water – Stanford Woods meeting.

Director Locke provided oral reports on the following meetings he attended:

- January 9, 2019 meeting with Ellen Cross to review the Strategic Plan.
- January 16, 2019 meeting with President Jones for the General Manager Performance Evaluation.
- February 7, 2019 Aqufornia Water 101 meeting.
- February 15, 2019 RWA Board meeting.
- March 1, 2019 NCWA Annual Board meeting.
- March 4, 2019 Del Paso Manor Water District Board meeting.
- March 12, 2019 Kennedy Jenks Meeting regarding ASR Wells.
- March 14, 2019 RWA Board meeting.

Committee Reports

13. a. Facilities and Operations Committee (Director Jones)
None.

b. Finance and Audit Committee (Director Wichert)
None.

c. San Juan Water District/Sacramento Suburban Water District Water Management/Re-Organization Committee (Director Locke and Director Jones)
None.

Information Items

14. **Biannual Groundwater Elevations Report**
A written report was provided.

15. **Legislative and Regulatory Update**
A written report was provided.

16. **Upcoming Water Industry Events**
A written report was provided.

17. **Upcoming Policy Review**
A written report was provided.

a. Facility Development Charge Setting Policy (PL – Fin 010)
A written report was provided.

Miscellaneous Correspondence and General Information

18. **Correspondence received by the District was provided.**

Director's Comments/Staff Statements and Requests
None.

Closed Session (Closed Session Items are not opened to the public)
The Board convened in Closed Session at 7:17 p.m. to discuss the following:

19. Conference with legal counsel--existing litigation; Government Code sections 54954.5(c) and 54956.9(a) and (d)(1); *Sacramento Suburban Water District v. United States*, United States Court of Federal Claims case no. 1:17-cv-00860-RHH, and *Sacramento Suburban Water District v. United States, et al.*, United States District Court for the Eastern District of California, case no. 2:17-cv-01353-TLN-AC.

20. Conference with legal counsel – potential litigation; Government Code sections 54954.5(c) and 54956.9(a) and (d)(4); consideration of initiating litigation involving one case.

21. Conference with legal counsel – potential litigation; Government Code sections 54954.5(c) and 54956.9(a) and (d)(4); consideration of initiating litigation involving the State Water Resources Control Board's proceedings related to the California Water Fix and the Bay-Delta Water Quality Control Plan Update.

Return to Open Session
The Board convened in open session at 7:42 p.m. There was no reportable action.

Adjournment
President Jones adjourned the meeting at 7:43 p.m.

Dan York
General Manager/Secretary
Sacramento Suburban Water District

SACRAMENTO SUBURBAN WATER DISTRICT

Back to Agenda

Agenda Item: 2

Date: June 3, 2019

Subject: Reserve Policy (PL – Fin 004)

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

Recommended Board Action:
Adopt the updated Reserve Policy (PL – Fin 004) as attached in Attachment 1. (Note: Change to Capital Asset Reserve from prior five year average to projected five year average commensurate with Consultant recommendation).

Discussion:
The Reserve Policy (PL – Fin 004) was last reviewed by the Board in October 2018.

As directed by the Board at the March 18, 2019 Board meeting, staff has made changes to the Reserve Policy in line with recommendations proposed by the District's Water Rate Consultant – Raftelis. Recommended changes are as follows:

Section 200.30 - In light of the settlement with McClellan Business Park, remove the McClellan Business Park Liability Fund as it is no longer necessary.

Section 200.40 – Emergency/Contingency Fund.
Change targeted fund balance from 25% of following year's anticipated revenues to three percent of total assets. (Note: Will decrease the target balance by $1.1 million, from $11.5 million to $10.4 million.)

Section 200.40 – Operating Fund.
Change targeted fund balance from 25% of following year's budgeted expenditures for operating expenses and debt service to 50%. Establish as a minimum balance 25% of following year's budgeted expenditures for operating expenses and debt service. (Note: Will increase the target balance by $7.7 million, from $7.7 million to $15.4 million.)

Section 200.40 – Rate Stabilization Fund.
Change targeted fund balance from 50% of following year's anticipated consumption revenues to 35%. (Note: Will decrease the target balance by $1.9 million, from $6.6 million to $4.7 million.)

Section 200.40 – Capital Asset Fund.
Change targeted fund balance from an annual staff recommendation made at budget time to the annualized average of the future five years of Capital Improvement Project (CIP) projected expenditures. Establish a minimum balance equal to the prior year's depreciation expense. (Note: Will decrease the target balance by $2.7 million, from $20.1 million to $17.4 million.)

A draft of the Policy was presented for Board comment at the May 2019 Board meeting.

A redline version of the policy is attached to this as Attachment 1.

Fiscal Impact:
If adopted, total target fund balance will increase by $2.0 million.

Strategic Plan Alignment:
Finance – 4.A. Monitor District operation through internal control procedures, documentation and such other processes necessary to ensure effective financial performance.

This policy benefits District customers by setting forth comprehensive guidelines for holding customer funds.

Sacramento Suburban Water District

Reserve Policy

Adopted: August 18, 2003
Approved with Changes ~~August 20, 2018~~June XX, 2019

100.00 Purpose of the Policy

The District will maintain reserve funds where required by law, ordinance or bond covenant, and revenue stability, so as to provide the necessary cash flow for normal and ordinary operations, while also providing the ability to address economic downturns and limited system emergencies.

The primary purposes of this policy are: to establish a reserve fund level that is specific to the needs and risks of the District; to identify when and how reserve funds are utilized and replenished; and to recognize the long-term nature of such funds and their relationship to current and projected customer rates. The District's financial reserve fund comprises various funds established for specific purposes and to reduce certain risks. Collectively, these funds enable the District to operate in a prudent manner, while allowing for transparency of reserve fund balances.

200.00 Policy

200.10 Fund Classification Types

The District shall maintain three fund classifications that collectively comprise the District's reserve fund balance. Fund classifications are a hierarchy based primarily on the extent to which the District is bound to observe constraints imposed upon it. The fund classifications are - Restricted funds, Committed funds and Assigned funds, with distinction among the funds based on the relative strength of the constraints that control how amounts can be spent.

Restricted funds include amounts that can be spent only for specific purposes stipulated by law or third parties, such as grantors or creditors. Committed funds include amounts that can be used only for specific purposes as determined by Board action. Amounts in the assigned fund balance classification are intended to be used by the District for specific purposes but do not meet the criteria to be classified as restricted or committed.

200.20 Restricted Funds Classification

Restricted funds are those financial assets subject to enforceable third party constraints, such as those imposed by creditors, grantors, laws or regulation.

There are no designated restricted funds at this time.

200.30 Committed Funds Classification

Committed funds are those financial assets identified by the Board for specific purposes as determined by Board resolution or ordinance. Such financial assets are to be utilized only as directed by the Board.

Facilities Reimbursement Fund
As established by the Board in the District's Regulations Governing Water Service (Regulations), the District will retain a percentage of Facility Development Charges (FDC) collected each fiscal year for the purpose of repaying individuals or businesses who were required to install up-sized lines or extension facilities at the request of the District. Disbursements will be made in accordance with the Regulations, including the release of unexpended funds into the District's unrestricted net position.

~~***McClellan Business Park Liability Fund***~~
~~Based on settlement terms between the District and McClellan Business Park, this fund is established to pay for District obligations up to $2,700,000. This Fund will be initially funded with a $1,000,000 allocation from the Emergency/Contingency Fund and will be further funded annually by allocating an amount equal to 5% of consumption revenue. Fund expenditures will occur through reimbursement District approved requests submitted by McClellan Business Park or invoices paid directly by the District up and until the settlement obligation is complete. The Fund will expire upon the District meeting the obligations of the settlement agreement.~~

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200.40 Assigned Funds Classification

Assigned funds are those financial assets determined necessary to be retained for specific risk-mitigation purposes as determined by the Board as needs arise.

Emergency/Contingency Fund
Financial assets held for purposes of continued operations during times of severe economic distress due to events that require an immediate and/or significant use of cash. Such severe economic situations may include otherwise insurable events for which the timely receipt of cash may be delayed. The District shall target a balance of ~~twenty-five~~three percent (~~3~~25%) of its prior year-end total assets~~following year's anticipated annual revenues~~ in this fund. Conditions for utilization of such reserves and a plan for fund replenishment will be approved by the Board.

Prior to amounts being expended from this fund, the District shall establish a contingency plan that addresses, at a minimum:
1. The reason(s) for expenditures from this fund.
2. Amounts expected to be expended.
3. The funds replenishment timeline and funding source.

Operating Fund
Financial assets held primarily in the form of cash and cash-equivalents for the purpose of debt avoidance due to unexpected expenditures of a non-recurring nature or to meet unexpected increases in operating costs. The District shall target a ~~minimum~~ balance in short-term investments and/or cash of 180 days (50%) ~~equal to twenty-five percent (25%)~~ of its current year's budgeted annual expenditures for operating costs and debt service in this fund. The minimum balance in short-term investments and/or cash shall be 90 days (25%) of its current year's budgeted annual expenditures for operating costs and debt service in this fund. Conditions for utilization of these reserves and a plan for fund replenishment will be determined by the Board at annual budget time.

The operating fund reflects the timing difference between billing for revenues and payment of expenses. The target level is a financial measure or guideline. If the fund level drops below the twenty-five percent target balance, that is a sign for staff to review the fund and, if necessary, bring recommendations to the Board to assure the fund will not continue to decline.

Rate Stabilization Fund
Financial assets held for purposes of managing cost variability in obtaining, treating and delivering potable surface water and groundwater. This Fund is focused on consumption fluctuations related to customer demand and purchasing of surface water as part of the District's conjunctive use efforts. Consumption charges established in the rate setting process forecast customer demand based on a repeat of average, recent climactic conditions. Financial fluctuations occur when situations vary from the assumption. The District shall target a balance of ~~fifty~~ thirty-five percent (35~~50~~%) of its expected upcoming year consumption revenues in this fund. Conditions for utilization of such reserves and a plan for fund replenishment will be directed by the Board at annual budget time.

Interest Rate Risk Management Fund
This fund is derived from earnings based on financial assets held as short-term investments pursuant to interest rate risk exposure assumed by the District upon the issuance of floating-rate debt. The amount of investments from which earnings are derived and accumulated will be determined at the time of debt issuance. Earnings on such investments will be used to repay a portion of the interest expense on the outstanding floating-rate bond or COP as long as the bond or COP is subject to interest rate risk exposure. This fund will be reduced in line with the amortized balance of the interest-rate swap(s).

Grant Fund
Financial assets held for purposes of funding the "local cost share" and advance payment of eligible reimbursable costs on capital projects funded partially from grant awards. As eligibility for potential grant awards requires the District to demonstrate financial viability to fund anticipated project costs, the District shall maintain a minimum balance equal to the combined sum of anticipated costs for those projects considered grant eligible in the upcoming biennial period. Conditions for utilization of

such reserves and a plan for fund replenishment will be determined at the time of grant award.

Capital Asset Fund
Financial assets held for purposes of funding District capital asset replacements and capital projects necessary to meet regulatory requirements and/or system reliability needs. The District shall target a fund balance based on the annualized average of the future five years of CIP expenditures. The minimum balance in this fund shall be equivalent to the prior year's annual depreciation expense. ~~Through the annual budget process, staff shall recommend capital replacement projects and any necessary appropriations from this fund except for well property acquisitions.~~ Well property acquisition amounts will be funded as defined in the section "Well Property Acquisition Fund." The District shall target a balance to sufficiently fund anticipated capital improvement project replacement cost deviations above the CIP funding level. Fund replenishment will be determined by the Board periodically through the rate setting process and annually through the budget process.

Well Property Acquistion Fund
This Fund is a component of the Capital Asset Fund. Amounts established for this Fund shall be established through the annual budget process. The District shall target a balance to sufficiently fund anticipated property acquisitions. Fund replenishment will be determined by the Board periodically through the rate setting process and annually through the budget process.

Facilities Development Charge Fund
Financial assets held for expenditure on growth/capacity-related capital asset projects only. Amounts deposited into this fund come from unexpended facility development charges collected from developers (see related Facilities Reimbursement Fund in section 200.30 above.) These growth/capacity-related capital asset projects form the cost-basis and legal nexus for the establishment and collection of the Facility Development Charges. This fund is dependent upon customer growth. Therefore, there is no prescribed target or minimum balance.

300.00 Disposition of "One-Time" Revenues

"One-time" revenues are revenues of an unusual or infrequent nature which are likely not the result of the District providing services and producing and delivering goods in connection with the District's principal ongoing operations (e.g. legal settlement). Unless specifically earmarked by Board action otherwise, "one-time" revenues should be transferred to the appropriate reserve fund which best represents the reason for the "one-time" revenue.

400.00 Target Funding Level

A summary of reserve fund classifications and funding levels is shown below:

Fund Classification	Funding Level
Facilities Reimbursement Fund	20% of FDC charges collected annually less developer payouts.
Emergency/Contingency Fund	3~~25~~% of ~~annual revenues~~prior-year end total assets.
Operating Fund	50~~25~~% of annual operating and debt service expenditures.
Rate Stabilization Fund	35~~50~~% of water consumption revenues.
Interest Rate Risk Management Fund	Accumulated earnings on short-term investments above 3.283% on the unhedged portion of variable-rate debt.
Grant Fund	Sufficient to pay for "local cost share" on all outstanding and applied-for grants.
Capital Asset Fund	Based on the annualized average of the future five years of CIP expenditures~~Sufficient to fund CIP projects above the amount CIP funding amount anticipated at rate setting or budget preparation time~~.
Facilities Development Charge Fund	Remaining amounts of FDC Charges after amounts used by Facilities Reimbursement Fund expended. For new infrastructure.
~~**Minimum Reserve Funding Target**~~	~~**$36.5 million**~~

500.00 Authority

The General Manager is responsible for the appropriate accounting and regular reporting of the District's reserve fund balance. Board oversight will be accomplished through regular reporting and review of this Policy.

600.00 Procedure

District staff will maintain procedures for each fund classification, to be approved by the General Manager, and in conformance with this Policy.

In any case where the reserves are drawn below target minimums, a report shall be developed containing the reasons for withdrawals and any impacts to programs or rates due to such withdrawals. If reserves are depleted, the reserves shall be replenished over a maximum five (5) year period to the established or re-established target as directed by the Board.

Maintenance of minimum reserves should not, on its own, trigger the need for a rate adjustment. Rates will be reviewed after two consecutive years of revenue dropping

below established minimums balances, or diminishing reserves as a result of covering unanticipated costs.

700.00 Policy Review

This Policy will be reviewed annually as part of the budget adoption process.

Back to Agenda

SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 3

Date: June 3, 2019

Subject: Facility Development Charge Policy (PL – Fin 010)

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

Recommended Board Action:
Adopt the updated Facility Development Charge (FDC) Policy (PL – Fin 010) Attachment 1.

Discussion:
The Facility Development Charge (FDC) Policy (PL – Fin 010) was last reviewed by the Board in October 2016.

Staff has one important change to the Policy – Section 300.00, the addition of legal requirements for noticing and adopting changes in FDC charges (Note: FDC charges and methodology are being reviewed as part of the current Water Rate Study.)

A draft of the Policy was presented for Board comment at the May 2019 Board meeting.

A redline version of the policy is attached.

Fiscal Impact:
None.

Strategic Plan Alignment:
Finance – 4.A. Monitor District operation through internal control procedures, documentation and such other processes necessary to ensure effective financial performance.

This policy benefits District customers by setting forth comprehensive guidelines for holding customer funds.

Sacramento Suburban Water District

Facility Development Charge Setting Policy

Adopted: September 15, 2014; October 17, 2016
Updated with Changes: June XX, 2019

100.00 Purpose of the Policy

Facility Development Charges (FDCs) provide the means of balancing the District's cost requirements for new infrastructure between existing customers and new customers. The portion of existing infrastructure that will provide service (capacity) to new customers is included in the District's FDCs. In contrast, the District has future capital improvement projects that are related to renewal and replacement of existing infrastructure. These infrastructure costs are typically included within the rates charged to the District's customers, and are not included in the FDCs. By establishing cost-based FDCs, the District will continue its policy of having "growth pay for growth" and existing District customers, for the most part, be sheltered from the financial impacts of growth. The establishment of FDCs will include consideration of:

A. Growth-Related Capital Projects – Within the District's capital improvement plans and rate studies, growth-related capital projects will be clearly identified.
B. Growth Related Capital – The District's intent is for the cost of growth related assets to be paid for by the use of FDCs. In other words, growth should pay for growth, and existing customers should be sheltered from the costs of serving growth.
C. Use of FDC Proceeds – FDC revenues will only be used for two purposes – to pay for growth-related debt service or to directly pay for growth-related capital improvements.
D. Limitation on the Use of FDCs to Pay Debt Service – The use of FDC revenues to pay for growth-related debt service will be limited in any year, for planning and rate setting purposes, to fifty percent (50%) of the annual FDC revenue projected to be collected. If growth and the corresponding FDC revenue is less than projected, the District should still have sufficient FDC revenue to make the annual debt service payments associated with the growth-related capital projects.

200.00 Policy

FDCs are intended to reflect the cost of growth and capacity expansion to serve new customers and additional capacity requirements. FDCs are a common method of assessing the cost of expansion and its additional capacity requirements. In establishing FDCs, and in concert with Regulation No. 7, "New or Additional Service Connections", the following will be considered:

A. Meeting Legal Requirements – FDCs will be established and administered to conform and meet any legal requirements.
B. Methodologies – FDCs will be established using "generally accepted" methodologies and will include a debt service credit to fairly account for the method of financing used for growth and expansion projects.
C. Determination of Cost-Basis – As appropriate, FDCs will be calculated to determine the cost-based levels for customers seeking to connect to the District's water system.
D. Establishing Final FDCs – The Board will establish the final FDCs, taking into consideration the cost-based levels of the charges and the Board's policy or philosophy as it relates to the sharing of growth-related costs between existing rate payers and new customers connecting to the water system. At no time will the Board establish or adopt FDCs greater than the calculated cost-based FDCs.
E. Adjustments – In accordance with Regulation No. 7, section H. 5 - FDCs will be adjusted annually "to reflect cost changes in materials, labor or real property applied to projects or project capacity" using an appropriate cost index. Further, "a comprehensive review and update of the FDC methodology shall occur at least every five years."
F. Master Plan and FDCs – Every three to five years, or whenever the Water System Master Plan is updated, the FDCs will be updated to reflect the changes in planning, infrastructure, and capital financing.

300.00 FDC Consideration and Approval Process

California Government Code sections 66013 and 66016 require that new or updated FDCs or similar charges be properly noticed. Under section 66016, the District must agendize consideration of the proposed new or increased fees on the agenda of at least one regular Board meeting and permit the public to present oral or written comments on the proposal. In addition, the District must mail written notice of the meeting at which the matter will be heard, including a "general explanation of the matter to be considered, and a statement that the data required by this section is available", at least 14 days before the meeting to all parties that have filed a written request with the District for mailed notice of meetings at which new or increased fees and charges will be considered (any such request is valid for one year from the date on which it is filed and any renewal request must be filed by April 1 of the following year).

Also, the District must make publicly available the FDC fee study and any related data at least 10 days before the meeting at which the fee proposal will be considered. If the Board proposes to adopt the new or increased FDCs, with or without change, the Board may take that action only by ordinance or resolution. A formal public hearing on the issue is not required.

4300.00 Authority

The General Manager and District Treasurer are responsible for adherence to this policy and regular reporting of the District's financial status. Board oversight will be accomplished through regular reporting of financial status and review of this Policy.

5400.00 Policy Review

This Policy will be reviewed at least biennially.

Back to Agenda

SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 4

Date: June 12, 2019

Subject: Resolution No. 19-07 Placing in Nomination General Manager Dan York for Association of California Water Agencies Region 4 Board Member

Staff Contact: Dan York, General Manager

Recommended Board Action:

Adopt Resolution No. 19-07 Placing in Nomination General Manager Dan York to continue on the Association of California Water Agencies' Region 4 Board, and authorize the General Manager to submit the appropriate paperwork to ACWA prior to June 28, 2019.

Discussion:

The Association of California Water Agencies (ACWA) is seeking candidates for Region 4 Board Member positions for the 2020-2021 term (see ACWA memorandum Attachment 1). The Chair, Vice Chair and up to 5 Board Member positions are open. Eligible candidates are public agency members (Board and staff). General Manager Dan York has served as a Board Member since the 2018-19 term, and is seeking reappointment.

ACWA's process to submit a nomination includes:

1. A resolution adopted by the Board (included with this report).
2. Completing a nomination request form.
3. Submittal of all paperwork to ACWA by June 28, 2019.

The Region 4 Nominating Committee will announce their recommended slate by July 31, 2019. On August 1, 2019 the election will begin with ballots sent to General Managers and Board Presidents. One ballot per agency will be counted. The election will be completed on September 30, 2019. On October 4, 2019, election results will be announced. The newly elected Region 4 Board Members will begin their two-year term of service on January 1, 2020.

Fiscal Impact:

Minor fiscal impact.

Strategic Plan Alignment:

Leadership – 5.C. Participate in regional, statewide and national water management partnerships (e.g. RWA, SGA).

Leadership – 5.D. Interact with the community in a positive and progressive manner for the mutual benefit of the area (service groups, adjacent water purveyors, county/city/local government).

Being an ACWA Region 4 Board Member demonstrates the District's leadership role at a State-wide level and places that member in a position to promote SSWD's and regional Sacramento interests to the benefit of District customers.

RESOLUTION NO. 19-07

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE SACRAMENTO SUBURBAN WATER DISTRICT PLACING IN NOMINATION DAN YORK AS A MEMBER OF THE ASSOCIATION OF CALIFORNIA WATER AGENCIES REGION 4 BOARD

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

A. Recital

1. The Board of Directors of the Sacramento Suburban Water District does encourage and support the participation of its members in the affairs of the Association of California Water Agencies (ACWA).

2. General Manager Dan York has indicated a desire to continue to serve as a Board Member of ACWA Region 4.

B. Resolves

NOW, THEREFORE, BE IT RESOLVED THAT THE BOARD OF DIRECTORS OF SACRAMENTO SUBURBAN WATER DISTRICT,

1. Does place its full and unreserved support in the nomination of Dan York for Board Member of ACWA Region 4.

2. Does hereby determine that the expenses attendant with the service of Dan York in ACWA Region 4 shall be borne by the Sacramento Suburban Water District.

PASSED AND ADOPTED by the Board of Directors of the Sacramento Suburban Water District on this 17th day of June 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 17th day of June 2019.

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

(SEAL)

Attachment 1

MEMORANDUM

Date: May 2, 2019

To: ACWA REGION 4 MEMBER AGENCY PRESIDENTS AND GENERAL MANAGERS
(sent via e-mail)

From: ACWA REGION 4 NOMINATING COMMITTEE
Ron Greenwood, Carmichael Water District
Mike Hardesty, Reclamation District No. 2068
Jim Peifer, City of Sacramento

The Region 4 Nominating Committee is looking for ACWA members who are interested in leading the direction of ACWA Region 4 for the 2020-2021 term. The Nominating Committee is currently seeking candidates for the Region 4 Board, which is comprised of Chair, Vice Chair and up to five Board Member positions.

The leadership of ACWA's ten geographical regions is integral to the leadership of the Association as a whole. The Chair and Vice Chair of Region 4 serve on ACWA's Statewide Board of Directors and recommend all committee appointments for Region 4. The members of the Region 4 Board determine the direction and focus of region issues and activities. Additionally, they support the fulfillment of ACWA's goals on behalf of members and serve as a key role in ACWA's grassroots outreach efforts.

If you, or someone within your agency, are interested in serving in a leadership role within ACWA by becoming a Region 4 Board Member, please familiarize yourself with the Role of the Regions and Responsibilities; the Election Timeline; and the Region 4 Rules and Regulations and complete the following steps:

- **Complete the attached Region Board Candidate Nomination Form** HERE
- **Obtain a Resolution of Support from your agency's Board of Directors** (Sample Resolution HERE)
- **Submit the requested information to ACWA as indicated by Friday, June 28, 2019**

The Region 4 Nominating Committee will announce their recommended slate by July 31, 2019. On August 1, 2019 the election will begin with ballots sent to General Managers and Board Presidents. One ballot per agency will be counted. The election will be completed on September 30, 2019. On October 4, 2019, election results will be announced. The newly elected Region 4 Board Members will begin their two-year term of service on January 1, 2020.

If you have any questions, please contact Region and Member Services Specialist II Ana Javaid, at anaj@acwa.com or (916) 441-4545.

2019 ACWA Region Election Timeline
2020-2021 Term

February 28: **NOMINATING COMMITTEES APPOINTED**

- With concurrence of the region board, the region chairs appoint at least three region members to serve as the respective region's Nominating Committee
- Those serving on nominating committees are ineligible to seek region offices
- Nominating Committee members are posted online at www.acwa.com

March 1-31: **NOMINATING COMMITTEE TRAINING**

- Nominating Committee packets will be e-mailed out to each committee member
- ACWA staff will hold a training session via conference call with each nominating committee to educate them on their specific role and duties
  - Regions 1-10 Nominating Committees: via Go-to-Meeting

May 13: **CALL FOR CANDIDATES**

- The call for candidate nominations packet will be e-mailed to ACWA member agency Board Presidents and General Managers

June 28: **DEADLINE FOR COMPLETED NOMINATION FORMS**

- Deadline to submit all Nomination Forms and board resolutions of support for candidacy for region positions
- Nominating Committee members may need to solicit additional candidates in person to achieve a full complement of nominees for the slate

July 10: **CANDIDATE INFORMATION TO NOMINATING COMMITTEES**

- All information submitted by candidates will be forwarded from ACWA staff to the respective region Nominating Committee members with a cover memo explaining their task

Updated January 15, 2019

ACWA Region Election Timeline

July 11 - 31: **RECOMMENDED SLATES SELECTED**

- Nominating Committees will meet to determine the recommended individuals for their region. The slate will be placed on the election ballot.
- Nominating Committee Chairs will inform their respective ACWA Regional Affairs Representative of their recommended slate by July 24
- Candidates will be notified of the recommended slate by August 1
- The Nominating Committee Chair will approve the official region ballot

August 1: **ELECTIONS BEGIN**

- All 10 official electronic ballots identifying the recommended slate and any additional candidates for consideration for each region will be produced and e-mailed to ACWA member agencies only
- Only one ballot per agency will be counted

September 30: **ELECTION BALLOTS DUE**

- ***Deadline for all region elections. All region ballots must be received by ACWA by September 30, 2019***

October 4: **ANNOUNCEMENT OF ELECTION RESULTS**

- Newly-elected members of the region boards will be contacted accordingly
- An ACWA Advisory will be distributed electronically to all members reporting the statewide region election results
- Results will be posted at acwa.com and will be published in the October issue of ACWA News

Updated January 15, 2019

ACWA
Association of California Water Agencies

REGION BOARD CANDIDATE NOMINATION FORM

Name of Candidate: _____

Agency: _____ Title: _____

Agency Phone: _____ Direct Phone: _____

E-mail: _____ ACWA Region: _____ County: _____

Address: _____

Region Board Position Preference: (If you are interested in more than one position, please indicate priority - 1st, 2nd and 3rd choice)

☐ Chair____ ☐ Vice Chair____ ☐ Board Member____

In the event, you are not chosen for the recommended slate, would you like to be listed on the ballot's individual candidate section? (If neither is selected, your name will **NOT** appear on the ballot.)

☐ Yes ☐ No

Agency Function(s): (check all that apply)

☐ Wholesale ☐ Sewage Treatment ☐ Flood Control
☐ Urban Water Supply ☐ Retailer ☐ Groundwater Management / Replenishment
☐ Ag Water Supply ☐ Wastewater Reclamation ☐ Other: _____

Describe your ACWA-related activities that help qualify you for this office:

_____

_____

_____

In the space provided, please write or attach a brief, half-page bio summarizing the experience and qualifications that make you a viable candidate for ACWA Region leadership. Please include the number of years you have served in your current agency position, the number of years you have been involved in water issues and in what capacity you have been involved in the water community.

_____

_____

_____

_____

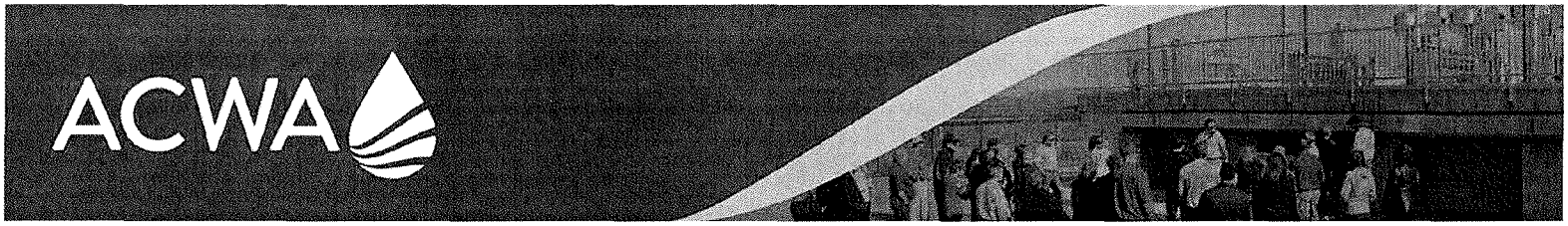
_____

I acknowledge that the role of a region board member is to actively participate on the Region Board during my term, including attending region board and membership meetings, participating on region conference calls, participating in ACWA's Outreach Program, as well as other ACWA functions to set an example of commitment to the region and the association.

I hereby submit my name for consideration by the Nominating Committee.
(Please attach a copy of your agency's resolution of support/sponsorship for your candidacy.)

_____ _____ _____
Signature Title Date

Submit completed form by **June 28, 2019** to regionelections@acwa.com



ACWA Region 4
Rules & Regulations

Each region shall organize and adopt rules and regulations for the conduct of its meetings and affairs not inconsistent with the Articles of Incorporation or bylaws of the Association (ACWA Bylaw V, 6.).

Officers

The Region 4 board shall have cooperation and planning responsibility and can make specific recommendations to the region as a whole.

The chair will appoint a secretary to the board if one is deemed necessary.

Meetings

Region 4 will meet at least quarterly; two of those meeting to be held at the ACWA spring and fall conferences.

The Region 4 Board will determine when or if the non-members are invited to regional activities or events.

Attendance

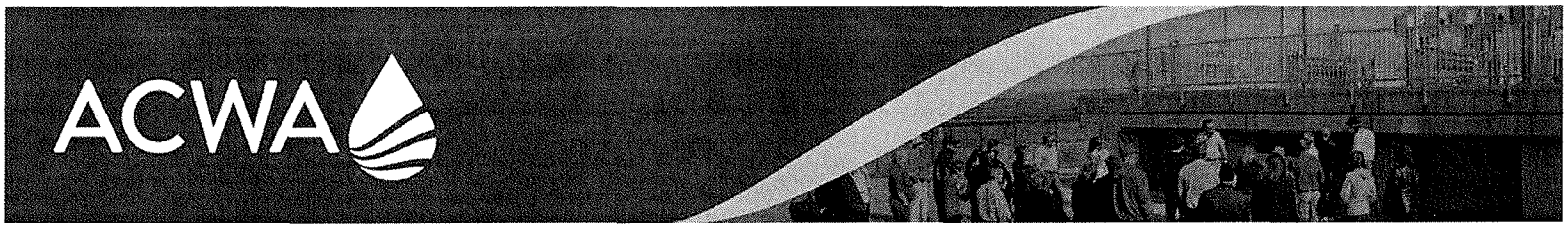
If a region chair or vice chair is no longer allowed to serve on the Board of Directors due to his / her attendance, the region board shall appoint from the existing region board a new region officer. (ACWA Policy & Guideline Q, 1.)

If a region chair or vice chair misses three consecutive region board / membership meetings, the same process shall be used to backfill the region officer position. (ACWA Policy & Guideline Q, 1.)

If a region board member has three consecutive unexcused absences from a region board meeting or general membership business meeting, the region board will convene to discuss options for removal of the inactive board member. If the vacancy causes the board to fail to meet the minimum requirement of five board members, the region must fill the vacancy according to its rules and regulations. (ACWA Policy & Guideline Q, 3.)

Elections

All nominations received for the region chair, vice chair and board positions must be accompanied by a resolution of support from each sponsoring member agency, signed by an authorized representative of the Board of Directors. Only one individual may be nominated from a given agency to run for election to a region board. Agencies with representatives serving on the nominating committees should strive not to submit nominations for the region board from their agency. (ACWA Policy & Guideline P, 2.)



The term for the chair and vice chair shall be limited to one full two-year term.

An elected chair or vice chair shall not be permitted to succeed himself/herself to that office.

Election ballots will be e-mailed to ACWA member agency general managers and presidents.

The nominating committee shall consist of three to five members.

The nominating committee should pursue qualified members within the region to run for the region board, and should consider geographic diversity, agency size and focus in selecting a slate.

Once the nominating committee has decided on a recommended region slate, they shall work with ACWA staff to ensure candidates not chosen for the slate are notified prior to the start of the election.

See current region election timeline for specific dates.

Endorsements

ACWA, as a statewide organization, may endorse potential nominees and nominees for appointment to local, regional, and statewide commissions and boards. ACWA's regions may submit a recommendation for consideration and action to the ACWA Board of Directors to endorse a potential nominee or nominee for appointment to a local, regional or statewide commission or board. (ACWA Policy & Guideline P, 3.)

Committee Recommendations & Representation

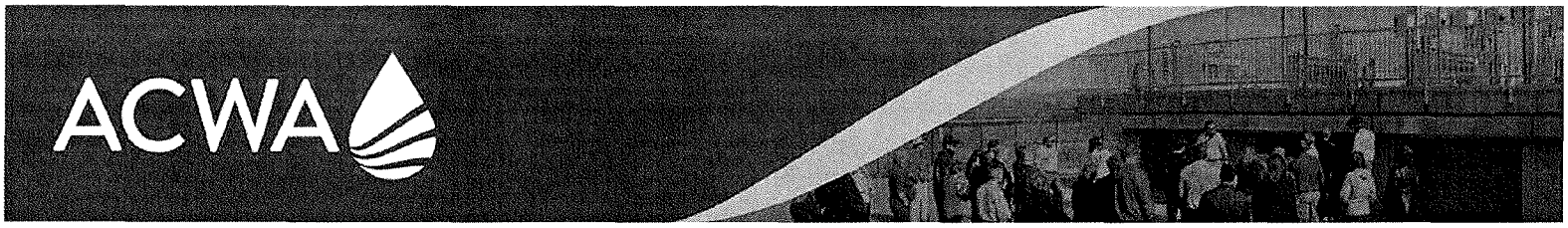
All regions are given equal opportunity to recommend representatives of the region for appointment to a standing or regular committee of the Association. If a region fails to provide full representation on all ACWA committees, those committee slots will be left open for the remainder of the term or until such time as the region designates a representative to complete the remainder of the term. (ACWA Policy & Guideline P, 4. A.)

At the first region board / membership meeting of the term, regions shall designate a representative serving on each of the standing and regular committees to serve as the official reporter to and from the committee on behalf of the region to facilitate input and communication. (ACWA Policy & Guideline P, 4. B.)

Tours

ACWA may develop and conduct various tours for the regions. All tour attendees must sign a "release and waiver" to attend any and all region tours. Attendees agree to follow environmental guidelines and regulations in accordance with direction from ACWA staff; and will respect the rights and privacy of other attendees. (ACWA Policy & Guideline P, 6.)

Finances

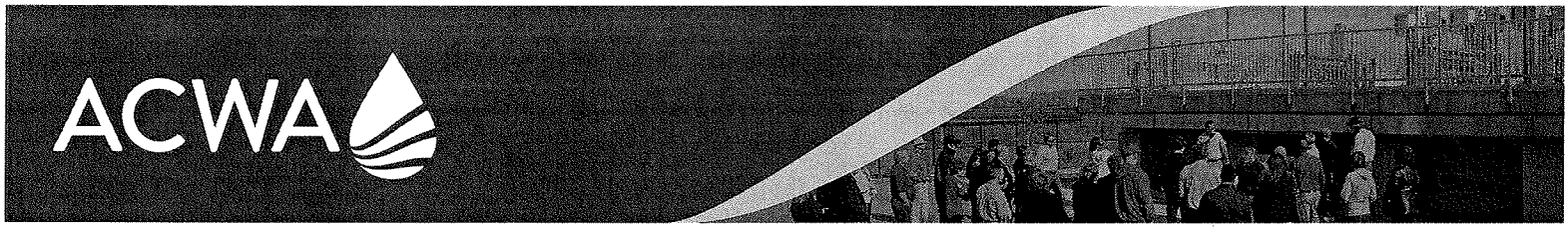


See "Financial Guidelines for ACWA Region Events" document.

Amending the Region Rules & Regulations

ACWA policies and guidelines can be amended by approval of the ACWA Board of Directors.

The Region 4 Rules & Regulations can be amended by a majority vote of those present at any Region 4 meeting as long as a quorum is present.



THE ROLE OF THE REGIONS

Mission:
ACWA Regions will provide the grassroots support to advance ACWA's legislative and regulatory agenda.

Background:
As a result of ACWA's 1993 strategic planning process, known as Vision 2000, ACWA modified its governance structure from one that was based on sections to a regional-based configuration. Ten regions were established to provide geographic balance and to group agencies with similar interests.

The primary charge of regions:

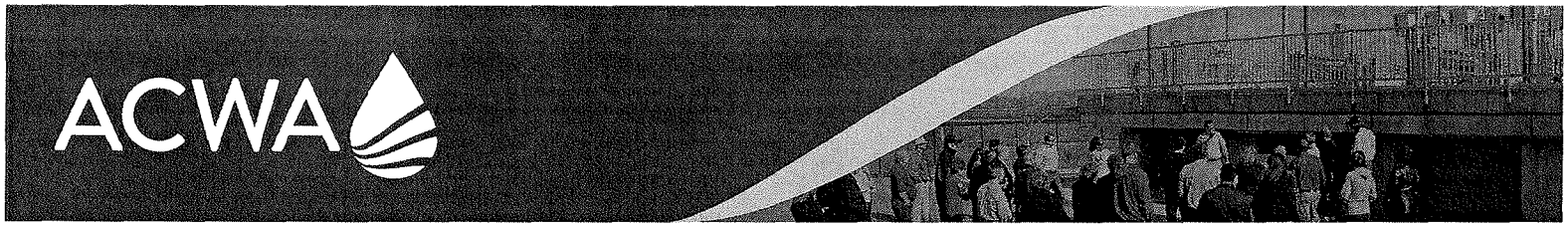
- To provide a structure where agencies can come together and discuss / resolve issues of mutual concern and interest and based on that interaction, provide representative input to the ACWA board.
- To assist the Outreach Task Force in building local grassroots support for the ACWA Outreach Program in order to advance ACWA's legislative and regulatory priorities as determined by the ACWA Board and the State Legislative, Federal Affairs or other policy committees.
- To provide a forum to educate region members on ACWA's priorities and issues of local and statewide concern.
- To assist staff with association membership recruitment at the regional level.
- To recommend specific actions to the ACWA Board on local, regional, state and federal issues as well as to recommend endorsement for various government offices and positions.
    - *Individual region boards CANNOT take positions, action or disseminate communication on issues and endorsements without going through the ACWA Board structure.*

Region chairs and vice chairs, with support from their region boards, provide the regional leadership to fulfill this charge.

GENERAL DUTIES / RESPONSIBILITIES FOR REGION OFFICERS

Region Chair:

- Serves as a member of the ACWA Board of Directors at bimonthly meetings at such times and places as the Board may determine. The Chair will also call at least two Region membership meetings to be held at each of the ACWA Conferences and periodic Region Board meetings.
- Is a member of ACWA's Outreach Program, and encourages region involvement.
    - Appoints Outreach Captain to help lead outreach effort within the region.



- Presides over all region activities and ensures that such activities promote and support accomplishment of ACWA's Goals.
- Makes joint recommendations to the ACWA President regarding regional appointments to all ACWA committees.
- Appoints representatives in concurrence of the region board, to serve on the region's nominating committee with the approval of the region board.
- Facilitates communication from the region board and the region membership to the ACWA board and staff.

Region Vice Chair:

- Serves as a member of the ACWA Board of Directors at bimonthly meetings at such times and places as the Board may determine. The Vice Chair will also participate in at least two Region membership meetings to be held at each of the ACWA Conferences and periodic Region Board meetings.
- In the absence of the chair and in partnership with the chair, exercises the powers and performs duties of the region chair.
- Is a member of ACWA's Outreach Program, and encourages region involvement.
- Makes joint recommendations to the ACWA president regarding regional appointments to all ACWA committees.

Region Board Member:

- May serve as alternate for the chair and/or vice chair in their absence (if appointed) to represent the region to the ACWA Board.
- Will participate in at least two Region membership meetings to be held at each of the ACWA Conferences and periodic Region Board meetings.
- Supports program planning and activities for the region.
- Actively participates and encourages region involvement in ACWA's Outreach Program.

RESOLUTION NO. _____

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE (DISTRICT NAME) PLACING IN NOMINATION (NOMINEE NAME) AS A MEMBER OF THE ASSOCIATION OF CALIFORNIA WATER AGENCIES REGION ___ (POSITION)

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF (DISTRICT NAME) AS FOLLOWS:

A. Recitals

(i) The Board of Directors (Board) of the (District Name) does encourage and support the participation of its members in the affairs of the Association of California Water Agencies (ACWA).

(ii) (Nominee Title), (Nominee Name) is currently serving as (Position) for ACWA Region ___

and/or

(iii) (Nominee Name) has indicated a desire to serve as a (Position) of ACWA Region ____.

B. Resolves

NOW, THEREFORE, BE IT RESOLVED THAT THE BOARD OF DIRECTORS OF (DISTRICT NAME),

(i) Does place its full and unreserved support in the nomination of (Nominee Name) for the (Position) of ACWA Region ____.

(ii) Does hereby determine that the expenses attendant with the service of (Nominee Name) in ACWA Region ____ shall be borne by the (District Name).

Adopted and approved this ____ day of ____ (month) 2019.

_____
(Nominee Name), (Title)
(District Name)

(SEAL)

ATTEST:

_____
(Secretary Name), Secretary

I, (SECRETARY NAME), Secretary to the Board of Directors of (District Name), hereby certify that the foregoing Resolution was introduced at a regular meeting of the Board of Directors of said District, held on the ____ day of ____ (month) 2017, and was adopted at that meeting by the following role call vote:

AYES:

NOES:

ABSENT:

ATTEST:

_____
(Secretary Name), Secretary to the
Board of Directors of
(District Name)

SACRAMENTO SUBURBAN WATER DISTRICT

Back to Agenda

Agenda Item: 5

Date: June 10, 2019

Subject: 2019 Water Rate Study

Staff Contact: Daniel A. Bills, Finance Director

Recommended Board Action:

Accept the attached Comprehensive Water Cost of Service Study Report as the basis for the proposed water rate increases for years 2020 to 2024 to be discussed at a Public Hearing scheduled for October 16, 2019.

Discussion:

Attached is a power-point presentation and a draft-final version of the Comprehensive Water Cost of Service Study Report for Board review. As was presented in the prior draft, rate increases are proposed to be a maximum of 5% in 2020, 4% in 2021 and 3% per year in years 2022 through 2024. Comments received at the March Board meeting are included in the attached report. No comments were received subsequent to the March Board meeting. In summary, the major changes to existing rates and rate structure are:

Rate Structure Changes:

1. Adjust Tier 1 from 10 ccf to 15 ccf.
2. Separate Multi-Family Residential from Commercial customers.
3. Eliminate seasonal rates and develop uniform rates for non-residential customers.
4. Non-residential pricing no longer split between peak and non-peak periods.

Reserves:

1. Implement Raftelis' recommendations to Reserve Policy. (Presented as a separate Board action.)

Financial Outlook:

1. Added a one-time $2.6 million settlement to McClellan Business Park in 2019.
2. Rate adjustments to occur annually on January 1, beginning in 2020.

Fiscal Impact:

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

Strategic Plan Alignment:

Finance – 4.B. Establish rates and connection fees that are fair, reflect the cost of service, encourage conservation, are simple to understand, and meet the District's revenue requirements, including bond covenants.

Sacramento Suburban **Water District**

Cost of Service Water Rate Study – Recommended Rates

June 17, 2019

RAFTELIS

Agenda

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

Current Financials

Revised Baseline

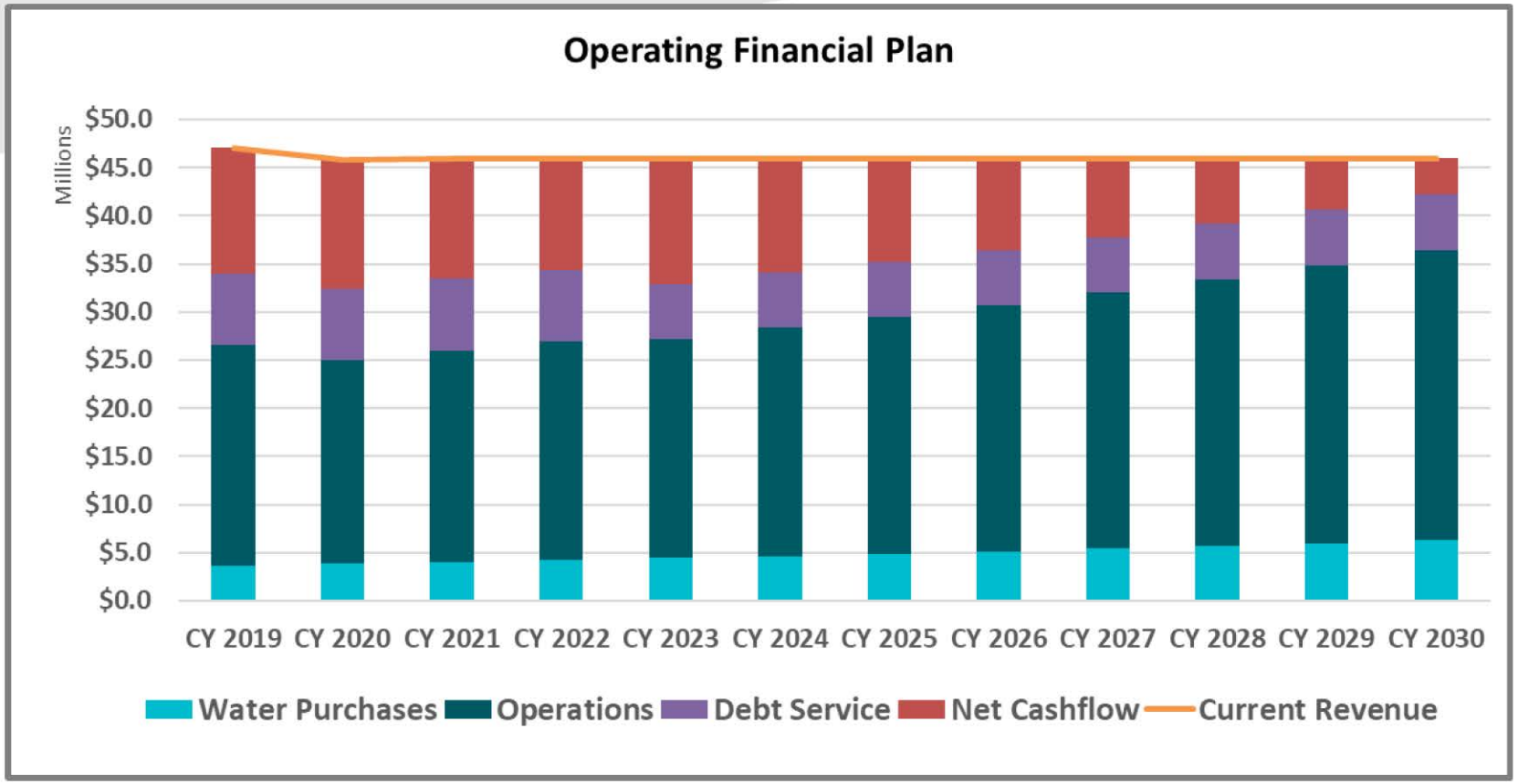
Revised Existing Financial Outlook

Revenue	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Revenue from Rates	**$43,579,797**	**$43,579,797**	**$43,579,797**	**$43,579,797**	**$43,579,797**	**$43,579,797**
Other Revenue						
Wheeling Revenue	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000
Water Transfers	$940,000	$0	$0	$0	$0	$0
Interest Income	$72,398	$79,361	$165,969	$164,797	$169,511	$168,119
Grant Income	$275,000	$0	$0	$0	$0	$0
Other Revenue	$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
FireLine Revenues	$962,000	$962,000	$962,000	$962,000	$962,000	$962,000
Total Other Revenue	**$3,491,398**	**$2,283,361**	**$2,369,969**	**$2,368,797**	**$2,373,511**	**$2,372,119**
Total Revenue	**$47,071,195**	**$45,863,158**	**$45,949,766**	**$45,948,594**	**$45,953,308**	**$45,951,916**

Operating Expenditures	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Water Costs	$3,663,935	$3,847,131	$4,039,488	$4,241,462	$4,453,535	$4,676,212
Groundwater	$474,995	$498,745	$523,682	$549,866	$577,359	$606,227
Electrical Costs	$1,629,887	$1,711,381	$1,796,950	$1,886,797	$1,981,137	$2,080,194
Water Conservation	$31,000	$31,620	$32,252	$32,897	$33,555	$34,227
Salaries	$5,439,124	$5,602,298	$5,770,367	$5,943,478	$6,121,782	$6,305,436
Benefits	$4,976,184	$5,301,610	$5,647,686	$6,015,836	$6,407,588	$6,824,574
Supplies	$1,246,585	$1,274,290	$1,302,635	$1,331,636	$1,361,309	$1,391,670
Finance and Admin	$2,203,690	$2,247,764	$2,292,719	$2,338,573	$2,385,345	$2,433,052
Engineering	$2,334,294	$2,382,533	$2,431,785	$2,482,072	$2,533,416	$2,585,839
General	$579,604	$591,945	$604,569	$617,486	$630,702	$644,226
Maintenance	$661,857	$682,436	$703,655	$725,534	$748,093	$771,353
Settlement	$2,600,000	$0	$0	$0	$0	$0
Meters	$695,000	$861,000	$881,000	$775,000	$0	$0
Total Operating Expenditures	**$26,536,154**	**$25,032,753**	**$26,026,788**	**$26,940,639**	**$27,233,823**	**$28,353,010**
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
2012A Refunding Revenue Bond	$2,838,025	$2,848,225	$2,838,238	$2,818,838	$1,454,600	$1,436,850
2018A Taxable Refunding Revenue Bonds	$3,020,424	$3,043,573	$3,060,449	$3,050,967	$1,534,956	$1,537,962
Total Debt Service	**$7,392,758**	**$7,426,107**	**$7,432,995**	**$7,404,113**	**$5,668,864**	**$5,712,244**
Total Expenses	**$33,928,912**	**$32,458,859**	**$33,459,783**	**$34,344,751**	**$32,902,687**	**$34,065,254**
Net Cashflow *(before Direct Transfers)*	**$13,142,283**	**$13,404,299**	**$12,489,983**	**$11,603,842**	**$13,050,621**	**$11,886,661**

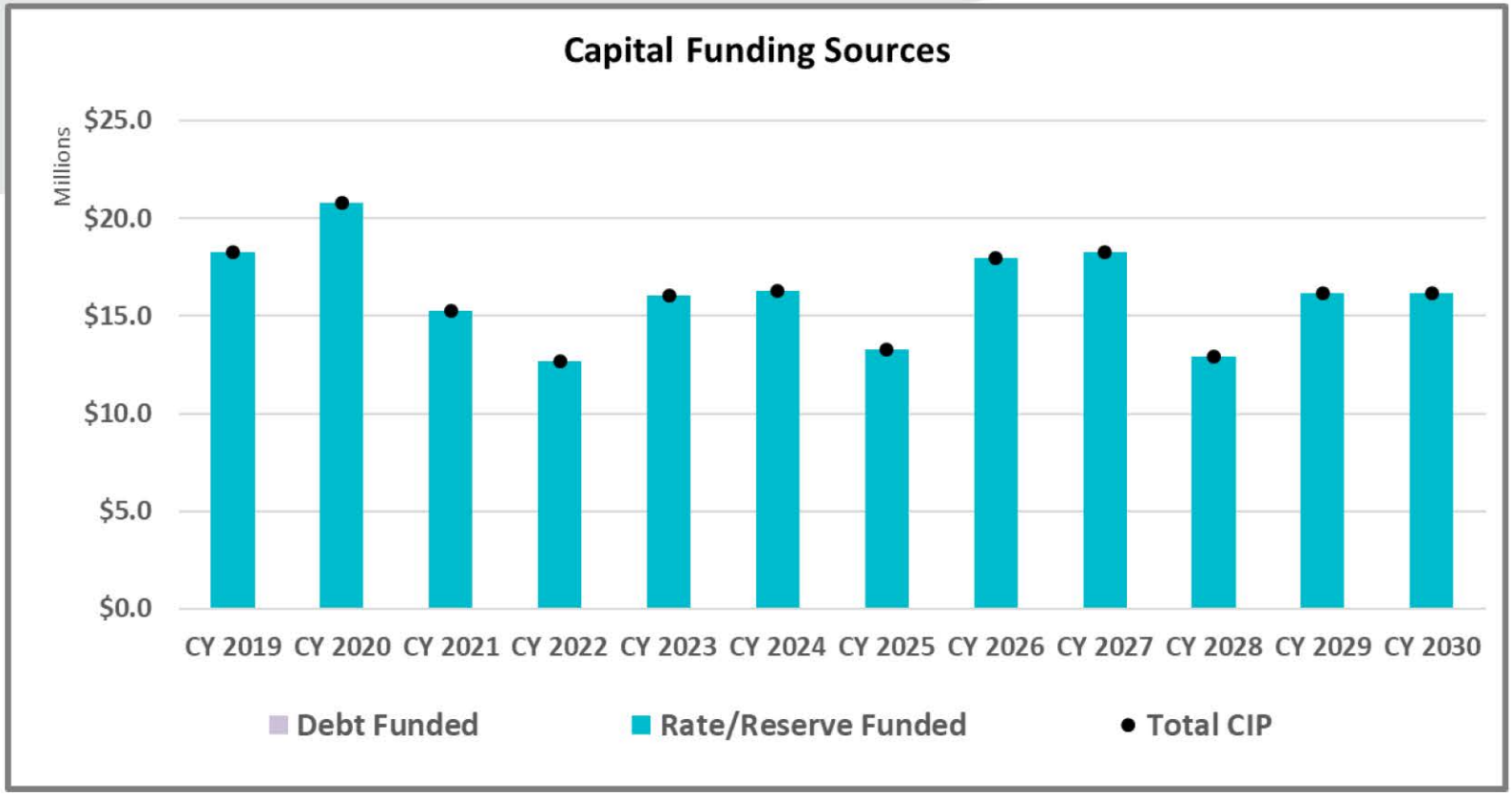
Added settlement

Current Operating Financial Plan



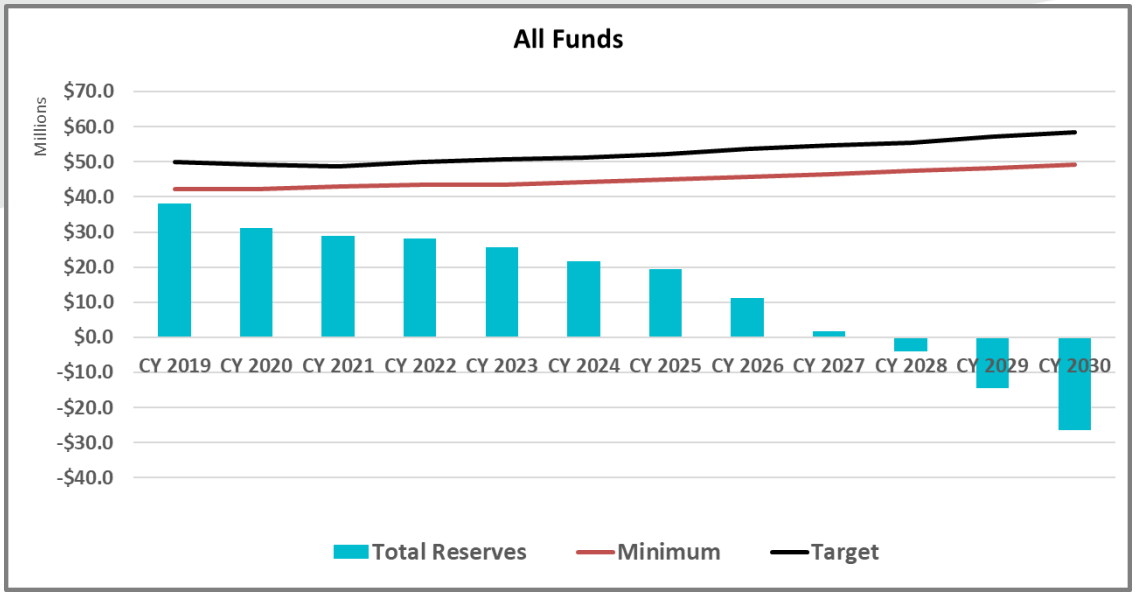
- Current revenues cover O&M, debt service, and projected purchased water costs

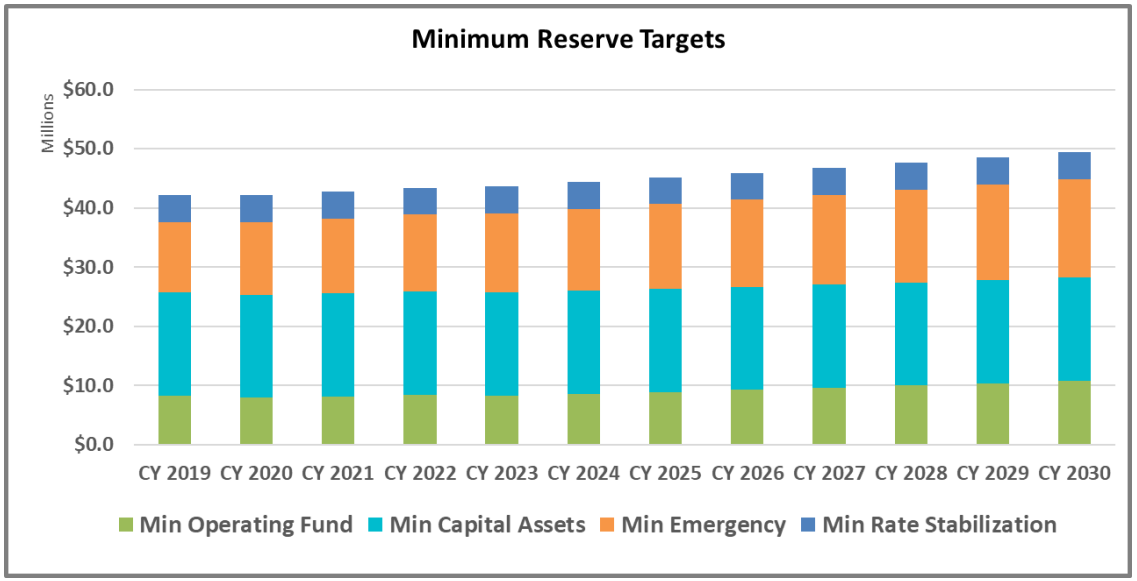
Capital Investment Plan



- District staff revised CIP to reflect critical needs
- Over 10 years, capital reduced by $46.8M
- Other capital improvements are still necessary, but not essential and are deferred in the short-term
- Significant change to revenue requirements over the next five years

Reserves





- Annual Net income alone is not enough to cover CIP
- Reserves are used and slowly depleted

Recommended Financials

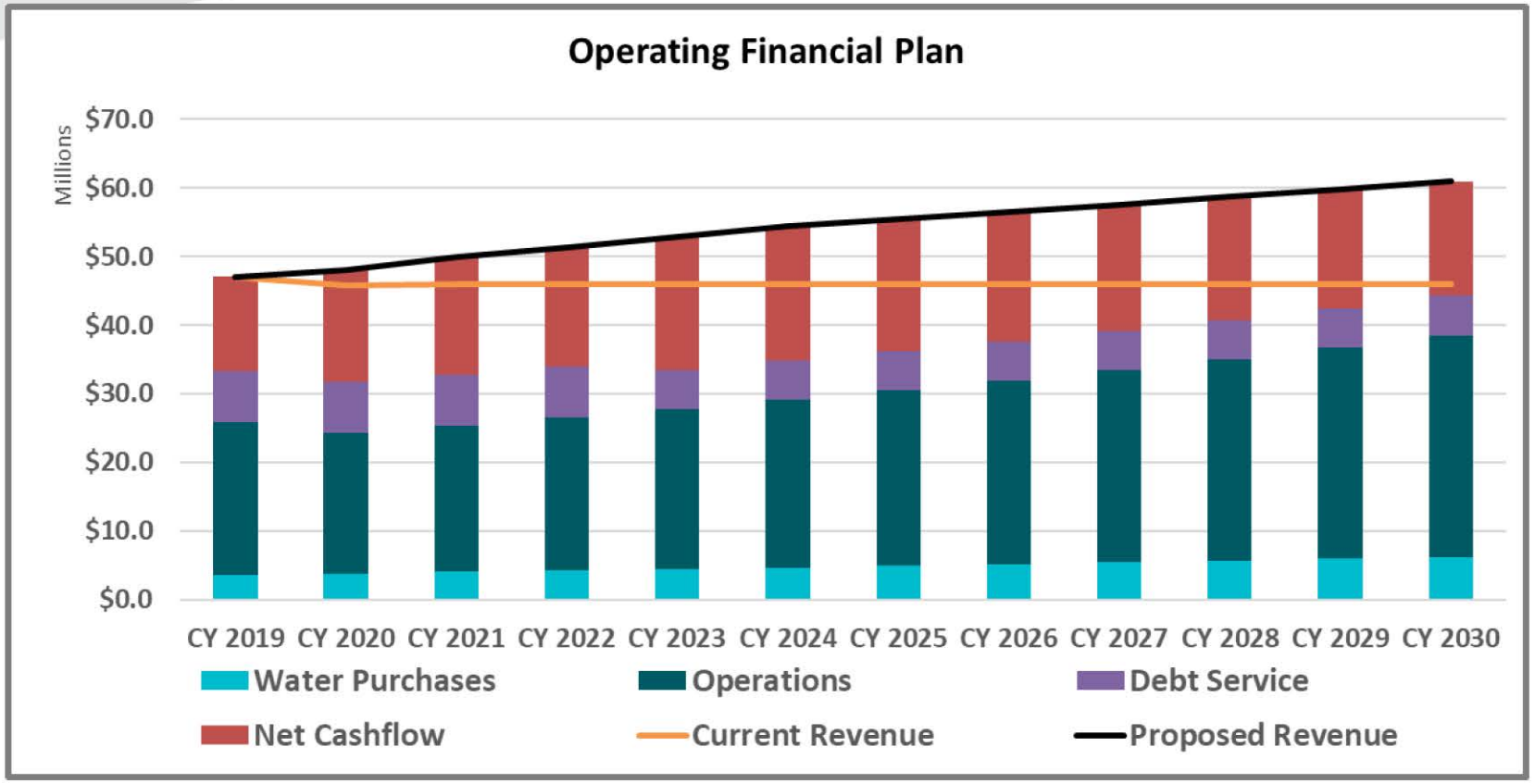
Rev Adj (CY 2019:23): 0%, 5%, 4%, 3%, 3%, 3%

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

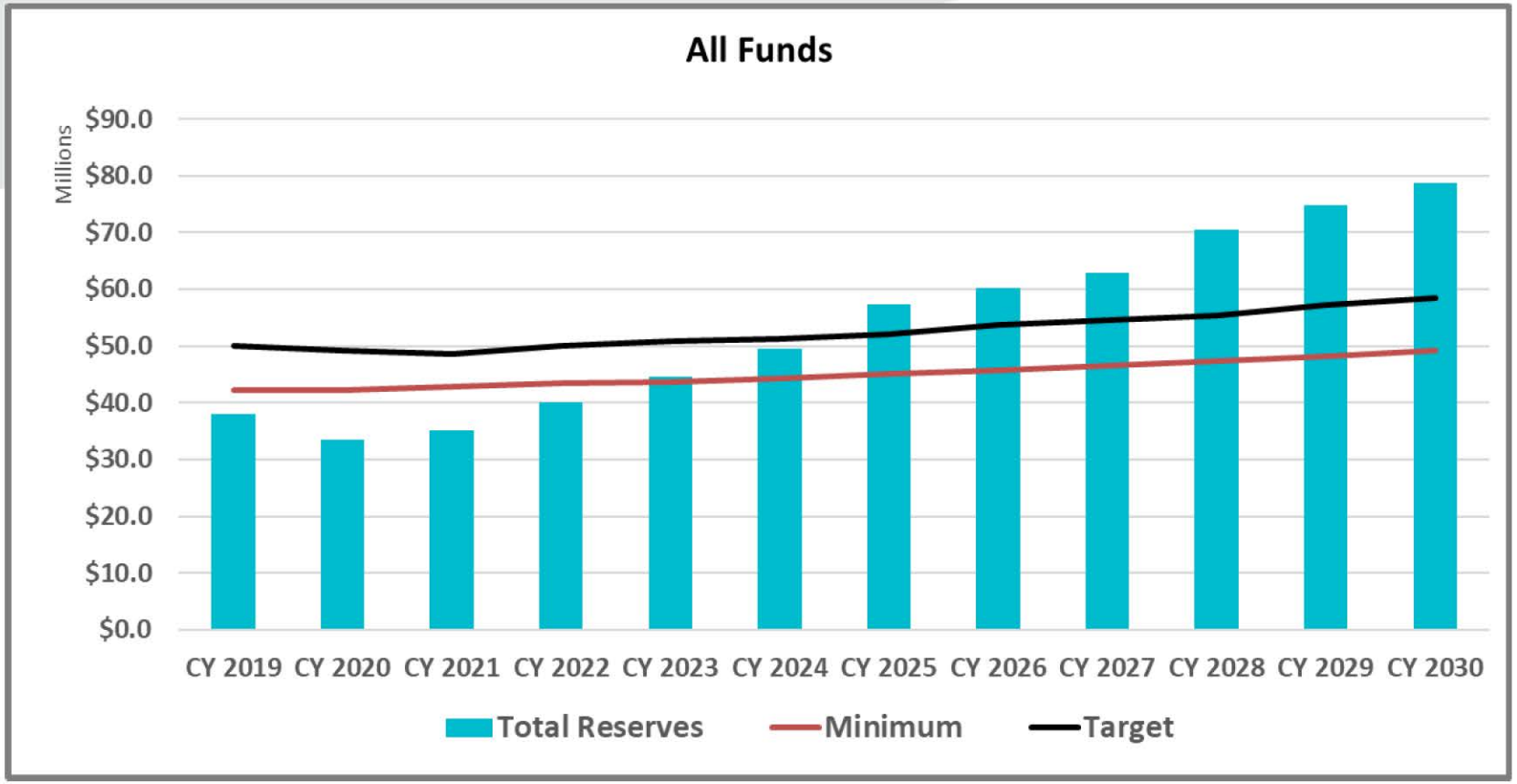
Recommended Financial Plan

- 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)

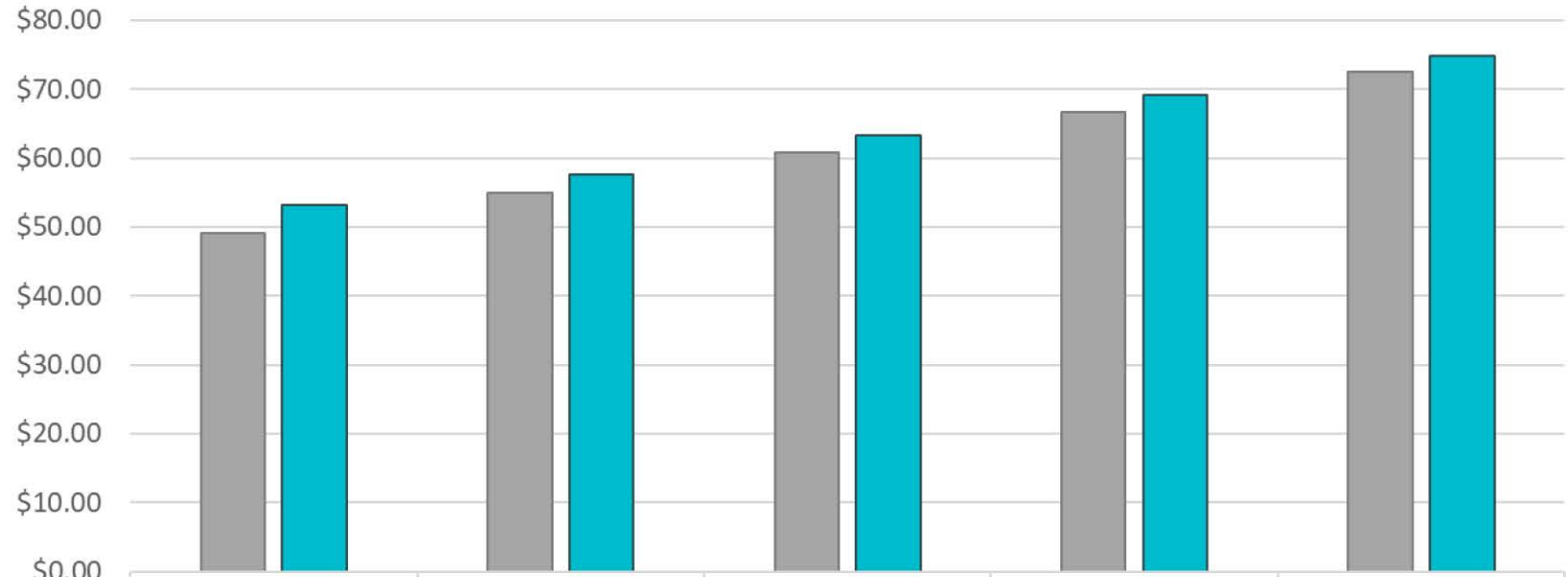
Meter / Connection Size	2020 Proposed Fixed Charge	2021 Proposed Fixed Charge	2022 Proposed Fixed Charge	2023 Proposed Fixed Charge	2024 Proposed Fixed Charge
Conversion Rate ($/ME)	$ 0.07	$ 0.11	$ 0.15	$ 0.19	$ 0.19
5/8"	$32.01	$33.65	$35.04	$36.13	$37.21
3/4"	$44.40	$46.68	$48.61	$50.13	$51.63
1"	$69.19	$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

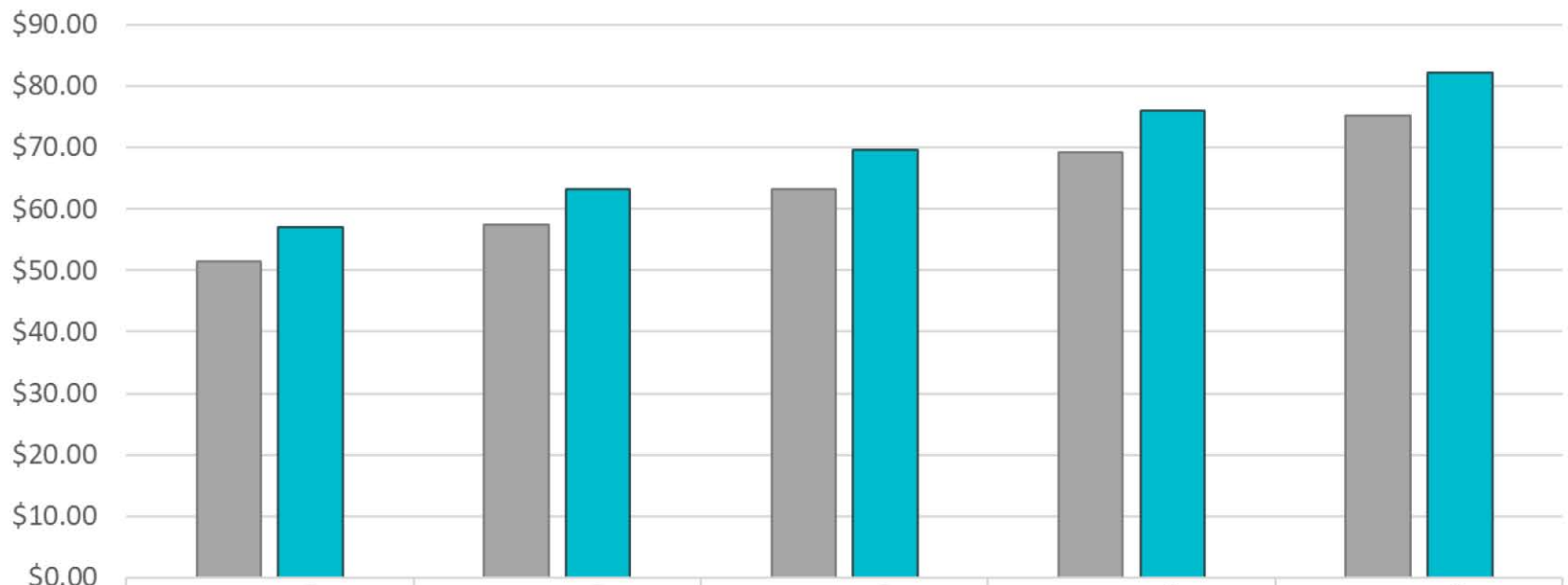
Non-Metered	Current Flat Charge	2020 Proposed Flat Charge	2021 Proposed Flat Charge	2022 Proposed Flat Charge	2023 Proposed Flat Charge	2024 Proposed Flat Charge
$/1,000 sqft	$1.06	$2.35	$2.47	$2.57	$2.65	$2.73

Customer Impact - SFR



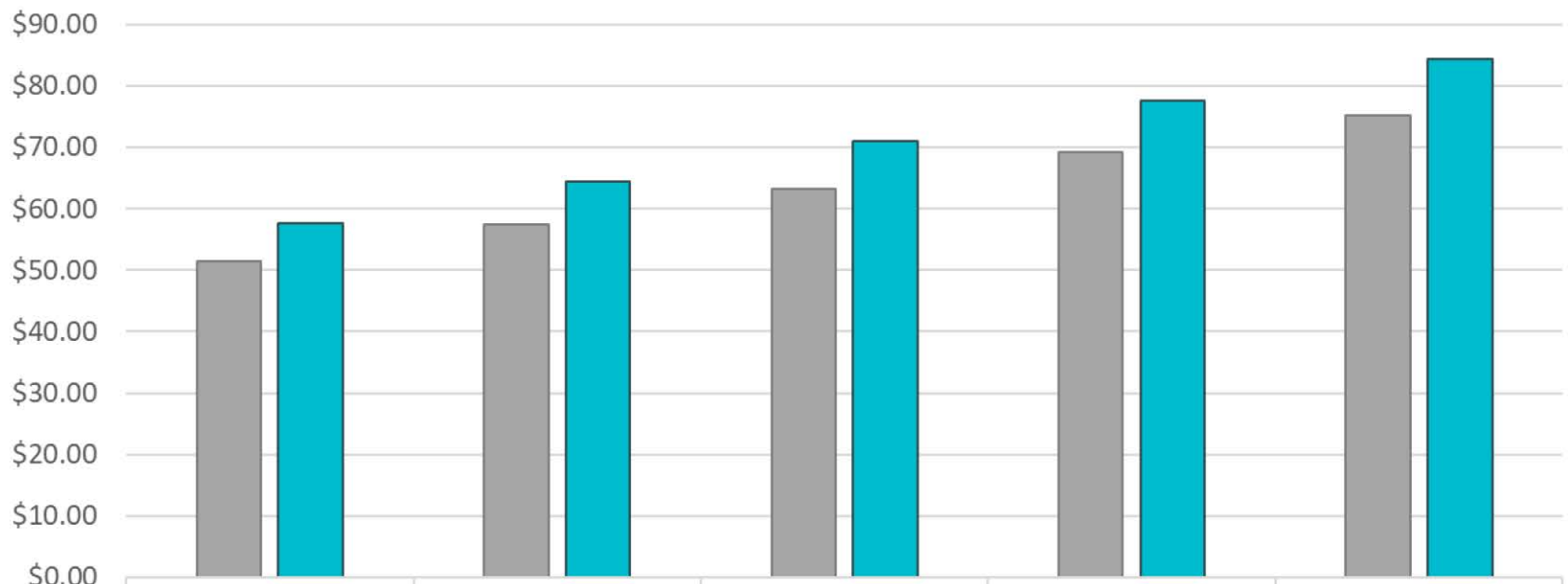
	10 ccf	15 ccf	20 ccf	25 ccf	30 ccf
Current Bill	$49.11	$54.96	$60.81	$66.66	$72.51
Proposed Bill	$53.20	$57.60	$63.35	$69.10	$74.85
Impact ($)	$4.09	$2.64	$2.54	$2.44	$2.34
Impact (%)	8.3%	4.8%	4.2%	3.7%	3.2%

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%

Next Steps

- Public Hearing Set for 10/16/2019
- Draft Prop. 218 Notices
- Proposed Rates Effective on January 1 of each year.

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

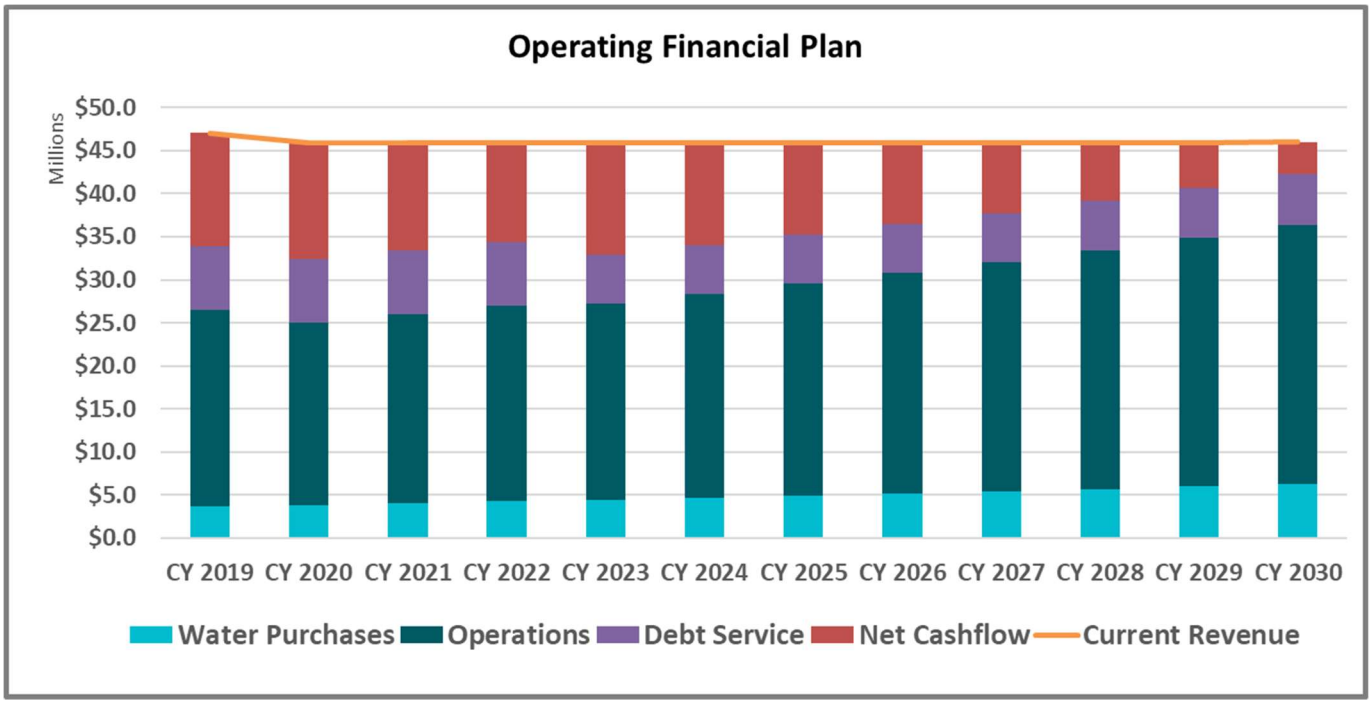


Figure 4-2 summarizes the baseline CIP and its funding sources by fiscal year.

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

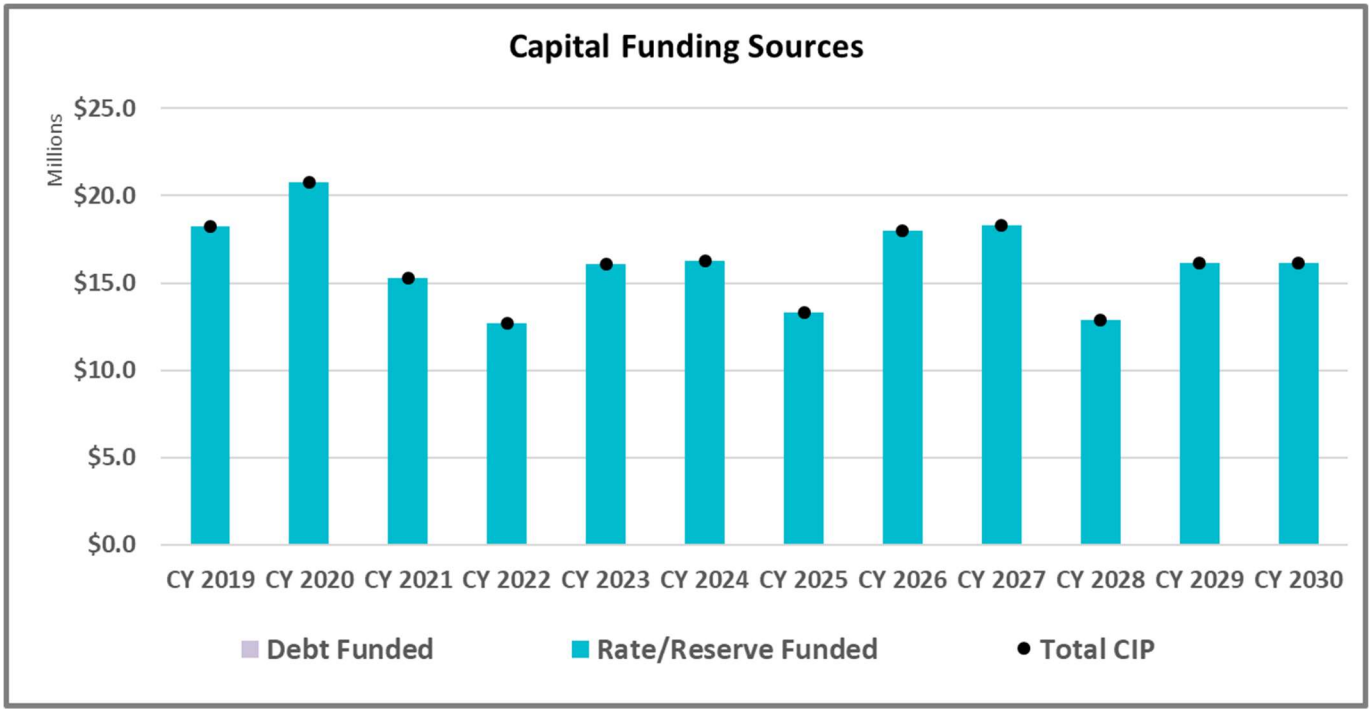
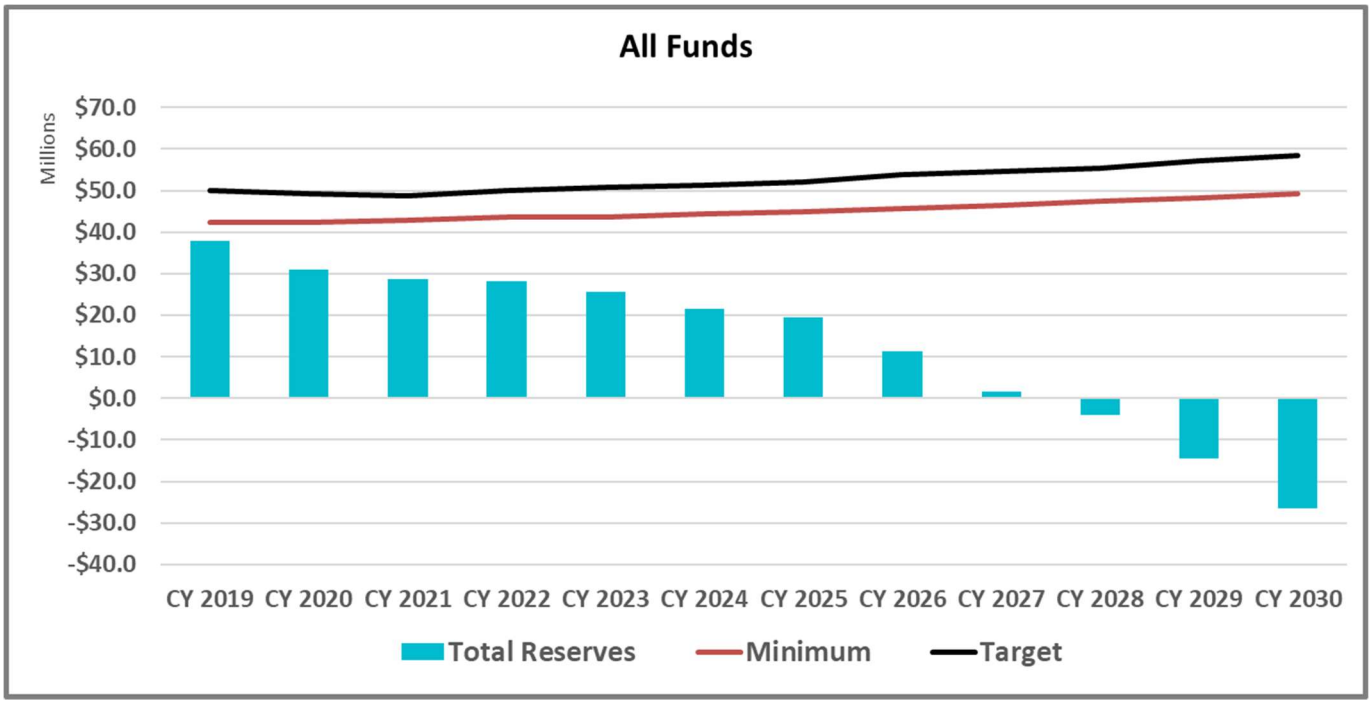


Figure 4-3 illustrates the ending total reserve balance for each calendar year after operating and capital are funded.

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

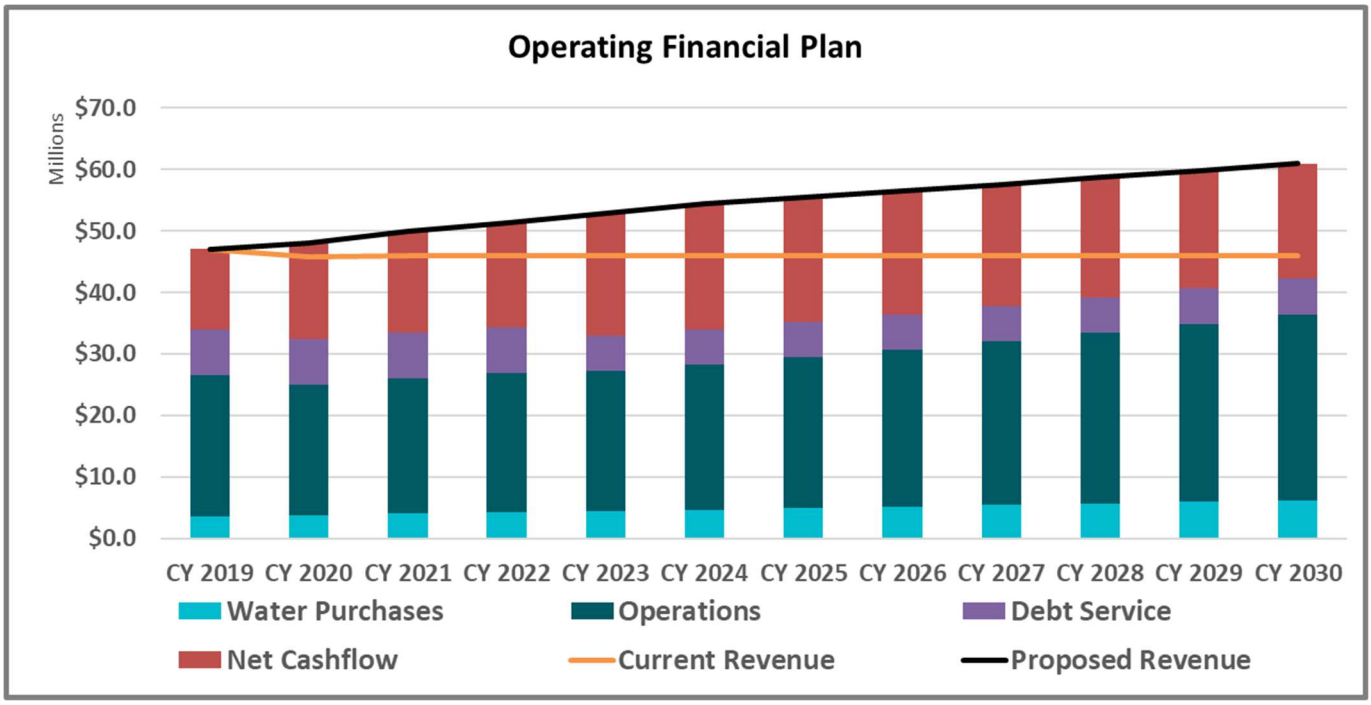


Figure 4-5 summarizes the projected CIP and its funding sources (100% PAYGO).

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

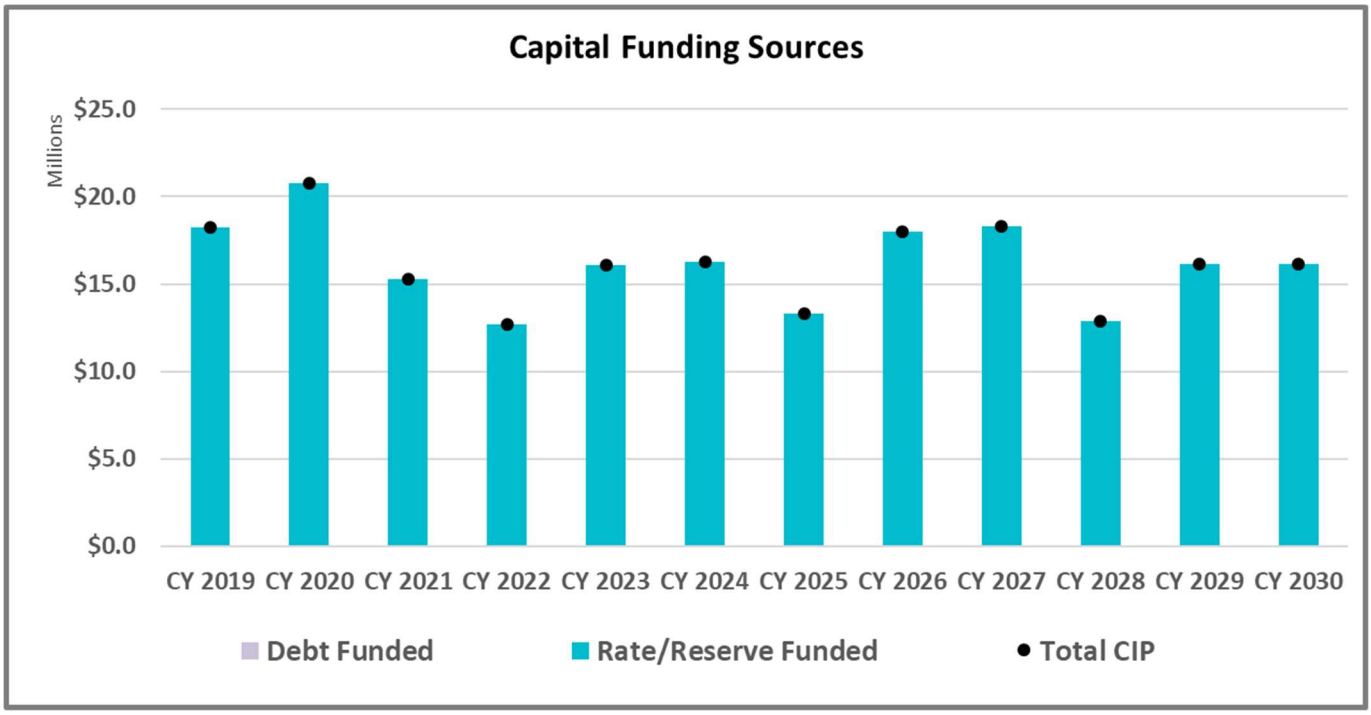
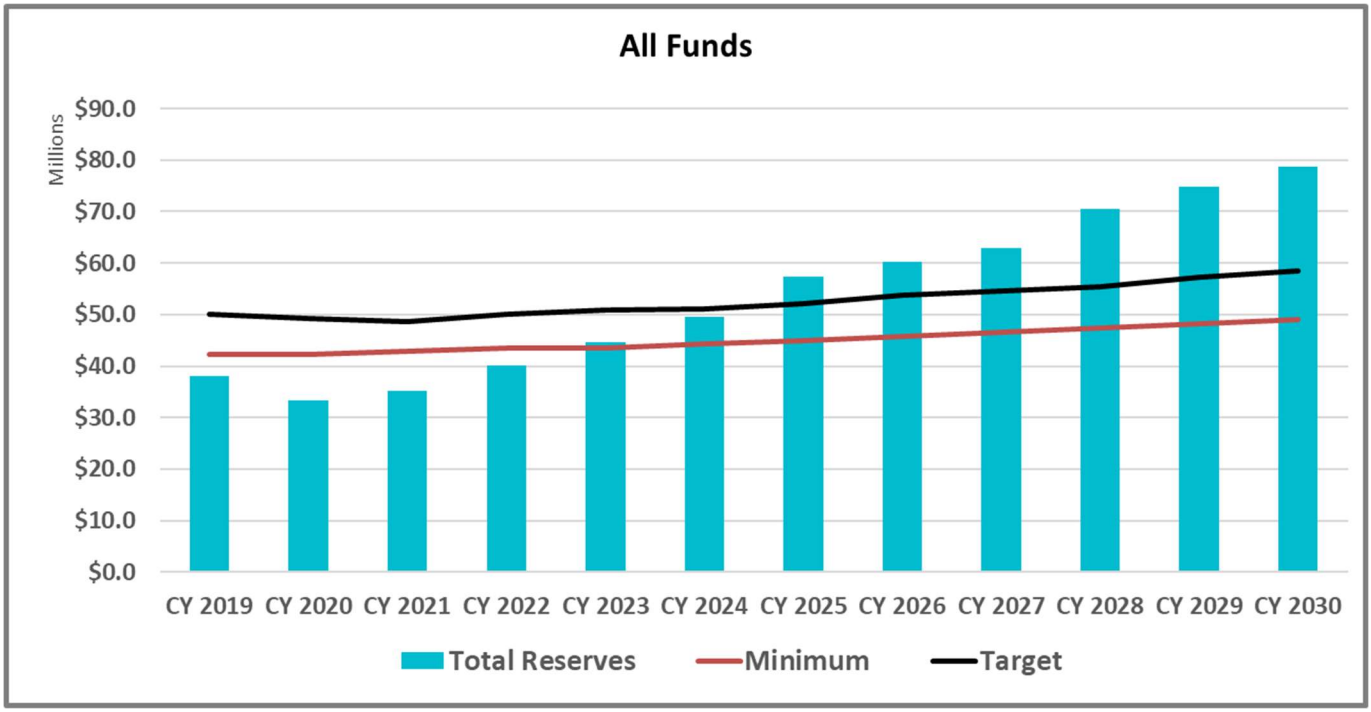


Figure 4-6 displays the ending total reserve balance for the water utility, inclusive of operating and capital funds. The horizontal trend lines indicate the minimum and target reserve balances and the bars indicate ending reserve balance. No new debt is proposed to be issued as part of the proposed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

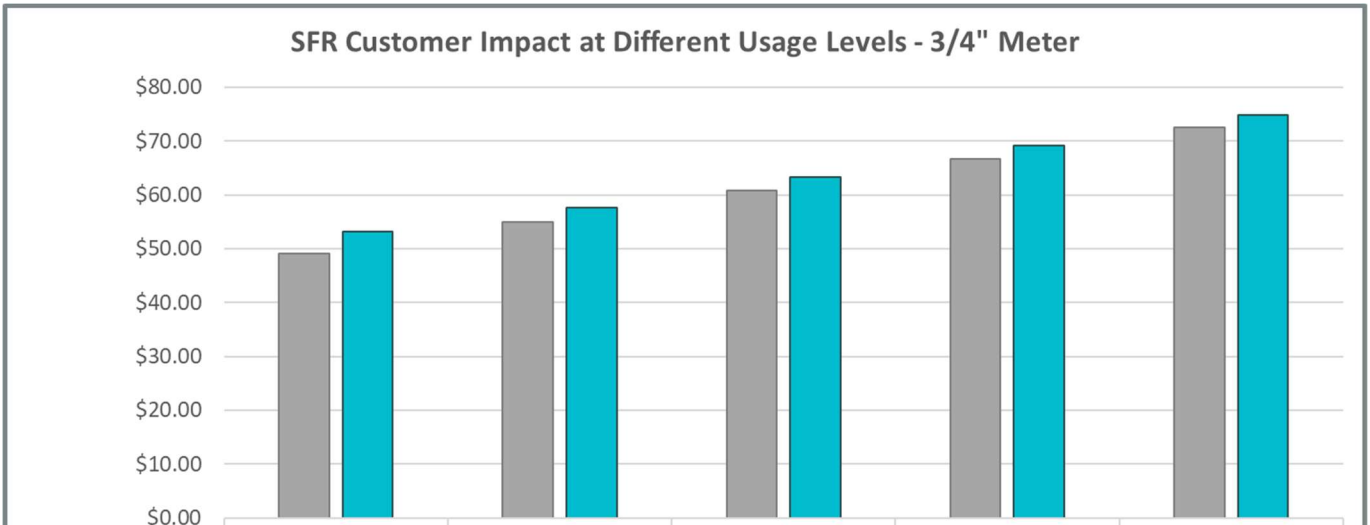
6. Customer Impacts

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

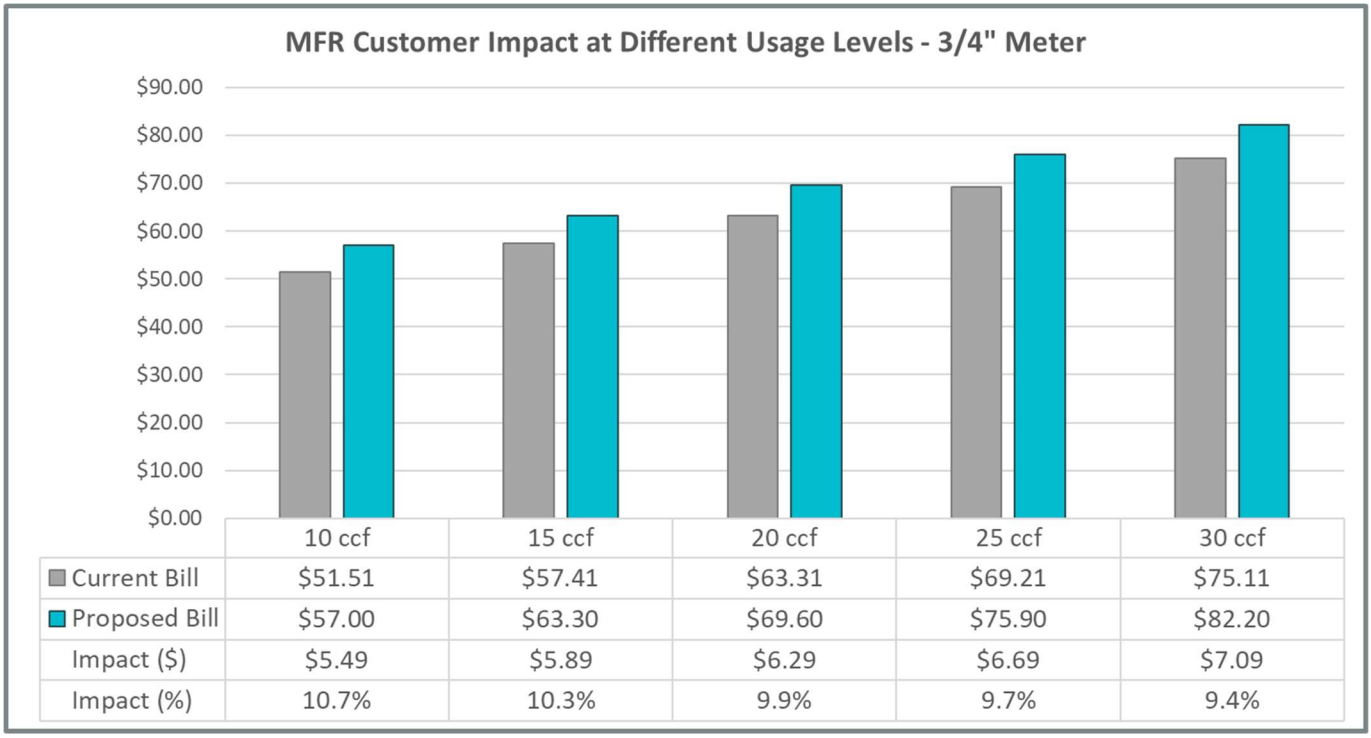


	10 ccf	15 ccf	20 ccf	25 ccf	30 ccf
Current Bill	$49.11	$54.96	$60.81	$66.66	$72.51
Proposed Bill	$53.20	$57.60	$63.35	$69.10	$74.85
Impact ($)	$4.09	$2.64	$2.54	$2.44	$2.34
Impact (%)	8.3%	4.8%	4.2%	3.7%	3.2%

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

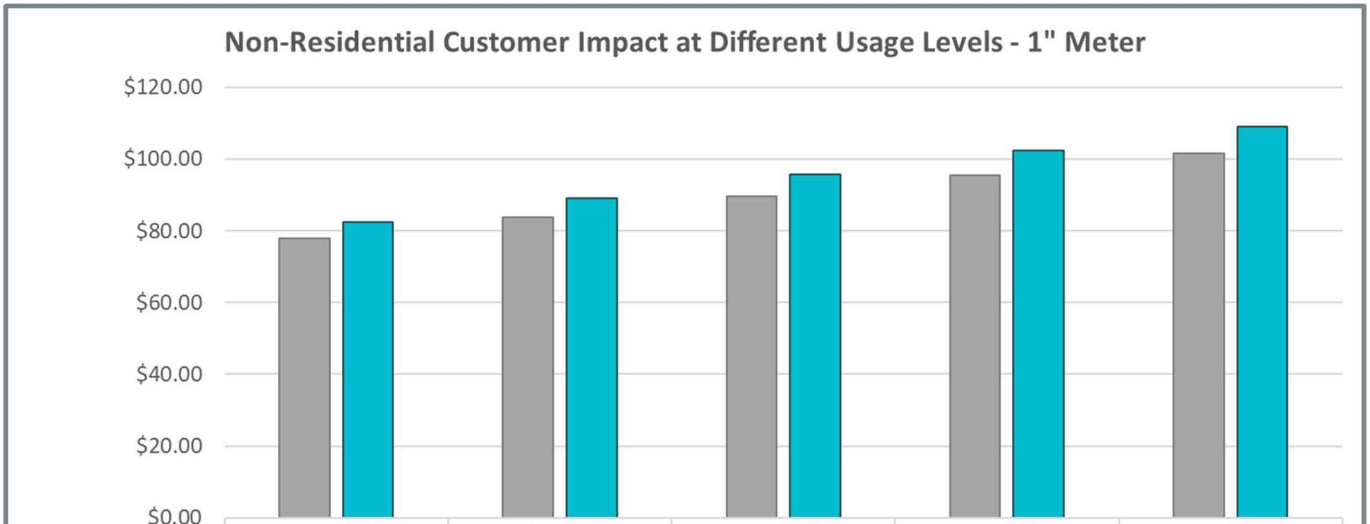


	10 ccf	15 ccf	20 ccf	25 ccf	30 ccf
Current Bill	$51.51	$57.41	$63.31	$69.21	$75.11
Proposed Bill	$57.00	$63.30	$69.60	$75.90	$82.20
Impact ($)	$5.49	$5.89	$6.29	$6.69	$7.09
Impact (%)	10.7%	10.3%	9.9%	9.7%	9.4%

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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SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 6

Date: June 4, 2019

Subject: Water Facilities Development Charge Study

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

Recommended Board Action:

Accept the draft final report on Water Facilities Development Charges (FDCs) from the District's water rate study consultant, Raftelis (see Exhibit 1). Acceptance of this report will serve as the basis for public disclosure and discussion at the October 15, 2019 Public Hearing on Water Rates. If adopted by the Board, these FDCs will be effective April 1, 2020.

Discussion:

The primary purpose for FDC charges is to recoup from new customers the capital outlay necessary to buy-in to the District's existing system capacity at an equitable cost with current customers. Raftelis is recommending the same FDC calculation methodology as first adopted by the District in 2004, the "system buy-in methodology." The "system buy-in methodology" is based on the average investment in the District's water system infrastructure by its current customers. FDCs based on the buy-in method are primarily for reimbursement of past capital costs and the cost of recent investments in the water system.

To effectuate the change, after an adequate public disclosure and comment period, the Board may consider changing FDC charges effective April 1, 2020 by amending Regulation No. 7 of the District's Regulations Governing Water Service, a District Ordinance that provides the direction for governance of the business related functions of the District.

Fiscal Impact:

Increases in FDC fees will be approximately between 9% to 10%. Potential increases to District revenue are expected to be minimal as total FDC fees collected in 2018 and 2017 were $158,001 and $135,073, respectively.

Strategic Plan Alignment:

Finance – 4.B. Provide rates and connection fees that are fair, simple to understand, logical and meet the revenue requirements, including bond rate covenants, of the District.

Sacramento Suburban Water District

Water Facilities Development Charge Study

DRAFT Report / June 13, 2019

RAFTELIS

SACRAMENTO SUBURBAN WATER DISTRICT

RAFTELIS

June 13, 2019

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

Subject: Water Facilities Development Charge Study

Dear Mr. Bills,

Raftelis Financial Consultants, Inc. (Raftelis) is pleased to provide this Water Facilities Development Charge Study Report (Report) to Sacramento Suburban Water District (District). This report details the methodology used to update the District's facilities development charge (i.e. capacity fees) and summarizes the key findings and recommendations.

It has been a pleasure working with you, and we thank you and the District staff for the support provided during the course of 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 of the Study

In January 2018, Sacramento Suburban Water District (District) engaged Raftelis Financial Consultants, Inc. (Raftelis) to conduct a Water Facilities Development Charge Study (Study). This report describes how Raftelis calculated updated facilities development charges in accordance with the rules and regulations of California State Government Code, Section 66013. This report is formal technical documentation in support of modifications to the facilities development charges within the District's service area.

1.2. Water Facilities Development Charge

The existing water facilities development charge of $3,524 per Equivalent Dwelling Unit (EDU)[1] was last updated in 2015 and was based on 100% buy-in.

The District is nearing build-out and anticipates minimal growth in future years. In addition, the system was built in advance to accommodate build-out demand and, therefore, has the capacity to serve the remaining or expected growth. Based on this information, it is reasonable and appropriate to determine water facilities development charges, also known as capacity fees, based on the buy-in method. Raftelis worked closely with the District to determine the value of the existing system inclusive of capital work-in-progress, capital reserves and less the total debt service principal balances. The value of the system was then spread over Equivalent Meter Units (EMUs) to determine the proposed water facilities development charge. The analysis herein utilized the buy-in method to justify the proposed water facilities development charge of $3,846 per EMU[2]. The District updates its water facilities development charge every year in April. Raftelis recommends adjusting the calculated charge in April of 2020, and each subsequent year, by applying the Engineering News Record Construction Cost Index (CCI) to keep pace with inflation. In addition, the District should also conduct a comprehensive review of its capacity charges every three to five years to capture any major changes and ensure water facilities development charges are equitable.

[1] 1 EDU = 215 gallons of flow per day
[2] Where 1 EMU = 5/8" Meter

2. Overview

Sacramento Suburban Water District (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.

As part of the District's financial plan and water rate update, the water facilities development charges are being reviewed and updated to ensure new system users or existing users requiring increased system capacity pay their fair share of the costs associated with the water facilities required to serve them.

Water facilities development charges (or capacity fees) are one-time fees, collected as a condition of establishing a new connection to the District's water system or the expansion of an already existing connection. The purpose of these fees is to pay for development's share of the costs of existing and/or new water facilities. These fees are designed to be proportional to the demand placed on the systems by the new or expanded connections. The recommended water facilities development charges for the District do not exceed the estimated reasonable costs of providing the facilities for which they are collected and are of proportional benefit to the property being charged. This report documents the data, methodology, and results of the Water Facilities Development Charge Study.

2.1. Economic and Legal Framework

For publicly owned systems, most of the assets are typically paid for by the contributions of existing customers through rates, charges, securing debt, and taxes (when applicable). In service areas that incorporate new customers, the infrastructure developed by previous customers is generally extended towards the service of new customers. Existing customers' investment in the existing system capacity allows newly connecting customers to take advantage of unused surplus capacity. To further economic equality among new and existing customers, new connectors will typically "buy-in" to the existing and pre-funded facilities based on the existing assets, effectively putting them on par with existing customers. In other words, the new users are buying into the existing system based on the replacement costs of existing assets in order to continue to provide the same level of service to new customers through repairs, expansions, and upgrades to the system.

Economic Framework

The basic economic philosophy behind capacity fees is that the costs of providing service should be paid for by those that receive utility from the product. In order to effect fair distribution of the value of the system, the charge should reflect a reasonable estimate of the cost of providing capacity to new users, and not unduly burden existing users through a comparable rate increase. Accordingly, many utilities make this philosophy one of their primary guiding principles when developing their capacity fee structure.

The philosophy that service should be paid for by those that receive utility from the product is often referred to as "growth-should-pay-for-growth." The principal is summarized in the American Water Works Association (AWWA) Manual M26, Water Rates and Related Charges:

> "The purpose of designing customer-contributed-capital system charges is to prevent or reduce the inequity to existing customers that results when these customers must pay the increase in water rates that are needed to pay for added plant costs for new customers. Contributed capital reduces the need for new outside sources of capital, which ordinarily has been serviced from the revenue stream. Under a system of contributed capital, many water utilities are able to finance required facilities by use of a 'growth-pays-for-growth' policy."

In this excerpt, customer-contributed-capital system charges are equivalent to capacity fees.

Legal Framework

In establishing capacity fees, it is important to understand and comply with local laws and regulations governing the establishment, calculation, and implementation of capacity fees. The following sections summarize the regulations applicable to the development of capacity fees for the District.

California Government Code Requirements

Capacity fees must be established based on a reasonable relationship to the needs and benefits brought about by the development or expansion. Courts have long used a standard of reasonableness to evaluate the legality of development charges. The basic statutory standards governing capacity fees are embodied by California Government Code Sections 66013, 66016, 66022 and 66023. Government Code Section 66013, in particular, contains requirements specific to determining utility development charges:

> "Notwithstanding any other provision of law, when a local agency imposes fees for water connections or sewer connections, or imposes capacity charges, those fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed, unless a question regarding the amount the fee or charge in excess of the estimated reasonable cost of providing the services or materials is submitted to, and approved by, a popular vote of two-thirds of those electors voting on the issue."

Section 66013 also includes the following general requirements:

- Local agencies must follow a process set forth in the law, making certain determinations regarding the purpose and use of the charge; they must establish a nexus or relationship between a development project and the public improvement being financed with the charge.
- The capacity charge revenue must be segregated from the general fund in order to avoid commingling of capacity fees and the General Fund.

3. Methodologies

There are two primary steps in calculating capacity fees: (1) determining the cost of capital required to serve new connections or accommodate an increase in density generated by in-fill projects, and (2) allocating those costs equitably to various types of connections based on the demand placed on the utility system.

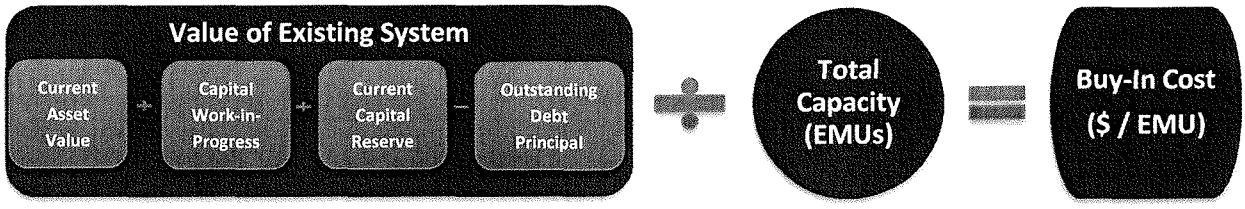
There are several available methodologies for calculating capacity fees. The various approaches have evolved largely around the basis of changing public policy, legal requirements, and the unique and special circumstances of every local agency. However, there are three general approaches that are widely accepted and appropriate for capacity fees. They are the "Buy-In Method", the "Incremental-Cost Method", and the "Hybrid Method" that accounts for both a buy-in component and an incremental component.

3.1. Buy-In Method

The buy-in approach rests on the premise that new customers are entitled to service at the same price as existing customers. Under this approach, new customers pay only an amount equal to the current system value, either using the original cost or replacement cost as the valuation basis and either netting the value of depreciation or not. This net investment, or value of the system, is then divided by the current capacity / demand of the system to determine the buy-in cost per equivalent unit.

For example, if the existing system has 100 units of average usage and the new connector uses an equivalent unit, then the new customer would pay 1/100 of the total value of the existing system. By contributing this capacity fee, the new connector has bought into the existing system. The user has effectively acquired a financial position on par with existing customers and will face future capital challenges on equal financial footing with those customers. This approach is suited for agencies that 1) have built most of their facilities and only a small portion of future facilities are needed for build-out, 2) the agency doesn't have an adopted long-term capital improvement plan, or 3) the "build-out" date is so far out in the future that it is difficult to accurately project growth and required facilities with precision. Figure 1 shows the framework for calculating the Buy-in Capacity fee.

Figure 1: Formula for Buy-In Approach



Asset Valuation Approaches

There are various methods employed to estimate the asset value of the existing facilities and derive an updated capacity fee based on the existing asset value. The principal methods commonly used to value a utility's existing assets are original cost, replacement cost, original cost less depreciation, and replacement cost less depreciation.

1. **Original Cost (OC).** The principal advantages of the original cost method lie in its relative simplicity and stability, since the recorded costs of tangible property are held constant. The major criticism levied against original cost valuation pertains to the disregard of changes in the value of money, which are attributable to inflation and other factors. As evidenced by history, prices tend to increase rather than to remain constant. Because the value of money varies inversely with changes in price, monetary values in most recent years

have exhibited a definite decline; a fact not recognized by the original cost approach. This situation causes further problems when it is realized that most water systems are developed over time on a piecemeal basis as demanded by service area growth. Consequently, each asset addition was paid for with dollars of different purchasing power. When these outlays are added together to obtain a system value the result can be misleading.

2. **Replacement Cost (RC).** Changes in the value of the dollar over time, at least as considered by the impacts of inflation, can be recognized by replacement cost asset valuation. The replacement cost represents the cost of duplicating the existing water facilities (or duplicating its function) at current prices. Unlike the original cost approach, the replacement cost method recognizes price level changes that may have occurred since plant construction. The most accurate replacement cost valuation would involve a physical inventory and appraisal of system components in terms of their replacement costs at the time of valuation. However, with original cost records available, a reasonable approximation of replacement cost plant value can most easily be ascertained by trending historical original costs. This approach employs the use of cost indices to express actual capital costs experienced by the utility in terms of current dollars. An obvious advantage of the replacement cost approach is that it gives consideration to changes in the value of money over time.

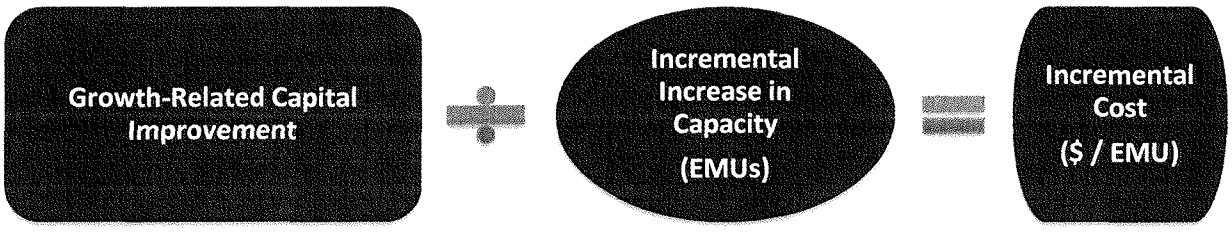
3. **Original Cost Less Depreciation (OCLD) or Replacement Cost Less Depreciation (RCLD).** Considerations of the current value of water facilities may also be materially affected by the effects of age and depreciation. Depreciation takes into account the anticipated losses in system value caused by wear and tear, decay, inadequacy, and obsolescence. To provide appropriate recognition of the effects of depreciation on existing water facilities, both the original cost and replacement cost valuation measures can also be expressed on an OCLD and RCLD basis. These measures are identical to the aforementioned valuation methods, with the exception that accumulated depreciation is computed for each asset account based upon its age or condition and deducted from the respective total original cost or replacement cost to determine the OCLD or RCLD measures of system value.

3.2. Incremental-Cost Method

The incremental method is based on the premise that new development (new users) should pay for the additional capacity and expansions necessary to serve the new development. This method is typically used when there are specific capital improvements that are needed to accommodate growth for development to occur. Under the incremental method, growth-related capital improvements are allocated to new development based on their estimated usage or capacity requirements, irrespective of the value of past investments made by existing customers.

For instance, if it costs X dollars ($X) to provide 100 additional equivalent units of capacity for average usage and a new connector uses one of those equivalent units, then the new user would pay $X/100 to connect to the system. In other words, new customers pay the incremental cost of capacity. Incorporating the use of this method is generally included when detailed facilities are identified for the capacity required to serve new customers. Figure 2 shows the framework for calculating the incremental cost capacity fee.

Figure 2: Formula for Incremental-Cost Approach

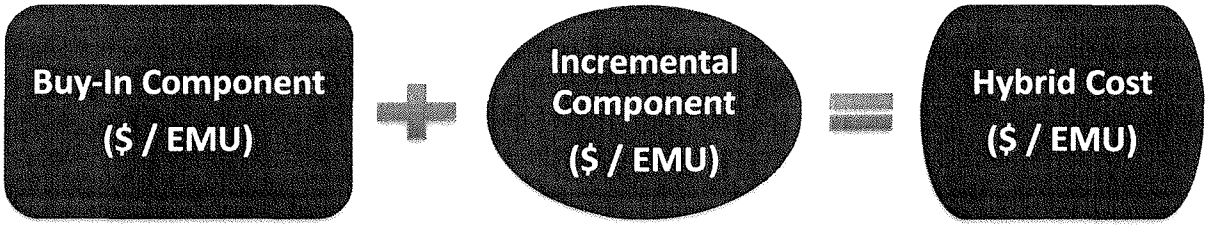


3.3. Hybrid Method

The hybrid approach is typically used where some capacity is available to serve new growth, but additional expansion is still necessary to accommodate new development. Under the hybrid approach the capacity fee is based on the summation of the existing capacity and any necessary expansions.

In utilizing this methodology, it is important that system capacity costs are not double-counted when combining costs of the existing system with future costs from the Capital Improvement Program (CIP). CIP costs associated with repair and replacement of the existing system should not be included in the calculation, unless specific existing facilities which will be replaced through the CIP can be isolated and removed from the existing asset inventory and cost basis. In this case, the rehabilitative costs of the CIP essentially replace the cost of the relevant existing assets in the existing cost basis. Capital improvements that expand system capacity to serve future customers may be included proportionally to the percentage of the cost specifically required for expansion of the system. Figure 3 summarizes the framework for calculating the hybrid Capacity Fee.

Figure 3: Formula for Hybrid Approach



4. Proposed Water Capacity Fee

4.1. Proposed Method: Buy-In Approach

The District's water system is nearly built-out and has available capacity within the existing system to serve remaining growth. Therefore, the **Buy-In** approach was used to determine the proposed water facilities development charges for the water utility.

4.2. Value of the System

The first step in determining the buy-in water facilities development charge is to determine the value of the existing system. As mentioned above, there are several methods of determining the current value of assets, but, for the purposes of this Study, RCLD was used to account for today's replacement cost for system improvements, while acknowledging the remaining useful life of system facilities. To accomplish this, the District provided fixed asset records on the original cost of the system. Replacement cost is estimated by adjusting the original costs to reflect what might be expected if a similar asset were constructed today. This was achieved by escalating the original construction costs by a construction cost index. Raftelis utilized the Engineering News-Record's average Construction Cost Index for 20-cities (CCI) which reflects the average costs of a particular basket of construction goods. Raftelis used a CCI value of 10,985 for 2018 to estimate the replacement costs[3]. Accumulated replacement cost depreciation was determined by escalating the accumulated depreciation for each asset by the appropriate CCI. The accumulated depreciation was subtracted from the replacement cost to determine the current value of the assets using the RCLD methodology and appropriately reflects the use of the system by the existing customers. Table 4-1 shows the water assets at original cost, escalated into 2018 dollars (i.e. replacement cost), replacement cost accumulated depreciation, and assets adjusted for depreciation (RCLD). A detailed asset listing is on file with the District.

Table 4-1: Water Assets

Asset Class	Original Cost	Replacement Cost [A]	RC Depreciation [B]	Total Assets (RCLD) [A – B]
Equipment	$1,329,707	$579,672	$1,644,442	$570,321
Facilities	$11,053,954	$3,334,519	$20,650,552	$5,365,296
Fleet	$1,973,175	$615,972	$2,446,082	$619,335
Land	$7,162,348	$6,286,229	$8,907,027	$7,642,174
Meters	$37,062,970	$14,947,525	$44,537,430	$15,894,039
Office	$4,354,347	$764,918	$5,249,589	$771,741
Reservoirs	$14,235,352	$9,594,987	$21,484,253	$13,601,351
Transmission & Distribution	$315,551,815	$216,839,805	$555,977,276	$296,806,622
Wells	$79,739,331	$39,276,935	$135,156,754	$50,522,567
Total Assets	**$472,462,998**	**$292,240,561**	**$796,053,403**	**$391,793,445**

[3] Detailed Construction Cost Index can be found in Appendix A – Construction Cost Index

The CY 2018 Capital-Related Works-In-Progress (Table 4-2), select reserve balances (Table 4-3), and the total debt service principal balances (were also included in the final value of the system. These additional components are described in more detail below:

Capital-Related Works-In-Progress: These are assets either under construction or recently completed but not yet booked as an asset. These facilities will increase the overall value of the District's water system. As such, these improvements make up part of the system total assets and are included for purposes of developing the capacity fee.

Capital-Reserves: In addition to the current value of the fixed assets, the District established two separate capital-related reserves: Capital Reserve and Emergency Reserve. These reserves have balances of $17,960,655 and $11,255,000, respectively, and are solely dedicated for improving and repairing the current water system. It is reasonable and appropriate to include the balance of the capital related reserves because these reserves have been built-up over time by existing rate customers and will be used to repair or replace aging infrastructure, thereby contributing to the value of the system. As such, these balances are considered part of the system total asset value and are included for purposes of developing the capacity fee.

Debt-Service: The inclusion of outstanding debt principal avoids double counting the asset value in the buy-in component. Most often debt is used to purchase/finance assets and proceeds are used to fund the improvements in advance while the par amount is amortized through principal and interest payments over a certain period. The 2018 asset values provided by the District include assets that were financed through the issue of debt. However, if a customer pays for the asset as part of the FDC charge, they will again pay for the asset through water rates which are designed to cover any outstanding debt payments. Therefore, the asset value herein must be reduced by the remaining principal outstanding of all existing debt.

Table 4-2: Capital-Related Works-In-Progress

Capital Project	Project Cost
Jonas Main Replacement	$1,043,767
Palm Avenue Well Construction	$2,875,463
SCADA RTU Panels Improvement	$69,833
Various other distribution main replacements	$86,210
Various other minor projects	$413,002
Verner/Panorama Well Construction	$363,930
Well Rehabilitation / Pump Improvements	$27,498
Total Work-In-Progress	**$4,879,703**

Table 4-3: Capital Related Reserve Balances

Reserve	Beginning Fund Balance
Capital Reserve	$17,960,655
Emergency Reserve	$11,255,000
Facilities Development Charge	($158,000)
Total Reserve Balance	**$29,057,655**

Table 4-4: Debt Service Principal Balance

Outstanding Debt	Outstanding Principal Balance
2009A Adjustable Rate Refunding COPS	$42,000,000
2012A Refunding Revenue Bond	$13,225,000
2018A Taxable Refunding Revenue Bonds	$14,830,000
Total Outstanding Debt Principal	**$70,055,000**

The total value of the system inclusive of capital work-in-progress, capital reserves and less the total debt service principal balances is shown in Table 4-5.

Table 4-5: Water System Value

Total System Value	
Water System Infrastructure (RCLD)	$391,793,445
(+) Capital Work-In-Progress	$4,879,703
(+) Capital Related Reserves	$29,057,655
(-) Outstanding Debt Principal	($70,055,000)
Total System Value	**$355,675,803**

4.3. System Capacity

The second step in calculating the Buy-In water facilities development charge is to determine the demand or capacity of the system. Dividing the value of the system by the capacity provides a unit cost for the water facilities development charge. For water systems, capacity is usually expressed in equivalent meter units (EMUs) rather than the number of service connections. The benefit of using EMUs is that it relates the relative capacity of service connections with meters of various sizes i.e. accounts for the larger meters generating more demand and requiring more capacity within the system. Raftelis utilized the consumption data provided by the District to determine the number of meters by meter size. Next, the AWWA Standards for Maximum Rated Safe Operating Flow in gallons per minute (gpm) were used to determine the AWWA Ratios. For each size of meter there is a corresponding maximum safe operating capacity which provides the basis for calculating the EMU ratios (AWWA Meter Ratio). The base meter for this study is 5/8" meter and receives an equivalent meter unit of 1. Here, the total EMUs of 92,474, shown in Table 4-6,will be used to determine the fee.

Table 4-6: Equivalent Meter Units (EMUs)

Meter Size	Number of Accounts [A]	AWWA Capacity (gpm) [B]	AWWA Ratio [B ÷ 20] = [C]	Equivalent Meter Units [A x C] = [D]
5/8"	2,174	20	1.00	2,174
3/4"	36,548	30	1.50	54,822
1"	3,947	50	2.50	9,868
1 1/2"	1,012	100	5.00	5,060
2"	1,403	160	8.00	11,224
3"	306	320	16.00	4,896
4"	104	500	25.00	2,600
6"	27	1,000	50.00	1,350
8"	4	1,800	90.00	360
10"	1	2,400	120.00	120
12"	0	3,375	168.75	0
Total	**45,526**			**92,474**

4.4. Proposed Water Facilities Development Charge

The calculation of the Buy-In water facilities development charge is shown in Table 4-7. The proposed water facilities development charge is on an EMU basis where one EMU represents the demand placed on the water system by a 5/8" meter.

Table 4-7: Buy-In Component Calculation for Water System

Water Facilities Development Charge Calculation	
Total System Value	**$355,675,803**
÷ EMUs	92,474
Proposed Buy-In Facilities Development Charge (per EMU)	**$3,846**

Multiplying the Facilities Development Charge per EMU in Table 4-7 by the capacity ratio by meter size in Table 4-6 yields the proposed Facilities Development Charge by meter size as shown in Table 4-8. District staff may choose to charge the Facilities Development Charge by meter size shown below, or may, as determined on a case-by-case basis determine the Facilities Development Charge based on the anticipated capacity needs of the customer requesting service.

Table 4-8: Proposed Facilities Development Charge by Meter Size

Meter Size	AWWA Ratio [A]	Facilities Development Charge per EMU [B]	Proposed Facilities Development Charge [A x B]
5/8"	1.00	$3,846	**$3,846**
3/4"	1.50	$3,846	**$5,769**
1"	2.50	$3,846	**$9,616**
1 1/2"	5.00	$3,846	**$19,231**
2"	8.00	$3,846	**$30,770**
3"	16.00	$3,846	**$61,540**
4"	25.00	$3,846	**$96,156**
6"	50.00	$3,846	**$192,312**
8"	90.00	$3,846	**$346,162**
10"	120.00	$3,846	**$461,549**
12"	168.75	$3,846	**$649,054**

Raftelis recommends the District adjust the water facilities development charges in April of 2020, and in each subsequent year, to keep pace with inflation by applying the Engineering News Record Construction Cost Index. In addition, the District should also conduct a comprehensive review of its water facilities development charges every three to five years to comply with regulations and to ensure fees are equitable.

APPENDIX A:

Construction Cost Index

Appendix A – Construction Cost Index

Engineering News Record Construction Cost Index – 20 Cities

Year	CCI Average	Year	CCI Average	Year	CCI Average
1908	97	**1945**	308	**1982**	3825
1909	91	**1946**	346	**1983**	4066
1910	96	**1947**	413	**1984**	4146
1911	93	**1948**	461	**1985**	4195
1912	91	**1949**	477	**1986**	4295
1913	100	**1950**	510	**1987**	4406
1914	89	**1951**	543	**1988**	4519
1915	93	**1952**	569	**1989**	4615
1916	130	**1953**	600	**1990**	4732
1917	181	**1954**	628	**1991**	4835
1918	189	**1955**	660	**1992**	4985
1919	198	**1956**	692	**1993**	5210
1920	251	**1957**	724	**1994**	5408
1921	202	**1958**	759	**1995**	5471
1922	174	**1959**	797	**1996**	5620
1923	214	**1960**	824	**1997**	5826
1924	215	**1961**	847	**1998**	5920
1925	207	**1962**	872	**1999**	6059
1926	208	**1963**	901	**2000**	6221
1927	206	**1964**	936	**2001**	6343
1928	207	**1965**	971	**2002**	6538
1929	207	**1966**	1019	**2003**	6694
1930	203	**1967**	1074	**2004**	7115
1931	181	**1968**	1155	**2005**	7446
1932	157	**1969**	1269	**2006**	7751
1933	170	**1970**	1381	**2007**	7966
1934	198	**1971**	1581	**2008**	8310
1935	196	**1972**	1753	**2009**	8570
1936	206	**1973**	1895	**2010**	8802
1937	235	**1974**	2020	**2011**	9070
1938	236	**1975**	2212	**2012**	9311
1939	236	**1976**	2401	**2013**	9547
1940	242	**1977**	2576	**2014**	9806
1941	258	**1978**	2776	**2015**	10035
1942	276	**1979**	3003	**2016**	10338
1943	290	**1980**	3237	**2017**	10737
1944	299	**1981**	3535	**2018**	10985

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SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 7

Date: June 11, 2019

Subject: Del Paso Manor Water District's Request for Water System Operations Assistance

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

Recommended Board Action:

Authorize the General Manger to enter into a temporary agreement to provide General Ledger, Sub-General Ledger Bookkeeping services to Del Paso Manor Water District, pending legal review.

Background:

As part of succession planning for the General Manager position at the Del Paso Manor Water District (DPMWD), the DPMWD Board requested SSWD provide a scope, time and materials proposal for providing General Ledger and Sub-Ledger bookkeeping services for DPMWD. Accordingly, SSWD staff prepared and presented the attached letter on May 29, 2019.

Discussion:

After preliminary discussions with the former General Manager of Del Paso Manor Water District (DPMWD) as directed by their Board of Directors, SSWD prepared a "General Ledger, Sub-Ledger Bookkeeping Services Proposal" for DPMWD, submitting it on May 29, 2019. The proposal offered SSWD staff services to convert and maintain DPMWD accounting records to the same platform used by SSWD. Records were to be kept completely separate and cost recovery for all services rendered was to be on a time and materials basis determined at the individual employee level for service provided. See proposal attached.

Subsequent to the delivery of this proposal, all but one employee of DPMWD resigned/retired effective May 31, 2019. In discussions between SSWD's General Manager, Dan York, and DPMWD'S Board President, John Lenahan, DPMWD requested to activate the Mutual Aid Agreement (MAA) that exists between the two districts. Specific requests are in process of being developed by DPMWD, but as of this writing the only assistance being provided is On-Call, Standby on a biweekly interval.

As this assistance under the MAA is in its infancy and the workload to conduct the accounting tasks is unknown, SSWD will be monitoring on a monthly basis the ability of SSWD to continue to provide such assistance with a quarterly report to the SSWD Board of Directors.

Fiscal Impact:

Revenue neutral to SSWD. Actual time of employees and material costs will be charged to DPMWD. Potential deferral/loss of SSWD duties due to staff attention on DPMWD has not been estimated.

Strategic Plan Alignment:

Leadership – 5.D. Provide leadership within the community in a positive manner for the mutual benefit of the area (service groups, adjacent water purveyors, county/city/local government).

May 29, 2019

Debra Sedwick
General Manager
Del Paso Manor Water District
1817 Maryal Drive, Suite 300
Sacramento, CA 95864

RE: General Ledger, Sub-Ledger Bookkeeping Services Proposal

Dear Ms. Sedwick,

Sacramento Suburban Water District (SSWD) is pleased to respond to your request of providing certain accounting services to Del Paso Manor Water District (DPMWD). The District is in support of assisting the DPMWD, however, SSWD Director approval will be needed prior to executing a contract, accordingly, this proposal is subject to obtaining such approval.

Our proposed services will be based on actual hours of service provided by SSWD staff and a $2,000 implementation cost. The dollar cost per staff member is included in the body of the report as well as an estimate of hours spent by staff per month on DPMWD work including a monthly Administrative Fee of 15%. SSWD will bill for its service monthly.

Upon your review of the attached deliverables, please let me know if they are accurate.

Please contact me at (916) 679-3973 with any questions.

Sincerely,

Dan York
General Manager

cc: Dan Bills, Director of Finance and Administration
Mike Huot, Assistant General Manager

SCOPE OF WORK

SSWD has been asked to propose its charges for performing portions of DPMWD's accounting functions:

1. Bookkeeping Services - General Ledger (GL), investments, debt, accounts payable and Fixed Asset Sub-ledger. SSWD to provide monthly and annual financial reporting, and annual journal entries such as GASB 68 and 75. Administrative services not provided by SSWD include budget preparation, payroll, customer billing or customer service.

None of the above services include SSWD having access to DPMWD's bank accounts or signature authority over the accounts, performing field services, water quality testing and reporting, HR services or legal services.

TASKS

Tasks necessary to perform these options include:

1. Obtain copy of GL, prior year's audited financial statements and applicable policies and procedures.
2. Obtain copy of monthly Board financial reports.
3. DPMWD to provide SSWD with schedule (deadlines) for all reports.
4. SSWD to prepare financial statements (balance sheet, income statement and budget-to-actual reports.)
5. DPMWD's Board of Directors and Management are responsible for all services provided by SSWD.
6. DPMWD to provide SSWD with a copy of bank statements, investment reports, payroll reports, customer billing reports, accrued leave and other supporting materials for journal entries.
7. DPMWD to provide SSWD with asset capitalization policy and depreciation schedules.
8. DPMWD to provide SSWD with copies of all accounts payable, receivable, cash, payroll and other invoices/transactions each month for posting to the GL and timely preparation of the monthly/annual financial statements.
9. All requests from Option 1 above, plus:
10. DPMWD to provide SSWD with vendor list and history.
11. DPMWD to provide SSWD with copies of all investment information and bond documents.
12. DPMWD to approve all payments prior to dissemination and to sign the applicable checks.

DELIVERABLES
Deliverables to DPMWD include:

1. Monthly financial statements (balance sheet, income statement and budget-to-actual reports) with applicable supporting documents.
2. Annual financial statements with applicable supporting documents.
3. Monthly and annual fixed asset reports.
4. Preparation of all invoices for monthly Board approval.
5. Monthly and annual investment and debt reporting.
6. Random Payables/report – as needed

PRICING

Rates Per Hour:	
Director of Finance and Administration	$ 135
Financial Analyst	90
Accountant	70
Administrative Assistant	50
Customer Services Manager	100
Customer Services Representative	50
Monthly Administrative Fee	15%

ESTIMATED HOURS/CHARGES PER MONTH

	HOURS	CHARGES
Director of Finance and Administration	2	$270
Financial Analyst	3	270
Accountant	5	350
Administrative Assistant	3	150
Total	13	$1,040

ESTIMATED IMPLEMENTATION COSTS

	HOURS	CHARGES
Create Chart of Accounts and Reports in Great Plains	6	$1,500
Vendor List	3	$500

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SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 8

Date: May 30, 2019

Subject: Discontinue the Asset Management Plan Summary Report

Staff Contact: Dana Dean, P.E., Engineering Manager

Recommended Board Action:
Direct staff to discontinue the Asset Management Plan Summary Report (AMPSR).

Background:
The District's Asset Management Plans (AMPs) and Master Plans (MPs) were initially prepared between 2004 and 2012. The AMPSR was initially prepared in 2012 and is scheduled for its first update in 2019. AMPs and MPs are intended to be updated at various frequencies of 3 to 7 years.

The AMPSR was created with the goal of making it easier for Directors to be more fully informed about the District's assets and the Capital Improvement Program (CIP) in general. For example, some AMPs are rather large reports containing substantial amount of detailed and technical information that can make extracting content difficult at times for those who are less familiar with the subject.

Discussion:
Providing information in a way that is most useful for the Board is a primary goal of staff. The purpose of this staff report is to identify a better alternative to the AMPSR for the Board to use to obtain CIP information.

Asset Management Plan Summary Report
It is staff's belief that the AMPSR is not as effective a tool as was hoped for the Board or the public to receive summary information about CIP; or that the Board may find it of little utility and instead prefer to refer directly to individual AMPs. The AMPSR contains CIP information obtained directly from the AMPs – it does not contain new or different information, analysis, discussion, conclusions, or recommendations.

The only item that the AMPSR contains that cannot be found in an AMP is the *Schedule for Updating Asset Management Plans*. The Schedule is an overall view of all planned AMP and MP updates looking about 10 years into the future. This schedule will be relocated for continued use should the AMPSR be discontinued.

The Water System Master Plan is considered by staff to be a much more useful document, as summarized below.

Water System Master Plan

The Water System Master Plan (WSMP) was first prepared in 2009 and updated in 2017. Like the AMPSR, the WSMP derives its information from the AMPs and MPs. However, this report, in staff's opinion, is the best source to rapidly extract high level / summary CIP information. The WSMP is also useful when one needs to "dig into details" deeper than just summary information.

Summary

- Staff frequently refers to the WSMP and finds it to be an excellent resource.
- Staff does not use the AMPSR.
- In staff's judgement, if all Directors were to become comfortable with using the WSMP to obtain the CIP summary information they desire they would most likely find it a better resource than the AMPSR.
- Staff recommends discontinuing the AMPSR.

Fiscal Impact:

No direct or indirect impact is anticipated.

Strategic Plan Alignment:

Water Supply – 1.B. Provide for the long-term water supply needs of the customers through prudent planning that will ensure capacity to serve system demands.

Facilities and Operations – 2.A. The District will utilize appropriate planning tools, identify financial resources necessary, and prioritize system requirements to protect and maintain District assets and attain water resource objectives incorporating resource sustainability and lifecycle costs analysis into the framework.

Discontinuing the AMPSR will benefit the District by eliminating staff time necessary for maintaining a document of little utility.

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SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 9

Date: June 5, 2019

Subject: Distribution Main Asset Management Plan Condition Assessment

Staff Contact: David Espinoza, P.E., Senior Engineer

Recommended Board Action:

Review *Condition Assessment – Distribution Main Asset Management Plan* and provide direction as appropriate to implement the Condition Assessment element within the Distribution Main Asset Management Plan.

Background:

The Sacramento Suburban Water District (District) staff presented an updated Distribution Main Asset Management Plan (Plan) at the August 2018 meeting of the Facilities and Operations Committee (Committee). The Committee directed staff in two areas:

1. Develop and include a more comprehensive Condition Assessment element in the Plan.
2. Research if other water purveyors are doing significantly more than the District toward assessing pipeline condition prior to replacement. Use this information to inform development of the new Condition Assessment element.

Staff presented a Condition Assessment outline at the Board's April 2019 meeting. The Board responded positively to the outline and directed staff as follows:

1. Proceed with the Condition Assessment element.
2. Complete research into how other local and regional water purveyors are addressing condition assessment.

Discussion:

The District has a responsibility to provide its customers with a reliable and safe water distribution system at the lowest responsible rate. The Plan sets forth a methodology for the District to assess the distribution system condition and prioritize need of replacement for its aging distribution mains throughout the District. Below is a summary of staff's progress in the two areas directed by the Board:

1. Condition Assessment Modification

The Plan currently does not have a comprehensive Condition Assessment element. However, it does prioritize the main replacement project areas based on data analysis – the "*Indirect Method*" of condition assessment. The "*Indirect Method*" of the Plan has been relocated to a new section

titled "*Condition Assessment*", and a new component for field investigation was added – the "*Direct Method*". Both methods are summarized below.

Indirect Method
The *Indirect Method* is the first step in the analysis and relies heavily on data (e.g., likelihood of failure, consequence of failure, risk of failure, fire safety factors, economic factors, and regulatory factors). This approach has been used exclusively in prior District Distribution Main Asset Management Plans.

Direct Method
The *Direct Method* goes a step beyond to further evaluate a proposed project area by utilizing various field investigations (e.g., visual inspection, wall thickness measurement, laboratory strength testing, and material chemical testing). The *Direct Method* will verify or adjust the *Indirect Method's* prioritization of the main replacement areas.

2. Research into Best Practices

Staff utilized a variety of professional references and conferences to develop the updated Condition Assessment. A few of the sources utilized are listed below:

1. *Annual Conference and Exposition (ACE)* (American Water Work Association, 2018)
2. *Asset Management – Risk Management* (Water Research Foundation, 2016)
3. *Buried No Longer: Confronting America's Water Infrastructure Challenge* (American Water Work Association, 2012)
4. *DIPRA Facts & Figures* (Ductile Iron Pipe Research Association, 2016)
5. *Incorporating Predictive Maintenance Data with Asset Management Data for Risk Based Planning* (Slaven, 2017)
6. Manual of Practice, *Water Pipeline Condition Assessment* (Task Committee for American Society of Civil Engineers, 2017)
7. *Water Infrastructure Conference* (American Water Work Association, 2017)

Additionally, staff researched industry best practices of local and regional water purveyors. Inquiries focused on asset management plan and condition assessment usage when determining distribution main replacement projects. The survey responses are summarized in the table below:

Water Purveyor[1] Questionnaire Results	
Question	**Responses**
Do you have a Distribution Main Asset Management Plan?	Yes: 6 of 13
Does it contain a Condition Assessment component?	Yes: 4 of 13

1 Survey Responders
California American Water, Carmichael Water District, City of Folsom, City of Sacramento, Contra Costa Water District, Del Paso Manor Water District, East Bay Municipal Utility District, Fair Oaks Water District, Golden State Water Company, Las Vegas Valley Water District, Placer County Water Agency, Rio Linda-Elverta Community Water District, and San Juan Water District.

Water Purveyors Responses

- The responses indicate that small water purveyors generally do not have a written condition assessment, but instead rely on historical data to determine when to replace infrastructure.
- As it relates to the District's proposed condition assessment, most small water purveyors are practicing a portion of the indirect method of condition assessment.
- The responses indicate that large water purveyors generally utilize a written condition assessment.
- Since large water purveyors tend to have greater resources and budget available they are able to fund a direct method component, whereas most small water purveyors are not.

2 Summary

- Pipeline condition technologies, which estimates a pipeline's remaining useful life, are available for the direct method condition assessments; however, they can be costly.
- There is a potential for significant savings if infrastructure replacement is proven deferrable using the direct method condition assessment.
- Staff's proposal for the addition of a direct method component of the condition assessment will place the District in line with the larger regional water purveyors that are on the progressive end of the industry's practices.

3 Schedule

The following schedule is anticipated for Board Meeting Items:

June 17, 2019	Condition Assessment
August 19, 2019	Distribution Main Asset Management Plan Update for approval

Fiscal Impact:

The new Condition Assessment element is expected to incur immediate and continuing direct costs to the distribution main replacement program through the activities of the direct method (e.g., contractor work, laboratory testing, etc.). However, significant savings are possible if assessment via the *Direct Method* provides data to support a delay in a replacement project, thereby achieving better return for the District's Capital investments.

Strategic Plan Alignment:

Water Supply – 1.B. Provide for the long-term water supply needs of the customers through prudent planning that will ensure capacity to serve system demands: Replacing old water mains that have outlived their useful life with new, larger water mains will help improve water system reliability, ensure distribution of adequate supply, provide sufficient pressure, and improve fire protection capability.

Facilities and Operations – 2.A. The District will utilize appropriate planning tools, identify financial resources necessary, and prioritize system requirements to protect and maintain District assets and attain water resource objectives incorporating resource sustainability and lifecycle costs

analysis into the framework: The Condition Assessment element meets this goal as a planning tool that will assist staff in determining the best use of District funds, be it repair, rehabilitation, or replacement of water mains.

The updated Plan benefits District customers as it is an additional tool utilized by staff to prioritize allocation of District funds for rehabilitation and replacement of water mains.

Attachment:

1. Condition Assessment Component for the Distribution Main Asset Management Plan

Attachment 1

Condition Assessment Component for the Distribution Main Asset Management Plan

Introduction

The condition assessment is a component within the Distribution Main Asset Management Plan. A condition assessment is an important component of an asset management plan, which is essential to help prioritize the repair, rehabilitation, and replacement programs. The condition assessment includes two major components, an Indirect and Direct Method, which assess the condition of pipes in each main replacement area.

Analyzing collected data with certain industry standard tools has facilitated agencies to prioritize infrastructure replacement. SSWD utilized technical information through professional and industry entities, such as American Society of Civil Engineers (ASCE) and American Water Works Association (AWWA), which provided best practice assessment tools such as: the Risk Assessment evaluation and current state-of-the-art field investigation technologies. The ASCE Task Committee on Water Pipeline Condition Assessment elaborates on the condition assessment process:

> Current assessment tools...will rarely clearly define the remaining pipeline service life. Therefore, the managers of a condition assessment program should not be surprised if the results do not clearly define the exact condition of each asset but, instead, compare asset condition to other assets to gauge the level of deterioration and remaining life. (ASCE, 2017)

A risk assessment is conducted for each main replacement area to prioritize SSWD's future efforts on pipeline infrastructure. As stated by the Water Research Foundation, "Utilities should evaluate each risk to an asset and prioritize projects to lessen that risk" (Water Research Foundation, 2016). The indirect method, i.e., data analysis, is used to conduct the risk assessment. SSWD's risk assessment is composed of the following categories:

- Likelihood of Failure (LOF);
- Consequence of Failure (COF);
- Risk of Failure (ROF); and
- Modifier (i.e., Fire Safety Factors, Economic Factors, and Regulatory Factors).

Following the indirect method analysis, the direct method is used to verify or adjust ranking prioritization.

The direct method, i.e., field investigations, is conducted in high risk areas to assess pipeline condition. This provides verification or adjustment to the indirect method's risk assessment prioritizations. The high risk areas will be analyzed using one or more of the following categories:

- Visual inspection;
- Laboratory strength testing;
- Material chemical testing;
- Wall thickness measurement; and
- Future technologies.

The combination of the indirect and direct methods provides the framework of the condition assessment.

Indirect Method

The indirect method is the data analysis portion of the risk assessment and is performed before the direct method. The data analysis is used to calculate the ROF for each main replacement area by using historical SSWD and industry data and correlates the results to "performance standards" (Slaven, 2017). Two industry standard categories for the risk calculation are LOF and COF. In addition, Fire Safety Factors (Modifier) are directly incorporated while Economic Factors are indirectly incorporated in the risk calculation; with a plan to incorporate Regulatory Factors in future condition assessments.

The categories/modifier capture specific objectives within their respective attributes. The process on how the Total Score is calculated for each main replacement area is shown in Chart 1. The Total Score for each main replacement area is compared relative to the others rather than the maximum possible value. This ranking is used to prioritize SSWD's high risk main replacement areas. The Total Score calculation is shown in Equation 1 in Appendix M. A main replacement area which has a Total Score within the pre-determined high risk range could receive further examination as part of the direct method, described later in the Condition Assessment. The pre-determined Modified Risk of Failure Score Figure is shown in Figure 1 (Page 17).

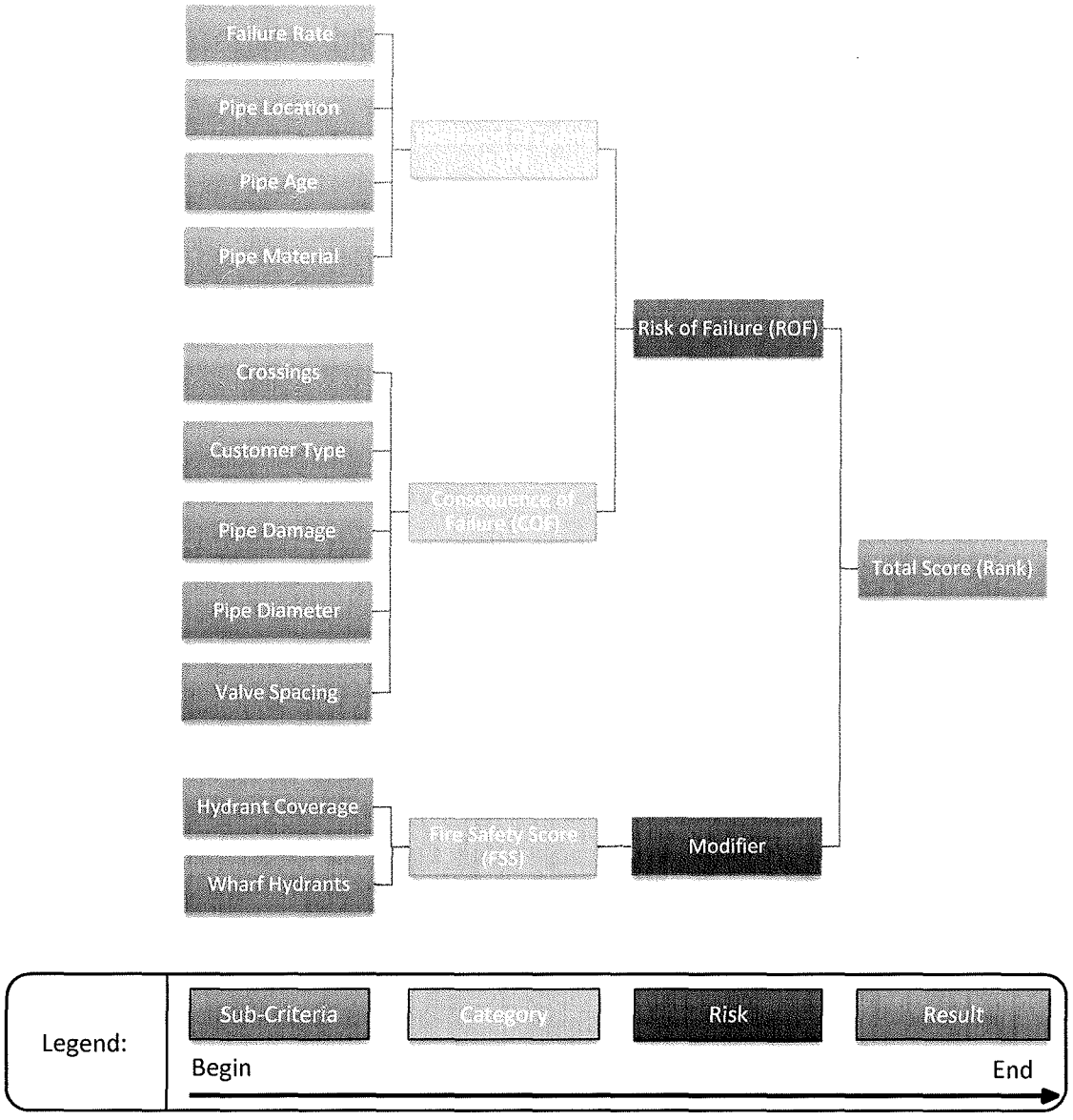

Chart 1. Ranking Flowchart

Likelihood of Failure (LOF)

The first category in the ROF analysis is LOF. LOF assesses and aggregates four (4) sub-criteria:

- Pipe Material;
- Pipe Age;
- Pipe Location; and
- Failure Rate.

These four sub-criteria have been demonstrated over many years to provide SSWD with the most accurate categorization of the quality of pipes in each main replacement area. The data is evaluated for each main replacement area as to how the sub-criteria contributes to the probability of a pipe failure.

Two sub-criteria (Pipe Material and Pipe Age) receive an effective score, which is calculated by taking the total percentage of each main material within a main replacement area and multiplying it by the respective scoring table. These formulas were derived from the *Statistical Engineering Division of the National Institute of Standards and Technology* (Rukhin, 2009) as weighted means statistics.

Once each sub-criteria has received a score, it is then normalized using Feature Scaling (Aksoy & Haralick, 2000). This mathematical technique sets the range maximum value to one (1), which corresponds to the worst rating in each category; and sets the range minimum value to zero (0), which corresponds to the best rating in each category. The LOF is calculated using Equation 2 in Appendix M.

The subsequent sections discuss the purpose, scoring criteria, and scoring calculation(s) for each of the four sub-criteria.

Pipe Material

Purpose

Pipe Material is one of the best indicators of distribution main reliability. Main replacement areas that have not been replaced in the Main Replacement Program consist of multiple Pipe Materials.

Scoring

Pipe Material scoring calculates an effective Pipe Material based on the percentage of each Pipe Material in a main replacement area. The effective Pipe Material is determined by taking the percentage of Pipe Material and multiplying it by the corresponding Pipe Material score (refer to Chart 5 and Section 4.1 for scoring explanation).

Pipe Material score ranges were determined from calculating the leaks per mile for each Pipe Material (Appendix H). The criteria and equations are shown below in Table 1 and Equation 3 in Appendix M, respectively. Figure 2A shows the distribution of Pipe Material used within SSWD, while Figures 2B – 2G isolate AC, CI, DI, MLS, ODS, and PVC pipe, respectively.

Table 1. Pipe Material Score

Pipe Material	Pipe Material Score
ODS, Other, UNK	5
AC	4
CI, MLS	3
PVC	2
DI	1

Pipe Age

Purpose

The Pipe Age is indicative of potential failure since older pipe is generally more likely to experience an age-related failure from general deterioration of the pipe material. As a pipe ages, coatings or protective materials degrade, causing the pipe to be more vulnerable to environmental factors; and in the case of AC, the chemical composition of the pipe material degrades and weakens.

Scoring

Pipe Age scoring uses average age for each pipe material and pipe diameter per main replacement area. Average age is multiplied by the Pipe Material percentage within the main replacement area (Equation 4 in Appendix M), which calculate the weighted age by material for each area. The summation of the weighted age by material calculates an effective Pipe Age for the main replacement area, which was then scored using Table 2 below. The Pipe Age increment scale was developed based on all pipe material types' assumed useful life, as shown in Table 8-1 (Distribution Mains Rehabilitation and Replacement Assumptions) of SSWD's 2017 Water System Master Plan. Results are shown in Figure 3, and the detailed analysis can be seen in Appendix I.

Table 2. Pipe Age Score

Pipe Age [years]	Pipe Age Score
60 +	5
45 < 60	4
30 < 45	3
15 < 30	2
< 15	1

Pipe Location

Purpose

Pipe Location criterion was a critical factor in previous Distribution Main Asset Management Plans. Backyard mains are more prone to damage due to trees and various landscaping potentially growing directly on or around a distribution main. Backyard distribution mains also pose an access challenge for District personnel and an inconvenience to customers when maintenance and repairs are required.

Scoring

Pipe Location scoring examined all distribution areas for location: front yard vs. backyard. If pipe is located in backyard it received a score of two (2). If pipe is located in the front yard it received a score of one (1). Results are shown in Table 3. Pipe locations are shown in Figure 4.

Table 3. Pipe Location Score

Pipe Location	Pipe Location Score
Backyard	2
Front Yard	1

Failure Rate

Purpose

All leaks on active distribution mains within SSWD are shown in Figure 5. The leaks are categorized by pipe size and material type in Chart 4 (Active Distribution Main Leak History Totals by Pipe Material & Size). These numbers, however, do not account for the quantity of main within each Main Replacement Area. To make the Main Replacement Areas comparable, a normalized value of leaks per mile was used (Chart 5 Active Distribution Main Leak History – Leaks per Mile by Pipe Material & Size). This provides a uniform indicator of the pipe condition as Main Replacement Areas with a large number of leaks per mile have likely reached their useful life.

Scoring

Failure Rate scoring was calculated by taking total distribution main leaks in the Main Replacement Area per total length of distribution main in the area (see Equation 5), and scored using Table 4. Results are shown in Appendix J.

Table 4. Failure Rate Score

Failure Rate [leaks/mile]	Failure Rate Score
3 +	5
1 < 3	3
< 1	1

As part of a yearly water conservation program, SSWD performs leak detection on approximately 10 percent of the total distribution system. To most effectively utilize this program, Engineering and Water Conservation Departments collaborate. The ability to collaborate between departments will help prioritize the program location within SSWD; with anticipation to correlate the leak detection program near the Engineering Department's high risk main replacement areas.

Consequence of Failure (COF)

The second category in the ROF analysis is COF. COF assesses and aggregates five (5) sub-criteria:

- Pipe Damage;
- Pipe Diameter;
- Customer Type;
- Crossings; and
- Valve Spacing.

These five sub-criteria have been determined to pose a significant liability to SSWD. This liability resulting from a pipe failure is examined as the "Triple Bottom Line" (Slaven, 2017), which are:

- Economic – capital and operating costs;
- Environmental – cost of environmental degradation or impacts; and
- Social – cost of community impacts.

The data is evaluated for each main replacement area on what will have the highest financial and physical impact from a pipe failure.

Two sub-criteria (Pipe Damage and Pipe Diameter) receive an effective score, which is calculated by taking the total percentage of each main material within a main replacement area and multiplying it by the respective scoring matrix. These formulas were derived from the *Statistical Engineering Division of the National Institute of Standards and Technology* (Rukhin, 2009) as weighted means statistics.

Once each sub-criteria has received a score, it is then normalized using Feature Scaling (Aksoy & Haralick, 2000). This mathematical technique sets the range maximum value to one (1), which corresponds to the worst rating in each category, and sets the range minimum value to zero (0), which corresponds to the best rating in each category. The COF is calculated using Equation 6 in Appendix M.

The subsequent sections discuss the purpose, scoring criteria, and scoring calculation(s) for the five sub-criteria.

Pipe Damage

Purpose

The Pipe Damage criterion intends to quantify the damage caused by a leak/blowout for the various Pipe Material Types. For example, a leak on a District AC pipe is typically small and concentrated, and causes generally low to moderate levels of damage. Conversely, a leak on a Mortar Line Steel (MLS) or Polyvinyl Chloride (PVC) pipe is typically large and results in significant levels of damage.

Scoring

The Pipe Damage score was established primarily from input from SSWD's Operations Department personnel. Based on their experience and knowledge, leaks on MLS and PVC pipe cause significantly more damage than all other material types, and require immediate repair. Additionally, the maximum score was given to Unknown pipe material to be conservative in the protection of customers and public property. All other material types have proven to typically produce a slow leak that does not require the same level of urgency; therefore, they were all given a lower score. The Pipe Material and corresponding Pipe Damage Score can be seen in Table 5 and is calculated using Equation 7 in Appendix M. Results are shown in Appendix C.

Table 5. Pipe Damage Score

Pipe Material	Pipe Damage Score
MLS, ODS, PVC, UNK	5
AC, CC, CI, CONC, DI	1

Pipe Diameter

Purpose

The Pipe Diameter criterion is used to classify Main Replacement Areas containing larger diameter distribution mains. Large distribution mains have the ability to cause substantially greater damage by way of having the ability to flow more water.

Scoring

Pipe Diameter Scoring calculates the effective Pipe Diameter based on the percentage of each Pipe Diameter in a main replacement area. The effective Pipe Diameter is determined by taking the percentage of Pipe Diameter and multiplying it by the corresponding Pipe Diameter Score (refer to Equation 8).

The Pipe Diameter Scoring is established by assigning the smallest pipe size (4-inch) a score of one (1) and then adding one (1) point for every two-inch increase in pipe diameter. Results are shown in Appendix D.

Table 6. Pipe Diameter Score

Pipe Diameter [in.]	Pipe Diameter Score
$10 \leq 14$	5
$8 < 10$	4
$6 < 8$	3
$4 < 6$	2
< 4	1

Customer Type

Purpose

The Customer Type criterion is used to estimate the financial impact of a distribution main break in a majority commercialized area. Loss of water in a commercialized area can result in loss of business and/or product to a company, which creates greater liability for SSWD.

Scoring

The Customer Type Scoring is established by taking the percentage of Commercial Accounts for each main replacement area, multiplying it by two (2), and adding a variable of one (1) (refer to Equation 9 in Appendix M). The resulting scores range from one (1) to three (3), as shown in Table 7. Results are shown in Appendix E.

Table 7. Customer Type Score

Commercial Density	Customer Type Score
High	3
Medium	2
Low	1

Crossings

Purpose

The Crossings criterion is used to estimate the consequence of a distribution main break at a crossing of a creek, freeway, or railroad. Such failures have potential to result in a higher liability and cost to repair for SSWD. A distribution main break that discharges water into a creek may result in environmental impacts and fines by regulatory agencies (e.g., Sacramento County Environmental Management, Division of Drinking Water, etc.), and a break under a freeway or railroad would cause major transportation issues in the respective areas, which creates greater risk for SSWD.

Scoring

The Crossings scoring was determined by taking the sum of Infrastructure Crossings from Equation 10 through Equation 16 in Appendix M. Staff estimated the cost of distribution main break under a freeway to be five (5) times greater than a similar break crossing a creek. Staff estimated that the cost of a distribution main break under a railroad would be three (3) times greater than a similar break crossing a creek. Crossings Score is found in Table 8. Results are shown in Appendix F.

Note: A fixed value was added for each crossing type to aid in normalizing scores. The table below shows the ranges used for the Crossings Score, followed by the equations (Equation 10 through Equation 16 in Appendix M) used to obtain the Crossings Score.

Table 8. Crossings Score

Crossing Value	Crossings Score
$10.4 \leq 13.0$	5
$7.8 < 10.4$	4
$5.2 < 7.8$	3
$2.6 < 5.2$	2
< 2.6	1

Valve Spacing

Purpose

The Valve Spacing criterion is used to account for District Improvement Standard Section D-5 (b) which requires a maximum valve spacing of 500 feet. A Main Replacement Area is considered desirable when a higher valve density is present since a distribution main break can be isolated more quickly and with fewer customers impacted by the break and repair work.

Scoring

The Valve Spacing Score was calculated with the valve density by using Equation 17 in Appendix M. A valve density of one (1) indicates the minimum density being met, while all areas less than one (1) received a score of two (2). Scoring for replacement areas that did not meet the standard are shown in Table 9, results can be seen in Appendix G.

Table 9. Valve Spacing Score

Valves per 500-feet	Valve Spacing Score
<1	2
≥1	1

Risk of Failure (ROF)

The ROF equation (Equation 18 in Appendix M), calculates each main replacement area's risk by multiplying the LOF by the COF (Brown and Caldwell, 2017). The ROF is then modified with the Fire Safety Factors in the next section which gives us the Modified Risk of Failure Score.

Fire Safety Factors

Fire protection is an essential function of SSWD's distribution system, and cannot be accounted for solely using main pipe size and material type. Some older areas within the District do not meet the current hydrant type or spacing standards, which limits an area's fire suppression ability. Therefore, the Fire Safety Score acts as a modifier to the ROF. The Fire Safety Factors included as modifiers are Hydrant Coverage and Wharf Hydrants. Future condition assessments should include Flow Capability as a fire safety factor.

Fire Safety Score is calculated by Equation 19 in Appendix M . Once the Fire Safety Score is completed for each main replacement area, Equation 20 in Appendix M calculates the Modified ROF Score.

Hydrant Coverage

Purpose

The Hydrant Coverage criterion is used in reference to District Improvement Standard Section D-5 (c), requiring a maximum hydrant spacing of 500 and 300 feet in residential and commercial areas, respectively.

Scoring

The Hydrant Coverage Score is determined for each main replacement area by using the unprotected area divided by the total area of the main replacement area. Hydrant Coverage Deficiency, shown in Table 10, scores the main replacement areas based on their percentage of unprotected area. Next, a weighted rank was created using a multiplying factor of two (2) due to the importance placed on fire protection. Results can be seen in Appendix K.

Note: As a result of McClellan Business Park's prior purpose as an Air Force Base, there are large areas without hydrant coverage since there are large areas without conventional (e.g., residential, commercial) improvements, such as runways and air fields. For this reason, each of the main replacement areas in McClellan Business Park were analyzed manually in GIS to evaluate the level of hydrant coverage within the developed portions.

Table 10. Hydrant Coverage Score

Hydrant Coverage Deficiency [%]	Hydrant Coverage Score
$20 \leq 100$	10
$5 < 20$	6
< 5	2

Wharf Hydrants

Purpose

A wharf hydrant typically has a single or double 2.5-inch outlet and is connected by a direct tap into a smaller diameter distribution main. It was common for these types of hydrants to be used in the 1940's and 1950's in residential areas that were served by only 6-inch or smaller distribution mains.

Modern fire hydrants (steamer type) include safety features and increased flow capabilities not present on wharf hydrants. They are capable of higher flowrates due to the inclusion of multiple 2.5-inch outlets, a 4.5-inch outlet, and the connection to the main with a minimum 6-inch lateral. Additionally, In the event the hydrant has been damaged by a vehicle there is a break off check valve that will instantly close, allowing the flow capacity in the rest of the system unaffected. Therefore, wharf hydrants' ability to deliver fire flows are inferior to the modern type of fire hydrants used by today's Standards.

Scoring

To evaluate this criterion, the total number of wharf hydrants in each main replacement area were counted and then divided by the total number of fire hydrants of all types in each main replacement area. The wharf hydrant percentage was then scored based on the criteria in Table 11. This criterion is not considered as important as hydrant coverage and fire flow capability since a wharf hydrant is still useful for fighting fires and is better than no hydrant at all (the latter is addressed by Hydrant Spacing). Results can be seen in Appendix L.

Table 11. Wharf Hydrant Score

Wharf Hydrant [%]	Wharf Hydrant Score
$80 \leq 100$	5
$60 < 80$	4
$40 < 60$	3
$20 < 40$	2
< 20	1

Economic Factors

In addition to the Indirect Method, SSWD's Engineering Department evaluates three (3) Economic Factors discretionarily as part of best engineering practices. Although these Economic Factors are utilized with discretion, they provide key information on an economic scale, as compared to a risk scale, when comparing the top ranked main replacement areas. These Economic Factors (e.g., Meter Retrofit Program Coordination, Economy of Scale, and the County or City Paving Schedules) do not directly influence the risk assessment's Modified Risk of Failure Score but provides an independent viewpoint examining future main replacement projects.

1. Meter Retrofit Program Coordination:
   In compliance with State Law (AB 2572) all water connections are required to be fully metered by January 1, 2025. SSWD's Meter Retrofit Program is installing meters in main replacement areas that have backyard mains, some of which are ranked in the top 20 of the Modified Risk of Failure calculations. Strategic planning of future main replacement projects can possibly eliminate high risk mains within planned Meter Retrofit Project areas. The ability to coordinate the main replacement and meter retrofit projects help reduce interruptions to SSWD customers.

2. Economy of Scale:
   The economy of scale evaluation could eliminate individual high risk pipe segments in main replacement areas. By replacing high risk segments, SSWD may defer the need for a total main replacement project in that area, providing savings to SSWD and its ratepayer's. Currently, SSWD evaluates main replacement areas whose boundaries created to retain and depict original subdivisions. The pipe installed in subdivisions were typically the same material and installed during the same time period. The method of using these original subdivisions as project areas has proven to be beneficial and fiscally responsible. Future small distribution main replacement projects should examine high risk areas and determine whether the replacement of certain pipe segments could appreciably reduce the risk of the entire area.

3. County and City Paving Schedules:
   Sacramento County discourages utilities from cutting into recently paved roadways. As a result, the County imposes a substantial fee to the utility if new pavement is cut into within its first five (5) years. A paving schedule is provided to utilities in advance for planning purposes. An analyses is performed by SSWD using the paving schedule and Distribution Main Asset Management Plan. The analysis will determine whether a main replacement high risk area or segment is within the paving schedule, and if its schedule should be adjusted.

These three (3) Economic Factors do not influence the risk assessment's Modified Risk of Failure calculations but are analyzed independently to help prioritize main replacement projects. SSWD considers these economic factors as a significant aspect of being fiscally responsible when determining the timing of main replacement projects.

Regulatory Factors (Future)

Future regulations may affect this Distribution Main Asset Management Plan moving forward and will be incorporated into future plans.

Direct Method

After the completion of the indirect method and all main replacement areas have received a Modified Risk of Failure Score, the highest ranking main replacement areas will be examined further with field investigations (i.e., Direct Method).

The Direct Method will verify or adjust the Indirect Method's prioritization of the main replacement areas but it should be considered on a cost and results driven basis. The Modified Risk of Failure Score Scale, shown in Figure 1, will assist in determining which main replacement projects are classified as having a high modified risk of failure.

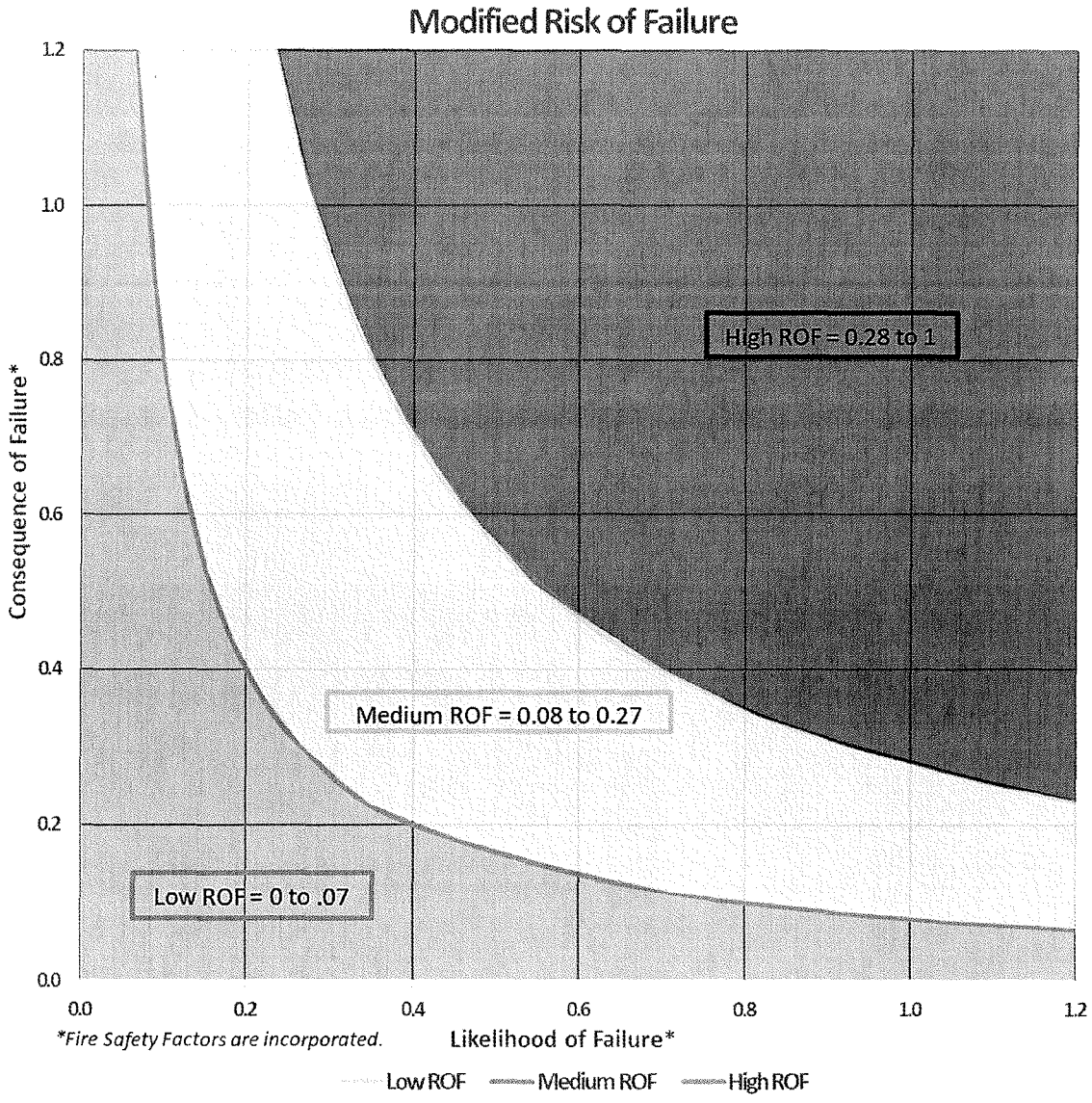

Figure 1. Modified Risk of Failure (ROF)

High Modified Risk of Failure areas will evaluated utilizing one or more of the following field investigation methods of the direct method:

- Leak detection;
- Visual inspection;
- Laboratory strength testing;
- Material chemical testing; and
- Wall thickness measurement

Visual Inspection

The condition of pipelines may be analyzed through visual inspection by either internal video, or internal and external visual observation. One method of visual inspection that SSWD is currently performing is the removal of small sections of main, either a random location or a recent leak location, to verify the condition of the pipeline materials. This destructive method allows verification of the deteriorated quality of older pipe material.

Traditional technologies include a CCTV survey that requires a complete shutdown to isolate a pipeline. This can cause issues due to customers and hydrants temporarily being taken out of service and is considered to be intrusive.

Potential non-destructive visual inspection technologies that could be utilized include the use of a swimming ROV with sensors and mini cameras. Vendors are beginning to offer the use of these technologies in new and innovative ways. SSWD will continue to research and try new technologies as they evolve. A brief description of some vendors utilizing these technologies in innovative ways are described below.

1. JD7 Investigator:
   This investigator performs up to 1000 meter (3,280 feet) surveys at a time using a High Definition CCTV coupled with a hydrophone and high powered sonde for precise leakage and acoustic surveys. The combination of the CCTV and hydrophone allows up to double the distance surveyed a day compared to traditional leak detection methods.

2. SAHARA:
   This investigator uses a method composed of a tethered system with acoustic leak detection and inline video. The monitoring tool is pulled by the flow of water and checks internal pipe wall conditions and pipeline features by sweeping across the pipe walls with the onboard sensors.

During current and past main replacement projects, visual inspection of the external pipe condition has been an essential component in verifying the degraded quality of the pipe material.

SSWD plans to continue to incorporate this method of visual inspection within high risk main replacement areas, with plans to explore internal visual inspection technology.

Laboratory Strength Testing and Material Chemical Testing

Laboratory strength testing can give an understanding on the relative strength of a pipe material. Compression and tensile testing can be used to estimate the remaining useful life of a pipe.

Material chemical testing is an industry standard procedure when assessing the degradation of AC pipe. It has the ability to show the approximate calcium leached from the outer wall. Calcium leaching has proven to make AC pipe "water logged" causing it to become brittle. If the original design criterion is known, the remaining useful life of an AC pipe can be estimated based on the amount of calcium that has leached from the pipe walls.

Wall Thickness Measurement

Utilizing technology to calculate or measure wall thickness of a pipe, is another way to assess the remaining useful life of a pipeline.

1. Acoustic Monitoring (Echologics):
   This technology is most effective on AC pipe and can provide an indication of average wall thickness between two transmitter locations. This method provides measurements which can detect widespread corrosion and wall loss.

2. X-Ray (TEAM Industrial):
   This destructive method requires that a section of metallic pipe be removed for examination. This technology can provide a wall thickness profile of a metallic pipe section. Knowing the original thickness, one can estimate the remaining useful life of the pipe material based on the decay rate. Though an expensive method, the X-Ray testing method can provide reliable wall thickness data for metallic pipes.

3. Future Technologies:
   SSWD will continue to research and utilize appropriate technologies when opportunities arise.

SSWD has utilized wall thickness measurements to assess material condition and estimate the remaining useful life of Mortar Lined Steel (MLS) and Asbestos Cement (AC) pipes. Implementing destructive wall thickness testing methods can be expensive. However, the ability to calculate an estimate for pipeline decay may help determine the remaining useful life of those pipes.

Appendix M

Equation 1. Total Score by Main Replacement Area

$$Total\ Score = LOF \text{ x } COF \text{ x } (1 + FSS)$$

Equation 2. Likelihood of Failure (LOF) per Main Replacement Area

$$LOF_i = \frac{\sum LOF\ Criteria\ Score_i}{Max(\sum LOF\ Criteria\ Score)}$$

LOF_i = Likelihood of Failure for Main Replacement Area "i"
$\sum$LOF Criteria Scorei = Sum of all the LOF Criteria Scores per Main Replacement Area "i"
Max($\sum$LOF Criteria Score) = Maximum LOF score possible

Equation 3. Effective Pipe Material Score by Main Replacement Area

$$\text{EPM} = \sum (\%_{ACP} \times Score_{\text{ACP}} + \ \%_{DI} \times Score_{DI} + \cdots + \%_x \times Score_x)$$

EPM = Effective Pipe Material
$\%_x$ = Percentage of pipe material "x" within Main Replacement Area "i"
Scorex = Corresponding Pipe Material Score (e.g. ACP = 4)

Equation 4. Effective Pipe Age by Main Replacement Area

$$EPA = \sum (\%_{Age_{0-15}} \times Score_{0-15} + \ \%_{15.01-30} \times Score_{15.01-30} + \cdots + \%_x \times Score_y)$$

EPA = Effective Pipe Age
$\%Age_x$ = Percentage of Pipe Age "x" within Main Replacement Area "i"
$Score_y$ = Corresponding Pipe Age Score (e.g. 60+ = 5

Equation 5. Leaks per Mile by Main Replacement Area

$$\boldsymbol{Leaks\ per\ Mile\ by\ Area = \frac{\sum Leaks_i}{\sum Miles_i}}$$

$Leaks_i$ = Total Leaks within the replacement area
$Miles_i$ = Total length of Main within the replacement area in miles

Equation 6. Consequence of Failure (COF) per Main Replacement Area

$$COF_i = \frac{\sum COF\ Criteria\ Score_i}{Max(\sum COF\ Criteria\ Score)}$$

COF_i = Consequence of Failure for per Main Replacement Area "i"
$\sum$COF Criteria Score$_i$ = Sum of all the COF Criteria Scores per Main Replacement Area "i"
Max($\sum$COF Criteria Score) = Maximum COF score possible

Equation 7. Pipe Damage Score per Main Replacement Area

$$PDaS_i = \sum PDaS_{ix} \times {}^{l_{ix}}/_{L_i}$$

$PDaS_i$ = Pipe Damage Score per Main Replacement Area "i"
$PDaS_{ix}$ = Score of respective Pipe Damage "x" within Main Replacement Area "i"
l_{ix} = Length of respective material "x" within Main Replacement Area "i"
L_i = Total length of Main within Main Replacement Area "i"

Equation 8. Pipe Diameter Score per Main Replacement Area

$$PDiS_i = \sum PDiS_{ix} \times {}^{l_{ix}}/_{L_i}$$

$PDiS_i$ = Pipe Diameter Score per Main Replacement Area "i"
$PDiS_{ix}$ = Score of respective Pipe Diameter Score "x" within Main Replacement Area "i"
l_{ix} = Length of respective Pipe Diameter "x" within Main Replacement Area "i"
L_i = Total length of Main within Main Replacement Area "i"

Equation 9. Commercial Density per Main Replacement Area

$$CD_i = 1 + 2 \times \left(\frac{CA_i}{TA_i}\right)$$

CD_i = Commercial Density per Main Replacement Area "i"
CAi = Commercial Accounts per Main Replacement Area "i"
TA_i = Total Accounts per Main Replacement Area "i"

Equation 10. Creek Crossings Score by Main Replacement Area

$$CCS_i = 3 + CC_i$$

Equation 11. Freeway Crossings Score by Main Replacement Area

$$FWCS_i = 1 + FW_i \times 5$$

Equation 12. Railroad Crossings Score by Main Replacement Area

$$RRCS_i = 1 + RC_i \times 3$$

Equation 13. Sum of Crossings Score by Main Replacement Area

$$SC_i = CCS_i + FWCS_i + RRCS_i$$

Equation 14. Crossings Score Upper Limit

$$C_{UL} = Max(SC_i)$$

Equation 15. Crossings Score Range Interval

$$C_R = \frac{C_{UL}}{5}$$

Equation 16. Crossings Value by Main Replacement Area

$$CV_i = \frac{SC_i}{C_{UL}}$$

CCS_i = Creek Crossings Score by Main Replacement Area "i"
$FWCS_i$ = Freeway Crossings Score by Main Replacement Area "i"
$RRCS_i$ = Railroad Crossings Score by Main Replacement Area "i"
SC_i = Sum of Crossings by Main Replacement Area "i"
CV_i = Crossings Value by Main Replacement Area "i"

Equation 17. Valve Spacing by Main Replacement Area

$$V_{500'_i} = \frac{V_i}{L_i} \times 500'$$

$V_{500'_i}$ = Valve Spacing per Main Replacement Area "i"
V = Valves per Main Replacement Area "i"
L_i = Distribution Main Length per Main Replacement Area "i"

Equation 18. Risk of Failure Score by Main Replacement Area

$$ROF_i = COF_i \times LOF_i$$

ROF_i = Risk of Failure per Main Replacement Area "i"
COF_i = Consequence of Failure for per Main Replacement Area "i"
LOF_i = Likelihood of Failure for Main Replacement Area "i"

Equation 19. Fire Safety Score per Main Replacement Area

$$Fire\ Safety\ Score = \frac{[Hydrant\ Coverage\ Score] + [Wharf\ Hydrant\ Score]}{15}$$

Equation 20. Modified ROF Score

$$Modified\ ROF\ Score = ROF \times (1 + Fire\ Safety\ Score)$$

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SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 10

Date: June 13, 2019

Subject: Committee and Liaison Appointments – Board Consideration of an Employee Benefits Ad Hoc Committee

Staff Contact: Dan York, General Manager

Recommended Board Action:
Consider an Employee Benefits Ad Hoc Committee and appoint committee members.

Discussion:
As part of the District's due diligence, it is necessary to review the health benefit and retiree health benefit programs and develop strategies to address increased financial commitments. This is also a 2019 goal set for the General Manager.

Fiscal Impact:
Unknown at this time.

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SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 11

Date: June 12, 2019

Subject: General Manager's Report

Staff Contact: Dan York, General Manager

a. Regional Water Supply/Wheeling Opportunities

Staff met with Steve Nugent, the General Manager, for Carmichael Water District (CWD) on June 5 and discussed water-sharing opportunities. Two opportunities rose to the top that we plan on pursuing. One is a groundwater banking temporary transfer opportunity where CWD will deliver SSWD surface water in lieu of SSWD pumping groundwater. Our consultant, Tully & Young, will be preparing a project description and steps for us to initiate this opportunity. The other water sharing opportunity is partnering with CWD on a well that SSWD is planning to construct. CWD would purchase a share of capacity, primarily for a backup supply. Our next step, regionally, is to begin similar discussions with San Juan Water, the City of Sac, and SMUD.

b. Wholesale Water Rates and Area D Water Supply Map

Wholesale Water Rates: The City of Sac is meeting with their consultant this month to discuss the City's objectives for wholesale water rates. This project has taken longer than expected. Council for the City will be the next to review and approve, and if the wholesale rates are adjusted, they will likely be on a customer-by-customer basis. Meaning we would receive a proposal from the City and settle on a rate with the City. It is unlikely to be a consistent, universal change to all wholesale rates.

Area D Water Supply Map: This is about 95% complete. The City's legal team is reviewing a couple sections of the map boundary. We anticipate a new map being complete by the next board meeting.

c. Meter Consortium Update

Upon the conclusion of the RFP process, consortium members have selected Harris & Associates as the consultant to perform the Regional Meter Replacement study. After reviewing the Harris & Associates proposal an additional 5 agencies have decided to participate as financial partner bringing the total to 7, which now includes Citrus Heights Water District, San Juan Water District, City of Folsom, City of Sacramento, Placer County Water Agency, Sacramento County Water Agency, and Sacramento Suburban Water District. In July, staff will provide a full report with an amended Memorandum of Understanding outlining SSWD's interest to participate as a financial partner, estimated to be $86,000.

SACRAMENTO SUBURBAN WATER DISTRICT

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Agenda Item: 12

Date: June 11, 2019

Subject: Financial Report

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

Eight reports are attached for your information. Please note formatting changes and additional reports:

- Financial Highlights – May 2019
- Financial Statements – May 2019
- Investments Outstanding and Activity – May 2019
- Cash Expenditures – May 2019
- Credit Card Expenditures – May 2019
- District Reserve Balances – May 2019
- Information Required by LOC Agreement
- Financial Markets Report – May 2019

Financial Statements

Financial Highlights

The Statements of Net Position and Statements of Revenues, Expenses and Changes in Net Position are presented in this report. They are gleaned from the financial statements presented on subsequent pages. Key information from this report indicates the District's cash balance is $1.0 million less than its prior year balance at the same date; investments are $1.6 million more than on May 31, 2018; liabilities have decreased by $5.0 million due to the payment of scheduled bond principal in October 2018; and net position has increased by $5.7 million in the last 12 months as the District continues to replace its capital infrastructure without incurring additional debt. Operating revenues decreased $0.3 million compared to the same period a year ago due to the reduction in water consumption demand compared to the same period a year ago. There is no rate increase for 2019. Operating expenses increased $0.9 million compared to the same period a year ago due to: 1) the increase in surface water purchasing costs as no surface water was taken in the first quarter of 2018, and 2) increased inventory costs to replace failed drive-by endpoints that were exceeding their useful lives.

Statements of Net Position:

District cash and cash equivalents increased to $9.5 million as of May 31, 2019, up from $7.6 million at December 31, 2018. Cash held in the District's bank accounts ($2.7 million as of May 31) is held in accordance with state and federal regulations, which state that cash held in the

District's bank accounts above the FDIC insured limits must be fully collateralized with government securities that are equal to or greater than 110% of the District's cash balance in the bank at any time.

Investments increased since December 31, 2018 by $0.7 million to a total of $37.1 million, reflecting the reinvestment of interest received and unrealized market value gains. Investment portfolio balances and activity are reported on subsequent pages.

Capital assets increased by $4.6 million to $481.9 million as of May 31, 2019, resulting from expenditures on distribution main replacement projects, well improvement projects and meter retrofit costs. Capital assets are primarily funded by monthly remuneration from customers through "capital facilities charges," developer contributions, as well as grant funds, when available, and District reserves when necessary.

Net position stands at $254.5 million as of May 31, 2019, compared to $251.3 million at December 31, 2018 for an increase of $3.2 million.

Statements of Revenues, Expenses and Changes in Net Position:
The net position increase of $3.2 million in 2019 is $0.1 million less than the first five months of 2018. Net changes are comprised of:

1. Water Consumption Sales decreased by $0.4 million compared to the same period in 2018 due primarily to cooler temperatures and Spring rains that resulted in a corresponding reduction in demand. Wheeling water charge increased by $0.2 million compared to the same period in 2018 as surface was not available for wholesale wheeling in the first three months of 2018.

2. Operating expenses increased by $1.0 million from the same period in 2018 due primarily to: 1) the increase of surface water costs as no surface water was taken in first quarter of 2018 due to the shutdown of the Antelope Transmission Pipeline (ATP) and availability of PCWA water, and 2) an increase in inventory purchases to replace drive-by endpoints that were failing and/or exceeding their useful lives.

3. Investment income increased by $0.9 million compared to the same period a year ago primarily due to unrealized holding gains in May 2019.

4. Interest expense and debt related costs decreased $0.2 million compared to the same period a year ago primarily due to the savings from refunding the 2009B COP to a lower interest rate with the issuance of the 2018A Revenue Bond.

Budgets:
The District's operating and maintenance expenditures through May 2019 came in less than the approved budget by $1.9 million. Most of this positive variance is due timing differences. As

requested by the Board at the February 2019 Regular Board meeting, the 2019 Employee Morale Budget (Operations and Maintenance Expense Budget) has been reduced from $18,500 to $12,000.

Operating capital project expenditures in May were $0.3 million. The total budget for the year is $1.0 million.

The District's capital improvement project (CIP) budget for 2019 is $18.2 million. For 2019, $4.4 million has been spent while $9.4 million is under contract. Expenditures continue to be primarily in distribution system replacements, well improvements and meter retrofit projects.

Debt – May 2019

This report shows district activity in repaying its long-term debt obligations. Scheduled 2019 principal payments of $4.6 million are not due until the end of October. Total principal outstanding as of May 31, 2019 was $74.7 million.

Interest expense consists of: 1) interest paid to bondholders, 2) letter-of-credit facility fees, 3) remarketing fees, 4) arbitrage rebate liabilities, and 5) net SWAP interest.

For the first five months of 2019, the District has incurred interest expense of $935,932 versus a forecast of $1,187,500 or a $251,568 positive variance. This is primarily due to expected Federal Reserve interest rate increases not occurring as anticipated.

Investments Outstanding and Activity – May 2019

Reserve funds are invested in diverse investments that consist of corporate notes, Federal Agency bonds and discount notes, U.S. Treasury bonds, notes and bills, Supra-National Agency notes, commercial paper, municipal bonds, negotiable certificates of deposit, asset-backed securities, collateralized mortgage obligations and LAIF (Local Agency Investment Fund). The District's investments are under the day-to-day management of PFM Asset Management, LLC (PFM). PFM manages the portfolio in compliance with the District's Investment Policy and provides monthly and quarterly reporting, analytics and proposes strategies for the District. The market portfolio is currently earning a rate of 2.40% per annum, while LAIF is earning 2.45%, essentially the same. District staff monitors investment assets quarterly and reviews/approves the effective duration of the District's portfolio against its benchmark index on a quarterly basis as well.

During the month of May, the District purchased one U.S. Treasury Note for $0.7 million (par) and two Commercial Papers for $0.8 million (par). The District received principal paydowns on four Federal Agency Collateralized Mortgage Obligations of $5,634 (par) and eight Asset-Backed Security Obligations of $96,086 (par). See "Investment Activity" section in the attached report for further details.

All investments are invested and accounted for in accordance with the District Investment Policy (PL - FIN 003) and Government Code.

Cash Expenditures – May 2019

During the month of May, the District made cash payments totaling $4.2 million. The primary expenditures were – $0.1 million for debt service, $2.4 million for 2019 capital improvement projects, $0.7 million for water costs including pumping and chemical costs, $0.1 million for customer billing, printing and postage and $0.7 million for payroll, pension and health benefits.

Purchasing Card Expenditures – May 2019

Per the District's Purchasing Card Policy (PL – FIN 006), a monthly report detailing each purchasing card transaction by cardholder is provided.

During the month, the District spent $6,870 for various purchases on the six District purchasing cards. Details by vendor and purpose are included in this report.

District Reserve Balances

The District's Reserve Policy, PL – Fin 004, requires the District to maintain a certain level of cash and investments on hand at any one time, as determined by the Board annually. Balances as of May 31, 2019 are $46,786,972 compared to $45,050,155 at December 31, 2018.

Information Required by LOC Agreement

Per Article 5.2 (b) of the 2009A COP Reimbursement Agreement with Sumitomo Mitsui Banking Corporation (LOC Provider), year-to-date net revenues available for the payment of debt service costs and an estimate of debt service payments for the upcoming six months are provided.

Financial Statements
May 31, 2019

Sacramento Suburban Water District
Financial Highlights
Period Ended

STATEMENTS OF NET POSITION

	Year-To-Date 5/31/2019	Year-To-Date 5/31/2018
LIQUIDITY		
Cash and cash equivalents	$9,457,405.09	$10,500,654.08
INVESTMENT		
Investments	37,104,376.18	35,470,870.22
CAPITAL ASSETS		
Property, plant and equipment	481,939,212.96	462,440,976.83
Accumulated depreciation	(185,639,953.51)	(173,420,754.61)
	296,299,259.45	**289,020,222.22**
LIABILITIES		
Long Term Debt	**(81,186,785.75)**	**(86,191,365.55)**
NET POSITION		
Net Position	**254,501,477.15**	**248,780,431.70**

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

	Month 5/31/2019	Year-To-Date 5/31/2019	Month 5/31/2018	Year-To-Date 5/31/2018
NET INCOME				
Operating Revenue	3,502,801.04	16,225,940.77	3,711,840.71	16,476,501.02
Operating Expense	(1,598,750.91)	(7,735,671.75)	(1,570,892.83)	(6,787,005.24)
Other, Net	(946,751.57)	(5,262,802.56)	(1,223,023.88)	(6,340,516.38)
Change in Net Position	**$957,298.56**	**$3,227,466.46**	**$917,924.00**	**$3,348,979.40**

Sacramento Suburban Water District
Statements of Net Position

As Of

	Month End 5/31/2019	Year End 12/31/18
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	$9,457,346.08	$7,585,118.00
Restricted Cash and cash equivalents	59.01	9,767.92
Accounts receivable, net of allowance for uncollectible accounts	2,180,912.08	2,841,401.63
Interest receivable	225,191.04	215,917.07
Grants receivables	0.01	0.01
Other receivables	146,480.64	945,572.10
Inventory	572,152.88	495,142.20
Prepaid expenses and other assets	921,773.31	924,083.21
TOTAL CURRENT ASSETS	13,503,915.05	13,017,002.14
NONCURRENT ASSETS		
Investments	37,104,376.18	36,369,025.38
Fair value of interest rate swaps	1,564,723.00	1,564,723.00
TOTAL NONCURRENT ASSETS	38,669,099.18	37,933,748.38
Property, plant and equipment	481,939,212.96	477,342,701.03
Accumulated depreciation	(185,639,953.51)	(180,222,436.62)
TOTAL CAPITAL ASSETS	296,299,259.45	297,120,264.41
TOTAL ASSETS	***348,472,273.68***	***348,071,014.93***
DEFERRED OUTFLOWS OF RESOURCES		
Deferred amount on long-term debt refunding	5,748,913.97	6,024,224.12
Pension contribution subsequent to measurement date	2,223,442.00	2,223,442.00
Other post-employment benefits	24,450.00	24,450.00
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	***356,469,079.65***	***356,343,131.05***
LIABILITIES		
CURRENT LIABILITIES		
Current portion of long-term debt and capital leases	4,625,000.00	4,625,000.00
Accounts payable	705,961.59	3,411,438.20
Accrued interest	102,787.43	269,683.50
Deferred revenue and other liabilities	1,220,597.27	1,165,830.41
Accrued expenses	761,755.76	840,578.24
TOTAL CURRENT LIABILITIES	7,416,102.05	10,312,530.35
NONCURRENT LIABILITIES		
Long-term debt	76,561,785.75	76,804,132.00
Compensated absences	988,207.70	950,951.01
Net pension liability	8,812,373.00	8,812,373.00
Net other post-employment benefits liability	5,856,340.00	5,856,340.00
TOTAL NONCURRENT LIABILITIES	92,218,706.45	92,423,796.01
TOTAL LIABILITIES	***99,634,808.50***	***102,736,326.36***
DEFERRED INFLOWS OF RESOURCES		
Deferred intflow of effective swaps	1,564,723.00	1,564,723.00
Employee pensions	741,595.00	741,595.00
Other post-employment benefits	26,476.00	26,476.00
NET POSITION		
Invested in capital assets, net of related debt	221,715,356.53	221,715,356.53
Restricted	9,767.92	9,767.92
Unrestricted	32,776,352.70	29,548,886.24
TOTAL NET POSITION	***254,501,477.15***	***251,274,010.69***
TOTAL LIABILITIES, DEFERRED INFLOWS AND NET POSITION	***356,469,079.65***	***356,343,131.05***

Sacramento Suburban Water District
Statements of Revenues, Expenses and Changes in Net Position

Period Ended

	Month 5/31/2019	Year-To-Date 5/31/2019	Month 5/31/2018	Year-To-Date 5/31/2018
OPERATING REVENUES				
Water consumption sales	$849,594.72	$3,068,829.43	$1,074,505.45	$3,454,151.00
Water service charge	522,339.32	2,546,288.31	531,386.21	2,596,619.78
Capital facilities charge	2,039,158.83	9,859,983.52	2,037,708.77	9,872,109.73
Wheeling water charge	28,036.17	333,411.64	813.96	163,740.49
Other charges for services	63,672.00	417,427.87	67,426.32	389,880.02
TOTAL OPERATING REVENUES	3,502,801.04	16,225,940.77	3,711,840.71	16,476,501.02
OPERATING EXPENSES				
Source of supply	288,613.92	1,035,654.32	322,870.21	426,078.82
Pumping	333,488.63	1,388,131.13	277,429.65	1,588,665.82
Transmission and distribution	413,330.38	1,985,019.55	310,997.28	1,362,757.70
Water conservation	32,883.19	164,391.46	30,206.46	144,027.51
Customer accounts	99,573.90	503,541.84	106,975.93	494,870.70
Administrative and general	430,860.89	2,661,143.39	522,419.03	2,770,415.66
TOTAL OPERATING EXPENSES	1,598,750.91	7,737,881.69	1,570,898.56	6,786,816.21
Operating income before depreciation	1,904,050.13	8,488,059.08	2,140,942.15	9,689,684.81
Depreciation and amortization	(1,083,353.54)	(5,417,516.89)	(1,039,055.89)	(5,198,734.61)
OPERATING INCOME	820,696.59	3,070,542.19	1,101,886.26	4,490,950.20
NON-OPERATING REV. (EXP.)				
Rental income	27,353.48	123,039.46	20,434.03	101,718.04
Interest and investment income	318,560.23	939,532.09	150,059.80	31,799.78
Interest expense and debt related costs	(210,621.04)	(1,111,379.22)	(366,426.80)	(1,442,677.14)
Other non-operating revenues	118.38	75,896.58	3,949.47	147,021.42
Other non-operating expenses	(63.08)	(43.64)	(23.76)	12,122.10
Gain(loss) on disposal of capital assets		30,820.00		
NON-OPERATING REV. (EXP.)	135,347.97	57,865.27	(192,007.26)	(1,150,015.80)
NET INCOME (LOSS) BEFORE CAPITAL	956,044.56	3,128,407.46	909,879.00	3,340,934.40
CAPITAL CONTRIBUTIONS				
Facility development charges		91,615.00	8,045.00	8,045.00
Federal, state and local capital grants	1,254.00	7,444.00		
TOTAL CAPITAL CONTRIBUTIONS	1,254.00	99,059.00	8,045.00	8,045.00
CHANGE IN NET POSITION	957,298.56	3,227,466.46	917,924.00	3,348,979.40
Net position at beginning of period	253,544,178.59	251,274,010.69	247,862,507.70	245,431,452.30
NET POSITION AT END OF PERIOD	***254,501,477.15***	***254,501,477.15***	***248,780,431.70***	***248,780,431.70***

Sacramento Suburban Water District
Operations and Maintenance Budget
Period Ended

	Month Of May			*2019 YTD*		
	Actual	Budget	Variance	Actual	Budget	Variance
BUDGETED OPERATING EXPENSES						
Board of Directors	$1,080.87	$5,961.16	***$4,880.29***	$18,952.19	$29,805.80	***$10,853.61***
Administrative	134,125.71	197,412.47	***63,286.76***	779,924.83	987,062.35	***207,137.52***
Finance	72,218.38	98,292.90	***26,074.52***	386,300.52	491,466.50	***105,165.98***
Customer Services	99,573.90	116,156.61	***16,582.71***	503,541.84	582,336.01	***78,794.17***
Field Operations	24,080.22	46,253.00	***22,172.78***	178,494.25	323,365.00	***144,870.75***
Production	622,102.55	678,335.50	***56,232.95***	2,423,785.45	3,312,523.50	***888,738.05***
Distribution	221,175.02	208,912.04	***(12,262.98)***	861,029.44	1,044,560.20	***183,530.76***
Field Services	192,155.36	220,473.39	***28,318.03***	1,123,990.11	855,878.95	***(268,111.16)***
Maintenance	35,793.78	58,068.53	***22,274.75***	218,077.83	290,342.65	***72,264.82***
Water Conservation	32,883.19	34,697.94	***1,814.75***	164,391.46	187,527.20	***23,135.74***
Engineering	94,667.56	128,339.19	***33,671.63***	491,378.36	640,025.95	***148,647.59***
GIS/CAD	22,019.78	25,777.28	***3,757.50***	109,812.34	136,086.40	***26,274.06***
Human Resources	14,437.35	14,168.29	***(269.06)***	69,203.43	138,596.32	***69,392.89***
Information Technology	32,437.24	82,107.89	***49,670.65***	408,999.64	587,685.45	***178,685.81***
TOTAL OPERATING EXPENSES	***1,598,750.91***	***1,914,956.19***	***316,205.28***	***7,737,881.69***	***9,607,262.28***	***1,869,380.59***

SACRAMENTO SUBURBAN WATER DISTRICT
OPERATING CAPITAL AMENDED BUDGET
5/31/2019

Project Number	Project Name	Orginal Budget	Amendments	Amended Budget	Current Month Expenditures	Expenditures Year-To-Date	Committed Year-To-Date	Remaining Balance
SF19-453	FENCE REPLACE - 3 WELL SITES	$ 21,000.00		$ 21,000.00		$ -	$ 2,545.00	$ 18,455.00
SF19-454	UCMR 4 MONITORING	$ 70,000.00		70,000.00		-	-	$ 70,000.00
SF19-455	WELL SITE PAVING	$ 40,000.00		40,000.00		-	-	$ 40,000.00
SF19-456	ALUMINUM PIPE TRAILER REPLACEMENT	$ 9,000.00		9,000.00		-	-	$ 9,000.00
SF19-457	LARGE VOL DECHLORIN TRAILER UPGRADE	$ 12,000.00		12,000.00		-	-	$ 12,000.00
SF19-458	LARGE VOL SUPER CHLORIN TRAILER	$ 9,000.00		9,000.00		-	-	$ 9,000.00
SF19-459	VEHICLE ADD - PRODUCTION FORMAN	$ 45,000.00		45,000.00		-	40,766.00	$ 4,234.00
SF19-460	VEHICLE REPL - TRUCK# 3	$ 30,000.00		30,000.00		-	28,685.00	$ 1,315.00
SF19-461	VEHICLE REPL - TRUCK # 21	$ 34,000.00		34,000.00		-	36,165.00	$ (2,165.00)
SF19-462	VEHICLE REPL - TRUCK #12	$ 31,000.00		31,000.00		-	26,108.00	$ 4,892.00
SF19-463	VEHICLE REPL - TRUCK #45	$ 31,000.00		31,000.00		-	26,108.00	$ 4,892.00
SF19-464	VEHICLE REPL - TRUCK #51	$ 45,000.00		45,000.00		-	40,766.00	$ 4,234.00
SF19-465	VEHICLE REPL - TRUCK #6	$ 42,000.00		42,000.00		-	40,350.00	$ 1,650.00
SF19-466	VEHICLE ADD - SAFETY OFFICER	$ 31,000.00		31,000.00		-	28,685.00	$ 2,315.00
SF19-467	OFFICE FURNITURE/WORKSTATIONS	$ 40,000.00		40,000.00	4,741.00	4,741.00	24,702.00	$ 10,557.00
SF19-468	WELL SITE/BUILD STRUCTURE MAINT	$ 60,000.00		60,000.00		-	-	$ 60,000.00
SF19-469	HVAC/ROOF/BUILD REPAIRS	$ 50,000.00		50,000.00		10,383.00	3,910.00	$ 35,707.00
SF19-470	REMOVING ANTELOPE GARDEN	$ 54,000.00		54,000.00		3,835.00	-	$ 50,165.00
SF19-471	HARDWARE REFESH PROGRAM	$ 107,000.00		107,000.00	5,157.00	6,730.00	2,649.00	$ 97,621.00
SF19-472	SOFTWARE ENHANCEMENTS/MODULES	$ 55,000.00		55,000.00		-	-	$ 55,000.00
SF19-473	BOARD LAPTOPS	$ 5,000.00		5,000.00		-	-	$ 5,000.00
SF19-474	BOARD ROOM MONITORS	$ 35,000.00		35,000.00		1,021.00	1,022.00	$ 32,957.00
SF19-475	REWIRE/MOVE SWITCH - WALNUT	$ 30,000.00		30,000.00		15,299.00	-	$ 14,701.00
SF19-476	PC/PHONES/LIC-NEW EMPLOYEES	$ 9,000.00		9,000.00		-	-	$ 9,000.00
SF19-477	PROJECT/PDF SOFTWARE-ENG DEPT	$ 13,000.00		13,000.00		-	-	$ 13,000.00
SF19-478	SERVER ROOMS - WALNUT/MARCONI	$ 42,000.00		42,000.00		8,666.00	8,648.00	$ 24,686.00
SF19-480	AMI REPLACEMENTS	-		-	123,413.00	279,264.00	20,922.00	$ (300,186.00)
SF19-480	AMI SENSUS FLEXNET	-		-		-		$ -
	TOTAL	**$ 950,000.00**	**$ -**	**$ 950,000.00**	**$ 133,311.00**	**$ 329,939.00**	**$ 332,031.00** #	**$ 288,030.00**

Sacramento Suburban Water District
Capital Improvement Project Amended Budget
5/31/2019

Project No.	Project Name	Original Budget	Amended Budget	Current Month Expenditures	Expenditures Year-To-Date	Committed Year-To-Date	Remaining Balance
SC19-009	WELL REHAB/PUMP ST IMPROVEMENT	$ 790,000.00	$790,000.00	$ 3,434.00	$ 41,294.00	$590,149.00	$ 158,557.00
SC19-010	SCADA RTU/COMMUN IMPROVEMENT	$ 60,000.00	60,000.00	-	-	-	$ 60,000.00
SC19-012	WELL REPLACEMENTS	$ 2,800,000.00	2,800,000.00	376,166.00	633,575.00	1,049,734.00	$ 1,116,691.00
SC19-013	ELECTRICAL IMPROV @WELL SITES	$ 220,000.00	220,000.00	-	-	-	$ 220,000.00
SC19-018	DISTRIBUTION MAIN REPLACEMENTS	$ 9,300,000.00	9,300,000.00	1,063,029.00	2,800,748.80	6,039,698.00	$ 459,553.20
SC19-019	DIST MAIN IMPRV/EXT/INTERTIES	$ 1,400,000.00	1,400,000.00	14,602.00	25,150.00	33,770.00	$ 1,341,080.00
SC19-020	MCCLELLAN LINE REPL	$ 80,000.00	80,000.00	-	-	-	$ 80,000.00
SC19-022	WTR RELATED STREET IMPRV	$ 220,000.00	220,000.00	-	62,967.00	-	$ 157,033.00
SC19-024	METER RETROFIT PROGRAM	$ 2,500,000.00	2,500,000.00	161,774.00	765,005.00	1,655,679.00	$ 79,316.00
SC19-034	RESERVIOR/TANK IMPROVMENT	$ 685,000.00	685,000.00		-	33,794.00	$ 651,206.00
SC19-035	CORROSION CONTROL-TRAN MAINS	$ 50,000.00	50,000.00		-	-	$ 50,000.00
SC19-038	LARGE WTR METER >3" REPL	$ 100,000.00	100,000.00		8,200.00	25,500.00	$ 66,300.00
SC19-046	TANK INSPECTION & REPAIRS	$ 50,000.00	50,000.00		92,122.00	5,695.00	$ (47,817.00)
SC19-048	RIGHT OF WAY/EASEMENT ACQUISIT	$ 5,000.00	5,000.00		-	-	$ 5,000.00
		$ 18,260,000.00	**$ 18,260,000.00**	**$ 1,619,005.00**	**$ 4,429,061.80**	**$ 9,434,019.00**	**$ 4,396,919.20**

Sacramento Suburban Water District
Debt
5/31/2019

Principal Current Month

	Series 2009A COP	Series 2012A	Series 2018A	Total
Beginning Balance	$ 42,000,000	$ 15,385,000	$ 17,295,000	$ 74,680,000
Additions:				-
Reductions:				
Payment	-			
Ending Balance	$ 42,000,000	$ 15,385,000	$ 17,295,000	$ 74,680,000

Principal Year-To-Date

	Series 2009A COP	Series 2012A	Series 2018A	Total
Beginning Balance	$ 42,000,000	$ 15,385,000	$ 17,295,000	$ 74,680,000
Additions:				-
Reductions:				
Payment	-			-
Ending Balance	$ 42,000,000	$ 15,385,000	$ 17,295,000	$ 74,680,000

Interest Expense

	Current Month	Year-To-Date		
	Actual	Actual	Budget	Variance
Interest Expense	$ 175,532	$ 935,932	$ 1,187,500	$ 251,568

Investments Outstanding and Activity
May 2019

pfm

Managed Account Detail of Securities Held

For the Month Ending **May 31, 2019**

SACRAMENTO SUBURBAN WATER DISTRICT - 76850100

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
U.S. Treasury Bond / Note											
US TREASURY NOTES DTD 02/28/2014 2.000% 02/28/2021	912828B90	75,000.00	AA+	Aaa	07/06/16	07/08/16	78,667.97	0.92	379.08	76,397.58	74,991.23
US TREASURY NOTES DTD 05/02/2016 1.375% 04/30/2021	912828O78	175,000.00	AA+	Aaa	01/03/17	01/05/17	171,527.34	1.86	209.24	173,428.00	173,038.08
US TREASURY NOTES DTD 05/31/2016 1.375% 05/31/2021	912828R77	100,000.00	AA+	Aaa	03/15/17	03/17/17	97,402.34	2.02	3.76	98,739.48	98,851.60
US TREASURY NOTES DTD 06/02/2014 2.000% 05/31/2021	912828WN6	300,000.00	AA+	Aaa	09/01/16	09/02/16	310,781.25	1.22	16.39	304,616.54	300,222.60
US TREASURY NOTES DTD 09/02/2014 2.000% 08/31/2021	912828D72	375,000.00	AA+	Aaa	04/03/17	04/05/17	377,900.39	1.82	1,895.38	376,510.48	375,512.63
US TREASURY NOTES DTD 09/02/2014 2.000% 08/31/2021	912828D72	900,000.00	AA+	Aaa	07/06/17	07/11/17	905,449.22	1.85	4,548.91	903,014.18	901,230.30
US TREASURY NOTES DTD 09/02/2014 2.000% 08/31/2021	912828D72	1,400,000.00	AA+	Aaa	06/27/17	06/29/17	1,415,257.81	1.73	7,076.09	1,408,361.70	1,401,913.80
US TREASURY NOTES DTD 10/31/2016 1.250% 10/31/2021	912828T67	275,000.00	AA+	Aaa	08/01/17	08/03/17	269,725.59	1.72	298.91	271,954.09	270,638.78
US TREASURY NOTES DTD 10/31/2016 1.250% 10/31/2021	912828T67	475,000.00	AA+	Aaa	10/05/17	10/10/17	463,997.07	1.85	516.30	468,358.89	467,466.98
US TREASURY NOTES DTD 10/31/2016 1.250% 10/31/2021	912828T67	1,200,000.00	AA+	Aaa	08/30/17	08/31/17	1,181,062.50	1.64	1,304.35	1,188,878.63	1,180,969.20
US TREASURY NOTES DTD 05/01/2017 1.875% 04/30/2022	912828X47	450,000.00	AA+	Aaa	12/04/17	12/06/17	445,324.22	2.12	733.70	446,859.17	449,507.70
US TREASURY NOTES DTD 05/01/2017 1.875% 04/30/2022	912828X47	500,000.00	AA+	Aaa	01/03/18	01/04/18	493,652.34	2.18	815.22	495,659.63	499,453.00
US TREASURY NOTES DTD 05/01/2017 1.875% 04/30/2022	912828X47	950,000.00	AA+	Aaa	05/03/18	05/07/18	919,644.53	2.73	1,548.91	927,474.37	948,960.70
US TREASURY NOTES DTD 05/01/2017 1.875% 04/30/2022	912828X47	1,050,000.00	AA+	Aaa	07/03/18	07/06/18	1,018,992.19	2.69	1,711.96	1,026,073.14	1,048,851.30

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Managed Account Detail of Securities Held

For the Month Ending **May 31, 2019**

SACRAMENTO SUBURBAN WATER DISTRICT - 76850100

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
U.S. Treasury Bond / Note											
US TREASURY NOTES DTD 08/15/2012 1.625% 08/15/2022	912828TJ9	1,150,000.00	AA+	Aaa	09/05/18	09/07/18	1,101,753.91	2.76	5,472.03	1,110,329.68	1,139,847.80
US TREASURY NOTES DTD 12/31/2015 2.125% 12/31/2022	912828N30	800,000.00	AA+	Aaa	11/02/18	11/06/18	772,718.75	3.00	7,138.12	776,279.88	805,906.40
US TREASURY NOTES DTD 12/31/2015 2.125% 12/31/2022	912828N30	800,000.00	AA+	Aaa	12/12/18	12/13/18	780,187.50	2.78	7,138.12	782,376.69	805,906.40
US TREASURY NOTES DTD 12/31/2015 2.125% 12/31/2022	912828N30	1,375,000.00	AA+	Aaa	01/30/19	01/31/19	1,353,193.36	2.55	12,268.65	1,354,983.41	1,385,151.63
US TREASURY NOTES DTD 12/31/2015 2.125% 12/31/2022	912828N30	1,800,000.00	AA+	Aaa	01/07/19	01/10/19	1,774,054.69	2.51	16,060.77	1,776,510.97	1,813,289.40
US TREASURY N/B NOTES DTD 05/31/2016 1.625% 05/31/2023	912828R69	400,000.00	AA+	Aaa	04/01/19	04/05/19	389,109.38	2.32	17.76	389,505.16	395,422.00
US TREASURY N/B NOTES DTD 05/31/2016 1.625% 05/31/2023	912828R69	725,000.00	AA+	Aaa	05/01/19	05/03/19	707,554.69	2.25	32.19	707,884.82	716,702.38
US TREASURY N/B NOTES DTD 05/31/2016 1.625% 05/31/2023	912828R69	950,000.00	AA+	Aaa	03/04/19	03/06/19	915,525.39	2.53	42.18	917,385.61	939,127.25
Security Type Sub-Total		**16,225,000.00**					**15,943,482.43**	**2.30**	**69,228.02**	**15,981,582.10**	**16,192,961.16**
Supra-National Agency Bond / Note											
INTL BANK OF RECONSTRUCTION AND DEV NOTE DTD 09/19/2017 1.561% 09/12/2020	45905UP32	900,000.00	AAA	Aaa	09/12/17	09/19/17	897,840.00	1.64	3,082.98	899,058.96	893,229.30
INTER-AMERICAN DEVELOPMENT BANK DTD 11/08/2013 2.125% 11/09/2020	4581X0CD8	700,000.00	AAA	Aaa	10/02/17	10/10/17	706,488.37	1.81	909.03	703,077.23	700,448.00
INTER-AMERICAN DEVELOPMENT BANK NOTE DTD 04/19/2018 2.625% 04/19/2021	4581X0DB1	225,000.00	AAA	Aaa	04/12/18	04/19/18	224,505.00	2.70	689.06	224,684.71	227,307.38

Managed Account Detail of Securities Held

For the Month Ending **May 31, 2019**

SACRAMENTO SUBURBAN WATER DISTRICT - 76850100

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
Supra-National Agency Bond / Note											
INTL BANK OF RECONSTRUCTION AND DEV NOTE DTD 07/25/2018 2.750% 07/23/2021	459058GH0	750,000.00	AAA	Aaa	07/18/18	07/25/18	748,245.00	2.83	7,333.33	748,728.09	761,603.25
Security Type Sub-Total		**2,575,000.00**					**2,577,078.37**	**2.13**	**12,014.40**	**2,575,548.99**	**2,582,587.93**
Federal Agency Collateralized Mortgage Obligation											
FANNIE MAE SERIES 2015-M13 ASQ2 DTD 10/01/2015 1.646% 09/01/2019	3136AODO0	10,733.17	AA+	Aaa	10/07/15	10/30/15	10,840.65	1.08	14.72	10,733.17	10,701.55
FNMA SERIES 2015-M12 FA DTD 09/01/2015 2.822% 04/01/2020	3136AP3Z3	5,587.69	AA+	Aaa	09/10/15	09/30/15	5,585.68	0.54	13.14	5,587.69	5,578.60
FNA 2018-M5 A2 DTD 04/01/2018 3.560% 09/25/2021	3136B1XP4	185,509.90	AA+	Aaa	04/11/18	04/30/18	189,199.88	2.27	550.35	188,006.27	188,632.59
FHLMC SERIES K721 A2 DTD 12/01/2015 3.090% 08/25/2022	3137BM6P6	200,000.00	AA+	Aaa	04/04/18	04/09/18	201,703.13	2.61	515.00	201,182.95	204,758.84
FHMS KP05 A DTD 12/01/2018 3.203% 07/01/2023	3137FKK39	178,004.72	AA+	Aaa	12/07/18	12/17/18	178,004.18	3.11	475.12	178,004.19	180,479.66
Security Type Sub-Total		**579,835.48**					**585,333.52**	**2.61**	**1,568.33**	**583,514.27**	**590,151.24**
Federal Agency Bond / Note											
FHLB GLOBAL NOTE DTD 07/14/2016 1.125% 07/14/2021	3130A8OS5	975,000.00	AA+	Aaa	07/14/16	07/15/16	969,071.03	1.25	4,174.22	972,440.57	958,333.35
FNMA NOTES DTD 08/19/2016 1.250% 08/17/2021	3135G0N82	130,000.00	AA+	Aaa	08/17/16	08/19/16	129,555.27	1.32	469.44	129,799.52	127,974.21
FNMA NOTES DTD 08/19/2016 1.250% 08/17/2021	3135G0N82	420,000.00	AA+	Aaa	08/17/16	08/19/16	418,299.00	1.33	1,516.67	419,233.09	413,455.14
Security Type Sub-Total		**1,525,000.00**					**1,516,925.30**	**1.28**	**6,160.33**	**1,521,473.18**	**1,499,762.70**
Corporate Note											

SACRAMENTO SUBURBAN WATER DISTRICT - 76850100

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
Corporate Note											
CITIGROUP INC CORP NOTES DTD 06/09/2016 2.050% 06/07/2019	172967KS9	145,000.00	BBB+	A3	06/02/16	06/09/16	144,924.60	2.07	1,436.71	144,999.57	144,992.61
CITIGROUP INC (CALLABLE) CORP NOTE DTD 01/10/2017 2.450% 01/10/2020	172967LF6	400,000.00	BBB+	A3	01/04/17	01/10/17	399,840.00	2.46	3,838.33	399,966.63	399,549.60
WELLS FARGO & CO CORP BONDS DTD 02/02/2015 2.150% 01/30/2020	94974BGF1	400,000.00	A-	A2	02/02/15	02/05/15	402,796.00	2.00	2,890.56	400,388.20	399,102.00
AMERICAN EXPRESS CREDIT (CALLABLE) NOTE DTD 03/03/2017 2.200% 03/03/2020	0258M0EE5	215,000.00	A-	A2	02/28/17	03/03/17	214,776.40	2.24	1,156.22	214,942.33	214,610.64
TOYOTA MOTOR CORP NOTES DTD 03/12/2015 2.150% 03/12/2020	89236TCF0	250,000.00	AA-	Aa3	03/23/15	03/27/15	252,220.00	1.96	1,179.51	250,363.77	249,470.25
TOYOTA MOTOR CREDIT CORP DTD 04/17/2017 1.950% 04/17/2020	89236TDU6	275,000.00	AA-	Aa3	04/11/17	04/17/17	274,873.50	1.97	655.42	274,962.23	273,697.60
HOME DEPOT INC CORP NOTES DTD 06/05/2017 1.800% 06/05/2020	437076BO4	175,000.00	A	A2	05/24/17	06/05/17	174,898.50	1.82	1,540.00	174,965.18	173,782.88
WELLS FARGO & COMPANY NOTES DTD 07/22/2015 2.600% 07/22/2020	94974BGM6	375,000.00	A-	A2	09/01/15	09/04/15	377,103.75	2.48	3,493.75	375,515.76	375,346.50
CATERPILLAR FINL SERVICE NOTE DTD 09/07/2017 1.850% 09/04/2020	14913O2A6	275,000.00	A	A3	09/05/17	09/07/17	274,769.00	1.88	1,229.48	274,901.22	273,113.78
APPLE INC DTD 11/13/2017 2.000% 11/13/2020	037833DJ6	400,000.00	AA+	Aa1	11/06/17	11/13/17	399,664.00	2.03	400.00	399,835.08	398,216.80
WAL-MART STORES INC CORP NOTE DTD 10/20/2017 1.900% 12/15/2020	931142EA7	375,000.00	AA	Aa2	10/11/17	10/20/17	374,456.25	1.95	3,285.42	374,728.66	373,068.38
US BANCORP CORP NOTES (CALLABLE) DTD 01/29/2016 2.350% 01/29/2021	91159HHL7	350,000.00	A+	A1	12/11/17	12/13/17	350,983.50	2.26	2,787.36	350,521.70	349,914.25
BRANCH BANKING & TRUST (CALLABLE) NOTES DTD 10/26/2017 2.150% 02/01/2021	05531FAZ6	75,000.00	A-	A2	10/23/17	10/26/17	74,965.50	2.17	537.50	74,981.53	74,543.63

SACRAMENTO SUBURBAN WATER DISTRICT - 76850100

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
Corporate Note											
IBM CORP CORP NOTES DTD 02/06/2018 2.650% 02/05/2021	44932HAG8	400,000.00	A	A1	02/01/18	02/06/18	399,804.00	2.67	3,415.56	399,888.31	401,165.60
JOHN DEERE CAPITAL CORP NOTES DTD 03/13/2018 2.875% 03/12/2021	24422EUD9	375,000.00	A	A2	03/08/18	03/13/18	374,745.00	2.90	2,365.89	374,845.82	378,219.75
NATIONAL RURAL UTIL COOP NOTE DTD 02/26/2018 2.900% 03/15/2021	63743HER9	150,000.00	A	A2	02/21/18	02/26/18	149,833.50	2.94	918.33	149,899.80	151,404.30
NATIONAL RURAL UTIL COOP NOTE DTD 02/26/2018 2.900% 03/15/2021	63743HER9	225,000.00	A	A2	04/12/18	04/19/18	224,048.25	3.05	1,377.50	224,406.82	227,106.45
PEPSICO INC CORP (CALLABLE) NOTE DTD 10/10/2017 2.000% 04/15/2021	713448DX3	225,000.00	A+	A1	10/05/17	10/10/17	224,955.00	2.01	575.00	224,975.47	224,080.20
BANK OF NEW YORK MELLON CORP (CALLABLE) DTD 02/19/2016 2.500% 04/15/2021	06406FAA1	375,000.00	A	A1	05/16/16	05/19/16	383,617.50	2.00	1,197.92	378,296.08	375,268.13
BANK OF AMERICA CORP NOTE DTD 04/19/2016 2.625% 04/19/2021	06051GFW4	35,000.00	A-	A2	11/01/17	11/03/17	35,271.60	2.39	107.19	35,150.62	35,090.34
MORGAN STANLEY CORP NOTES DTD 04/21/2016 2.500% 04/21/2021	61746BEA0	350,000.00	BBB+	A3	11/01/17	11/03/17	351,134.00	2.40	972.22	350,630.24	349,132.35
AMERICAN EXPRESS CREDIT (CALLABLE) NOTES DTD 05/05/2016 2.250% 05/05/2021	0258M0EB1	225,000.00	A-	A2	05/25/16	05/31/16	224,478.00	2.30	365.63	224,789.52	223,693.20
BRANCH BANKING & TRUST (CALLABLE) NOTE DTD 05/10/2016 2.050% 05/10/2021	05531FAV5	200,000.00	A-	A2	05/10/16	05/16/16	199,868.00	2.06	239.17	199,947.10	197,985.00
HERSHEY COMPANY CORP NOTES DTD 05/10/2018 3.100% 05/15/2021	427866BA5	150,000.00	A	A1	05/03/18	05/10/18	149,896.50	3.12	206.67	149,931.44	152,295.00
STATE STREET CORP NOTES DTD 05/19/2016 1.950% 05/19/2021	857477AV5	110,000.00	A	A1	05/19/16	05/24/16	109,532.50	2.04	71.50	109,810.01	109,150.69
CHARLES SCHWAB CORP NOTES DTD 05/22/2018 3.250% 05/21/2021	808513AW5	250,000.00	A	A2	05/17/18	05/22/18	249,992.50	3.25	225.69	249,994.87	253,932.50

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Managed Account Detail of Securities Held

For the Month Ending **May 31, 2019**

SACRAMENTO SUBURBAN WATER DISTRICT - 76850100

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
Corporate Note											
BANK OF AMERICA CORP (CALLABLE) DTD 09/18/2017 2.328% 10/01/2021	06051GGS2	240,000.00	A-	A2	09/13/17	09/18/17	240,000.00	2.33	931.20	240,000.00	238,903.20
AMERICAN HONDA FINANCE CORP NOTES DTD 10/10/2018 3.375% 12/10/2021	02665WCP4	375,000.00	A	A2	10/03/18	10/10/18	374,820.00	3.39	6,011.72	374,845.49	383,907.38
PACCAR FINANCIAL CORP NOTE DTD 03/01/2019 2.850% 03/01/2022	69371RP75	150,000.00	A+	A1	02/22/19	03/01/19	149,868.00	2.88	1,068.75	149,878.61	151,984.95
BANK OF AMERICA CORP NOTES DTD 05/17/2018 3.499% 05/17/2022	06051GHH5	90,000.00	A-	A2	05/14/18	05/17/18	90,000.00	3.50	122.47	90,000.00	91,309.23
JPMORGAN CHASE & CO BONDS DTD 03/22/2019 3.207% 04/01/2023	46647PBB1	675,000.00	A-	A2	03/15/19	03/22/19	675,000.00	3.21	4,149.06	675,000.00	682,898.18
PNC BANK NA CORP NOTES DTD 01/23/2019 3.500% 01/23/2024	693475AV7	380,000.00	A-	A3	02/12/19	02/15/19	382,705.60	3.34	4,728.89	382,559.69	393,559.54
Security Type Sub-Total		**8,690,000.00**					**8,705,840.95**	**2.50**	**53,480.62**	**8,695,921.75**	**8,720,494.91**
Commercial Paper											
NATIXIS NY BRANCH COMM PAPER DTD 05/08/2019 0.000% 11/04/2019	63873KY43	400,000.00	A-1	P-1	05/08/19	05/09/19	394,908.44	2.59	0.00	395,562.67	395,652.80
MUFG BANK LTD/NY COMM PAPER DTD 04/18/2019 0.000% 01/13/2020	62479LAD7	800,000.00	A-1	P-1	04/18/19	04/18/19	784,280.00	2.67	0.00	786,841.78	787,338.40
MUFG BANK LTD/NY COMM PAPER DTD 05/06/2019 0.000% 01/31/2020	62479LAX3	375,000.00	A-1	P-1	05/07/19	05/07/19	367,714.58	2.65	0.00	368,391.67	368,594.25
Security Type Sub-Total		**1,575,000.00**					**1,546,903.02**	**2.65**	**0.00**	**1,550,796.12**	**1,551,585.45**
Certificate of Deposit											
CREDIT SUISSE NEW YORK CERT DEPOS DTD 02/08/2018 2.670% 02/07/2020	22549LFR1	375,000.00	A-1	P-1	02/07/18	02/08/18	375,000.00	2.67	13,155.31	375,000.00	375,404.63
UBS AG STAMFORD CT LT CD DTD 03/06/2018 2.900% 03/02/2020	90275DHG8	400,000.00	A-1	P-1	03/02/18	03/06/18	400,000.00	2.93	2,867.78	400,000.00	401,140.00

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Managed Account Detail of Securities Held

For the Month Ending **May 31, 2019**

SACRAMENTO SUBURBAN WATER DISTRICT - 76850100

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
Certificate of Deposit											
BANK OF NOVA SCOTIA HOUSTON CD DTD 06/07/2018 3.080% 06/05/2020	06417GU22	375,000.00	A+	Aa2	06/05/18	06/07/18	374,857.50	3.10	5,646.67	374,926.43	377,340.75
WESTPAC BANKING CORP NY CD DTD 08/07/2017 2.050% 08/03/2020	96121T4A3	625,000.00	AA-	Aa3	08/03/17	08/07/17	625,000.00	2.05	4,057.29	625,000.00	622,017.50
BANK OF MONTREAL CHICAGO CERT DEPOS DTD 08/03/2018 3.190% 08/03/2020	06370REU9	670,000.00	A+	Aa2	08/01/18	08/03/18	670,000.00	3.23	17,929.57	670,000.00	672,757.72
SUMITOMO MITSUI BANK NY CERT DEPOS DTD 10/18/2018 3.390% 10/16/2020	86565BPC9	380,000.00	A	A1	10/16/18	10/18/18	379,483.20	3.46	1,646.03	379,925.49	384,717.32
SWEDBANK (NEW YORK) CERT DEPOS DTD 11/17/2017 2.270% 11/16/2020	87019U6D6	700,000.00	AA-	Aa2	11/16/17	11/17/17	700,000.00	2.30	706.22	700,000.00	694,947.40
ROYAL BANK OF CANADA NY CD DTD 06/08/2018 3.240% 06/07/2021	78012UEE1	650,000.00	AA-	Aa2	06/07/18	06/08/18	650,000.00	3.24	10,179.00	650,000.00	659,426.30
MUFG BANK LTD/NY CERT DEPOS DTD 02/28/2019 2.980% 02/25/2022	55379WZU3	375,000.00	A	A1	02/27/19	02/28/19	375,000.00	3.01	2,886.88	375,000.00	380,620.99
Security Type Sub-Total		**4,550,000.00**					**4,549,340.70**	**2.85**	**59,074.75**	**4,549,851.92**	**4,568,372.61**
Asset-Backed Security											
JOHN DEERE ABS 2016-B A3 DTD 07/27/2016 1.250% 06/15/2020	47788NAC2	7,521.44	NR	Aaa	07/19/16	07/27/16	7,520.84	1.25	4.18	7,521.31	7,510.21
ALLY ABS 2016-3 A3 DTD 05/31/2016 1.440% 08/15/2020	02007LAC6	3,962.56	AAA	Aaa	05/24/16	05/31/16	3,962.17	1.44	2.54	3,962.46	3,960.65
HYUNDAI ABS 2016-A A3 DTD 03/30/2016 1.560% 09/15/2020	44930UAD8	7,635.03	AAA	Aaa	03/22/16	03/30/16	7,633.55	1.57	5.29	7,634.68	7,627.75
FORD ABS 2016-B A3 DTD 04/26/2016 1.330% 10/15/2020	34532EAD7	9,339.87	AAA	NR	04/19/16	04/26/16	9,338.99	1.33	5.52	9,339.70	9,327.21
HYUNDAI ABS 2016-B A3 DTD 09/21/2016 1.290% 04/15/2021	44891EAC3	92,405.52	AAA	Aaa	09/14/16	09/21/16	92,393.08	1.30	52.98	92,401.08	91,935.92
ALLY ABS 2017-1 A3 DTD 01/31/2017 1.700% 06/15/2021	02007PAC7	73,081.51	NR	Aaa	01/24/17	01/31/17	73,075.13	1.70	55.22	73,078.72	72,827.83

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Managed Account Detail of Securities Held

For the Month Ending **May 31, 2019**

SACRAMENTO SUBURBAN WATER DISTRICT - 76850100

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
Asset-Backed Security											
FORD ABS 2017-A A3 DTD 01/25/2017 1.670% 06/15/2021	34531EAD8	288,412.26	NR	Aaa	01/18/17	01/25/17	288,411.19	1.67	214.07	288,411.85	287,262.27
ALLY ABS 2017-2 A3 DTD 03/29/2017 1.780% 08/15/2021	02007HAC5	298,132.35	NR	Aaa	03/21/17	03/29/17	298,097.20	1.79	235.86	298,115.58	297,122.04
TAOT 2018-B A3 DTD 05/16/2018 2.960% 09/15/2022	89238TAD5	325,000.00	AAA	Aaa	05/09/18	05/16/18	324,995.16	2.96	427.56	324,996.30	328,092.99
HAROT 2018-4 A3 DTD 11/28/2018 3.160% 01/15/2023	43815AAC6	325,000.00	AAA	Aaa	11/20/18	11/28/18	324,951.41	3.17	456.44	324,957.06	330,428.57
ALLYA 2018-3 A3 DTD 06/27/2018 3.000% 01/15/2023	02007JAC1	400,000.00	AAA	Aaa	06/19/18	06/27/18	399,972.64	3.09	533.33	399,978.11	403,908.24
CCCIT 2018-A1 A1 DTD 01/31/2018 2.490% 01/20/2023	17305EGK5	750,000.00	NR	Aaa	01/25/18	01/31/18	749,896.20	2.54	6,795.63	749,923.19	753,318.45
NAROT 2018-C A3 DTD 12/12/2018 3.220% 06/15/2023	65478NAD7	350,000.00	AAA	Aaa	12/04/18	12/12/18	349,932.94	3.53	500.89	349,939.85	356,723.54
Security Type Sub-Total		**2,930,490.54**					**2,930,180.50**	**2.62**	**9,289.51**	**2,930,259.89**	**2,950,045.67**
Managed Account Sub-Total		**38,650,326.02**					**38,355,084.79**	**2.40**	**210,815.96**	**38,388,948.22**	**38,655,961.67**
Securities Sub-Total		**$38,650,326.02**					**$38,355,084.79**	**2.40%**	**$210,815.96**	**$38,388,948.22**	**$38,655,961.67**
Accrued Interest											$210,815.96
Total Investments											**$38,866,777.63**

Investment Activity
May 2019

SACRAMENTO SUBURBAN WATER DISTRICT - 76850100

Transaction Type Trade	Settle	Security Description	CUSIP	Par	Principal Proceeds	Accrued Interest	Total	Realized G/L Cost	Realized G/L Amort Cost	Sale Method
BUY										
05/01/19	05/03/19	US TREASURY N/B NOTES DTD 05/31/2016 1.625% 05/31/2023	912828R69	725,000.00	(707,554.69)	(4,984.38)	(712,539.07)			
05/07/19	05/07/19	MUFG BANK LTD/NY COMM PAPER DTD 05/06/2019 0.000% 01/31/2020	62479LAX3	375,000.00	(367,714.58)	0.00	(367,714.58)			
05/08/19	05/09/19	NATIXIS NY BRANCH COMM PAPER DTD 05/08/2019 0.000% 11/04/2019	63873KY43	400,000.00	(394,908.44)	0.00	(394,908.44)			
Transaction Type Sub-Total				**1,500,000.00**	**(1,470,177.71)**	**(4,984.38)**	**(1,475,162.09)**			
INTEREST										
05/01/19	05/01/19	MONEY MARKET FUND	MONEY0002	0.00	0.00	1,865.02	1,865.02			
05/01/19	05/25/19	FNA 2018-M5 A2 DTD 04/01/2018 3.560% 09/25/2021	3136B1XP4	188,145.97	0.00	567.69	567.69			
05/01/19	05/25/19	FANNIE MAE SERIES 2015-M13 ASQ2 DTD 10/01/2015 1.646% 09/01/2019	3136AQDO0	11,681.34	0.00	16.02	16.02			
05/01/19	05/25/19	FNMA SERIES 2015-M12 FA DTD 09/01/2015 2.822% 04/01/2020	3136AP3Z3	7,336.38	0.00	17.25	17.25			
05/01/19	05/25/19	FHMS KP05 A DTD 12/01/2018 3.203% 07/01/2023	3137FKK39	178,305.92	0.00	475.93	475.93			
05/01/19	05/25/19	FHLMC SERIES K721 A2 DTD 12/01/2015 3.090% 08/25/2022	3137BM6P6	200,000.00	0.00	515.00	515.00			
05/05/19	05/05/19	AMERICAN EXPRESS CREDIT (CALLABLE) NOTES DTD 05/05/2016 2.250% 05/05/2021	0258M0EB1	225,000.00	0.00	2,531.25	2,531.25			
05/09/19	05/09/19	INTER-AMERICAN DEVELOPMENT BANK DTD 11/08/2013 2.125% 11/09/2020	4581X0CD8	700,000.00	0.00	7,437.50	7,437.50			
05/10/19	05/10/19	BRANCH BANKING & TRUST (CALLABLE) NOTE DTD 05/10/2016 2.050% 05/10/2021	05531FAV5	200,000.00	0.00	2,050.00	2,050.00			
05/13/19	05/13/19	APPLE INC DTD 11/13/2017 2.000% 11/13/2020	037833DJ6	400,000.00	0.00	4,000.00	4,000.00			
05/15/19	05/15/19	ALLY ABS 2016-3 A3 DTD 05/31/2016 1.440% 08/15/2020	02007LAC6	9,138.35	0.00	10.97	10.97			
05/15/19	05/15/19	JOHN DEERE ABS 2016-B A3 DTD 07/27/2016 1.250% 06/15/2020	47788NAC2	11,866.68	0.00	12.36	12.36			

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Managed Account Security Transactions & Interest

For the Month Ending **May 31, 2019**

SACRAMENTO SUBURBAN WATER DISTRICT - 76850100

Transaction Type Trade	Settle	Security Description	CUSIP	Par	Principal Proceeds	Accrued Interest	Total	Realized G/L Cost	Realized G/L Amort Cost	Sale Method
INTEREST										
05/15/19	05/15/19	FORD ABS 2016-B A3 DTD 04/26/2016 1.330% 10/15/2020	34532EAD7	13,142.00	0.00	14.57	14.57			
05/15/19	05/15/19	TAOT 2018-B A3 DTD 05/16/2018 2.960% 09/15/2022	89238TAD5	325,000.00	0.00	801.67	801.67			
05/15/19	05/15/19	HERSHEY COMPANY CORP NOTES DTD 05/10/2018 3.100% 05/15/2021	427866BA5	150,000.00	0.00	2,325.00	2,325.00			
05/15/19	05/15/19	ALLY ABS 2017-1 A3 DTD 01/31/2017 1.700% 06/15/2021	02007PAC7	81,416.45	0.00	115.34	115.34			
05/15/19	05/15/19	ALLYA 2018-3 A3 DTD 06/27/2018 3.000% 01/15/2023	02007JAC1	400,000.00	0.00	1,000.00	1,000.00			
05/15/19	05/15/19	NAROT 2018-C A3 DTD 12/12/2018 3.220% 06/15/2023	65478NAD7	350,000.00	0.00	939.17	939.17			
05/15/19	05/15/19	HYUNDAI ABS 2016-B A3 DTD 09/21/2016 1.290% 04/15/2021	44891EAC3	103,741.07	0.00	111.52	111.52			
05/15/19	05/15/19	ALLY ABS 2017-2 A3 DTD 03/29/2017 1.780% 08/15/2021	02007HAC5	328,265.18	0.00	486.93	486.93			
05/15/19	05/15/19	HYUNDAI ABS 2016-A A3 DTD 03/30/2016 1.560% 09/15/2020	44930UAD8	11,346.06	0.00	14.75	14.75			
05/15/19	05/15/19	FORD ABS 2017-A A3 DTD 01/25/2017 1.670% 06/15/2021	34531EAD8	317,660.48	0.00	442.08	442.08			
05/15/19	05/15/19	HAROT 2018-4 A3 DTD 11/28/2018 3.160% 01/15/2023	43815AAC6	325,000.00	0.00	855.83	855.83			
05/16/19	05/16/19	SWEDBANK (NEW YORK) CERT DEPOS DTD 11/17/2017 2.270% 11/16/2020	87019U6D6	700,000.00	0.00	7,989.14	7,989.14			
05/17/19	05/17/19	BANK OF AMERICA CORP NOTES DTD 05/17/2018 3.499% 05/17/2022	06051GHH5	90,000.00	0.00	1,574.55	1,574.55			
05/19/19	05/19/19	STATE STREET CORP NOTES DTD 05/19/2016 1.950% 05/19/2021	857477AV5	110,000.00	0.00	1,072.50	1,072.50			
05/21/19	05/21/19	CHARLES SCHWAB CORP NOTES DTD 05/22/2018 3.250% 05/21/2021	808513AW5	250,000.00	0.00	4,062.50	4,062.50			
05/31/19	05/31/19	US TREASURY N/B NOTES DTD 05/31/2016 1.625% 05/31/2023	912828R69	950,000.00	0.00	7,718.75	7,718.75			
05/31/19	05/31/19	US TREASURY NOTES DTD 06/02/2014 2.000% 05/31/2021	912828WN6	300,000.00	0.00	3,000.00	3,000.00			

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Managed Account Security Transactions & Interest

For the Month Ending **May 31, 2019**

SACRAMENTO SUBURBAN WATER DISTRICT - 76850100

Transaction Type Trade	Settle	Security Description	CUSIP	Par	Principal Proceeds	Accrued Interest	Total	Realized G/L Cost	Realized G/L Amort Cost	Sale Method
INTEREST										
05/31/19	05/31/19	US TREASURY N/B NOTES DTD 05/31/2016 1.625% 05/31/2023	912828R69	400,000.00	0.00	3,250.00	3,250.00			
05/31/19	05/31/19	US TREASURY N/B NOTES DTD 05/31/2016 1.625% 05/31/2023	912828R69	725,000.00	0.00	5,890.63	5,890.63			
05/31/19	05/31/19	US TREASURY NOTES DTD 05/31/2016 1.375% 05/31/2021	912828R77	100,000.00	0.00	687.50	687.50			
Transaction Type Sub-Total				**8,162,045.88**	**0.00**	**61,851.42**	**61,851.42**			
PAYDOWNS										
05/01/19	05/25/19	FANNIE MAE SERIES 2015-M13 ASQ2 DTD 10/01/2015 1.646% 09/01/2019	3136AODO0	948.17	948.17	0.00	948.17	(9.50)	0.00	
05/01/19	05/25/19	FHMS KP05 A DTD 12/01/2018 3.203% 07/01/2023	3137FKK39	301.20	301.20	0.00	301.20	0.00	0.00	
05/01/19	05/25/19	FNA 2018-M5 A2 DTD 04/01/2018 3.560% 09/25/2021	3136B1XP4	2,636.07	2,636.07	0.00	2,636.07	(52.43)	0.00	
05/01/19	05/25/19	FNMA SERIES 2015-M12 FA DTD 09/01/2015 2.822% 04/01/2020	3136AP3Z3	1,748.69	1,748.69	0.00	1,748.69	0.63	0.00	
05/15/19	05/15/19	ALLY ABS 2017-1 A3 DTD 01/31/2017 1.700% 06/15/2021	02007PAC7	8,334.94	8,334.94	0.00	8,334.94	0.73	0.00	
05/15/19	05/15/19	ALLY ABS 2016-3 A3 DTD 05/31/2016 1.440% 08/15/2020	02007LAC6	5,175.79	5,175.79	0.00	5,175.79	0.50	0.00	
05/15/19	05/15/19	HYUNDAI ABS 2016-A A3 DTD 03/30/2016 1.560% 09/15/2020	44930UAD8	3,711.03	3,711.03	0.00	3,711.03	0.72	0.00	
05/15/19	05/15/19	JOHN DEERE ABS 2016-B A3 DTD 07/27/2016 1.250% 06/15/2020	47788NAC2	4,345.24	4,345.24	0.00	4,345.24	0.34	0.00	
05/15/19	05/15/19	HYUNDAI ABS 2016-B A3 DTD 09/21/2016 1.290% 04/15/2021	44891EAC3	11,335.55	11,335.55	0.00	11,335.55	1.53	0.00	
05/15/19	05/15/19	FORD ABS 2016-B A3 DTD 04/26/2016 1.330% 10/15/2020	34532EAD7	3,802.13	3,802.13	0.00	3,802.13	0.36	0.00	
05/15/19	05/15/19	ALLY ABS 2017-2 A3 DTD 03/29/2017 1.780% 08/15/2021	02007HAC5	30,132.83	30,132.83	0.00	30,132.83	3.55	0.00	
05/15/19	05/15/19	FORD ABS 2017-A A3 DTD 01/25/2017 1.670% 06/15/2021	34531EAD8	29,248.22	29,248.22	0.00	29,248.22	0.11	0.00	

Managed Account Security Transactions & Interest

For the Month Ending **May 31, 2019**

SACRAMENTO SUBURBAN WATER DISTRICT - 76850100

Transaction Type	Trade	Settle	Security Description	CUSIP	Par	Principal Proceeds	Accrued Interest	Total	Realized G/L Cost	Realized G/L Amort Cost	Sale Method
Transaction Type Sub-Total					101,719.86	101,719.86	0.00	101,719.86	(53.46)	0.00	
Managed Account Sub-Total						(1,368,457.85)	56,867.04	(1,311,590.81)	(53.46)	0.00	
Total Security Transactions						($1,368,457.85)	$56,867.04	($1,311,590.81)	($53.46)	$0.00	

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Cash Expenditures
May 2019

AP Warrant List from 5/1/2019 to 5/31/2019

Group	Vendor Name		Amount	Description
	ACWA JPIA INSURANCE/EAP - Invoices:1	$	152.75	Miscellaneous Employee Benefits
	AFLAC - Invoices:1	$	871.40	
	AMERITAS (VISION) - Invoices:2	$	3,990.24	Employee Benefit - Vision Insurance
	CIGNA GROUP INS LIFE/LTD - Invoices:1	$	4,272.14	Employee Benefit - LTD Insurance
	CIGNA-DENTAL INS - Invoices:1	$	13,481.78	Employee Benefit - Dental Insurance
	EMPLOYEE RELATIONS NETWORK - Invoices:1	$	1,095.40	Miscellaneous Employee Benefits
	PAYROLL	$	455,760.35	Payroll
	PERS HEALTH - Invoices:4	$	191,670.13	Miscellaneous Employee Benefits
	PERS LONG TERM CARE PROGRAM - Invoices:2	$	2,657.04	Miscellaneous Employee Benefits
	PERS PENSION - Invoices:1	$	36,675.56	Employee Benefit - PERS Retirement--ER
	AREA WEST ENGINEERS - Invoices:2	$	23,980.00	Construction In Progress
	BUD'S TRI COUNTY TREE SERVICE - Invoices:2	$	2,365.00	Construction In Progress
	COUNTY OF SAC PUBLIC WORKS - Invoices:3	$	1,872.00	Construction In Progress
	DELL MARKETING LP - Invoices:1	$	5,157.43	Construction In Progress
	DOMENCHELLI & ASSOCIATES - Invoices:2	$	36,742.28	Construction In Progress
	DOUG VEERKAMP GENERAL ENGR - Invoices:4	$	688,972.78	Construction In Progress
	ERC CONTRACTING - Invoices:1	$	18,212.50	Construction In Progress
	FLOWLINE CONTRACTORS INC - Invoices:7	$	550,758.57	Construction In Progress
	FRANK OLSEN COMPANY - Invoices:1	$	14,602.00	Construction In Progress
	GEI CONSULTANTS - Invoices:1	$	17,597.20	Construction In Progress
	GM CONSTRUCTION & DEVELOPERS - Invoices:20	$	137,812.37	Construction In Progress
	PACE SUPPLY CORP - Invoices:5	$	15,484.40	Construction In Progress
	R & B COMPANY - Invoices:5	$	332,096.57	Construction In Progress
	S E AHLSTROM INSPECTION - Invoices:1	$	14,940.00	Construction In Progress
	SILICON VALLEY SHELVING AND EQUIP - Invoices:2	$	4,741.40	Construction In Progress
	SYBLON REID - Invoices:2	$	479,479.49	Construction In Progress
	WOOD RODGERS ENGINEERING - Invoices:2	$	20,645.62	Construction In Progress
	SUMITOMO MITSUI BANKING CORPORATION -	$	54,378.22	2009A COP Interest Expense
	WELLS FARGO SWAP - Invoices:1	$	41,790.17	2009A COP Interest Expense
	ADP, INC - Invoices:4	$	2,910.54	Financial Services
	BRINKS - Invoices:2	$	635.56	Financial Services
	PFM ASSET MANAGEMENT LLC - Invoices:1	$	3,772.88	Financial Services
	WESTAMERICA BANK ANALYSIS FEES - Invoices:1	$	7,331.57	Financial Services
	WESTAMERICA CARD PROCESSING STMT - Invoices:1	$	8,379.95	Financial Services
	A & A STEPPING STONE MFG., INC - Invoices:1	$	88.00	Operating Supplies
	A.I. ELECTRIC - Invoices:1	$	6,800.00	Contract Services
	AIRGAS USA LLC - Invoices:1	$	26.79	Operating Supplies
	ALL PRO BACKFLOW - Invoices:2	$	5,547.00	Backflow Services
	ANSWERNET - Invoices:1	$	494.95	Communication
	APEX SITE SOLUTIONS - Invoices:1	$	3,215.00	Contract Services
	ATLAS DISPOSAL - Invoices:2	$	380.70	Building Service Expense - Office & Yard
	ATLAS FENCE - Invoices:1	$	350.00	Contract Services
	AVILES SIGN AND LIGHTING REPAIR - Invoices:2	$	2,865.20	Contract Services
	BACKFLOW DISTRIBUTORS INC - Invoices:1	$	1,048.36	Operating Supplies
	BASIC PACIFIC - Invoices:2	$	677.62	OPEB - Retiree Benefits Premium

BAY CITY ELECTRIC WORKS - Invoices:5	$	3,108.11	Contract Services
BROADRIDGE MAIL LLC - Invoices:20	$	56,092.55	Contract Services
BROWER MECHANICAL - Invoices:2	$	519.00	Building Maintenance - Office & Yard
BURTON ROB /BURT'S LAWN & GARDEN SERVICE -	$	8,660.00	Contract Services
CALIFORNIA LABORATORY SERVICES - Invoices:1	$	2,580.00	Inspection & Testing
CAPITAL RUBBER CO LTD - Invoices:1	$	94.80	Equipment Maintenance Services
CDWG - Invoices:1	$	2,600.00	Licenses, Permits & Fees
CHRISTOPHER HARSH - Invoices:1	$	150.00	BMP Rebates
CINTAS - Invoices:2	$	698.57	Building Maintenance - Office & Yard
CITY OF SACRAMENTO DEPT OF UTILITIES - Invoices:3	$	33.93	Utilities
COMCAST - Invoices:1	$	40.33	Communication
CONSOLIDATED COMMUNICATIONS - Invoices:1	$	408.59	Communication
CORIX WATER PRODUCTS US INC. - Invoices:6	$	2,814.47	Operating Supplies
COTTON SHOPPE - Invoices:1	$	1,526.06	Uniforms
COUNTY OF SAC UTILITIES - Invoices:5	$	1,147.65	Utilities
CULLIGAN - Invoices:2	$	209.21	Building Maintenance - Office & Yard
Customer Refunds: 89	$	5,090.29	Refund Clearing Account
DAN YORK - Invoices:3	$	2,280.53	Local Travel Cost
DARYL VINAVONG - Invoices:1	$	70.00	Required Training
DIRECT TV - Invoices:1	$	5.00	Communication
DLT SOLUTIONS - Invoices:1	$	4,214.00	Contract Services
DOMCO PLUMBING - Invoices:1	$	484.00	Service Laterals
EG THREADS - Invoices:1	$	105.06	Public Relations
ELEVATOR TECHNOLOGY INC - Invoices:4	$	400.00	Building Service Expense - Office & Yard
ELLEN M CROSS/STRATEGY DRIVER INC - Invoices:1	$	2,746.00	Consulting Services
EMCOR SERVICES - Invoices:3	$	3,698.45	Contract Services
EMIGH ACE HARDWARE - Invoices:9	$	233.73	Building Maintenance - Office & Yard
EUROFINS EATON ANALYTICAL - Invoices:1	$	1,219.00	Inspection & Testing
EXPRESS OFFICE PRODUCTS - Invoices:2	$	33.11	Office Supplies
FASTENAL COMPANY - Invoices:4	$	1,637.09	Operating Supplies
GRAINGER - Invoices:7	$	2,539.15	Building Maintenance - Office & Yard
GRANICUS - Invoices:1	$	787.50	Contract Services
GRAYBAR ELECTRIC CO - Invoices:1	$	285.49	Operating Supplies
GREG BUNDESEN - Invoices:1	$	1,526.76	Travel Conferences
H2H PROPERTIES - Invoices:2	$	2,540.00	H&D WALNUT PARKING LOT LEASE
HANNAH DUNRUD - Invoices:2	$	2,866.51	Education Assistance
HARRINGTON PLASTICS - Invoices:1	$	2,338.00	Operating Supplies
HARROLD FORD - Invoices:5	$	1,360.41	Vehicle Maintenance Services
HD Supply/WHITE CAP - Invoices:2	$	1,538.96	Operating Supplies
HODGE PRODUCTS - Invoices:1	$	3,062.88	Operating Supplies
INDUSTRIAL DOOR COMPANY INC - Invoices:1	$	697.95	Building Maintenance - Office & Yard
JAMES ARENZ - Invoices:1	$	161.60	Uniforms
JLR ENVIRONMENTAL CONSULTANTS LLC - Invoices:1	$	3,900.00	Required Training
JOSHUA GAGNON - Invoices:1	$	250.00	Uniforms
KATHRYN CHECKLEY - Invoices:1	$	75.00	BMP Rebates
KENNETH K LEE - Invoices:1	$	150.00	BMP Rebates
LAKE VUE ELECTRIC INC - Invoices:1	$	758.50	Building Maintenance - Office & Yard
LAUREL CHAVEZ - Invoices:1	$	75.00	BMP Rebates
LES SCHWAB FULTON AVE - Invoices:1	$	48.00	Vehicle Maintenance Services
LIFEGUARD FIRST AID - Invoices:1	$	109.32	Building Service Expense - Office & Yard
MESSENGER PUBLISHING GROUP - Invoices:2	$	983.00	Public Relations
MICHAEL LINEBACK - Invoices:1	$	134.00	BMP Rebates

MICHAEL PHILLIPS LANDSCAPE CORP - Invoices:14	$	7,440.00	Building Service Expense - Office & Yard
MIKE HUOT - Invoices:1	$	1,723.38	Travel Conferences
NATIONAL METER AND AUTOMATION INC - Invoices:4	$	8,858.26	Equipment Maintenance Services
NINA J JOYCE - Invoices:1	$	150.00	BMP Rebates
NORMAC - Invoices:1	$	9.98	Operating Supplies
OFFICE DEPOT INC - Invoices:5	$	855.61	Office Supplies
OLUWADAMILARE OLADAPO - Invoices:1	$	215.00	BMP Rebates
PALADIN PRIVATE SECURITY - Invoices:1	$	674.16	Building Service Expense - Office & Yard
PAUL BAKER PRINTING INC - Invoices:1	$	7,269.77	Public Relations
PEOPLEREADY - Invoices:8	$	8,002.72	Temporary Help
PEST PROS - Invoices:3	$	255.00	Building Service Expense - Office & Yard
POLLARD WATER - Invoices:1	$	7,227.94	Operating Supplies
RALPH ANDERSEN & ASSOCIATES - Invoices:4	$	29,995.00	Consulting Services
RAMOS ENVIRONMENTAL - Invoices:2	$	581.00	Hazardous Waste Disposal
RAWLES ENGINEERING - Invoices:2	$	29,508.60	Construction Services
RAY MORGAN CO - Invoices:2	$	768.72	Equipment Maintenance Services
RUE EQUIPMENT INC - Invoices:1	$	2,978.47	Vehicle Maintenance Services
SACRAMENTO SUBURBAN WATER DISTRICT - Invoices:1	$	306.65	Vehicle Maintenance Services
SHRED-IT - Invoices:1	$	315.24	Contract Services
SIGNS IN 1 DAY - Invoices:1	$	1,254.21	Operating Supplies
SONG DANG - Invoices:1	$	60.00	Required Training
SONITROL - Invoices:1	$	417.64	Contract Services
SUTTER MEDICAL FOUNDATION - Invoices:1	$	800.00	Miscellaneous Employee Benefits
TEE JANITORIAL & MAINTENANCE - Invoices:1	$	3,223.50	Building Service Expense - Office & Yard
TETRA TECH INC - Invoices:1	$	7,895.00	Construction Services
THINK, INC - Invoices:1	$	8,455.11	Printing
TINA LYNN DESIGN - Invoices:1	$	206.00	Printing
TULLY & YOUNG - Invoices:1	$	4,455.00	Consulting Services
ULINE SHIPPING SUPPLY SPECIALISTS - Invoices:1	$	45.50	Operating Supplies
US BANK CORPORATE PAYMENT SYSTEM - Invoices:1	$	6,869.96	Vehicle Maintenance Services
VALLEY POWER SYSTEMS - Invoices:1	$	1,370.00	Contract Services
VALLEY REDWOOD & YARD SUPPLY - Invoices:1	$	71.12	Operating Supplies
VAULT ACCESS SOLUTIONS - Invoices:1	$	3,325.00	Construction Services
VERIZON WIRELESS/DALLAS TX - Invoices:2	$	5,560.63	Communication
VICKI SPRAGUE - Invoices:1	$	169.88	Travel Conferences
VOYAGER FLEET SYSTEMS - Invoices:1	$	9,507.01	Operating Supplies
WASTE MANAGEMENT - Invoices:3	$	956.11	Building Service Expense - Office & Yard
WATER RESEARCH FOUNDATION AWWA - Invoices:2	$	20,577.31	Annual Membership/Dues 2019
WATERWISE CONSULTING, INC. - Invoices:1	$	1,875.00	Consulting Services
WEST YOST & ASSOCIATES - Invoices:1	$	660.00	Consulting Services
WOLF CONSULTING - Invoices:1	$	3,125.00	Consulting Services
WORLDPAY INTEGRATED PAYMENTS - Invoices:1	$	669.51	Communication
CITY OF SACRAMENTO WATER - Invoices:1	$	455.17	Purchased Water-City of Sacramento
PG&E - Invoices:4	$	2,500.27	Utilities
PLACER COUNTY WATER AGENCY - Invoices:1	$	122,010.00	Water
SAN JUAN WATER DISTRICT - Invoices:1	$	353,795.36	Water
SIERRA CHEMICAL COMPANY - Invoices:2	$	11,306.97	HFA, Chemical & Delivery
SMUD - Invoices:8	$	171,438.78	Electrical Charges
	$	**4,196,057.01**	

Credit Card Expenditures
May 2019

Sacramento Suburban Water District
US Bank Purchasing Card Program
CalCard Expenditures
May 2019

Vendor Name	Description	Amount	Proj/GLAcct
ROUND TABLE PIZZA	GM APPRECIATION LUNCH	$ 209.78	02-51403
SOUTHWEST	DAN YORK FLIGHT TO DC FOR CAP TO CAP	$ 638.20	02-55001
AKA WHITE HOUSE	HOTEL FOR DAN YORK FOR CAP TO CAP	$ 1,166.74	02-55001
RALEY'S	ALL HANDS/COMMUNICATIONS MEETING REFRESHMENTS	$ 18.84	02-51403
THE SANDWICH SPOT	LUNCH FOR INTERVIEW PANEL	$ 19.71	17-56000
THE SANDWICH SPOT	LUNCH FOR INTERVIEW PANEL	$ 2.69	17-56000
RESOURCE ASSOCIATES, INC.	PERSONALITY TESTS FOR CUSTOMER SERVICE MANAGER & SAFETY RISK MANAGER POSITIONS	$ 180.00	17-51401
THE SANDWICH SPOT	LUNCH FOR INTERVIEW PANEL	$ 33.47	17-56000
RESOURCE ASSOCIATES, INC.	PERSONALITY AND APTITUDE TEST FOR SAFETY RISK OFFICER POSITION	$ 45.00	17-51401
THE SANDWICH SPOT	LUNCH FOR INTERVIEW PANEL	$ 30.77	17-56000
ZIPRECRUITER, INC.	MONTHLY SUBSCRIPTION	$ 249.00	17-51401
RESOURCE ASSOCIATES, INC.	PERSONALITY AND APTITUDE TEST FOR IT ANALYST POSITION	$ 70.00	17-51401
TALEVATION LLC	ASSESSMENT TESTS FOR IT ANALYST POSITION	$ 319.20	18-54509
AMAZON MARKET PLACE	SMOKE DETECTOR FOR HALLWAY FIREDOORS	$ 16.15	12-54008
HOME DEPOT	EMERGENCY LIGHTS AND BATTERIES FOR MARCONI	$ 266.39	12-54008
AMAZON MARKET PLACE	CABLE TRACER	$ 27.99	18-52101
VARIDESK	MONITOR ARMS FOR DAN YORK	$ 210.11	18-52101
LOWES	PRODUCTION SUPPLIES- MINI GREASE GUNS	$ 103.27	06-52101
HOME DEPOT	WAREHOUSE SUPPLIES	$ 247.52	05-52101
JOHN CRANE	PRODUCTION SUPPLIES	$ 167.90	06-52101
POWERS ELECTRIC	PARTS FOR ELECTRIC SOUNDER	$ 149.81	06-52101
SKILLPATH	TRAINING FOR MIKE JENNER	$ 149.00	06-51407
PAYPAL	PUBLIC SECTOR TRAINING-MIKE JENNER	$ 155.00	06-51407
FRED PRYOR	TRAINING- ANDREW DUARTE	$ 99.00	06-51407
UNIVERSAL CLASS	REFUND	$ (189.00)	08-51407
SMART & FINAL	KITCHEN SUPPLIES-WALNUT	$ 146.90	03-52108
HOME DEPOT	WAREHOUSE SUPPLIES	$ 114.92	05-52101
HOME DEPOT	SOCKET SET FOR ON CALL TRUCK	$ 21.28	07-52101
AWWA	TRAINING- FIELD OPERATOR CONFERENCE- JOE CROCKETT	$ 495.00	07-55001
SOUTHWEST	AIRFARE FOR FIELD OPERATOR CONFERENCE- JOE CROCKETT	$ 380.96	07-55001
BUSINESS JOURNAL	ANNUAL SUBSCRIPTION RENEWAL- SACRAMENTO BUSINESS JOURNAL	$ 95.00	15-52501
POWERS ELECTRIC	PARTS FOR ELECTRIC SOUNDER	$ 230.25	06-52101
GIBSON RANCH	DEPOSIT FOR COMPANY PICNIC BBQ	$ 275.00	02-51403
INDECO	BLOCK HEATER WELL 23A	$ 167.34	06-52101
HOME DEPOT	COOLERS FOR BACTERIOLOGICAL SAMPLING	$ 69.88	06-52101
AMAZON.COM	SHELF FOR UPC - MARCONI COMMUNICATION ROOM	$ 43.99	12-54008
MAITA TOYOTA	DRIVER'S SIDE VISOR REPLACEMENT - VEHICLE #42	$ 122.61	12-54005
AMAZON.COM	"C" CABLE TO CHARGE CELL PHONES	$ 23.96	12-53503
AMAZON.COM	CARBURATOR FOR MQ PUMPS	$ 17.98	12-54004

AMAZON.COM	12 VOLT VEHICLE PHONE CHARGERS	$	109.90	12-53503
AMAZON.COM	HONDA GENERATOR RUBBER FOOT PADS	$	66.38	12-54004
AMAZON.COM	AIR FILTERS FOR MQ PUMPS	$	13.41	12-54004
AMAZON.COM	MQ PUMP CARBURATOR	$	15.88	12-54004
AMAZON.COM	SPARK PLUGS FOR MQ PUMPS	$	10.83	12-54004
AMAZON.COM	AIR FILTERS FOR MQ PUMPS	$	17.99	12-54004
AMAZON.COM	MQ PUMP CARBURATOR HOUSING	$	13.99	12-54004
AMAZON.COM	SPARK PLUGS FOR HONDA GENERATORS	$	29.97	12-54004
	Totals:	$	**6,869.96**	

District Reserve Balances
May 31, 2019

Sacramento Suburban Water District
Reserve Fund Balance

	May 31, 2019	December 31, 2018
Debt Service Reserve	$ -	$ -
Facilities Reimbursement	-	-
Emergency/Contingency	11,542,750	11,255,000
Operating	7,665,250	7,390,000
Rate Stabilization	6,652,000	6,244,500
Interest Rate Risk	-	-
Grant	137,500	-
Capital Asset	20,789,472	20,160,655
TOTAL	**$ 46,786,972**	**$ 45,050,155**

Cash and Investments
Per District Balance Sheet
(Provided for Reconciliation Purposes)

	May 31, 2019	December 31, 2018
Cash and Cash Equivalents	$ 9,457,346	$ 7,585,118
Water Transfer Fund Receivable [1]	-	872,280
Investments	37,104,376	36,369,025
Interest Receivable	225,191	215,917
Restricted Cash	59	7,814
TOTAL	**$ 46,786,972**	**$ 45,050,155**

Information Required by Bond Agreement

Sacramento Suburban Water District
Schedule of Net Revenues

As Of

	Actual Year-To-Date 5/31/2019	*Budget Year-To-Date 5/31/2019*
REVENUES		
Water sales charges	$6,365,957.25	$6,813,773.00
Capital facilities charge	9,859,983.52	9,910,000.00
Facility development charges	91,615.00	125,000.00
Interest and investment income	348,559.89	388,335.00
Rental & other income	229,756.04	166,665.00
TOTAL REVENUES	***16,895,871.70***	***17,403,773.00***
EXPENSES		
Source of supply	1,035,654.32	1,306,727.25
Pumping	1,388,131.13	2,005,796.25
Transmission and distribution	1,985,019.55	1,902,524.15
Water conservation	164,391.46	187,527.20
Customer accounts	503,541.84	582,336.01
Administrative and general	2,661,187.03	3,622,351.42
TOTAL EXPENSES	***7,737,925.33***	***9,607,262.28***
NET REVENUE	***9,157,946.37***	***7,796,510.72***

Sacramento Suburban Water District
6 - Months Debt Service Schedule
5/31/2019

Total SSWD Debt Service					
Month	Principal	Interest Adjustable/Fixed/Swap	Facility Fee	Remarketing	Debt Service
Jun-19	$ -	$ 81,390.73	$ 50,400.00	$ 13,125.00	$ 144,915.73
Jul-19	-	81,390.73	-	-	81,390.73
Aug-19	-	81,390.73	-	-	81,390.73
Sept-19	-	81,390.73	50,400.00	13,125.00	144,915.73
Oct-19	4,625,000.00	698,115.73	-	-	5,323,115.73
Nov-19	-	81,390.73	-	-	81,390.73

Series 2012A Fixed Rate Bonds ($23,440,000.00)					
Month	Principal	Interest - Fixed 4.25%			Debt Service
Jun-19	$ -	$ -	$ -	$ -	$ -
Jul-19	-	-	-	-	-
Aug-19	-	-	-	-	-
Sept-19	-	-	-	-	-
Oct-19	2,160,000.00	339,013.00	-	-	2,499,013.00
Nov-19			-	-	-

Series 2009A Adjustable Rate COPs ($42,000,000.00)					
Month	Principal	Interest, Adjustable 1.03%	Facility Fee 0.480%	Remarketing 0.125%	Debt Service
Jun-19	$ -	$ 36,050.00	$ 50,400.00	$ 13,125.00	$ 99,575.00
Jul-19	-	36,050.00			36,050.00
Aug-19		36,050.00			36,050.00
Sept-19		36,050.00	50,400.00	13,125.00	99,575.00
Oct-19		36,050.00			36,050.00
Nov-19		36,050.00			36,050.00

Series 2018A Fixed Rate COPs ($27,915,000)					
Month	Principal	Interest - Fixed 3.45%			Debt Service
Jun-19	$ -	$ -	$ -	$ -	$ -
Jul-19	-	-	-	-	-
Aug-19	-	-	-	-	-
Sept-19	-	-	-	-	-
Oct-19	2,465,000.00	277,712.00	-	-	2,742,712.00
Nov-19			-	-	-

2012 SWAP Interest, Net ($33,000,000.00)					
Month	Principal	Interest, Swap Net (3.283-1.46910-.18)%			Debt Service
Jun-19		$ 45,340.73	-	-	45,340.73
Jul-19		$ 45,340.73	-	-	45,340.73
Aug-19		$ 45,340.73	-	-	45,340.73
Sept-19		$ 45,340.73	-	-	45,340.73
Oct-19		$ 45,340.73	-	-	45,340.73
Nov-19		$ 45,340.73	-	-	45,340.73

Financial Markets Report
May 31, 2019

Summary of District's Debt Portfolio:

Debt	Original Par	Outstanding	Issuance	Credit Enhancement	Final Maturity
2009A	$ 42,000,000	$ 42,000,000	Adjustable Rate Revenue COP's	Sumitomo Bank*	11/1/2034
2012A	$ 29,200,000	$ 15,385,000	Fixed Rate Revenue Bond		11/1/2027
2018A	$ 19,615,000	$ 17,295,000	Fixed Rate Revenue Bond		11/1/2028
	$ 90,105,000	$ 74,680,000			

* Credit enhancement expires 6/30/2023

Current Status of District's Variable-Rate Debt Portfolio:

Debt	Outstanding	Credit Enhancement	Bank Owned	Sold in Market	Market Rate
2009A	$42,000,000	Sumitomo Bank LOC	None	$42,000,000	1.90%

	Notional Amount	Counterparty	FMV	Receive Rate	Fixed Rate
Swap	$33,300,000	Wells Fargo Bank, N.A.	($6,531,392)	1.649%	3.283%

Current Status of District's Investment Portfolio (May 31, 2019):

Fair Market Value	Security Type	Yield
$ 1,011,342.02	Money Market	2.08%
4,263,818.49	LAIF	2.45%
1,551,585.45	commercial paper	2.65%
2,950,045.67	Asset-Backed Securities/CMOs	2.62%
4,568,372.61	Certificates of Deposit	2.85%
8,720,494.91	Corporate Notes	2.50%
590,151.24	Federal Agency Collateralized Mortgage Obligation	2.61%
1,499,762.70	Federal Agency Securities Bonds/Notes	1.28%
2,582,587.93	Supra-National Agency Bond	2.13%
16,192,961.16	Treasury Bonds/Notes	2.30%
$ 43,931,122.18		**2.40%**

Market:
Listed below is the most recent market summary provided by the District's Investment Portfolio Advisor (PFM Asset Management):

Current Bond Markets

- Yields moved in a narrow range in April, with most of the action in longer maturities. For example, the 2-year Treasury note increased 0.01%, the 5-year rose 0.05%, and the 10-year note was up 0.09%.

- As a result, the total return of longer duration indexes lagged their shorter-term counterparts. For example, the 1-year and 3-year Constant Maturity U.S. Treasury Indexes returned 0.22% and 0.17%, respectively. Meanwhile, the 10-year and 30-year indexes generated negative returns: -0.59% and -2.04%, respectively, for the month.

- While the intermediate-maturity portion of the yield curve remained inverted (one to seven years), fear that this signaled an imminent business downturn seemed to fade, reinforcing a more positive outlook for near-term U.S. economic growth.

PFM Outlook

- We see no reason to change our current strategy of emphasizing income potential while minimizing interest rate bets. This is supported by the post-meeting FOMC statement noting no "strong case for moving (monetary policy) in either direction".

- We continue to reduce allocations to Federal agency and Supranational bonds because their excess income potential is modest when compared with Treasuries. With a flat yield curve and calmer volatility, callable agency securities have become more attractive. We prefer structures with longer lockout periods (e.g. not callable for one year) to reduce reinvestment risk.

- The investment-grade credit sector has performed superbly through the first four months of the year, as spreads continue to narrow. We still maintain above average allocations and benchmark-neutral durations in the sector as the incremental income from corporate bonds is expected to be a key contributor to performance over the near-term.

- Mortgage-backed securities (MBS) have also performed well year-to-date, with longer collateral pass-through and agency collateralized MBS (AMBS) leading the class. As always, caution is appropriate, as the structure of individual issues is a major determinant of returns.

- AAA-rated asset-backed securities (ABS) continue to produce excess returns vs. Treasuries and provide added portfolio diversification.

- In the money market space, the inverted yield curve and technical factors have concentrated value in short maturities. The potential for incremental income from investing in commercial paper and other short-term credit instruments has moderated and there is less reason to extend maturities than at the start of the year.

  (Source: PFMAM May 2019 Monthly Market Review).

Debt Portfolio:
The District's debt portfolio is evenly divided between fixed-rate debt and variable-rate debt. While the District's exposure to variable market rate increases has been reduced via the interest rate swap, the District is exposed to interest rate risk primarily on the un-hedged portion of its variable-rate COP, representing $8.7 million. Such risk is managed by the District through adherence to the District's Reserve Policy that addresses the management of interest rate risk through prudent investing of reserves in short-term variable-rate securities in an amount at least equal to the un-hedged debt exposure.

Investment Portfolio:
In this market environment, the investment objective is to position portfolio durations modestly short of benchmarks while emphasizing intermediate maturities and underweighting longer maturities thus shortening the portfolio.

Back to Agenda

SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 13

Date: June 6, 2019

Subject: District Activity Report

Staff Contact: Matt Underwood, Operations Manager

Described below are significant District Activities and milestones over the past month. The report is separated into the following sections: Water Operations and Exception Report, Water Quality Report, Water Conservation and Regional Water Efficiency Program Report, Customer Service Report, and Community Outreach Report.

Water Operations And Exceptions Report

i. **Monthly Water Production – Attachment WO-1**
This indicates the amount of water produced, both ground and surface water, in the District's North Service Area (McClellan Business Park, The Arbors at Antelope, and portions of North Highlands, Antelope, Carmichael, and Citrus Heights) and South Service Area (Portions of Arden Arcade, Carmichael, and City of Sacramento) for Calendar Years 2018 and 2019. As a result of above average precipitation this past winter, surface water supplies are currently being utilized in the North Service Area, while the South Service Area continues to rely solely on groundwater sources.

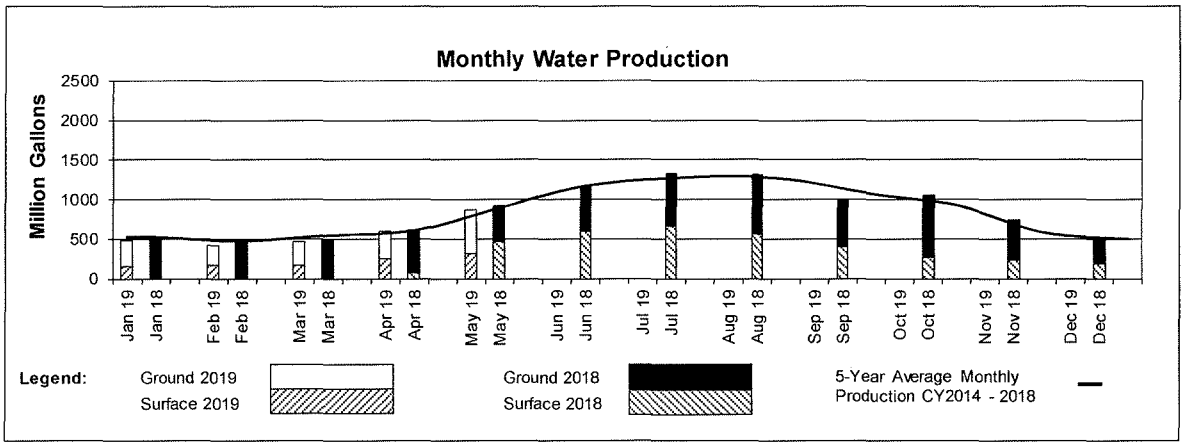
ii. **Water Operations Activity – Attachment WO-2**
This shows the types and number of activities that are conducted daily in the Production, Distribution, and Field Services Departments.

iii. **Claims Update – Attachment WO-3**
This is a summary report of claims received by the District that are less than $10,000, and approved or rejected by the General Manager.

Attachment WO-1

Monthly Water Production
2019

	North Service Area *			South Service Area **				
Month	Surface (MG)***	Ground (MG)	Sub Total (MG)	Surface (MG)	Ground (MG)	Sub Total (MG)	Total North & South Service Areas (MG)	Average MG/Day
Jan	158.366	118.459	276.825	0.000	200.316	200.316	477.141	15.392
Feb	175.760	69.922	245.682	0.000	166.040	166.040	411.722	14.704
Mar	170.371	108.115	278.486	0.000	183.788	183.788	462.274	14.912
Apr	255.292	79.591	334.883	0.000	253.755	253.755	588.638	19.621
May	317.319	174.190	491.509	0.000	388.650	388.650	880.159	28.392
Jun								
July								
Aug								
Sep								
Oct								
Nov								
Dec								
MG	**1,077.108**	**550.277**	**1,627.385**	**0.000**	**1,192.549**	**1,192.549**	**2,819.934**	**18.675**
AF	**3,305.523**	**1,688.738**	**4,994.261**	**0.000**	**3,659.798**	**3,659.798**	**8,654.060**	**57.312**



* North Service Area (North Highlands, Antelope, McClellan Park and The Arbors)
** South Service Area (Town and Country and Arden-Arcade)
***The surface water delivery quantities are reported from SJWD's monthly records.
Notes: Reported production values do not include water wheeled/sold to other purveyors.
The reporting periods for groundwater production may differ from the calendar month beginning/end dates and will vary year-to-year.
The previously reported value of 176.172 MG for the North Service Area surface water in February 2019 was corrected to 175.760 MG.

Attachment WO-2

Water Operations Activity

	May 2019	Monthly Avg CY 2019	Total CY 2019	Goal CY 2019	% of Goal Completed in CY 2019
Production Department					
Service Orders					
Water Quality					
Complaints	3	1	3		
Inquiries	10	10	52		
Taste & Odor Complaints	0	0	0		
Taste & Odor Inquiries	5	6	30		
Distribution Department					
Service Orders					
Main Leaks	2	4	21		
Service Line Leaks	9	5	23		
Water Main Shutdown					
-- Emergency	1	3	17		
-- Scheduled	0	1	5		
Preventive Maintenance Program					
Fire Hydrants Inspected	118	70	351	1,240	28.3%
Fire Hydrant Valves Inspected	115	64	322	1,090	29.5%
Fire Hydrant Valves Exercised	97	59	296	1,090	27.2%
Mainline Valves Inspected	164	185	925	2,487	37.2%
Mainline Valves Exercised	84	140	700	2,487	28.1%
Blow Off Valves Inspected	2	1	7	209	3.3%
ARV/CARV Inspected	0	0	0	56	0.0%
Field Services Department					
Meters					
PM - Meters Tested (3 - 10 inch)	36	18	90	113	79.6%
PM - Meters Replaced ($^{5}/_{8}$ - 1 inch)	2	3	13	1,000	1.3%
PM - Meter Re-Builds ($1^{1}/_{2}$ - 2 inch)	71	37	185	244	75.8%
Customer Pressure Inquiries	13	9	47		
Field Operations Department					
Service Requests Generated	2,151	2,202	11,011		
Work Orders Generated	1,331	1,442	7,210		
After Hours Activity (On-Call Technician)					
Calls Received Distribution	22	35	173		
Calls Responded Distribution	19	27	137		
Overtime Hours Distribution	38	48	242		
Calls Received Production	9	12	58		
Calls Responded Production	3	5	26		
Overtime Hours Production	10	13	66		

Attachment WO-3

Date: June 6, 2019

Subject: Claims Update

Staff Contact: Matt Underwood, Operations Manager

On December 21, 2009, the District adopted a Claims Processing Policy. The Policy requires any claim in excess of $10,000 be brought before the Board for approval or rejection of said claim. The General Manager has the authority to approve or reject claims up to $10,000. The Policy further requires that all claims less than $10,000 be reported to the Board as an information item.

The following information provides an overview of the claims that are less than $10,000 that have been submitted to the District, as well as any pending claims or litigation that are under review/investigation by JPIA:

CLAIMS APPROVED/REJECTED BY GENERAL MANAGER

There were no claims approved or rejected by the General Manager during this time.

CLAIMS UNDER REVIEW/INVESTIGATION

There are no claims under review/investigation at this time.

Water Quality Report

Nothing new to report for May.

Water Conservation and Regional Water Efficiency Program Report

i. Program Overview for May 2019

The District continues to message water conservation and use efficiency to its customers. The District's website reflects the current water use restrictions and Regulation No. 15, which is the District' Water Shortage Contingency Plan that outlines water use prohibitions for each Water Conservation Stage approved by the Board of Directors. The District adopted Normal Water Supply conditions for 2019. Staff will continue engaging customers to ensure they are aware of the current water use efficiency practices and water conservation programs offered by the District and other local and state agencies. The following is a list of District water conservation related activities for May 2019.

a. On April 15, 2019, the District's Board of Directors declared Normal Water Supply conditions but called on District customers to use water as efficiently as

possible. The District set an overall water conservation goal of 10%. The District reduced water use by 32.9% in May 2019 (when compared to May 2013), exceeding the District's 10% monthly goal. Since June 2015, the District has maintained a cumulative water use reduction of 24% when compared to 2013[1].

b. Customer Leak Notifications – Through the District's Advanced Metering Infrastructure, staff sent out 537 leak notification post cards to customers regarding 72-hour continuous flow events in May 2019. Staff conducted 2 customer leak investigations as a result of the post cards.

c. Public Outreach – The District utilized informational graphics for public outreach in May 2019. Staff utilized online advertising and the District's website to communicate the District's water use efficiency message. The online advertisements used for Google generated 422 clicks and left 194,143 impressions. The District's primary focus for May 2019 was advertising Sprinkler Spruce Up month and checking for leaks.

ii. Water Conservation Program and Results

District staff continues to promote water conservation. During May 2019, District staff and the District's contract company performed 46 Single Family Residential Water-Wise House Calls and 1 Multi-Family WWHC.

Staff received 26 reports of water waste from the public (10 calls and 16 reports via the District's website). Staff issued 21 Information Only Water Waste Notices and 15 Notices of Violation.

The District issued rebates for 2 toilets, 2 clothes washer, and 1 Irrigation Efficiency Upgrade and 4 weather-based irrigation controllers in May 2019.

iii. Upcoming Events

None.

Customer Service Report

i. Customer Service Monthly Activity - Attachment CS-1

1. Customer Service Activity Report shows Customer Service activity for the month of May 2019.

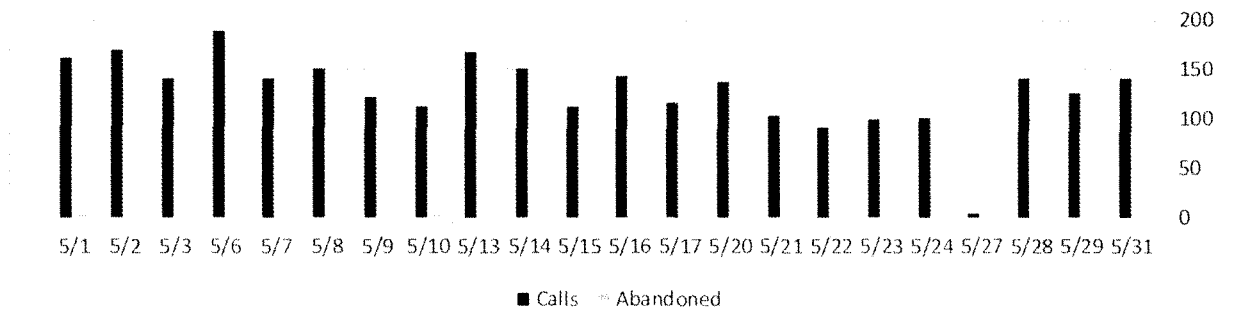
[1] The cumulative water savings since June 2015 is 11,391 million gallons (34,960 acre feet).

Attachment CS-1

	May 2019		Calendar Year 2019	
Billing				
Connections-Total Active	46,794			
E-billing	3800			
Payments				
Cash/Check	1,066	2.8%	5,485	2.7%
Credit Card	729	1.9%	3,815	1.9%
Web	5,520	14.3%	27,882	14.0%
Auto-Pay (Checking)	4,492	11.7%	22,230	11.1%
Auto-Pay (Credit Card)	4,489	11.6%	22,461	11.3%
IVR (Auto Phone)	1,590	4.1%	8,470	4.2%
Online Banking	10,310	26.8%	52,792	26.5%
LockBox	10,346	26.8%	56,421	28.3%

Monthly Calls

Date	Total Calls	Calls Abandoned	% of Calls Abandoned	Avg Wait On Queue	Max Wait on Queue	Avg Talk Time
5/1/2019	162	5	3.09%	20s	3m, 0s	2m, 40s
5/2/2019	169	3	1.78%	27s	5m, 30s	2m, 35s
5/3/2019	141	2	1.42%	47s	7m, 5s	2m, 51s
5/6/2019	189	4	2.12%	41s	4m, 33s	3m, 0s
5/7/2019	141	2	1.42%	18s	4m, 1s	3m, 14s
5/8/2019	151	2	1.32%	23s	3m, 29s	3m, 6s
5/9/2019	122	2	1.64%	28s	7m, 28s	2m, 52s
5/10/2019	112	1	0.89%	17s	2m, 59s	2m, 33s
5/13/2019	167	1	0.60%	24s	4m, 22s	3m, 15s
5/14/2019	151	1	0.66%	40s	4m, 44s	3m, 28s
5/15/2019	113	4	3.54%	13s	1m, 48s	3m, 9s
5/16/2019	143	0	0.00%	20s	4m, 39s	2m, 48s
5/17/2019	117	1	0.85%	39s	6m, 15s	3m, 8s
5/20/2019	138	0	0.00%	13s	3m, 55s	2m, 24s
5/21/2019	104	1	0.96%	23s	4m, 3s	2m, 36s
5/22/2019	91	0	0.00%	9s	35s	2m, 56s
5/23/2019	99	1	1.01%	12s	1m, 22s	3m, 4s
5/24/2019	101	0	0.00%	19s	3m, 21s	2m, 39s
5/27/2019	4	0	0.00%	0s	0s	0s
5/28/2019	142	4	2.82%	20s	2m, 43s	3m, 17s
5/29/2019	126	2	1.59%	16s	3m, 31s	3m, 42s
5/31/2019	142	0	0.00%	24s	4m, 7s	2m, 47s
Group Total	**2825**	**36**	**1.27%**	**40s**	**5m, 58s**	**3m, 13s**



Community Outreach Report

i. July Envelope Message – Attachment CO-1

The July envelope gives information on the Consumer Confidence Report. The envelope will begin on June 24, 2019 and continue until July 21, 2019.

ii. July Bill Insert – Attachment CO-2

The July bill insert will begin on June 24, 2019 and continue until July 21, 2019. A sample of the bill insert has been included with this report.

Community Meetings/Events

Staff, representing SSWD, attended the following agency meetings, community meetings, and events in May 2019:

Date:	Meeting:	Staff:
04/30-05/3/19	Cap to Cap Washington DC Trip	Dan York
05/6-09/2019	ACWA Spring Conference	Dan York
05/6-10/2019	ACWA Spring Conference	Mike Huot
05/13/19	RWA Executive Committee Special Board Meeting	Dan York
05/14/19	Ground Water Substitution Meeting	Mike Huot
05/16/19	SAWWA Meeting	Dan York
05/22/19	RWA Executive Committee Meeting	Dan York
05/23/19	Hinkle Reservoir Relining Project Operations Meeting	York/Huot

Attachment CO-1

2018 Consumer Confidence Report | Now Available

The report contains information on the:

✓ Quality of Your **Water** ✓ Source of Your **Water** ✓ Composition of Your **Water**

Look for the report in the mail or visit **sswd.org/2018ccr**

Attachment CO-2

July Bill Insert

00225864

SACRAMENTO SUBURBAN WATER DISTRICT

H2O on the Go

July 2019

2019: A Historic Season for Rain and Snow

California received a record amount of rain and snow this year. The snowpack in May was at 188 percent of normal, one of the largest amounts of snow in recorded history.

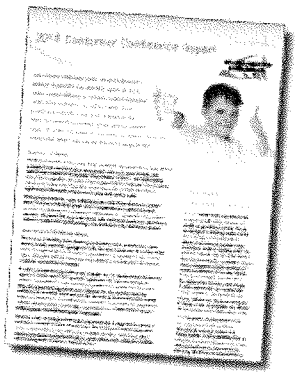
While this is great news, it is also important to remember that droughts are a regular occurrence and it is critical to be prepared for the next one. That is why SSWD has been investing in the infrastructure needed to expand our access to a variety of water sources and promoting efficiency.

Our customers make vital contributions to SSWD's water supply reliability each and every day. Your efforts at using water efficiently have made a huge difference both during the drought and even now. SSWD customers used 20 percent less water in 2018 compared to 2013, and many of you have taken advantage of our rebate program for water-efficient improvements.

We thank you for your continuing efforts to be efficient even during years with plenty of rain and snow like this one.

Consumer Confidence Report

SSWD's Consumer Confidence Report (CCR) is now available. The CCR is an annual report that provides information on the quality of water we provide, its sources, composition and other required information.



The CCR is based on samples we take of the water supply on a regular basis throughout the year. You can view the new CCR and previous reports online at **http://www.sswd.org/publications/reports/consumer- confidence-reports.**

SSWD Rate Study Now Available

Every five years, Sacramento Suburban Water District is required by law to undergo a detailed review of its costs and the rates needed to support the delivery of safe, high-quality and reliable water service.

This process—called a Water Rate Study—is led by an independent, third-party financial expert and includes an in-depth look at the District's current revenues, operation and maintenance costs, capital investment plan and reserves (essentially the District's savings account). The study also makes recommendations for any needed rate adjustments for the public's review and consideration by the District's Board of Directors.

The ultimate goal is to identify rates and connection fees that are fair, reflect the cost of providing service, encourage efficiency, are simple to understand and meet the District's revenue requirements, including bond obligations. The

SSWD Rate Study | page 2

sswd.org

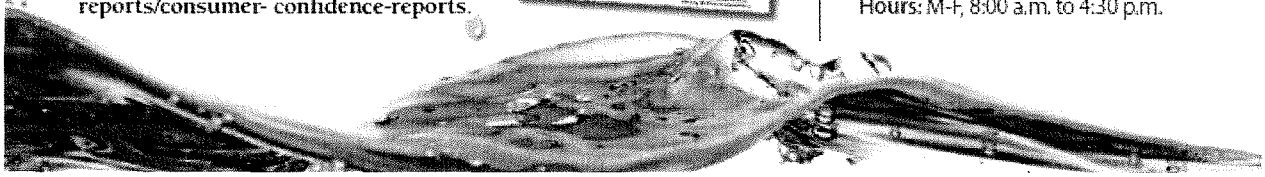
Phone: 916.972.7171

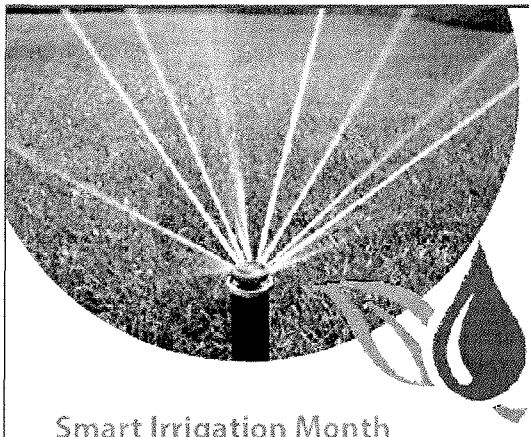
Fax: 916.972.7639

3701 Marconi Avenue, Suite 100

Sacramento, CA 95821-5346

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





Smart Irrigation Month

July is Smart Irrigation Month, and it's a great time to make improvements to your sprinkler system. Most household water in the Sacramento region is used to water our yards and landscapes and up to 30 percent of it is wasted. You can be more efficient in how you use water outdoors by making some simple improvements to your sprinkler system.*

Here are some easy changes and steps to consider:

Upgrade your sprinkler system with high-efficiency rotator sprinklers. They deliver water at a slower rate, which allows it to be better absorbed by the soil so that less water is lost to evaporation or run off. High-efficiency rotator sprinklers are estimated to use 30 percent less water than traditional spray sprinklers. Visit BeWaterSmart.info to see a helpful video showing how easy it is to do this upgrade.

Replace existing sprinkler bodies with WaterSense-labeled sprinkler bodies with built-in pressure regulating features. In many sprinkler systems the water pressure is often higher than the recommended operating pressure for the sprinkler nozzle. This can lead to an uneven spray, misting or excessive flow. WaterSense-labeled sprinkler bodies regulate the pressure to ensure a consistent flow rate so that water is delivered evenly to a yard.

Install a WaterSense-labeled weather-based sprinkler timer. These controllers adjust sprinkler run times according to the weather and the needs of your landscape. A weather-based sprinkler timer can save you thousands of gallons of water a year and make sure your plants get the right amount of water.

And always remember to check the soil moisture before you water to make sure your plants need it. SSWD has complimentary moisture meters available at the District office.

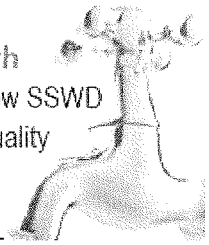
**SSWD has rebates available for sprinkler system upgrades. Complete details are at sswd.org/rebates.*

SSWD Rate Study | from page 1

Study also provides customers with an opportunity to more fully understand the District's costs and to have a voice in setting rates.

The District recently completed a yearlong Study, which is now available online at sswd.org. Future articles will explore the study's findings, recommendations and opportunities for our customers to provide input.

Delivering With Every Turn | How SSWD Monitors Water Quality

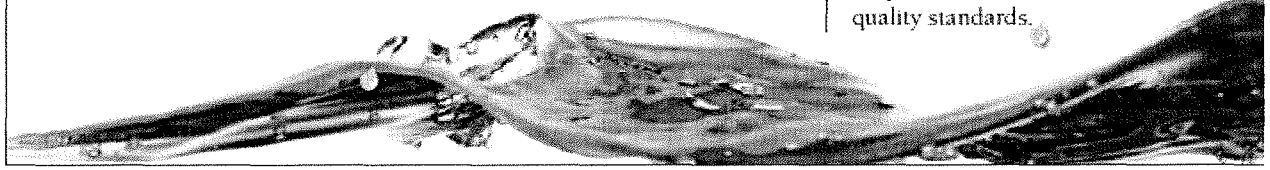


One of SSWD's top priorities is making sure we deliver high-quality water to you every day.

We monitor water quality frequently to ensure it meets State and Federal standards. Our state-certified treatment and distribution staff collect water samples regularly at a variety of points throughout our system. These locations include groundwater well sites before and after treatment, at customer service connections and at dedicated sampling stations. We also take samples at points where repairs have been made to confirm that the water supply hasn't been affected.

SSWD tests your drinking water for over 130 constituents. Independent and State-certified laboratories conduct the testing.

We are proud of our record of maintaining water quality and the efforts of our dedicated and professional staff to provide you with drinking water that meets or surpasses State and Federal water quality standards.



SACRAMENTO SUBURBAN WATER DISTRICT

Back to Agenda

Agenda Item: 14

Date: May 28, 2019

Subject: Engineering Report

Staff Contact: Dana Dean, P.E., Engineering Manager

Summarized below are significant Engineering Department activities and milestones over the past month. The report is separated into the following sections: a) Major Capital Improvement Program (CIP) Projects; b) Asset Management Plans; and c) Other.

a. Major Capital Improvement Program (CIP) Projects

The District continues to deliver CIP projects at a steady rate to support operations and ensure the readiness of District supply and facilities is consistent with the Board's approved funding program.

1) Supply

Well N6A Palm (Replacement Well at Existing Site)

- Pumping plant and treatment plant construction began in July 2018.
- The well is anticipated to be on line in summer 2019.

Well 78 Butano / Cottage (New Well at New Site)

- Well construction is complete.
- Pumping plant design is anticipated to be completed in fall 2019.
- Pumping plant construction is anticipated to begin in late fall 2019.
- The well is anticipated to be on line in summer 2020.

Well 79 Verner / Panorama (New Well at Existing Site)

- Well construction (below grade) is complete.
- Pumping plant design is anticipated to be completed in spring 2020.
- Pumping plant construction is anticipated to begin in summer 2020.
- The well is anticipated to be on line in fall 2021.
- Funding is being pursued with RWA via the 2019 Prop 1 Integrated Regional Water Management Implementation Grant.

2) Distribution

Jonas Main Replacement Project

This is the 2019 Main Replacement Program project. This project began in January 2019 and is currently 30% complete and anticipated to be completed in late 2019.

Meter Retrofit Projects
The 2019 Meter Retrofit Program project has been split into two projects to control costs due to the grant funding component this year, as follows:

Grant-Funded Project
This project has been completed by Flowline Contractors, Inc.

Non Grant-Funded Project
This project is the first in a 3 to 5 year Master Services Contract (MSC) that was awarded to Flowline via competitive bid. Flowline has begun meter retrofits on this project and is anticipated to be completed in October 2019.

b. Asset Management Plans

The District has Asset Management Plans (AMPs) for all of its infrastructure categories. Plans are updated on a staggered schedule and the update frequency of the AMPs range between 3 and 7 years. Following is a summary on the AMP's scheduled for updates this calendar year:

- Distribution Main AMP – This AMP was scheduled for updating in 2018. In September 2018, the F&O Committee directed staff to develop a more comprehensive Condition Assessment (CA) element and incorporate it into the AMP, and then to bring the updated draft AMP back to the Committee for review.

  District AMPs do not contain a comprehensive CA so this is being developed from the ground up. Based on the effort likely required to develop and incorporate a CA into the AMP, staff brought a CA Outline to the Board for their review and comment at their April 2019 meeting. The Board's comments were positive and staff is bringing the draft CA to the Board at this meeting under a separate agenda item. The CA would then be incorporated into the AMP. After the CA is approved as part of the Distribution Main AMP, it will then be a template for use in the other AMPs.

- Transmission Main AMP – Scheduled and in progress to be updated in late 2019.

- AMP Summary Report – This report is being reviewed for its utility as a tool for staff to communicate CIP items to the Board. Staff is bringing their recommendations to the Board in June 2019 as to whether to continue, modify, or discontinue this AMP.

- Groundwater Well Facility AMP – Scheduled and in progress to be updated in 2019. Staff will be issuing an RFP for a consultant to prepare this AMP.

- Buildings and Structures AMP – Scheduled and in progress to be updated in 2019. Staff will be issuing an RFP for a consultant to prepare this AMP.

c. Other

Well Investigation and Rehabilitation Projects

- Well 69 Hilldale/Cooper

  This well is offline. The pump is pulled so the well can be inspected to determine an approach to mitigate biological contamination. It is too early in the assessment to develop an estimated return to service period, but if an economic approach is developed, the well could be returned to service by summer 2019.

- Well N20 Cypress

  This well is offline. The pump is pulled so the well can be inspected to determine an approach to mitigate elevated levels of manganese. It is too early in the assessment to develop an estimated return to service period, but if an economic approach is developed, the well could be returned to service as early as summer 2019.

- Well N36 Verner

  This well remains offline. The well has been modified by plugging the lower part of the well where groundwater contains manganese. Indication from test results at a flow rate of up to 1,000 gallons per minute indicates that the modification was successful. Further evaluation of the existing well pump and additional water quality sampling is required prior to placing the well back in service. It is anticipated that the well will return to service in summer 2019.

Safety Upgrades for the Administration Building's Backup Electrical System
This project will provide the District an electrical distribution panel compliant with NFPA 70E (Arc Flash - *Standard for Electrical Safety in the Workplace*). If required, the project may include permitting and coordinating with SMUD for the installation of a new transformer, underground primary and secondary electrical conduit, electrical panel upgrades, and related new wiring. The existing system evaluation is expected to be completed in June 2019, followed by design and construction. If required, additional design and construction of system improvements would be completed in 2019 and 2020, respectively.

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AGENDA ITEM: 15. a.

REGIONAL WATER AUTHORITY
SPECIAL MEETING OF THE BOARD OF DIRECTORS
Wednesday, May 22, 2019, 8:30 a.m.

5620 Birdcage Street, Suite 110
Citrus Heights, CA 95610
(916) 967-7692

AGENDA

The public shall have the opportunity to directly address the Board on any item of interest before or during the Board's consideration of that item. Public comment on items within the jurisdiction of the Board is welcomed, subject to reasonable time limitations for each speaker. 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 Authority's Administrative Office at the address listed above. In compliance with the Americans with Disabilities Act, if you have a disability and need a disability-related modification or accommodation to participate in this meeting, please contact the Executive Director of the Authority at (916) 967-7692. Requests must be made as early as possible, and at least one full business day before the start of the meeting. The Board of Directors may consider any agenda item at any time during the meeting.

1. **CALL TO ORDER AND ROLL CALL**

2. **PUBLIC COMMENT:** Members of the public who wish to address the committee may do so at this time. Please keep your comments to less than three minutes.

3. **CLOSED SESSION – PUBLIC EMPLOYEE APPOINTMENT**
   (Government Code §§ 54954.5(e), 54957(b)(1))
   Title: Executive Director

4. **CLOSED SESSION – CONFERENCE WITH LABOR NEGOTIATORS**
   (Government Code, §§ 54954.5(f), 54957.6)
   Agency designated representatives: Paul Schubert, Kerry Schmitz and Marcus Yasutake
   Unrepresented employee: Executive Director

5. **REPORT FROM CLOSED SESSIONS**

ADJOURNMENT

Next RWA Board of Directors' Meeting – Thursday, June 13, 2019, at 10:30 a.m. at the RWA office.

REGIONAL WATER AUTHORITY
SPECIAL MEETING OF THE EXECUTIVE COMMITTEE
Monday May 13, 2019, 10:00 a.m.

5620 Birdcage Street, Suite 110
Citrus Heights, CA 95610
(916) 967-7692

AGENDA

The public shall have the opportunity to directly address the Committee on any item of interest before or during the Board's consideration of that item. Public comment on items within the jurisdiction of the Committee is welcomed, subject to reasonable time limitations for each speaker. 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 Committee less than 72 hours before the meeting are available for public inspection in the customer service area of the Authority's Administrative Office at 5620 Birdcage Street, Suite 180, Citrus Heights, California 95610. In compliance with the Americans with Disabilities Act, if you have a disability and need a disability-related modification or accommodation to participate in this meeting, please contact the Executive Director of the Authority at (916) 967-7692. Requests must be made as early as possible.

1. **CALL TO ORDER AND ROLL CALL**

2. **PUBLIC COMMENT:** Members of the public who wish to address the committee may do so at this time. Please keep your comments to less than three minutes.

3. **CLOSED SESSION – PUBLIC EMPLOYEE APPOINTMENT**
   (Government Code §§ 54954.5(e), 54957(b)(1))
   Title: Executive Director
   Note: Public comment will be taken on this item before the Executive Committee moves into closed session.

4. **REPORT FROM CLOSED SESSION – PUBLIC EMPLOYEE APPOINTMENT**

ADJOURNMENT

REGIONAL WATER AUTHORITY
EXECUTIVE COMMITTEE AGENDA

May 22, 2019; 9:30 a.m.

5620 Birdcage Street, Suite 110
Citrus Heights, CA 95610
(916) 967-7692

AGENDA

The public shall have the opportunity to directly address the Board on any item of interest before or during the Board's consideration of that item. Public comment on items within the jurisdiction of the Board is welcomed, subject to reasonable time limitations for each speaker. 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 Authority's Administrative Office at the address listed above. In compliance with the Americans with Disabilities Act, if you have a disability and need a disability-related modification or accommodation to participate in this meeting, please contact the Executive Director of the Authority at (916) 967-7692. Requests must be made as early as possible, and at least one full business day before the start of the meeting. The Board of Directors may consider any agenda item at any time during the meeting.

1. **CALL TO ORDER AND ROLL CALL**

2. **PUBLIC COMMENT:** Members of the public who wish to address the committee may do so at this time. Please keep your comments to less than three minutes

3. **CONSENT CALENDAR**
   a. Minutes of the April 24, 2019 Executive Committee meeting and minutes of the April 26, 2019 and May 13, 2019 Special Closed Session Executive Committee meetings
   Action: Approve the April 24, 2019 Executive Committee meeting minutes and April 26, 2019 and May 13, 2019 Special Closed Session Executive Committee meetings

4. **POLICY 400.1, APPENDIX G UPDATE**
   Information Update: Rob Swartz, Interim Executive Director
   Action: Recommend Board Approval of Amended RWA Policy 400.1, Appendix G

5. **LEGISLATIVE/REGULATORY UPDATE**
   Information Update: Ryan Ojakian, Legislative and Regulatory Affairs Manager
   Action: Take support position on Senate budget proposal
   Action: Take and amend positions on bills:
   AB 508 support
   SB 134 move from a support position to an oppose unless amended

6. **REGIONAL SMART CONTROLLER PROGRAM**
   Information Update: Amy Talbot, Senior Project Manager
   Action: Approve contractor selection for Regional Smart Controller Program
   Action: Authorize Interim Executive Director to enter into a contract with Rachio/Valley Soil

7. **AQUIFER STORAGE AND RECOVERY PROJECT**
   Information Update: Rob Swartz, Interim Executive Director
   Action: Approve Regional Aquifer Storage and Recovery Information Project Agreement

8. **PROPOSITION 1 INTEGRATED REGIONAL WATER MANAGEMENT IMPLEMENTATION GRANT APPLICATION PROJECT**
   Information Update: Rob Swartz, Interim Executive Director
   Action: Approve 2019 Proposition 1 Implementation Grant Application Project Agreement

9. **2018 GROUNDWATER SUBSTITUTION TRANSFER REPORT PROJECT**
   Information Update: Rob Swartz, Interim Executive Director
   Action: Authorize the Interim Executive Director to Execute the Agency Agreement to Provide Support for Final Report Preparation

10. **RWA JUNE 13, 2019 BOARD OF DIRECTORS MEETING AGENDA**
    Action: Approve June 13, 2019 Board of Directors Meeting Agenda

11. **EXECUTIVE DIRECTOR'S REPORT**

12. **DIRECTORS' COMMENTS**

13. **CLOSED SESSION – PUBLIC EMPLOYEE APPOINTMENT**
    (Government Code §§ 54954.5(e), 54957(b)(1))
    Title: Executive Director

14. **CLOSED SESSION – CONFERENCE WITH LABOR NEGOTIATORS**
    (Government Code, §§ 54954.5(f), 54957.6)
    Agency designated representatives: Paul Schubert, Kerry Schmitz and Marcus Yasutake
    Unrepresented employee: Executive Director

15. **REPORT FROM CLOSED SESSIONS**

ADJOURNMENT

Upcoming meetings:

Upcoming Executive Committee Meetings – June 26, 2019 and July 24, 2019 at 8:30 a.m. at the RWA office

Next RWA Board of Directors' Meeting – Thursday, June 13, 2019, at 10:30 a.m. at the RWA office

The RWA Executive Committee Meeting electronic packet is available on the RWA website at https://rwah2o.org/meetings/board-meetings/ to access and print the RWA Board electronic packet.

AGENDA ITEM: 15. b.

SACRAMENTO GROUNDWATER AUTHORITY

REGULAR MEETING OF THE BOARD OF DIRECTORS

Thursday, June 13, 2019; 1:00 p.m.

5620 Birdcage Street, Suite 110
Citrus Heights, CA 95610
(916) 967-7692

Agenda

The Board will discuss all items on this agenda, and may take action on any of those items, including information items and continued items. The Board may also discuss other items that do not appear on this agenda, but will not act on those items unless action is urgent, and a resolution is passed by a two-thirds (2/3) vote declaring that the need for action arose after posting of this agenda.

The public shall have the opportunity to directly address the Board on any item of interest before or during the Board's consideration of that item. Public comment on items within the jurisdiction of the Board is welcomed, subject to reasonable time limitations for each speaker. 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 Authority's Administrative Office at the address listed above. In compliance with the Americans with Disabilities Act, if you have a disability and need a disability-related modification or accommodation to participate in this meeting, please contact the Executive Director of the Authority at (916) 967-7692. Requests must be made as early as possible, and at least one full business day before the start of the meeting. The Board of Directors may consider any agenda item at any time during the meeting.

1. **CALL TO ORDER AND ROLL CALL**

2. **PUBLIC COMMENT:** Members of the public who wish to address the Board may do so at this time. Please keep your comments to less than three minutes.

3. **CONSENT CALENDAR**
   Minutes of April 11, 2019 meeting
   Action: Approve April 11, 2019 meeting minutes

4. **GROUNDWATER MANAGEMENT PROGRAM UPDATE**
   Information Update: Rob Swartz, Interim Executive Director

5. **EXECUTIVE DIRECTOR'S REPORT**

6. **DIRECTORS' COMMENTS**

7. **CLOSED SESSION – PUBLIC EMPLOYEE APPOINTMENT**
   (Government Code §§ 54954.5(e) AND 54957(b)(1))
   Title: Executive Director

8. **REPORT FROM CLOSED SESSION**

9. **EXECUTIVE DIRECTOR APPOINTMENT AND EMPLOYMENT AGREEMENT**
   Action: Approve Executive Director Appointment and Employment Agreement

ADJOURNMENT

Next SGA Board of Director's Meeting – August 8, 2019, 9:00 a.m. at the RWA/SGA office, 5620 Birdcage Street, Ste. 110, Citrus Heights.

Notification will be emailed when the SGA electronic packet is complete and posted on the SGA website at **http://www.sgah2o.org/meetings/board-meetings/**.

AGENDA ITEM: 15. c.

WATER CAUCUS
Wednesday, June 12, 2019
11:30 AM – 1:00 PM
Regional Water Authority
5620 Birdcage St., Citrus Heights

Agenda

1. Voluntary Agreement Update
    - VA process
    - Reclamation possibly joining Water Forum
2. Water Reliability Plan Update
3. Legislative Update
4. SGMA Update
5. Water Efficiency Update

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SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 16

Date: June 13, 2019

Subject: Committee Reports

Staff Contact: Dan York, General Manager

No Report for Item 16.

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SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 17

Date: June 12, 2019

Subject: Sacramento Suburban Water District / San Juan Water District Management/Re-Organization Committee Update

Staff Contact: Dan York, General Manager

Background:
At the June 25, 2015 Joint Board Meeting between Sacramento Suburban Water District (SSWD) and San Juan Water District (SJWD), two motions by SSWD Directors passed. Paraphrasing, the first was to pay the Phase 2A Consultant, but not accept the Phase 2A report. The second motion was to suspend all work on consolidation with SJWD until SSWD coordinates with SJWD Wholesale Agencies and SSWD can evaluate the independent legal research SSWD commissioned.

On March 8, 2018, SSWD received correspondence from the SJWD General Manager, on behalf of the Board of Directors of SJWD, inquiring about the status of the merger discussions previously conducted by SSWD and SJWD. At SSWD's March 19, 2018 regular Board meeting, the Board approved to develop a 2X2 Committee to meet with SSWD's General Manager and develop goals and discussion points to bring back to the full Board. The subject meeting was held on May 23, 2018, to develop the goals and discussion points, which are listed below:

Goals

- Create better cooperation within the water agencies of Northern Sacramento
- Secure existing water rights for the region and ensure that they are put to beneficial use
- Increase operational efficiency of the water district and save rate payers money
- Operate the groundwater and surface water supplies for the region in a sustainable manner
- No rate increase for SSWD customers as a result of a merger
- Develop off-ramps should there be fatal flaws during the process
- Attempt to achieve consensus with cooperative agreements amongst wholesale customer agencies of SJWD and regional water agencies

Discussion Points

- Respond to comments received from Phase 2A
- Address financial, human resource, water operations, operational issues, salary and benefits and customer outreach
- Research potential consultants with public utility merger experience to conduct Phase 2B analysis

- Develop Memorandum of Understanding between SSWD and SJWD
- Budget and cost sharing analysis
- Full outreach to SSWD customer agencies

A SSWD-SJWD Water Management/Re-Organization Ad Hoc Committee (Committee) was held on October 3, 2018. The Committee directed the SSWD and SJWD General Managers to extend an invitation to all General Managers in the region with the objective of identifying ways the agencies can become more efficient in working together to minimize cost to their customers and optimize the use of their water supplies, personnel, equipment, infrastructure and other resources, as well as improve their ability to influence state and federal policies.

Discussion:
The following agencies have been participating in the ongoing discussions: SSWD, SJWD, Fair Oaks WD, Citrus Heights WD, Carmichael WD, Rio Linda / Elverta Community WD, Del Paso Manor WD, Orange Vale Water Company, and City of Folsom.

There have been a total of six meetings between these agencies, with the most recent meeting held on June 11, 2019. Throughout those meetings, the group developed a draft Sacramento Region Water Utility Collaboration/Integration Study Request for Proposal (RFP)(see Attachment 1).

At the June 11 meeting the group reviewed the final draft RFP that will allow the agencies to determine a final scope of work and then each agency board will review the scope and make a decision regarding participation. It is anticipated to have this on the District's July 15 regular Board meeting agenda to determine its continuing participation. Orange Vale Water Company has made the decision to no longer participate in this particular endeavor. It is unknown at this time if Del Paso Manor Water District will be participating due to a major change in their management staff.

As part of the analysis, it is the intent of the selected consultant to identify opportunities for coordinating or integrating policies, programs, services, projects and activities to create efficiencies, improve results and achieve an overall cost benefit to the agencies' customers. The Scope of Work is intended to determine a range of alternatives, which include potential integration of selected projects, programs and services, up to and including integration or consolidation of two or more of the Agencies into a single organization.

The cost per agency is currently unknown, however, the group anticipates the analysis to be in the $250,000 range. The group is continuing to develop a cost per agency scenario. A Cost Allocation spreadsheet has been developed with three different scenarios, operating budget, connections and tier. As you will see in Attachment 2, the range for SSWD is $63,750 - $89,953. Note: Currently there are seven agencies in the cost allocation. The cost for participating agencies may increase based on the final number of participating agencies.

This item will be placed on the agenda for the July 15, 2019 regular Board meeting as an Action Item requesting approval for participation in the study.

Attachment 1

DRAFT

REQUEST FOR PROPOSAL

CONSULTANT SERVICES FOR A SACRAMENTO REGION WATER UTILITY COLLABORATION/INTEGRATION STUDY

A. INTRODUCTION:

A consortium of nine water supply agencies in the Sacramento Region is seeking a consultant for professional services to assist with the preparation of a Sacramento Region Water Utility Collaboration/Integration Study (Study). The nine agencies consist of Carmichael Water District, Citrus Heights Water District, City of Folsom, Del Paso Manor Water District, Fair Oaks Water District, Orange Vale Water Company, Rio Linda/Elverta Community Water District, Sacramento Suburban Water District (SSWD) and San Juan Water District (SJWD) (Agencies). For organizational purposes, SSWD will serve as the lead or coordinating agency for an evaluation of collaboration/integration opportunities considered in this feasibility and planning study.

STUDY OBJECTIVE: Identify ways the Agencies can become more efficient in working together to minimize cost to their customers and optimize the use of their water supplies, personnel, equipment, infrastructure and other resources, as well as improve their ability to influence state and federal policies. As part of the Study, the selected consultant should identify opportunities for coordinating or integrating policies, programs, services, projects and activities to create efficiencies, improve results and achieve an overall cost benefit to the Agencies' customers. The Scope of Work is a threshold study of the range of alternatives, which include potential integration of selected projects, programs and services, up to and including integration or consolidation of two or more of the Agencies into a single organization.

Background

In 2013, SSWD and San Juan Water District entered into an agreement to begin identifying opportunities to improve collaboration and potentially merge operations into one consolidated district. A Phase 1 Study, focused on high-level evaluation of three options, was completed in 2014. A Phase 2A Study, focused on governance and organizational design of one alternative, was completed in 2015.

At the June 2015 Joint Board Meeting, the SSWD Board of Directors made a decision to suspend all work on the consolidation analysis until SSWD coordinated with the SJWD Wholesale Customer Agencies (Citrus Heights Water District, Fair Oaks Water Districts, Orange Vale Water Company, and City of Folsom) to ensure that a process be developed whereby Wholesale Customer Agencies' issues and concerns can be addressed, and evaluate the independent research on SJWD water rights that SSWD commissioned. SSWD has determined that the design of this proposed Study will

address these concerns, and SSWD is ready to move forward with further analysis as proposed in this RFP.

In March 2018, SSWD received correspondence from the SJWD General Manager, on behalf of the Board of Directors of SJWD, inquiring about the status of the merger discussions previously conducted by SSWD and SJWD. At SSWD's March 2018 regular Board meeting, the Board approved implementation of a 2X2 Committee to meet with SSWD's General Manager and develop goals and discussion points.

Due to interests of other local water agencies to move forward in discussions pertaining to collaboration/integration opportunities, it has now evolved into a broader level of involvement in the Sacramento Region.

Structure and Meetings

As noted, SSWD will be responsible for administration of the project, and will be the primary contact for the consultant. The project will be overseen by a Steering Committee, composed of at least one executive from each of the Agencies. The consultant will meet with the Steering Committee as necessary, but at least once to initiate the project, and then at the end of each Activity phase. In addition, during the analysis phase of the consultant's work, the consultant will need to communicate with each agency's subject matter expert staff as required.

The consultant will also need to plan to present the results of each Activity phase to a facilitated joint meeting of the Boards of Directors/City Councils of the Agencies (a maximum of 4 meetings total for the Boards/Councils).

The consultant needs to identify in the proposal the intersection points with Agency personnel throughout the Study.

B. REQUESTED SCOPE OF WORK:

1. SERVICES DESIRED:

The following is a requested scope of work to be utilized in submitting a response.

Scope of Work Activity 1: Describe the current environment

(a) Describe the utilities, background

Document the operational responsibilities of the various Agencies related to water services. Document the service standards, policies, procedures and organizational staffing for each agency. Provide an overview of how customers receive their water supplies in the areas served by the Agencies.

(b) Inventory services offered by each Agency

Create a template to be completed by the Agencies to identify the services offered by each Agency (i.e. water treatment and distribution, meter reading and billing, water efficiency on system and per customer basis, budgeting and

accounting, etc.) Identify program/service operating goals, operating costs, water supply costs, performance data and key projects that are either planned or in execution.

Inventory Agency Capital Improvement Programs and Advanced Planning Efforts for Infrastructure and Significant Asset Management, including expected future costs.

(c) Inventory current collaborations

Create an inventory of current collaborations between/among the Agencies

(d) Describe existing financial approaches

Prepare a description of the current financial environment of the Agencies, including debt capacity and obligations, credit ratings, rate structure, financial policies, asset base, reserve levels, number of customers, annual revenues, property tax receipts, operating rates and connection fees and other relevant factors. Create a template to be completed by the Agencies to obtain information.

(e) Identify stakeholders

Identify current stakeholders of the Agencies and their interests {including customers (particularly those in Disadvantaged Communities), developers, employees and other stakeholders).

(f) Review and Revise Problem Statements

Evaluate the problem statements defined by the Agencies and recommend any additions or edits. The problem statements will help inform the scope of the Study. The draft list of problem statements accompanies this RFP as Attachment C.

Scope of Work Activity 2: Conduct benchmarking

(a) Conduct peer benchmarking

Conduct a peer benchmarking study to compare key indicators for the Agencies, such as staffing, functions provided, organization structure, and collaborative efforts. Consult with the Agencies in establishing criteria for choosing the peer agencies.

(b) Identify and performance measures to evaluate collaboration/integration alternatives/options

Ascertain evaluative benchmarks for the peer agencies and compare with the Agencies. At a minimum, benchmarks need to cover the following aspects of the projects/programs/organizations being assessed: 1) Legal; 2) Financial; 3) Management/Governance; and 4) Operational.

Scope of Work Activity 3: Identify opportunities for the future

(a) Identify economies of scale

Identify services or purchases that are amenable to savings due to scale. Describe the potential benefits and challenges of combining such services.

(b) Identify opportunities and challenges for service integration

Identify opportunities and challenges for integrating services within the Agencies. Specify which services could be integrated, the associated costs and benefits, and key factors that would need to be addressed. Recognize that there will be a growth in service connections in the future. Provide a framework for next steps and phasing of implementation.

(c) Identify opportunities and challenges for facilities integration

Identify opportunities and challenges for combining or integrating facilities (i.e., buildings and grounds, but not water treatment and distribution) that would create cost savings to the Agencies and their customers. Describe the potential benefit and the factors that would need to be addressed in integrating such facilities Recognize that there will be a growth in service connections in the future. Provide a framework for next steps and phasing of implementation.

Deliverables

It is understood that the consultant will begin the Study by completing the scope of work activity #1, followed by activity #2 and finish with activity #3. The consultant shall provide to the Steering Committee a report at the completion of each of the three activities in the scope of work, detailing the information collected, the analysis conducted and any results or recommendations. The consultant shall also provide the Steering Committee a final report, integrating the results of the three activities and a summary of the complete project.

2. MINIMUM QUALIFICATIONS OF CONSULTANT:

It is expected that the proposer will have experience with public sector projects of similar nature and scope, including the ability (whether directly or through a subconsultant) to address relevant legal, financial, management/governance and operational issues. The successful proposer will demonstrate experience with a minimum of three municipally-directed projects pertaining specifically to evaluation of utility services.

3. INSURANCE REQUIREMENTS:

The firm or individual selected to perform the work will be required to provide with the contract insurance and indemnification in the amount shown in Exhibit B within Attachment A.

C. THE PROPOSAL:

1. FORMAT AND REQUIREMENTS:

The Proposal shall be 8-1/2" by 11", with the pages numbered sequentially, and double-sided. 1" margins shall be provided on all pages. Statements shall be in a 12-point font and may be single or double-spaced.

Statements of Qualifications shall be submitted in electronic format using Adobe Acrobat (.pdf).

2. PROPOSAL CONTENTS:

The Proposal shall include the following:

A. Letter of Transmittal. Identify the individual or parties, and provide its (their) address along with the name of a contact person and a telephone number (one page maximum).

B. Include a general statement of the consultant's approach to conducting a financial and operational review of public utilities (two pages maximum).

C. Describe the Firm's experience with public sector projects of a similar nature and scope. Emphasis should be placed on projects undertaken within the past three years.

D. Identify all personnel who will be assigned to work on this project. Include brief summaries of their background and experience, as well as the assigned responsibilities for this project.

E. A general statement of the consultant's approach to conducting the required Study. This discussion should estimate the total cost for the Study (two pages maximum).

F. Identify any sub-consultants and include the same information as described in "D".

G. Provide a budget, broken down by each scope of work activity and subtask.

H. Provide a timeline for completion of the project. Any assumptions regarding turnaround time for review should be clearly noted.

I. Provide references for your firm's three most representative projects. Include the following:

1) Name of public agency
2) Name and title of contact person.
3) Telephone number of contact person.

4) Brief description of the project including start and completion dates and your firm's role in the project.
5) The telephone number and contact names of private firms involved in the project.

J. Provide a summary of all past projects involving any Agency. This summary shall include
1) Name of public agency
2) Name and title of contact person.
3) Telephone number of contact person.
4) Brief description of the project including start and completion dates and your firm's role in the project.
5) The telephone number and contact names of private firms involved in the project.

3. PROJECT APPROACH:

Include a brief discussion describing your firm's approach to preparing the Study. Detail your strategy and include your vision for the final deliverable resulting from this Study.

D. THE PROCESS:

Mandatory Proposers Meeting:
A mandatory proposers meeting will be held **(Date/time/location),** to provide all consulting teams with information concerning the Scope of the Study and to ask any questions. Moreover, any written questions should be submitted to Heather Hernandez via email to: hhernandez@sswd.org by no later than **4:00 p.m. on DAY, MONTH AND DATE, 2019**. All questions and answers will be distributed via email by **DAY, MONTH AND DATE, 2019** as well as posted on the (SSWD website?). The name of the consulting team submitting questions will not be identified.
Submittal of the Proposal: The Proposal shall be submitted using Adobe Acrobat (.pdf format) to Heather Hernandez via email hhernandez@sswd.org by no later than **4:00 p.m. on DAY, MONTH AND DATE, 2019**.

Proposal Review: Qualifications will be evaluated by a Steering Committee comprised of staff from the Agencies. Submittals will be evaluated according to project understanding by the consultant, and the qualifications of your firm in providing services of a similar nature and how relevant that experience is to this project.

The top two to six proposals will be invited for one or more interviews during the weeks of (DATES). The interviewing panel will be comprised of a representative from each agency participating in the study.

The Consultant selected to perform the Study will be notified by DATE, 2019.

Award: The top ranked party will be invited to enter into negotiations with the Agencies on the terms of a Consultant contract based on a final proposal to be submitted at that time. The negotiations will occur in MONTH of 2019. If a satisfactory agreement cannot be negotiated, then the same process will be undertaken with the next highest ranked

party on this list until a satisfactory agreement can be reached. The Agencies anticipate executing a contract in MONTH of 2019 to begin providing services immediately.

The Consultant, as an independent contractor, will report to the Steering Committee comprised of staff from the Agencies. SSWD staff will provide contract administration and project coordination. The Agencies reserve the right to reject all proposals, directly contract with any proposer or non-proposer and request additional information.

Conflict of Interest: By submitting a Proposal, the Respondent declares and warrants that no elected or appointed official, officer or employee of the Agencies has been or shall be compensated, directly or indirectly, in connection with the award of the Agreement or any work for the proposed project.

E. CONCLUSION:

If you have any questions, or need additional information, please contact Dan York at dyork@sswd.org or 916-679-3973.

Sincerely,

Dan York
General Manager, SSWD

Attachments: A – Professional Services Agreement
B – Conflict of Interest form
C – Initial list of Problem Statements

Attachment A
PROFESSIONAL SERVICES AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of _____, 20___, by and between the Sacramento Suburban Water District (hereinafter referred to as "SSWD"), in conjunction with eight neighboring water supply agencies in the Sacramento Region; Carmichael Water District, Citrus Heights Water District, City of Folsom, Del Paso Manor Water District, Fair Oaks Water District, Orange Vale Water Company, Rio Linda/Elverta Community Water District and San Juan Water District (collectively, "Agencies"), and _____, (hereinafter referred to as "Consultant").

RECITALS

SSWD requires the services of Consultant to: (insert finalized Scope of Work)

Consultant warrants it possesses the distinct professional skills, qualifications, experience, and facilities necessary to timely perform the services described in this Agreement. Consultant acknowledges that Agencies have relied upon said warranties to retain Consultant.

AGREEMENT

NOW, THEREFORE, SSWD and Consultant hereby agree that the aforementioned recitals are true and correct and further agree as follows:

1. **Retention as Consultant.** SSWD hereby retains Consultant on behalf of Agencies, and Consultant hereby accepts such engagement, to perform the services described in Section 3 below and subject to the terms and conditions contained in this Agreement.

2. **Relationship of Parties – Independent Contractors.** The relationship of the parties shall be that of independent contractors. In no event shall Consultant, or its agents, representatives, employees, consultants, contractors or subcontractors be considered an officer, agent, servant or employee of the SSWD or Agencies. Consultant shall be solely responsible for any workers compensation insurance, withholding taxes, unemployment insurance, and any other employer obligations associated with the performance of the services under this Agreement.

3. **Description of Services.** Consultant shall provide professional _____ _____ services to identify ways the Agencies can

become more efficient in working together to deliver water services to our communities; look for ways to expand coordination and cooperation as well as identify opportunities for integrating programs, services, and activities to create efficiencies, improve results and achieve an overall cost benefit to the community; and study the potential of service coordination and integration as more particularly set forth in Exhibit "A" attached hereto.

4. Consultant's Responsibilities. In the performance of services under this Agreement, Consultant shall:

(a) Diligently perform all services required under this Agreement and continuously furnish the necessary personnel to complete such services in a timely manner;

(b) Perform all services under this Agreement in a manner commensurate with industry, professional, and community standards;

(c) At its own cost and expense, comply with all statutes, ordinances, regulations and requirements of all governmental entities, including federal, state, county or municipal, whether now in force or hereinafter enacted;

(d) Obtain and keep in effect during the term of this Agreement, at its sole cost and expense, all necessary licenses, permits, qualifications, insurance, and approvals of whatsoever nature which are legally required of Consultant to practice its profession and to provide the services under this Agreement;

(e) Be readily available to the Steering Committee to answer any and all questions, inquiries and correspondence from Agencies or interested persons referred to Consultant by the Steering Committee related to the performance of the services under this Agreement;

(f) Discuss and review all matters related to the performance of services under this Agreement with the Steering Committee in advance of all critical decision points in order to ensure the work proceeds in a manner consistent with the Agencies' goals and policies; and,

(g) Consultant shall keep and maintain records and invoices related to services provided under this Agreement for a minimum period of three (3) years from the date of final payment to Consultant, or for a longer period as may be required by law. Such records and invoices shall include, but not be limited to, financial records, time sheets, work progress reports, bills and project records. All such records and invoices shall be clearly identifiable, and organized in a reasonable manner.

(1) Consultant shall make such records and invoices immediately available to SSWD or Agencies upon delivery of a written request to examine, audit, or copy such records and invoices.

(2) Within three (3) business days of the delivery of a written notice by the Steering Committee, Consultant shall prepare and submit a written report to SSWD, with copies for all of the Agencies, identifying the work in progress, charges incurred to date, and the anticipated cost of completion.

(3) Consultant shall give SSWD thirty (30) days written notice of its intent to destroy or otherwise dispose of the records and invoices to allow SSWD or Agencies an opportunity to take possession.

5. Compensation and Payment.

(a) The total compensation payable by SSWD to Consultant for services described in this Agreement **SHALL NOT EXCEED** the sum of $_____ (hereinafter "not to exceed amount"), except for such extra services as may be authorized pursuant to Section 6 below. Compensation shall be earned as provided in Exhibit "A."

(b) SSWD shall pay Consultant no later than 30 days after SSWD receives and verifies a written invoice from Consultant in a form satisfactory to the Steering Committee. At a minimum, Consultant's invoice shall contain a description of the services performed and/or the specific task completed from Exhibit "A". Consultant shall not submit invoices to SSWD more frequently than once a calendar month.

(c) The compensation set forth in this Agreement shall constitute the total compensation for all costs of the services provided by Consultant, including, but not limited to, direct costs of labor of employees engaged by Consultant, travel expenses, telephone charges, typing, duplication, computer time, and any and all other costs, expenses, and charges incurred by Consultant, its agents and employees to provide the services described in this Agreement.

6. Extra Services. Consultant shall provide, and SSWD shall pay for, such extra services agreed to in writing by the parties that are not reasonably included within the services described in Section 3 above. The total cumulative compensation for all extra services under this Agreement shall not be more than 10% of the not to exceed amount.

7. Term. The term of this Agreement shall commence on date this agreement is executed by both parties.

8. Termination by SSWD or Agencies. Upon thirty (30) calendar days written notice to Consultant, SSWD or Agencies may terminate any portion or all of the services described in this Agreement. In the event of such termination, Consultant shall have the right and obligation to immediately assemble all work in progress for the purpose of winding up the terminated services. All compensation for actual work performed and charges outstanding at the time of termination shall be payable in accordance with Section 5(b) above.

9. No Assignment. No portion of this Agreement shall be assigned or subcontracted by Consultant without SSWD's or Agencies' express written consent. The term "assignment" shall include any sale, assignment, transfer or other disposition of any of the issued and outstanding capital stock of Consultant, or of the interest of any general partner or party to a joint venture, which results in a change of control of Consultant. Control means fifty percent or more of the voting power, or twenty-five percent or more of the assets of the corporation, partnership or joint-venture.

10. Project Manager. Consultant's services under this Agreement shall be performed under the general direction of a Steering Committee comprised of representatives from the Agencies, Dan York, or such person as the Agencies may designate.

11. Ownership of Documents. All drawings, designs, data, photographs, reports and other documentation prepared or obtained by Consultant in the performance of the services contemplated by this Agreement shall be the property of the Agencies and shall be delivered to the Agencies upon demand.

12. Confidentiality. Consultant shall not disclose confidential or proprietary information or knowledge received directly or indirectly from the Agencies to anyone other than Consultant's employees necessary to perform the services described in this Agreement. This obligation shall survive termination and remain in full force and effect until the records kept and maintained pursuant to Section 4(g)(3) above, and any copies thereof, are destroyed or returned to the Agencies.

13. Hold Harmless and Indemnity. Consultant agrees to defend, indemnify and hold Agencies, their elected officials, officers, directors, employees, agents and designated volunteers harmless from and against any and all loss, liability, damage, including but not limited to reasonable attorney, consultant and expert fees and/or court costs, arising out of or in connection with this Agreement, except for the gross negligence and willful misconduct of Agencies, their elected officials, officers, directors, employees, agents and designated volunteers.

In addition to the above indemnification obligations, Consultant shall correct, at its own expense, all errors in the services provided. Should Consultant fail to make

such correction in a timely manner, Agencies shall make the correction and charge the cost thereof to Consultant.

14. Insurance. For the duration of this agreement, Consultant shall procure and maintain, at its own cost, insurance in the amounts and under the terms set forth in Exhibit "B" attached hereto against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work to provide the services described in this Agreement by Consultant, its agents, representatives, or employees. Consultant agrees to comply with any changes in the amounts and terms of such insurance as may be required from time to time by the Agencies, upon reasonable written notice.

15. Acceptance of Final Payment. Consultant's acceptance of final payment made under this Agreement, by negotiating SSWD's check or otherwise, shall release SSWD and Agencies from all claims and liabilities for compensation under this Agreement.

16. Acceptance of Work. The approval, payment and/or acceptance of the work or services performed under this Agreement by SSWD, shall not constitute or be deemed a release of the responsibility or liability of Consultant, its agents, employees, consultants, contractors, and/or subcontractors for the accuracy and competency of the services performed and/or information provided under this Agreement; nor shall such action be deemed an assumption of Consultant's responsibility or liability by SSWD or Agencies for any defect or error in Consultant's services.

17. Waiver; Remedies. A party's failure to insist upon the strict performance of any provision of this Agreement by the other party ("breaching party"), irrespective of the length of time for which such failure continues, shall not constitute a waiver of the non-breaching party's right to demand strict compliance in the future. A waiver shall not be effective or binding unless made in writing by the non-breaching party, and may not be implied from any omissions by the non-breaching party. A written waiver shall not constitute a continuing waiver of any subsequent breach of the same or a different provision of this Agreement.

All of the remedies permitted or available under this Agreement, or at law or in equity, shall be cumulative and alternative, and the invocation of any such right or remedy shall not constitute a waiver or election of remedies with respect to any other available right of remedy.

18. Notice. Any notice required to be given hereunder shall be deemed to have been given by depositing said notice in the United States mail with copies for all Agencies, postage prepaid, and addressed as follows:

TO SSWD: Attention: Dan York
General Manager
Sacramento Suburban Water District
3701 Marconi Avenue
Sacramento, California 95821

TO CONSULTANT: _____
_____
_____

Either party may change such address or contact person by written notice by registered mail to the other.

19. Conflict of Interest. Consultant is unaware of any Agency employee or official that has a financial interest in Consultant's business. During the term of this Agreement and/or as a result of being awarded this Agreement, Consultant shall not offer, encourage, or accept any financial interest in Consultant's business by any Agency employee or official.

20. Construction of Language. The provisions of this Agreement have been arrived at through negotiation and each party had a full and fair opportunity to revise the provisions and have them reviewed by legal counsel. The parties agree that any ambiguities in construing or interpreting this Agreement shall not be resolved against either party as the drafting party. In the event of an inconsistency or conflict between the language of this Agreement and an attachment hereto, the language of the Agreement shall control.

21. Non-Exclusive Agreement. SSWD and Agencies reserve the right to engage other consultants in connection with the services described in this Agreement.

22. Entire Agreement. This Agreement, including the attachments hereto, supersede any other agreements, either oral or written, between the parties with respect to the described services, and this Agreement contains all of the covenants and agreements between the parties with respect to said services. Any modification to this Agreement must be in writing and signed by both parties.

23. Partial Invalidity. If any provision in this Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions will nevertheless continue in full force without being impaired or invalidated in any way.

In concurrence and witness whereof, and in recognition of the mutual consideration provided therefore, the parties have caused this Agreement to be executed on the date first written above.

CONSULTANT:

_____

By:
Title:

SSWD

_____

Dan York
General Manager

APPROVED AS TO FORM:

_____

SSWD Attorney

Attachments:

Exhibit A – Scope of Work
Exhibit B – Insurance Coverage, Amounts and Terms

Attachment B

INSURANCE COVERAGE

Consultant shall procure and maintain for the duration of the Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Consultant, his agents, representatives, or employees.

Minimum Scope of Insurance

Coverage shall be at least as broad as:

1. Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001).
2. Insurance Services Office form number CA 0001 covering Automobile Liability, code 1 (any auto).
3. Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.

Minimum Limits of Insurance

Consultant shall maintain limits no less than:

1. General Liability, including operations, products and completed operations, as applicable:
   $1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
2. Automobile Liability:
   $1,000,000 per accident for bodily injury and property damage.
3. Employer's Liability:
   $1,000,000 per accident for bodily injury or disease.

Deductibles and Self-Insured Retention

Any deductibles or self-insured retention must be declared to and approved by SSWD. At the option of the Agencies, either: the insurer shall reduce or eliminate such deductibles or self-insured retention as respects the Agencies, their officers, officials, employees and volunteers; or the Consultant shall provide a financial guarantee satisfactory to SSWD guaranteeing payment of losses and related investigations, claim administration and defense expenses.

Other Insurance Provisions

The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

1. The Agencies, their officers, officials, employees and designated volunteers are to be covered as insureds as respects: liability arising out of activities performed by or on behalf of the Consultant; or automobiles owned, leased, hired or borrowed by the Consultant. The coverage shall contain no special limitations on the scope of protection afforded to the Agencies, their officers, officials, employees or volunteers.
2. For any claims related to this project, the Consultant's insurance coverage shall be primary insurance as respects the Agencies, their officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the Agencies, their officers, officials, employees or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.
3. Any failure to comply with reporting or other provisions of the policy including breaches of warranties shall not affect coverage provided to the Agencies, their officers, officials, employees or volunteers.
4. The Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
5. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party, except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the Agencies.

Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A: VII, unless otherwise acceptable to SSWD.

Verification of Coverage

Consultant shall furnish SSWD certificates of insurance and endorsement(s) effecting coverage to the Agencies for approval. The endorsements shall be on forms acceptable to SSWD. All certificates and endorsements are to be received and approved by SSWD before work commences. The Agencies reserve the right to require complete, certified copies of all insurance policies required by this sect

Attachment C
Initial List of Problem Statements

Problem Statements

1. Water supplies in the American River basin are becoming more variable and likely less reliable than in the past, due in part to climate change, environmental regulatory requirements and competing demands.

2. The areas served by the participating agencies were extensively developed during the second half of the last century and the water supply infrastructure installed at that time is in need of repair and replacement.

3. During normal to wet years, various water agencies in the Sacramento region have more water available under their water rights and contracts than necessary to meet customer demands, and use of this surplus water is not optimized.

4. Water supply infrastructure among the agencies in this analysis has varying levels of underutilized collection, treatment, storage and delivery capacity.

5. The agencies in this analysis face various financial and operational challenges in providing services to their customers and performing business functions.

6. The agencies in this analysis face increasing operational costs.

7. The sizes of the agencies in this analysis limit their ability to dedicate staff time to legislative, policy and regulatory issues.

Goals

The participating agencies will collaborate to:

1. Enhance water supply reliability by optimizing the use of surface water and groundwater supplies. Plan for and develop resilient responses to changes in water supplies that result from climate change and new regulatory requirements.

2. Repair, replace and improve water supply infrastructure and related agency assets in the most efficient and cost-effective manner possible.

3. Provide excellent service and the best value to customers.

4. Achieve more effective advocacy and the best outcomes possible on legislation and regulations in both Sacramento and Washington, D.C.

Regional Collaboration/Integration Project
Cost Allocation

6/12/2019
Total Project Cost: $ 250,000

Agency - retail only	No. Connections	Operating Budget	% Share by Connections	% Share by Operating Budget	Cost for Agency - by Connections	Cost for Agency - by Budget	Tier	% Share by Tier	Cost for Agency - by Tier
Carmichael Water District	11,912	$ 7,869,668	9.26	9.91	$ 23,162	$ 24,786	2	9	$ 22,500
Citrus Heights Water District	19,934	$ 13,073,299	15.50	16.47	$ 38,761	$ 41,176	3	18	$ 45,000
City of Folsom	21,052	$ 14,201,768	16.37	17.89	$ 40,935	$ 44,730	3	18	$ 45,000
Fair Oaks Water District	14,031	$ 7,325,500	10.91	9.23	$ 27,283	$ 23,072	2	9	$ 22,500
Rio Linda/Elverta CSD	4,700	$ 2,200,000	3.66	2.77	$ 9,139	$ 6,929	1	2.5	$ 6,250
Sacramento Suburban WD	46,268	$ 23,241,000	35.99	29.28	$ 89,967	$ 73,200	4	25.5	$ 63,750
San Juan Water District	10,673	$ 11,463,700	8.30	14.44	$ 20,753	$ 36,106	3	18	$ 45,000
Totals			100.00	100.00	$ 250,000	$ 250,000		100.00	$ 250,000

Agency - retail and wholesale	No. Connections	Operating Budget	% Share by Connections	% Share by Operating Budget	Cost for Agency - by Connections	Cost for Agency - by Budget	Tier	% Share by Tier	Cost for Agency - by Tier
Carmichael Water District	11,912	$ 7,869,668	9.26	8.84	$ 23,159	$ 22,107	2	8	$ 20,000
Citrus Heights Water District	19,934	$ 13,073,299	15.50	14.69	$ 38,755	$ 36,724	3	15	$ 37,500
City of Folsom	21,052	$ 14,201,768	16.37	15.96	$ 40,929	$ 39,894	3	15	$ 37,500
Fair Oaks Water District	14,031	$ 7,325,500	10.91	8.23	$ 27,279	$ 20,578	2	8	$ 20,000
Rio Linda/Elverta CSD	4,700	$ 2,200,000	3.66	2.47	$ 9,138	$ 6,180	1	3	$ 7,500
Sacramento Suburban WD	46,268	$ 23,241,000	35.98	26.11	$ 89,953	$ 65,287	4	25.5	$ 63,750
San Juan Water District	10,693	$ 21,084,900	8.32	23.69	$ 20,789	$ 59,230	4	25.5	$ 63,750
Totals			100.00	100.00	$ 250,000	$ 250,000		100.00	$ 250,000

SACRAMENTO SUBURBAN WATER DISTRICT

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Agenda Item: 18

Date: May 28, 2019

Subject: Legislative and Regulatory Update

Staff Contact: Greg Bundesen, Water Conservation Supervisor

1. **RWA Government Affairs Committee**
   The California Legislature reconvened on January 7, 2019. During March, Legislative committees heard and amended existing bills being considered for the 2019 and 2020 Legislative session. Table 1 below shows the Assembly Bills (AB) and Senate Bills (SB) staff will track this year. The table is organized to show the bill number, name, voting results, District's recommended position regarding the bill (favor, not favor, watch), the Sacramento Regional Water Authority's (RWA) position, and the Association of California Water Agencies' (ACWA) position. Staff works with RWA and ACWA to update Table 1 each month and add information as the legislative session progresses during the year. A summary of each bill can be provided upon request. Due to the high number of bills, staff has updated the table to track only the bills tracked by RWA's Advocacy Committee and ACWA's Legislative Committee.

2. **Notable Updates**
   a. **Safe Drinking Water Fund:** The Legislature updated the language relating to the Safe Drinking Water Fund to exclude a "water tax" that was proposed in the Governor's budget trailer bill. The new proposed funding source for the Safe Drinking Water Fund is proposed in the Budget bill as follows:
      i. $100 million from the Greenhouse Gas Reduction Fund;
      ii. $30 million from the General Fund for Safe Drinking Water; and,
      iii. $3.4 million from the General Fund for State Water Resources Control Board (SWRCB) administrative costs.
   b. **SB 200:** Amended to include an annual funding allocation from the General Fund to the Safe Drinking Water Fund.
   c. **SB 414:** Added to track the Small Water Systems Water Authority Act, which authorizes the State Water Resources Control Board to order consolidation with a receiving water system where a public water system or a state small water system serving a disadvantaged community consistently fails to provide safe drinking water.
   d. **SB 533:** Amended to only exempt turf removal projects from state taxation. All other rebates shall continue to be tax eligible. SB 533 is now a two year bill and will be considered in 2020.
   e. **SB 135:** This is a proposed update to the Paid Family Leave Act. The proposed updates include expanding the scope of the act to prohibit an employer from refusing to grant an employee request to take up to 12 weeks of unpaid leave for family care.
   f. **AB 217:** On May 22, 2019, a group of agricultural interests submitted a letter to the Senate Budget Committee opposing AB 217. AB 217 is another bill that establishes a

Safe Drinking Water Fund that would impose a "water tax" on both urban customers an agricultural interest in the form of additional fertilizer taxes and dairy operations. A list of the agricultural interests can be furnished upon request.

3. **Correspondence**
   a. **Safe Drinking Water Fund:** The District signed on to an ACWA sponsored coalition to support SB 200 and SB 414.

4. **Ongoing Bill Implementation**

   a. **SB 998**: Discontinuing Residential Water Service implementation continues. Staff has been meeting with regional stakeholders to determine the best course for implementing this bill. The District has until February 1, 2020, to comply. This bill establishes exemptions of discontinuing water service for non-payment and requires information regarding the discontinuation to be made available to the public. Staff will continue reviewing District regulations and provide updates to the Board as necessary.

   b. **AB 1668 and SB 606:** Requires State Water Resource Control Board and Department of Water Resources to adopt long-term standards for the efficient use of water on or before June 30, 2022. The long-term standards estimate indoor water use (55 gallons per person per day), outdoor water use (measured by satellite), water loss (validated in accordance with SB 555), and Commercial, Industrial, and Institutional water use (yet to be determined). SWRCB and DWR are currently in the rule making process of the legislation. Recommendations for performance standards are due by October 1, 2021. Staff is engaged in the rule making process. DWR has published a primer of how the indoor and outdoor water use standard will be calculated. The next step is to begin calculating the outdoor standards by taking landscape measurements via satellite.

      DWR has created several workgroups to help develop the water conservation framework regulations over the next several years. The various groups include:
      1. Wholesale Water Loss;
      2. Water Use Studies;
      3. Standards, Methodologies;
      4. Urban Water Management Plan Guidebook;
      5. Annual Water Supply and Demand Assessment; and,
      6. Data Streamlining

      Staff will continue to engage DWR and these workgroups regarding Framework implementation and report back to the Board regarding any progress or significant updates.

   c. **AB 401**: In 2015, AB401 was signed by the Governor establishing the Low-Income Water Rate Assistance Act, which requires SWRCB to develop a plan for a Low-Income Rate Assistance Program and report to the legislature its findings. AB 401 has the intention of establishing a program to assist low-income households in paying their

water bills. In January 2019, SWRCB released a draft report - "Options for Implementation of a Statewide Water Rate Assistance Program" - with a 30 day public review period. ACWA submitted a comment letter that focused on the program basis, revenue source, benefit distribution, program tier structure, and local rate structures.

Table 1: Assembly and Senate Bill Tracking

Bill Number	Name	District Position	RWA Position	ACWA Position	Result
AB 134	Safe, Clean, Affordable, and Accessible Drinking Water	Watch	Watch	Watch	
AB 171	Employment: Sexual Harassment	Watch	Watch	Watch	
AB 217	Safe and Affordable Drinking Water Fund	Watch	Watch	Watch	
AB 223	California Safe Drinking Water Act: Microplastics	Watch	Watch	Watch	
AB 382	Integrated Regional Water Management Plans: Grant Funding: Upper Watershed Health	Watch	Watch	Watch	
AB 405	Sales and Use Taxes: Exemption: Water Treatment	Watch	Watch	Watch	
AB 417	Agriculture and Rural Prosperity Act	Watch	Watch	Watch	
AB 441	Water: Underground Storage	Favor	Favor	Watch	
AB 533	Income Tax: Water Conservation or Efficiency Programs	Favor	Favor	Watch	
SB 45	Wildfire, Drought, and Flood Protection Bond Act of 2020	Favor if Amended	Watch	Favor if Amended	
SB 134	Water Conservation: Water Loss Performance Standards	Watch	Watch	Watch	
SB 135	Family Care and Paid Leave	Watch	NA	NA	
SB 200	Safe and Affordable Drinking Water Fund	Watch	Watch	Watch	
SB 414	Small Water Systems Authority Act	Watch	NA	NA	
SB 669	Water Quality: Safe Drinking Water Fund	Watch	Watch	Watch	
ACA 3	Water: Minimum Funding Guarantee	Watch	Watch	Watch	
Budget Trailer Bill	Water Tax	Opposed Unless Amended	Oppose Unless Amended	Oppose Unless Amended	

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SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 19

Date: June 6, 2019

Subject: Upcoming Water Industry Events

Staff Contact: Heather Hernandez-Fort, Executive Assistant to the General Manager

Note that the Board adopted Policy governing Director compensation and expense reimbursement section 200.20(g) states that Directors may receive a meeting stipend (currently $100.00) for "meetings, water industry events or office visits of a substantial duration concerning substantive District business as requested and approved for payment by the General Manager or the Board President…" Just because information is presented on upcoming water industry events, or regularly scheduled meetings of other water districts, does not necessarily imply that approval for a compensable meeting or reimbursement of expenses are triggered.

Below is a list of upcoming water industry events:

Upcoming Events

1. Resilience Planning and Adaptation Training for Water and Wastewater Utilities – Build Resilience to Extreme Wather Events
   June 25, 2019 OR June 27th
   Sacramento, CA
   https://www.sciencemissionsupport.com/creatcaliforniareg

2. CSDA Special District Leadership Academy Conference
   July 7 – 10, 2019
   Napa, CA
   https://members.csda.net/iMIS1/CSDA2/Shared_Content/Higher_Logic/HLEvents_Calendar.aspx

3. RWA Board Meeting
   July 11, 2019
   RWA Office
   http://rwah2o.org/

4. SGA Board Meeting
   August 8, 2019
   RWA Office
   http://www.sgah2o.org/meetings/board-meetings/

5. RWA Board Meeting
   September 12, 2019
   RWA Office
   http://rwah2o.org/

6. CSDA Annual Conference and Exhibitor Showcase
   September 25-28, 2019
   Anaheim, CA
   https://members.csda.net/iMIS1/CSDA2/Shared_Content/Higher_Logic/HLEvents_Calendar.aspx

7. SGA Board Meeting
   October 10, 2019
   RWA Office
   http://www.sgah2o.org/meetings/board-meetings/

8. Californi-Nevada AWWA – Fall Conference
   October 21-24, 2019
   San Diego, CA
   http://ca-nv-awwa.org/canv/CNS/Events_Classes/Future_Events/CNS/EventsandClasses/Copy_of_events.aspx?hkey=40976128-710b-4097-b27b-e35fe6133849

9. RWA Board Meeting
   November 14, 2019
   RWA Office
   http://rwah2o.org/

10. ACWA Fall Conference
    December 3-6, 2019
    San Diego, CA
    https://www.acwa.com/events/2019-fall-conference-exhibition/

11. SGA Board Meeting
    December 12, 2019
    RWA Office
    http://www.sgah2o.org/meetings/board-meetings/

Below is a partial list of local Water Purveyors Regular Board Meeting information and websites:

- Carmichael Water District: http://carmichaelwd.org/ - Every 3rd Monday of the month at 7:00 p.m.
- Citrus Heights Water District: http://chwd.org/ - Every 3rd Wednesday of the month at 6:30 p.m.
- Del Paso Manor Water District: https://www.delpasomanorwd.org/ (916)487-0419 - Every 1st Tuesday of the month at 6:30 p.m.
- El Dorado County Water Agency - http://www.edlafco.us/ - Every 4th Wednesday of the month at 5:30 p.m.
- El Dorado Irrigation District - http://www.eid.org/ - Every 2nd and 4th Monday's of the month at 9:00 a.m.
- Fair Oaks Water District: http://www.fowd.com/ - Every 2nd Monday of the month at 6:30 p.m.
- Natomas Mutual Water Company - http://natomaswater.com/ - Every 2nd Tuesday of the month at 9:00 a.m.
- Orangevale Water Company - https://orangevalewater.com/ - Every 1st Tuesday of the month at 4:00 p.m.
- Placer County Water Agency: https://pcwa.net/ - Every 1st and 3rd Thursdays of the month at 2:00 p.m.
- Rio Linda/Elverta Community WD: http://www.rlecwd.com/ - Every 3rd Monday of the month at 6:30 p.m.
- San Juan Water District: http://www.sjwd.org/ - Every 4th Wednesday of the month at 6:00 p.m.

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Agenda Item: 20. a.

Date: June 6, 2019

Subject: Upcoming Policy - Purchasing Card Policy (PL – Fin 006)

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

Recommended Board Action:
Review and provide comments to staff by Monday, July 1, 2019.

Discussion:
The Purchasing Card Policy (PL – Fin 006) was last reviewed by the Board in August 2017. Staff has only minor, housekeeping changes to the Policy. The Policy will be up for re-approval at the July 15, 2019 Board meeting.

Fiscal Impact:
Adoption of the Purchasing Card Policy will have no change to the District's financial position.

Strategic Plan Alignment:
Finance – 4.A. Monitor District operation through internal control procedures, documentation and such other processes necessary to ensure effective financial performance.

Sacramento Suburban Water District

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Purchasing Card Policy

Adopted: November 17, 2003
Ratified ~~Revised~~ with changes on: ~~August 15, 2005; May 21, 2007; June 15, 2009; June 18, 2012; May 19, 2014, May 16, 2016; August 21, 2017~~July XX, 2019

100.00 Purpose of the Policy

The purpose of this policy is to establish the Sacramento Suburban Water District's (District) requirements for procuring materials and trade services on credit through the use of purchasing cards.

100.10 Definitions

Purchasing Card (or CAL-Card) – merchant purchase authorization card issued by U.S. Bank National Association and administered by the State Department of General Services under the CAL-Card program.

Program Administrator – The District ~~Finance~~ Director of Finance and Administration is responsible for and has oversight of the CAL-Card program for the District.

Approving Official – A Cardholder's supervisor, manager or designee, having purchase approval authority.

Billing Official – The District's ~~Finance~~ Director of Finance and Administration or designee is responsible for managing the billing, payment and approval process of the CAL-Card program for the District.

Cardholder – Selected District employees as determined by the General Manager. Cardholders are responsible for using issued purchasing cards in accordance with District policies and procedures.

200.00 Authorized Purposes

District purchasing cards are provided solely for the purpose of obtaining authorized District goods and services. No other uses of District purchasing cards are permitted.

Purchasing cards are never to be used for personal transactions. Any employee who mistakenly or otherwise uses or authorizes the use of District purchasing cards for

unauthorized purposes will be required to immediately reimburse the District for the purchase and may be subject to disciplinary action at the discretion of the General Manager as provided in Water Code Section 30580(b). If the employee cannot repay the unauthorized amount immediately and the District is required to use the "VISA Waiver of Liability," the employee will still be required to pay the District in full for the purchase and become subject to disciplinary action as described above.

200.10 Authorized Users and Purchasing Limits

Authorized Cardholders are certain District employees designated by the General Manager. Purchasing limits for Cardholders shall be established at no greater than $5,000 per single transaction and $15,000 per 30-day limit, which are set to coincide with fraudulent insurance coverage amounts ~~as~~ provided under the Cal-Card program.

Cardholders are to: 1) follow the processes and policies established by "Purchasing Card Procedures (PR – FIN 003)" and the District's "Procurement Policy (PL – FIN 005)", 2) document the receipt of goods or services, 3) receive monthly statements from U.S. Bank, review invoices on the statement, attach receipts, shipping orders, and other District required documentation, and 4) sign the Statement of Account before forwarding to the Approving Official each month.

If a purchasing card is lost or stolen, the cardholder must report the lost or stolen card to the Finance Department and U.S. Bank immediately.

200.20 Areas of Responsibilities

The District's Program Administrator shall have overall responsibility for the purchasing card program within the District. The Administrator shall see that this policy is followed at all times and shall provide training to all Approving Officials and Cardholders as necessary.

Approving Officials shall be responsible for receiving statements from each Cardholder over whom they have authority each time a statement is received. Approving Officials are responsible for reviewing the statements, assuring all purchases are authorized and comply with District Purchasing Card Procedures and the Procurement Policy, and sign and forward the statements to the Finance Department in a timely manner.

The Billing Official is responsible for receiving the Monthly Summary Invoice from U.S. Bank, reconciling the Invoice to the cardholder statements and remitting payment to U.S. Bank in a timely manner.

300.00 Reporting

A detailed listing of all transactions made using District purchasing cards shall be provided to the Board as part of the monthly Finance Report.

400.00 Policy Review

This policy shall be reviewed at least biennially.

SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 20. b.

Date: June 3, 2019

Subject: Upcoming Policy Review - Impaired Capital Asset Policy (PL - Fin 008)

Staff Contact: Daniel A. Bills, Finance Director

Discussion:
Included with this report is the updated Impaired Capital Asset Policy (PL - Fin 008) for the Board's review and comment. The Impaired Capital Asset Policy was last reviewed in July 2017. Staff and the District's independent auditors have reviewed the Policy and have no recommended changes.

This policy will be brought before the Board for consideration at the July 2019 regular Board meeting. All Director comments received by the end of business on Monday, July 1, 2019, will be included in the draft version for the July 2019 meeting.

Sacramento Suburban Water District

Impaired Capital Asset Policy

Adopted: July 16, 2007
~~Amended:~~Ratified without changes on: ~~August 15, 2011, September 16, 2013, September 21, 2015; August 21, 2017~~July XX, 2019

100.00 Purpose of the Policy

To implement the requirements of Governmental Accounting Standards Board (GASB) Statement No. 42, "Accounting and Financial Reporting for Impairment of Capital Assets and for Insurance Recoveries" (GASB 42).

200.00 Policy

The District will implement procedures to conform to the requirements of GASB 42.

GASB 42 established accounting and financial reporting standards for impairment of capital assets. A capital asset is considered impaired when its service utility (design capacity or capability) has declined significantly and unexpectedly.

300.00 Capital Asset Impairment Evaluation

The requirements of GASB 42 only apply to capital assets with material carrying values. If the District has material capital assets that are impaired or potentially impaired, a determination needs to be made as to whether the impairment loss should be reported and disclosed.

400.00 Policy Review

This policy shall be reviewed at least biennially.