SCOTTS VALLEY WATER DISTRICT

AGENDA PACKET

REGULAR BOARD MEETING
05/14/20 at 5:00 p.m.

The Board of Directors meeting on 05/14/20 will be conducted exclusively in remote access format in compliance with Executive Order N-29-20 issued by Governor Newsom, and the County of Santa Cruz Health Services Agency Shelter-in-Place Order.

Join the meeting

Access the meeting from a computer, tablet or smartphone at the link below

https://global.gotomeeting.com/join/177008133

Phone call-in is available by dialing: +1 (312) 757-3121 Access Code: 177-008-133

Remote access will be open 15 minutes before the start of the meeting.

BOARD OF DIRECTORS

Wade Leishman, President
Bill Ekwall, Vice President
Chris Perri, Director
Danny Reber, Director
Ruth Stiles, Director

Noelle Downing, Associate Director
Annie Finch Associate Director

Piret Harmon, General Manager

Water Industry Acronyms

AF – Acre Foot
AFY – Acre Foot per Year
ACWA – Association of California Water Agencies
ACWA JPIA – ACWA Joint Powers Insurance Authority
AWWA – American Water Works Association
BMP – Best Management Practices
CCR – Consumer Confidence Report
CD – Certificate of Deposit
CEQA - California Environmental Quality Act
CSDA – California Special District Association
DHS - Department of Health Services
DWR – Department of Water Resources
EIR – Environmental Impact Report
EPA – Environmental Protection Agency
GASB – Governmental Accounting Standards Board
IRWM – Integrated Regional Water Management
JPA – Joint Powers Agreement
LAIF – Local Agency Investment Fund
LAFCO – Local Agency Formation Commission
LID – Low Impact Development
MCL – Maximum Containment Level
MGD – Million Gallons per Day
MGY – Million Gallons per Year
MOU – Memorandum of Understanding
O&M – Operations and Maintenance
PERS – Public Employees Retirement System
PHG – Public Health Goal
PPB – Parts Per Billion
PRV – Pressure Relief Valve
PVC Pipe – Polyvinyl Chloride Pipe
RWMF – Regional Water Management Foundation
RFP – Request for Proposals
ROW – Right-of-way
RWQCB – Regional Water Quality Control Board
SCWD – Santa Cruz Water Department (City of)
SDWA – Safe Drinking Water Act
SGMA – Sustainable Groundwater Management Act
SLVWD – San Lorenzo Valley Water District
SMGWA – Santa Margarita Groundwater Agency
SqCWD – Soquel Creek Water District
SWRCB – State Water Resources Control Board
TP – Treatment Plant

SCOTTS VALLEY WATER DISTRICT

Board of Directors

Regular Meeting

05/14/20 at 5:00 p.m.

Agenda

The Board of Directors meeting on 05/14/20 will be conducted exclusively in remote access format in compliance with Executive Order N-29-20 issued by Governor Newsom, and the County of Santa Cruz Health Services Agency Shelter-in-Place Order.

Join the meeting

Access the meeting from a computer, tablet or smartphone at the link below

https://global.gotomeeting.com/join/177008133

Phone call-in is available by dialing: +1 (312) 757-3121 Access Code: 177-008-133

Remote access will be open 15 minutes before the start of the meeting.

1. Convene

1.1. Call to Order and Roll Call

1.2. Closed Session Report (No closed session on 04/09/20)

1.3. Additions/Deletions to the Agenda

1.4. Oral Communications

2. Administrative

2.1. Presentations

Wastewater Enterprise Status Report

Tina Friend, City Manager, City of Scotts Valley

Water Use Efficiency Biannual Activity Report

LeAnne Ravinale, Water Use Efficiency Coordinator

2.2. Approval of Minutes

04/09/20 Regular Board Meeting

2.3. Committee and other Agency Meeting Reports

Executive & Public Affairs Committee (none)

Finance & Personnel Committee 04/21/20

Interagency Committee (none)

Water Resources & Engineering Committee 04/20/20

Santa Margarita Groundwater Agency (SMGWA) Board 03/26/20 and 04/23/20

2.4. Covid-19 Business Decisions Updates

Social Distancing, Sanitation and Safety Protocols – COVID-19 Pandemic

3. Consent

3.1. Sequoia Tank Interior Recoating Contract Agreement Amendment

Recommendation: Ratify the amendment to the 02/01/20 contract agreement with Euro Style Management (ESM) in the amount of $132,080.

3.2. Water Use Efficiency Think Twice Program 2020 and Rebate Program 2020 Updates

Recommendation: 1) Approve the Think Twice Water Use Efficiency Program; and 2) Approve the Rebate Program.

4. Public Hearings (none)

5. Business

5.1. Water Supply Outlook and Demand Strategy 2020

Recommendation: Establish Stage 2 Water Supply Conditions for Water Year 2020.

5.2. Capital and Maintenance Projects FY 2021-2025 Budget Projection

Recommendation: Receive information and provide input.

5.3. Fiscal Year 2021 Proposed Budget Summary

Recommendation: Receive information and provide input.

5.4. 11/03/20 Statewide General Election

Recommendation: Adopt Resolution No. 04-20 to order an election, request Santa Cruz County Elections Department to conduct election, request to consolidate it with other jurisdictions holding an election on 11/03/20; and authorize the filing of Notice to County Clerk of Elective Offices to be Filled and Transmittal of Map and Boundaries.

6. Staff Reports

6.1. Legal
District Counsel - oral

6.2. Administrative
General Manager - oral

6.3. Finance
Financial Reports 07/01/19 through 03/31/20

6.4. Operations

Operations Report - oral
Production, Demand and Rainfall Data through 04/30/20
Leak Adjustment Program Report 07/01/19 through 03/31/20

6.5. Water Use Efficiency

Biannual Activity Report 11/01/19 through 03/31/20

7. Directors Reports

Travel and Meetings
ACWA and ACWA/JPIA Updates
Other

8. Written Correspondence

Financial Impact of the COVID-19 Crisis on U. S. Drinking Water Utilities, Raftelis 04/14/20

COVID-19 Relief & Recovery: Guiding Principles to Secure Our Water Future, U. S. Water Alliance 04/21/20

Scotts Valley Water District Request for COVID-19 Federal Relief Funding, Scotts Valley Water District 04/24/20

2019 Commercial & Agricultural Annual Benefits Summary, Monterey Bay Community Power, 05/04/20

9. Community Relations

Newsletter, Scotts Valley Water District April 2020

Coronavirus: Water Agencies across Santa Cruz County Study Budgets, Sentinel 05/06/20

10. Closed Session (None)

11. Report on Closed Session and Additional Items (None)

12. Future Items

Fiscal Year 2021 Budget
Policy Updates: Qualifying Medical Needs Rate and Water Waste
Program Updates: Rate Assistance and Leak Adjustment

13. Meetings and Event Calendar

Regular Board Meetings
Remote Access Only

06/11/20
07/09/20
08/13/20

Committee Meetings
Remote Access Only
05/18/20 Executive & Public Affairs
05/18/20 Finance & Personnel
05/19/20 Water Resources & Engineering
06/04/20 Interagency

Santa Margarita Groundwater Agency Board
Regular Board Meetings
Remote Access Only
05/28/20
06/25/20
07/23/20

Association of California Water Agencies (ACWA) Events
06/10/20 – 06/11/20 3rd Annual GSA Summit Virtual Conference
06/24/20 – 06/25/20 2020 WateReuse California Virtual Conference
07/28/20 – 07/31/20 ACWA Summer Conference Monterey
12/01/20 – 12/04/20 ACWA Fall Conference Indian Wells

14. Adjourn

The next regular meeting of the Scotts Valley Board of Directors is scheduled for 06/11/20 at 7:00 p.m.

AVAILABILITY OF PUBLIC RECORDS PROVIDED TO THE BOARD OF DIRECTORS: THE DISTRICT WILL MAKE AVAILABLE FOR PUBLIC REVIEW ANY PUBLIC RECORDS FURNISHED TO THE BOARD OF DIRECTORS AT THE SAME TIME SUCH RECORDS ARE FURNISHED TO THE BOARD OF DIRECTORS. **SUCH RECORDS SHALL BE AVAILABLE AT THE DISTRICT OFFICE DURING NORMAL BUSINESS HOURS.**

PUBLIC ACCESS – ACCOMMODATIONS UNDER THE ADA: PURSUANT TO TITLE II OF THE AMERICANS WITH DISABILITIES ACT OF 1990, THE SCOTTS VALLEY WATER DISTRICT REQUESTS THAT ANY PERSON IN NEED OF ANY TYPE OF SPECIAL EQUIPMENT, ASSISTANCE OR ACCOMMODATION(S) IN ORDER TO EFFECTIVELY COMMUNICATE AT THE DISTRICT'S PUBLIC MEETING PLEASE MAKE SUCH A REQUEST TO THE DISTRICT OFFICE AT THE ABOVE ADDRESS OR BY CALLING (831) 438-2363 A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE SCHEDULED MEETING. ADVANCE NOTIFICATION WITHIN THIS GUIDELINE WILL ENABLE THE DISTRICT TO MAKE REASONABLE ARRANGEMENTS TO ENSURE ACCESSIBILITY.

Scotts Valley Water District
Board of Directors
Regular Meeting
04/09/20 at 5:00 p.m.
Minutes

1. Convene

The Board of Directors meeting on 04/09/20 was conducted exclusively in a remote access format in compliance with Executive Order N-29-20 issued by Governor Newsom, and the County of Santa Cruz Health Services Agency Shelter-in-Place Order. The meeting was available from computer, tablet or smartphone at this link https://global.gotomeeting.com/join/545517101 and by telephone by dialing: (224) 501-3412 Access Code: 545-517-101

1.1 Call to Order and Roll Call

President Leishman called the meeting to order at 5:08 p.m. by remote access only.

Directors	Staff
Bill Ekwall	Bob Bosso, Legal Counsel
Wade Leishman	Piret Harmon, General Manager
Chris Perri	Nick Kurns, Finance and Customer Service Manager
Danny Reber	David McNair, Operations Manager
Ruth Stiles	Donna Paul, Assistant to Gereral Manager
Associate Directors	**Audience**
Annie Finch	Three guests
Absent	
Noelle Downing	

1.2 Additions/Deletions to the Agenda

None.

1.3 Oral Communications

None.

2. Administrative

2.1 Approval of Minutes

03/12/20 Regular Board Meeting

MOTION carried to approve the minutes of the 03/12/20 Regular Board Meeting by unanimous roll call vote.

2.2 Committee and Other Agency Meeting Reports

Executive & Public Affairs Committee

None.

Finance & Personnel Committee 03/17/20
President Leishman reported that staff presented information on customer account types that is included in the meeting report and Director Perri reported that a class for single family no landscape was discussed.

Interagency Committee
None.

Water Resources & Engineering Committee 03/16/20
There was nothing further to add to the written report.

Santa Margarita Groundwater Agency (SMGWA) Board 03/26/20
Director Perri reported that groundwater levels and quality were discussed. General Manager Harmon reported that this meeting was the first meeting in the County to be held in a remote access format and very successful. Nick Wallace should be acknowledged for all of his efforts.

2.3 Settlement of Bid Retraction, Advanced Industries
Legal Counsel Bosso reported the District and Advanced Industries reached a settlement on the Bid Retraction for the Sequoia Tank Rehabilitation Project.

2.4 COVID-19 Business Decisions
General Manager Harmon, Operations Manager McNair and Finance and Customer Service Manager Kurns provided information and responded to Board questions and comments.

3. Consent

None.

4. Public Hearings

None.

5. Business

5.1 Leak Adjustment Appeal 4865 Scotts Valley Drive

MOTION carried to deny the leak adjustment for 4865 Scotts Valley Drive by unanimous roll call vote.

5.2 Leak Adjustment Appeal 612 Grace Way

MOTION carried to deny the leak adjustment for 612 Grace Way by unanimous roll call vote.

5.3 Water Supply Outlook 2020

The Board reviewed and discussed the Water Supply Outlook 2020.

5.4 District's FY 2021 Work Plan

The Board reviewed and discussed the FY 2021 Draft Work Plan.

MOTION carried to accept the FY 2021 Work Plan by unanimous roll call vote.

5.5 Volunteer Workers' Compensation Insurance

MOTION carried to adopt Resolution No. 03-20 providing workers' compensation coverage for District volunteers and rescinding Resolution No. 15-97 by unanimous roll call vote.

6. Staff Reports

6.1 Legal

District Counsel Bosso reported that there were no new legal cases and that he and District Managers have been busy with new legislation and executive orders related to the COVID-19 pandemic.

6.2 Administration

General Manager Harmon reported the she is hopeful that City Manager Friend will be able to report on the Wastewater Enterprise at the May meeting.

6.3 Finance

Financial Reports 07/01/19 through 2/29/20
The financial reports were recieved without comment.

6.4 Operations

Operations Report
Operations Manager McNair reported that he is looking for hand sanitzer and masks for operatons staff. He has received the price for the open halo repair for the Sequoia Tank project.

Production, Demand and Rainfall Reports through 01/31/20
The production, demand and rainfall reports were received without comment.

Leak Adjustment Program Report 07/01/19 through 01/31/20
The leak adjument program report was received without comment.

7. Directors Reports

Individual Directors Reports

Director Stiles reported she has been attending online trainings.

8. Written Correspondence

House Natural Resources Committee Passes Water Recycling Investment and Improvement Act of 2019 (HR 1162) Water Reuse 03/11/20

The written communications were accepted without comment.

9. Community Relations

Newsletter, Scotts Valley Water District
Connecting the Dots: SV High School Career Exploration Program, Press Banner 03/06/20
The Great Water Main Break, Montevalle Mirror 02/29/20

The community relations items were accepted without comment.

10. Closed Session

None.

11. Report on Closed Session and Additional Business

None.

12. Future Items

City Wastewater Enterprise Status Report, Tina Friend (Rescheduled from April)
Biannual Water Use Efficiency Activity Summary
2020 Water Supply Outlook
Fiscal Year 2021 Budget
Proposed Projects Budget
Notice of Election on 11/03/20 (May/June)

13. Meetings and Event Calendar

Regular Board Meetings

Remote Access Only

05/14/20
06/11/20
07/09/20

Committee Meetings

Remote Access Only

04/20/20 Executive & Public Affairs
04/21/20 Finance & Personnel
04/20/20 Water Resources & Engineering
06/05/20 Interagency

Santa Margarita Groundwater Agency Board

Regular Board Meetings
Remote Access Only

04/23/20
05/28/20
06/25/20

Association of California Water Agencies (ACWA) Events

07/28/20 – 07/31/20 Spring Conference Monterey
12/01/20 – 12/04/20 Fall Conference Indian Wells

14. Adjourn

The meeting adjourned at 6:44 p.m.

Approved: Attest:

Wade Lieshman, Board President Piret Harmon, Board Secretary

SCOTTS VALLEY WATER DISTRICT

svwd.org svwater

Finance and Personnel Committee
04/21/20 4:00 p.m.
Meeting Report

1. Convene

The meeting convened at 4:03 p.m. and was conducted exclusively by video-teleconferencing in compliance with Executive Order N-29-20 issued by Governor Newsom and the Santa Cruz Health Service Agency Shelter-in-Place Order.

Present: Director Leishman, Director Perri and Community Member Callahan.
Staff: General Manager Harmon, Finance and Customer Service Manager Kurns, Assistant to General Manager Paul.
Others: Director Ekwall (observer) and Associate Director Downing (observer).

2. Discussion Items

2.1 Financial Reports 07/01/19 through 03/31/20

The financial reports were reviewed and discussed.

2.2 Draft FY 2021 Operating Budget

The Draft FY 2021 Operating Budget was reviewed and recommended for Board approval unless there are significant changes made to the current document.

2.3 COVID-19 Utility Billing Options

The conceptual COVID-19 Utility Bill Payment Plan was reviewed and discussed.

3. Oral Communications

Staff reported on a significant billing error that was found on a landscape account. Since 2018, the account was billed for only one tenth of actual consumption with a value of over $70,000.

Future Agenda Items

Policy Review: Qualifying Medical Needs Rate Update
Program Review: Rate Assistance
Final Review FY 2021 Operating and Capital Budget
Program Review: Identity Theft Prevention Program

4. Adjourn

The meeting adjourned at 5:20 p.m. The next meeting is scheduled at 4:00 p.m. on 05/19/20.

SCOTTS VALLEY WATER DISTRICT

svwd.org svwater

Water Resources and Engineering Committee

04/20/20 10:00 a.m.

Meeting Report

1. Convene

   The meeting convened at 10:01 a.m. and was conducted exclusively by video conferencing in compliance with Executive Order N-29-20 issued by Governor Newsom and the Santa Cruz Health Service Agency Shelter-in-Place Order.

   Present: Director Reber, Director Stiles and Community Member Krotcov.
   Staff: General Manager Harmon, Finance and Customer Service Manager Kurns, Operations Manager McNair, Assistant to General Manager Paul and Water Use Efficiency Coordinator Ravinale (telephone only).
   Others: Director Ekwall (observer)

2. Business Items

   2.1 Water Supply Outlook 2020

   The Committee reviewed and discussed the water supply outlook.

   The Committee recommends the demand-supply analysis be presented to the Board at its next meeting; the Board declares Stage 2 Water Supply Conditions for Water Year 2020 and elects not to implement a drought surcharge due to the COVID-19 pandemic.

   2.2 Proposed Projects Program FY 2021 - 2025

   The Proposed Projects Program, FY 2021 – 2015 was presented by Operations Manager McNair and General Manager Harmon.

   The Committee recommends the Board approve the Proposed Projects Program FY 2021 – 2025.

3. Discussion Items

   3.1 Leak Adjustment Program Report 07/01/19 through 03/31/20

   The Committee reviewed the report.

3.2 Program Review: Think Twice and Rebates

The Committee reviewed and discussed the Think Twice and Rebate programs

4. Oral Communications

Director Stiles inquired if the day and time is still convenient for all members and suggested a 10:30 a. m. starting time.

5. Future Agenda Items

Policy Review: Water Waste
Program Review: Leak Adjustment
New Formation Well: Property Acquisition
Acquisition of Monitoring Wells from Aviza Property
Urban Water Management Plan Update

6. Adjourn

The meeting adjourned at 11:10 a.m. The next meeting is scheduled for 05/18/20 at 10:30 a.m.

SANTA MARGARITA Groundwater Agency

smgwa.org

Board Meeting Recap: March 2020

SMGWA Board Reviews Groundwater Quality Goals

Santa Margarita Groundwater Agency held its first-ever all-remote-access meeting Thursday, March 26, 2020, due to the Santa Cruz County Shelter-in-Place Order amidst to the coronavirus outbreak. About 30 people, including SMGWA board members, attended.

The informational session for this meeting focused on groundwater demand projections, building the foundation to move on to the next sustainability indicator – groundwater level – and groundwater quality, state-required elements of the Sustainable Management Criteria (SMC) within the Groundwater Sustainability Plan (GSP). The presentations were led by Georgina King of Montgomery & Associates and Piret Harmon, General Manager of the Scotts Valley Water District.

The presentation covered significant and unreasonable conditions, measurable objectives and undesirable results for water quality. King summarized that "significant and unreasonable" water quality conditions occur if SMGWA projects, or management activities cause, an increase in the concentration of constituents (chemical components) in groundwater that lead to non-compliance with drinking water standards. This could create adverse impacts on beneficial users or uses of groundwater or surface water. Diminished water supply or undue costs for mitigating such negative impacts are examples of additional adverse impacts that could occur.

King explained it's important to understand that SMGWA is only responsible for adverse effects on water quality conditions caused by agency projects and management actions. For example, if SMGWA recommended, and partner agencies moved forward with, injecting treated water into the aquifer, this action should not have a negative impact on water quality.

Increasing water quality testing through more-frequent sampling from municipal wells, as well as adding sampling from monitoring wells, would help track water quality impacts as basin sustainability projects are implemented.

Because the majority of the basin's beneficial users are municipal and domestic water use, King recommended SMGWA use current drinking water standards as the agency's water quality desired result. This water quality level also would need to be adequate for fish habitat. She also made specific recommendations for measurable objectives for constituents found in groundwater in the basin. Generally, the recommendations are to use the average concentration of constituents from the last 10 years as the goal, with the understanding that some are naturally occurring and variable. If the concentration of constituents caused by human activities did increase as a result of SMGWA activities, this would be an undesirable result and a significant impact on basin water users.

The final GSP for the Santa Margarita Basin is due to the State Department of Water Resources in January 2022.

Due to COVID-19 and the current Shelter-in-Place order for Santa Cruz County, the next SMGWA Board of Directors meeting also will be via remote access only. That meeting will be held Thursday, April 23 at 5:30 p.m. More information at smgwa.org.

San Lorenzo Valley WATER DISTRICT

THE COUNTY OF SANTA CRUZ · 1850 ·

SCOTTS VALLEY WATER DISTRICT

SANTA MARGARITA Groundwater Agency
smgwa.org

BOARD MEETING RECAP: APRIL 2020

SMGWA Board of Directors Dive into Groundwater Level Discussion

Santa Margarita Groundwater Agency's April board meeting was held Thursday, April 23. The meeting, including time for public comment and participation on each agenda item, was conducted via all-remote, web- and phone-based access due to the Santa Cruz County Shelter-in-Place Order response to the coronavirus outbreak.

The meeting's informational session centered on groundwater levels, including both historical and current conditions, as well as the agency's goals for future groundwater levels. Evaluating groundwater levels is one of the state-required elements of the Sustainable Management Criteria (SMC) in the Groundwater Sustainability Plan (GSP). The presentation was led by Georgina King of Montgomery & Associates.

The Santa Margarita Basin includes four primary aquifers: Santa Margarita aquifer, Monterey formation, Lompico aquifer and Butano aquifer. Each has unique characteristics and a particular set of users.

- The aquifer closest to the surface is the Santa Margarita. It is about 100 feet deep and is the most vulnerable to fluctuations in climate conditions. That means it recharges the fastest during periods of rainfall, but also depletes the most quickly during dry times or when lots of pumping occurs. Most private well owners draw from this aquifer.
- The next aquifer down is the Monterey formation, which is not a true aquifer and a very few wells pump from it. It is a clay layer found is limited areas of the basin.
- The third layer down, the Lompico aquifer, is the main source of supply for local water districts. It is generally found around depths of 500-700 feet below the surface.
- Finally, the Butano aquifer is deepest and occurs at around 1,000 feet below the surface of the valley floor. Currently, only the Scotts Valley Water District extracts water from this aquifer.

The aquifers aren't evenly deposited throughout the basin. Rather, the underground bowl-shaped basin supports varying levels and depths of each aquifer in different areas. The deeper layers are exposed to the land surface in the upgradient of hillsides, which are the principal recharge zone for these aquifers.

As a required element of the GSP, the SMGWA board must set minimum thresholds for groundwater levels in the basin as well as measureable objectives to ensure the basin's sustainability. The board provided input on the significant and unreasonable conditions that will be used to develop a draft qualitative statement for board review.

During another agenda item at the meeting, the board reviewed the 2020-21 fiscal year budget. The total proposed budget is $1.185 million including $645,000 in Technical Services; $116,000 in Facilitation and Outreach Services; $65,000 in Administrative Support Services; and $300,000 to establish a Basin Monitoring Network. Two-thirds of the budget will be funded by a state Department of Water Resources grant and the rest comes from member agency contributions: SVWD 60%, SLVWD 30% and County of Santa Cruz 10%.

The next SMGWA Board of Directors meeting will be held Thursday, May 28 at 5:30 p.m. More information at smgwa.org.

San Lorenzo Valley WATER DISTRICT

THE COUNTY OF SANTA CRUZ · 1850 ·

SCOTTS VALLEY WATER DISTRICT

Scotts Valley Water District
SOCIAL DISTANCING, SANITATION AND SAFETY PROTOCOLS – COVID-19 PANDEMIC
MAY 2020

Scotts Valley Water District has implemented the following Safety and Social Distance protocols in compliance with the County of Santa Cruz "Shelter-in-Place" Order issued by the County Public Health Officer on March 31, 2020.

Signage:
The District has closed the Administration office to all public access and has posted signs on the public entrance of such. As such, public access is limited to only essential deliveries and entrances have signs posted which inform all employees and delivery personnel that they should not enter if they have a cough or fever; maintain a minimum six-foot distance from one another; sneeze and cough into a cloth or tissue or, if not available, into one's elbow; and not shake hands or engage in any unnecessary physical contact.

The District facilities including the El Pueblo Yard are secured facilities and not open to public access. Only essential deliveries are accepted by select suppliers such as treatment chemicals and supplies. Delivery personnel have been informed that they should not enter the facility if they have a cough or fever; maintain a minimum six-foot distance from one another; sneeze and cough into a cloth or tissue or, if not available, into one's elbow; and not shake hands or engage in any unnecessary physical contact.

Measures to Protect Employee Health:
The District has deployed the following measures to ensure employee safety and combat the spread of COVID-19 infection:

- All employees have been instructed not to come to work if sick.
- Symptom checks according to County Public Health directives are required before employees are authorized to return to work from illness.
- All occupied desks or individual workstations are separated by at least six feet.
- Break rooms, bathrooms, and other common areas (hard surfaces, e.g: switches, security keypads, fixtures, doorknobs, kitchen appliance handles, etc.) are being disinfected frequently, on the following schedule
  Break Rooms:
  Civic Center - throughout the day after use by on-site employees
  El Pueblo - throughout the day after use by on-site employees
  Rest Rooms:
  Civic Center - throughout the day after use by on-site employees
  El Pueblo - throughout the day after use by on-site employees
  Conference Rooms:
  Civic Center – after the use by the employee who has occupied the room
- Disinfectant and related supplies are available to all employees at the following location(s):
  Soap and water are available to all employees at the following location(s): Civic Center office bathrooms and breakroom; El Pueblo office bathrooms and breakroom
- Gloves are available and in use by employees collecting drop-box payments and mail.
- Office employees wear masks/facial coverings when in common area and when coming in close proximity with customers or other employees.

- Operations employees when working outside of individual vehicles wear masks/facial covering.
- Operations employees when necessary to work together closely at a job site wear N95 masks and gloves.
- Other measures: Outside cleaning services are continuing to provide general cleaning, with a directed focus on disinfection and mitigating spread of infection.

Measures to Prevent Crowds from Gathering:

- Administration Office and Santa Margarita Community Room are closed for public access.
- Public meetings are conducted electronically, using remote access.
- Operations employees deploy to vehicles rather than gathering in office at the beginning of each day.
- Managers and Supervisors are conducting remote access meetings with employees as practicable.

Measures to Keep People at Least Six Feet Apart:

- Employees are authorized to work at home if work duties can be conducted remotely.
- Signs are posted outside on the Administration Office entrances reminding people the District office is closed and to conduct public business online or by telephone during normal business hours.
- Employees are instructed to maintain at least six feet distance from customers and from each other, except employees may momentarily come closer when necessary to accept, transfer or deliver items, goods or services, or as otherwise necessary.
- Operations employees are using individual vehicles with only one person in a vehicle at all times.

Measures to Prevent Unnecessary Contact:

- Customers are provided information and encouraged to use contactless services: online, phone and mail in payments; online information and applications; customer service inquiries by phone and email.

Measures to Increase Sanitization:

- Disinfecting products that are effective against COVID-19 have been distributed within each Division and available in common areas.
- On-site employees are assigned to disinfect high-touch areas regularly and outside cleaning service has been directed to focus on disinfection cleaning practices and mitigating potential spread of infection.
- Soap and water, hand sanitizer, and effective disinfectant products are available to employees at all facilities.
- Incoming mail including drop box payments and deliveries are being quarantined for 24 hours.
- Disinfecting all high-contact surfaces frequently.
- Disinfecting all vehicles after each use.
- Frequent disinfection of personal communications devices and technology tools (e.g: radios, laptops, tablets, cell phones, etc.) and daily at the end of shift.

Notification:

Copies of this Protocol have been distributed to all employees. You may contact the following person with any questions or comments about this protocol:

Name: Piret Harmon, General Manager. **Phone number:** (831) 600-1902 **Email:** pharmon@svwd.org

AGENDA REPORT

Scotts Valley Water District

Date: 05/14/20

To: Board of Directors

Item: Consent 3.1

Subject: **Sequoia Tank Interior Recoating Contract Agreement Amendment**

Reason: Complies with Administrative Code, Chapter 3.10 Purchasing and Contracting

SUMMARY

Recommendation: Ratify the amendment to the 02/01/20 contract agreement with Euro Style Management (ESM) in the amount of $132,080.

Fiscal Impact: The combined total of the original contact and the amendment is $669,080. Funds are available in the FY 2020 Capital and Maintenance Projects Program budget.

Previous Related Action: On 12/12/19 the Board authorized the General Manager to execute an agreement with Euro Style Management in the amount of $537,000 for the interior recoating of Sequoia Tank.

BACKGROUND

The interior coating replacement work for Sequoia Tank began on 2/17/20.

DISCUSSION

Work to remove the old coating from around the center column ventilation system revealed extensive corrosion to the roof rafter support structure. On 4/8/20 the District received a not-to-exceed time and material quote in the amount of $132,080 based on the corrosion repair specifications and drawings prepared by MME Civil + Structural Engineering and executed a contract amendment to assure the timely completion of the project.

Submitted,

David McNair
Operations Manager

AGENDA REPORT

Scotts Valley Water District

Date: 05/14/20

To: Board of Directors

Item: Consent 3.2

Subject: **Water Use Efficiency Program Think Twice 2020 Update and Rebate Program 2020 Update**

Reason: Supports District's Strategic Goal – Water Resource Management

SUMMARY

Recommendation: 1) Approve the Think Twice Water Use Efficiency Program; and
2) Approve the Rebate Program.

Fiscal Impact: Direct cost of the activities in the 2020 Think Twice Program is approximately $50,000. The funds are either available in FY 2020 budget or appropriated in the proposed FY 2021 budget.

Previous Related Action: On 05/09/19, the Board approved the Think Twice Water Use Efficiency Program Update and the Rebate Program Update.

On 04/09/20 the Board received information on 2020 Water Supply Outlook as of 03/31/20

BACKGROUND

The District has been persistently and continuously promoting water use efficiency for years. In response to the four-year drought, the District reduced its system-wide potable demand 21% by October 2016 from baseline of water year (WY) 2013 and has sustained roughly the same level of system wide water use since then.

The District's Water Shortage Contingency Plan (WSCP) is included in its 2015 Urban Water Management Plan. The Water Shortage Contingency Plan stipulates a four-stage demand reduction plan with the amount of rainfall in a given year or series of years being the basis for defining the stages of action that are further evaluated based on groundwater levels and basin condition. After thorough consideration of the above mentioned criteria, the Board establishes the appropriate Water Supply Conditions each spring for remainder of the water year (high-season).

DISCUSSION

The District's Water Efficiency Program Think Twice and Rebate Program are the main tools that guide District's activities in support of maximizing the efficient use of water and achieving the demand reduction goals as determined by the Water Supply Conditions assessment.

Staff reviewed the current program components and recommends no changes.

Submitted,

Piret Harmon
General Manager

Enclosed: Think Twice Water Efficiency Program
Rebate Program

SCOTTS VALLEY WATER DISTRICT
svwd.org svwater

Program

Type of Program:	Water Use Efficiency
Program Title:	**Think Twice**
Description:	Establishes a set of activities to support the District's long-term sustainable water supply planning efforts

Approved Date:	05/14/20	**Last Review Date:**	05/09/19
Next Review Date:	05/01/21		

The program outlines a multi-pronged approach that increases awareness about indoor and outdoor water use efficiencies, promotes water efficient behaviors, and continuously reduces water waste.

Program components:

1) **Education & Outreach**
- Free house calls to provide consultation and devices for efficient water use
- District participation in county-wide conservation coalition activities
- Public speaking and local media placements
- Irrigation scheduling guidelines
- Pre-rinse spray valve project - repeat in five years (2023)
- Community outreach at Scotts Valley Farmers Market, and/or other events

2) **Rebates**
Rebates on a variety of activities and equipment and free devices, which enhance water use efficiencies, that are available to District's customers in good standing (see Rebate Program).

3) **Water Waste Policy**
Implementation and enforcement of the District Policy on Water Waste (P500-15-1)

4) **Water Targets for Potable Landscape Accounts**
Evaluate feasibility and effectiveness of a program that sets water targets for landscape customers.

SCOTTS VALLEY WATER DISTRICT
svwd.org svwater

Program

Type of Program:	Water Use Efficiency		
Program Title:	**Rebates**		
Description:	Establishes guidelines for indoor and outdoor water efficiency rebates		
Approved Date:	05/14/20	**Last Review Date:**	05/09/19
Next Review Date:	05/01/21		

Available to District potable water service customers in good standing who meet guidelines. Rebates may be carried out as account credit and/or cash rebate. Annual budget appropriations are used as default program funding limits unless Board approves maximum allowances for specific rebates or for the overall program.

Before purchasing any materials or labor for rebates, it is the customer's responsibility to contact the District (website, email or phone) for specific eligibility requirements.

Lawn or Impervious Hardscape (including Pools) Replacement - $1.00 per square foot

For replacement of existing irrigated lawn or impervious surface material such as concrete, asphalt and in-ground pools or spas, with any combination of low water use plants, mulch, artificial turf, or pervious hardscape.

Existing high-volume irrigation must be permanently disabled or converted to low volume or sub-surface irrigation. District will also consider low water turf blends or low water groundcover if paired with subsurface or rotary small-stream spray irrigation.

Spray Irrigation Replacement - $0.50 per square foot

For replacement of existing high-volume sprinkler system with low-volume irrigation such as drip, micro-spray, or bubbler emitters. Sprinkler valves and heads no longer in use must be removed and glue-capped. Low volume and high-volume irrigation may not be mixed on the same valve.

Spray to Rotator Nozzle Replacement - $10 each

For replacement of existing high-volume overhead sprayers with small stream rotary/rotator nozzles. Existing sprayhead body must be same manufacturer as new rotator nozzle and zone cannot mix high and low volume nozzles.

Greywater Irrigation - up to $150 per fixture Showers, bathtubs, and washing machines accepted if installed to current California Universal Plumbing Code (CA UPC) standards.
Rainwater Cistern - $0.25 per gallon of cistern for up to $750 per account Cisterns may not be connected to a potable water supply, including irrigation lines. All systems must follow current CA Universal Plumbing code, local zoning and permitting laws.
Downspout Diversion - $75 each with up to 4 per account Overflow to be directed to an on-site landscape feature such as rain garden, swale, dry well, dry creek bed, infiltration basin, etc.
Pressure Regulator - $50 each with up to 2 per account every 5 years
Toilet $125 for replacing a toilet flushing more than 1.6 gpf with one that flushes 1.0 gpf or lower $100 for replacing a toilet flushing more than 1.6 gpf with one that flushes 1.28 gpf (or the current Cal Green building code standard) $50 for replacing a toilet flushing 1.6 gpf with one that flushes lower than 1.28 gpf $25 for replacing a toilet flushing 1.6 gpf with one that flushes 1.28 gpf New toilets must be EPA WaterSense Certified.
Urinal - $75 for replacing any urinal requiring water with a waterless urinal

AGENDA REPORT

Scotts Valley Water District

Date: 05/14/20

To: Board of Directors

Item: Business 5.1

Subject: **Water Supply Outlook and Demand Strategy 2020**

Reason: Supports District Mission

SUMMARY

Recommendation: Establish Stage 2 Water Supply Conditions for Water Year 2020

Fiscal Impact: The impact is unknown at this time. Potential revenue shortfall from reduced demand is included in the FY 2021 proposed budget.

Previous Related Action: On 04/12/18 the Board established Stage 1 Water Supply Conditions for Water Year 2018.

On 04/09/20 the Board received information on 2020 Water Supply Outlook as of 03/31/20.

On 04/20/20 the Water Resources and Engineering Committee received a presentation on balancing water supply and demand in the current water year and recommended for the Board to declare Stage 2 Water Supply Conditions while electing not to implement drought surcharges due to the Covid-19 pandemic.

BACKGROUND

The District's Water Shortage Contingency Plan (WSCP) is included in its 2015 Urban Water Management Plan. The Water Shortage Contingency Plan stipulates a four-stage demand reduction plan with the amount of rainfall in a given year or series of years being the basis for defining the stages of action. In addition to the precipitation-based triggers, the plan suggests groundwater level adjustment to the triggers. Demand reduction stages may be adjusted up or down based on this evaluation.

The Scotts Valley area, similarly to the rest of the State of California, experienced an extended period of drought in 2012 through 2015 when the cumulative rainfall reached 67% of the average. WY 2017 received 190%, WY 2018 57% and WY 2019 104% of the average precipitation levels.

DISCUSSION

While the first 3 months of the water year showed the signs of a normal rainfall year with 30% of average precipitations at the end of December, the trend changed drastically with the beginning of 2020. Just 2.1 inches of rain was measured by District's weather station in January, no precipitation at all occurred in February, March and April delivered combined 6.9 inches.

Total rainfall amount of 19.38 inches for the period of 10/1/19 to 4/30/20 is about 46% of the average and indicates a Stage 3 of the demand reduction plan. It has been recognized that other (private) rain gauges have recorded somewhat higher annual precipitations this year. The average of four gauges in Scotts Valley area results in 50% of the average rainfall. Reaching 50% would transition us from Stage 3 to Stage 2 and 60% to Stage 1. Respective demand reduction targets are presented in a separate table. As a reference, WY 2018 potable system demand was 1,130 acre feet (AF) and WY 2019 1,109 AF what is 21% lower than WY 2013 demand.

According to the District's Water Shortage Contingency Plan, the spring groundwater levels are collected and evaluated relative to historic lows between 2003 and 2013. Demand reduction stages may be adjusted up or down based on this evaluation. Attached is a report from District's groundwater consultant Montgomery & Associates analyzing the measurements collected in early April. Below average rainfall in the current water year is not yet evident in the groundwater levels in aquifers pumped by the District. Based on the groundwater level trends and pumping volumes, keeping total District pumping below 1,250 AFY should not stress the production aquifers in below average rainfall years over the short term.

Another unexpected event that occurred this Spring was Covid-19 pandemic. The State and Local emergency orders declared in March have had a significant impact to the water demand in the Commercial, Industrial and Institutional (CII) sector. The District has experienced a decrease of about 40% in the CII total water use and the contracted consumption is very likely to extend into the next 6-12 months period.

Considering all of the factors above, the staff recommends establishing a Stage 2 Water Supply Condition for WY 2020. The reduction target of 100 AFY will most likely be achieved by continued lower than typical CII demand throughout water year and beyond.

Submitted,

Piret Harmon
General Manager

Enclosed: Water Supply and Demand Strategy WY 2020
Groundwater Conditions Report 4-2020

Water Supply and Demand Strategy WY 2020

Water Supply Outlook

WATER SUPPLY CONDITION - AS OF APRIL 30, 2020

		Average	Rainfall (inches)				Rainfall (percent of average)				Cumulative		Single
		Rainfall	2017	2018	2019	**2020**	2017	2018	2019	2020	3-year	2-year	Year
Stage 1	Cumulative rainfall over 2 years < 80% of average and/or Single year rainfall < 75% of average	42.18	80.14	24.26	43.72	**19.38**	190%	58%	104%	46%		**75%**	**46%**
Stage 2	Cumulative rainfall over 2 years < 70% of average and/or Single year rainfall < 60% of average	42.18	80.14	24.26	43.72	**19.38**	190%	58%	104%	46%	**69%**	**75%**	**46%**
Stage 3	Cumulative rainfall over 3 years < 50% of average and/or Single year rainfall < 50% of average	42.18	80.14	24.26	43.72	**19.38**	190%	58%	104%	46%	**69%**	**75%**	**46%**
Stage 4	precipitation with groundwater levels below historic low range	42.18	80.14	24.26	43.72	**19.38**	190%	58%	104%	46%	**69%**		

57% - Average of 4 weather stations in SV area

WATER SUPPLY CONDITION - WHAT IF SCENARIO FOR 2020 (I)

		Average	Rainfall (inches)				Rainfall (percent of average)				Cumulative		Single
		Rainfall	2017	2018	2019	**2020**	2017	2018	2019	2020	3-year	2-year	Year
Stage 1	Cumulative rainfall over 2 years < 80% of average and/or Single year rainfall < 75% of average	42.18	80.14	24.26	43.72	**21.0**	190%	58%	104%	50%		**77%**	**50%**
Stage 2	Cumulative rainfall over 2 years < 70% of average and/or Single year rainfall < 60% of average	42.18	80.14	24.26	43.72	**21.0**	190%	58%	104%	50%	**70%**	**77%**	**50%**
Stage 3	Cumulative rainfall over 3 years < 50% of average and/or Single year rainfall < 50% of average	42.18	80.14	24.26	43.72	**21.0**	190%	58%	104%	50%	**70%**	**77%**	**50%**
Stage 4	Stage 3 water supply conditions based on precipitation with groundwater levels below	42.18	80.14	24.26	43.72	**21.0**	190%	58%	104%	50%	**70%**		

Rainfall Criteria – Stage 2

Spring Groundwater Level Criteria – Current level pumping does not stress the production aquifers over the short term.

Water Demand Projection

DEMAND REDUCTION CALCULATION

System demand reduction is based on a baseline of average demand from the last 5 years where precipitation was >80% of avearage

			Rainfall (percent of average)					Annual Demand (AF)					Baseline	**Target**
			2010	2011	2016	2017	2019	2010	2011	2016	2017	2019	(AF)	**(AF)**
Stage 1	Demand reduction	**10%**	109%	136%	103%	193%	104%	1356	1203	1104	1164	1109	1187	1068
Stage 2	Demand reduction	**15%**	109%	136%	103%	193%	104%	1356	1203	1104	1164	1109	1187	1009
Stage 3	Demand reduction	**20%**	109%	136%	103%	193%	104%	1356	1203	1104	1164	1109	1187	950
Stage 4	Demand reduction	**25%**	109%	136%	103%	193%	104%	1356	1203	1104	1164	1109	1187	890

Current Demand (Potable)

WY 2019 – 1,109 AFY

WY 2020 (Oct – Mar) – 520 AFY

WY 2020 Demand Target	Reduction Target
Stage 2 – 1,009 AFY	100 AFY
Stage 1 – 1,068 AFY	41 AFY

Anticipated Demand Reduction due to Covid-19

Commercial Consumption	-40% in March and April = 2.4 MG per month (regular demand 6 MGM)
	-30% in May and June = 2.4 MG per month (regular demand 8 MGM)
	Total -9.6 MGY / -29 AFY in FY 2020
	-30% for July through October = 2.4 MGM
	-25% for November through April = 1.5 MGM
	-20% for May and June = 1.6 MGM
	Total -21.8 MGY / -67 AFY in FY 2021
Residential Consumption	No change in March and April
	Possible trends in FY 2021
	-5% of 222 MGY = -11 MGY / -34 AFY
	+5% of 222 MGY = 11 MGY / 34 AFY

Total anticipated demand reduction

WY 2020	44 AF - 60 AF
FY 2020	29 AF
FY 2021	56 AF – 78 AF

MONTGOMERY & ASSOCIATES
Water Resource Consultants

Groundwater experts since 1984

April 22, 2020

Ms. Piret Harmon
Scotts Valley Water District
2 Civic Center Dr.
Scotts Valley, CA 95066

SUBJECT: REVIEW OF EARLY APRIL 2020 GROUNDWATER CONDITIONS IN THE SCOTTS VALLEY WATER DISTRICT AREA

Dear Ms. Harmon:

The Scotts Valley Water District (District) has asked Montgomery & Associates (M&A) to review March 2020 groundwater conditions in the Scotts Valley Water District (District) due to the high probablity that annual rainfall will be below average for the year thus potentially impacting the District's water supply.

This letter summarizes our review of groundwater level data from production and monitoring wells, and groundwater production data through April 6, and rainfall data through April 8.

SUMMARY OF RAINFALL

As of April 8, 2020, which includes the last rainfall event, the water year rainfall total measured at the Pueblo Yard Station in Scotts Valley is 19.23 inches. This is 46% of long-term average rainfall of 42.0 inches per year (Figure 1). Since the drought which ended in Water Year 2015, the Scotts Valley area has received a total of 158.5 inches of rainfall, which averages out at roughly 47.6 inches per year mostly due to Water Year 2017 having record rainfall (Figure 1).

Figure 2 shows the likelihood of receiving various amounts of rain in April, (orange line) and May (grey line). For example, Figure 2 shows that there is an approximately 65% chance that Scotts Valley receives 3.16 inches or less rainfall in April (April's total as of April 8 is 3.16 inches); meaning there is only a 35% chance of receiving more than 3.16 inches of rainfall in April. The chart shows that historical median April and May rainfall totals are 2.40 and 0.56 inches, respectively. As a worst-case scenario, if no rain falls the remainder of the month and May receives median rainfall of 0.56 inches, total rainfall for the water year will be 22.95 inches, which is 55% of average.

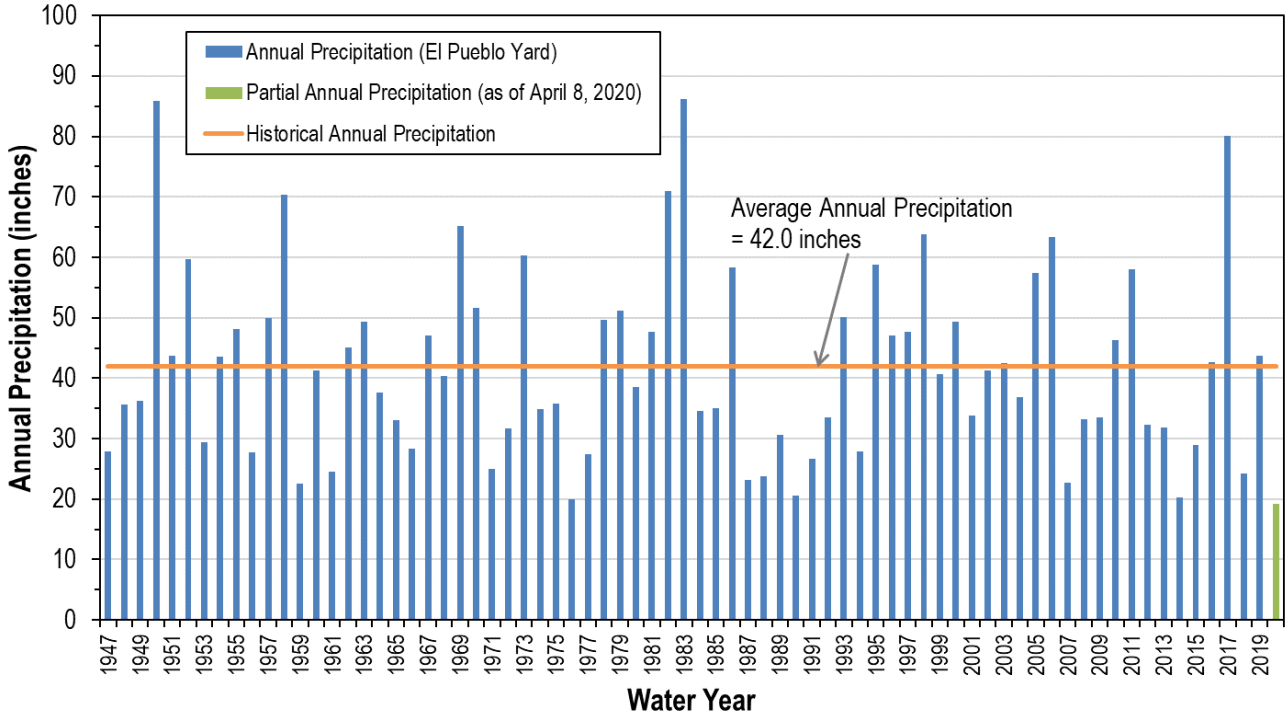


Figure 1. Annual Rainfall at El Pueblo Yard

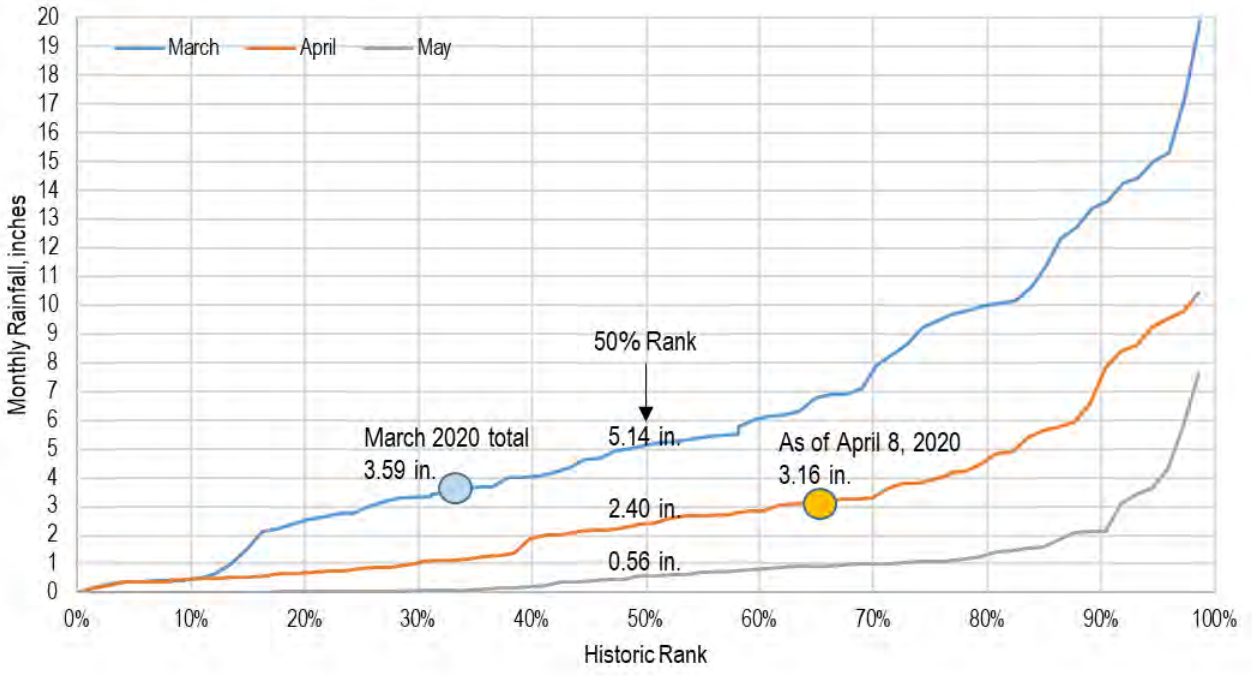


Figure 2. Historic March through May Rainfall Ranking

SUMMARY OF GROUNDWATER PUMPING

Groundwater levels in the basin are influenced more rapidly by pumping than by response to rainfall, as described in previous Annual Reports. In Table 1, the past five years' fall and winter pumping are listed to provide comparisons of the relative amounts of groundwater pumped from each aquifer during the same time periods.

Table 1. Summary of Fall and Winter Production

Time Period	Lompico Production Wells #10A, #11A and #11B (AF)	Lompico/Butano Production Wells #3B and Orchard Well (AF)	Total (AF)
Oct 2015 - Mar 2016	286.5	287.0	573.5
Oct 2016 - Mar 2017	385.5	193.6	579.1
Oct 2017 - Mar 2018	368.4	234.7	603.1
Oct 2018 - Mar 2019	97.6	422.7	520.4
Oct 2019 - Mar 2020	250.8	301.2	552.0

Through March, District pumping in Water Year 2020 is the second lowest over the last five water years (Table 1). Since the addition of the Orchard Well to the water system, more groundwater has been pumped from the Lompico/Butano wells than in previous years, and less has been pumped from wells screened only in the Lompico aquifer than most previous years.

GROUNDWATER LEVEL OBSERVATIONS

Table 2 summarizes the changes in groundwater levels at monitoring wells in the District. Figures showing selected hydrographs for the wells are indicated in Table 2, and well locations are shown on Figure 3.

Table 2. Summary of Groundwater Levels

Well	Change in Groundwater Level Since Oct 2019 (feet)	Change in Groundwater Level Since Oct 2017 (feet)	Hydrograph Figure Number
Santa Margarita Aquifer			
SVWD AB303 MW-1	+1.1	+1.4	-
SVWD AB303 MW-3B	-1.4	+1.8	-
SV4–MW	-2.7	-3.6	-
TW-18	+0.2	+2.1	Figure 4
Monterey Formation			
Well #9	+2.3	+10.4	Figure 5

Well	Change in Groundwater Level Since Oct 2019 (feet)	Change in Groundwater Level Since Oct 2017 (feet)	Hydrograph Figure Number
Lompico Aquifer			
SVWD AB303 MW-2	+1.7	+9.3	-
TW-19	+1.8	+32.3	Figure 6
SVWD Well #10	+26.6	+47.1	Figure 7
Lompico/Butano Aquifer			
Stonewood	+0.7	+1.9	-
Canham	-0.6	-1.3	Figure 10

Since October 2017, most Santa Margarita aquifer monitoring wells in the southern portion of the District show increased groundwater levels. The northernmost monitoring well, TW-18, has experienced a very slight ongoing increase in groundwater levels (Figure 4). The District has no wells pumping groundwater from the Santa Margarita aquifer.

Hydrographs for Monterey Formation SVWD Well #9 (Figure 5) and Lompico aquifer wells: TW-18 (Figure 6) and SVWD #10 (Figure 7) show increasing groundwater levels starting in the winter of 2017. This increase is in part due to Water Year 2017 being a very wet year, and increases have continued because of reduced pumping in the Lompico aquifer (Figure 8). Groundwater elevations in SVWD #10, which is located closest to the District's southern/central pumping wells as well as being relatively close to the SLVWD's Pasatiempo wells, has shown sustained increases in both seasonal high and seasonal low groundwater levels that have continued into April 2020.

Groundwater levels in combined Lompico/Butano aquifer monitoring wells indicate that groundwater levels have not changed significantly despite this aquifer being pumped more than previously pumped (Table 1). The Canham monitoring well, closest to the District's Lompico/Butano pumping wells has experienced a slight decline over the past seven years, with the rate of decline being just under one foot a year (Figure 10). Groundwater levels in the Canham monitoring well dropped 0.6 feet over the past six months. Given the recent pumping from the District's Orchard Well and Well #3B, it is expected that at least an additional 0.6 foot of decline may be possible over the next six months. Since groundwater level data collected from these pumping wells is not useful for analysis because 1) the groundwater levels represent combined Lompico/Butano levels, and 2) the wells are seldom in a static state, it is recommended that a dedicated deep Butano aquifer monitoring well be installed closer to the pumping wells to monitor groundwater levels in the Butano aquifer.

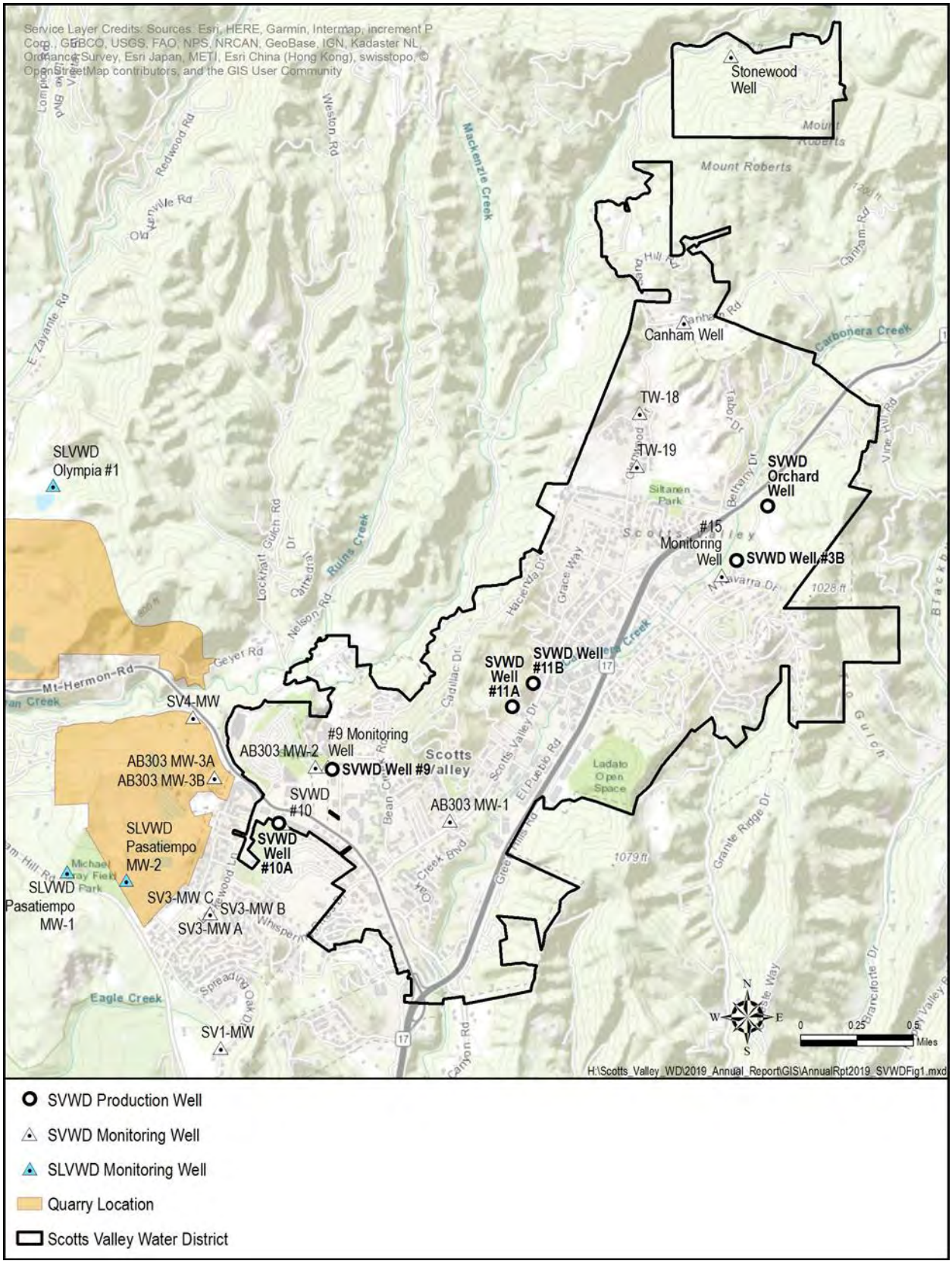


Figure 3. Scotts Valley Water District with Key Well Locations

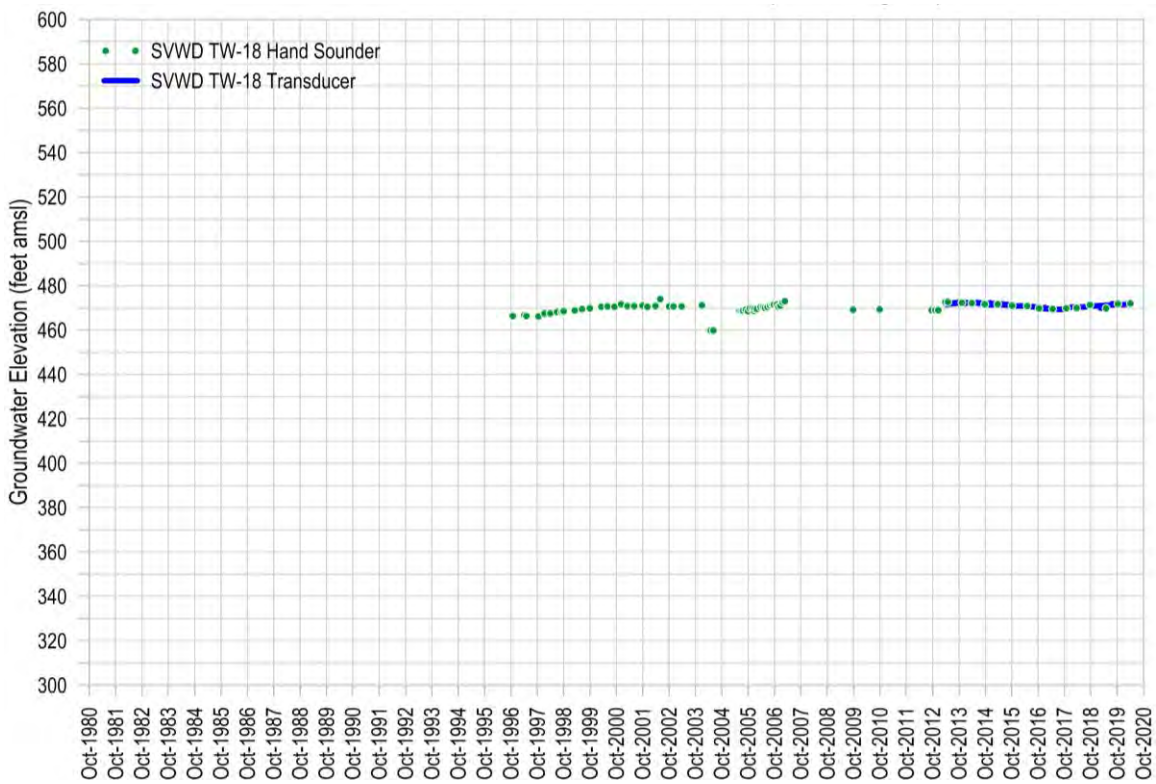


Figure 4. Hydrograph of Monitoring Well TW-18 (Santa Margarita Aquifer) with Transducer Data

Figure 5. Hydrograph of SVWD Well #9 (Monterey Formation)

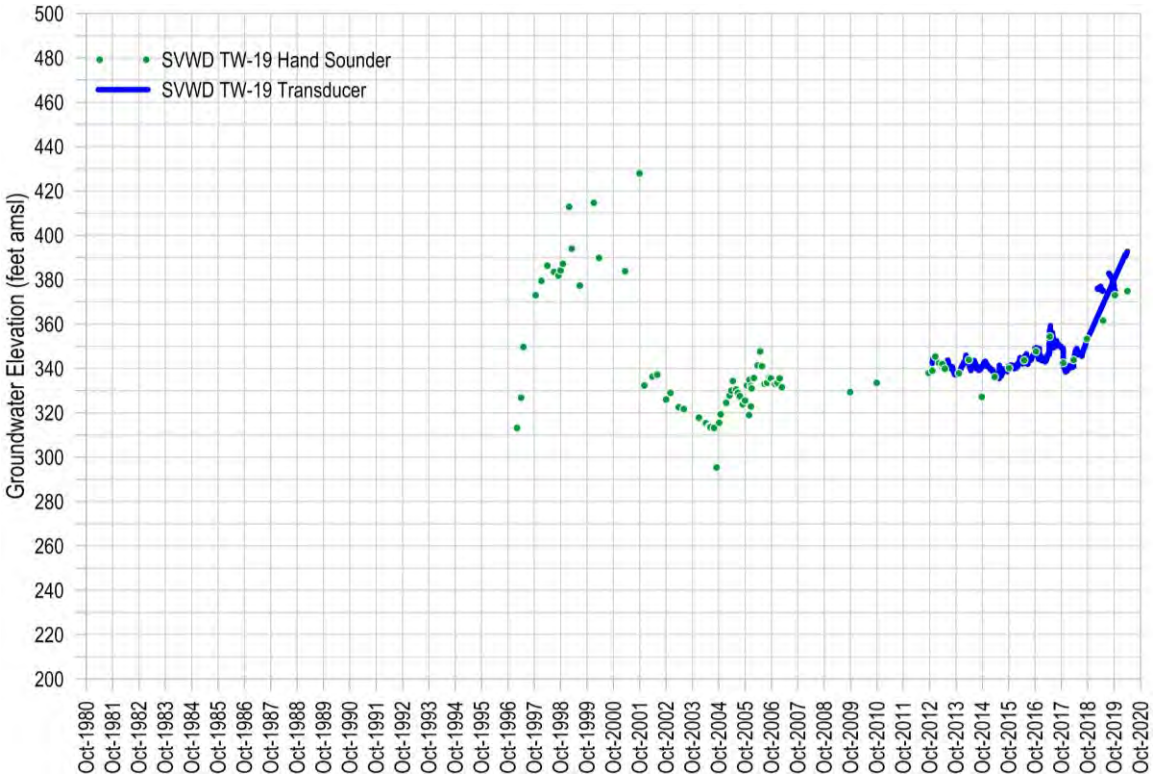


Figure 6. Hydrograph of Monitoring Well TW-19 (Lompico Aquifer) with Transducer Data

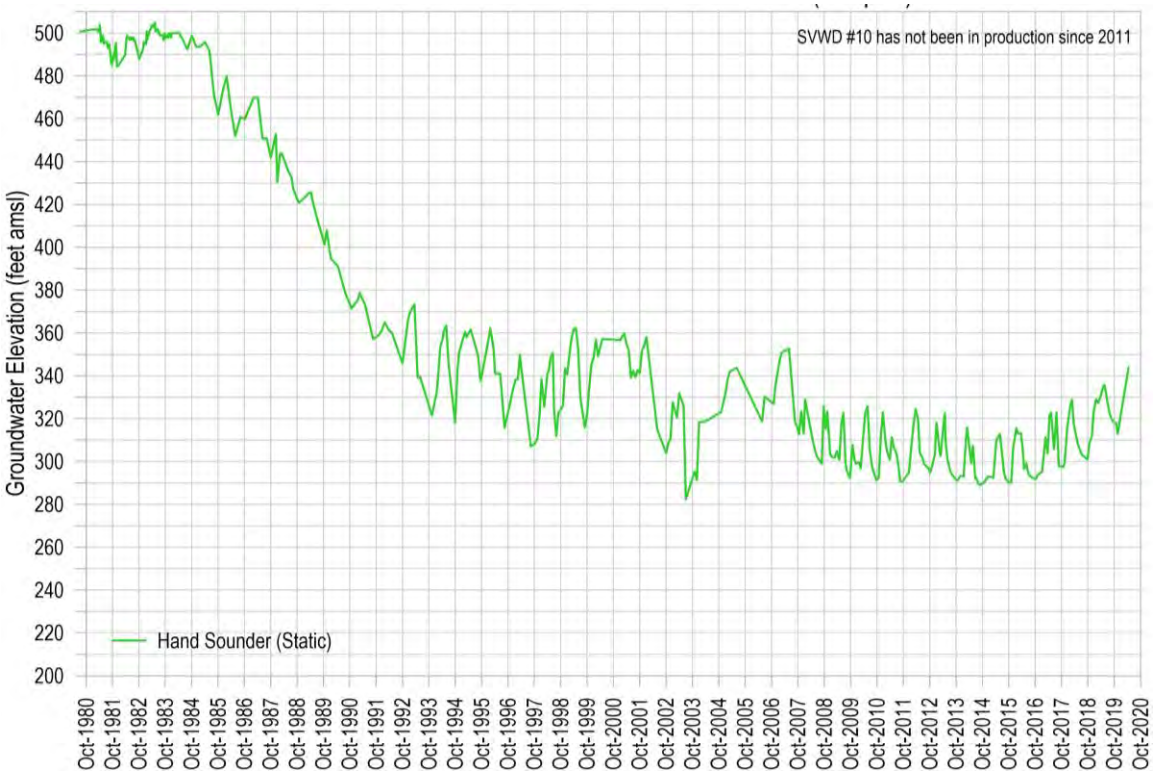


Figure 7. Hydrograph of SVWD Well #10 (Lompico Aquifer)

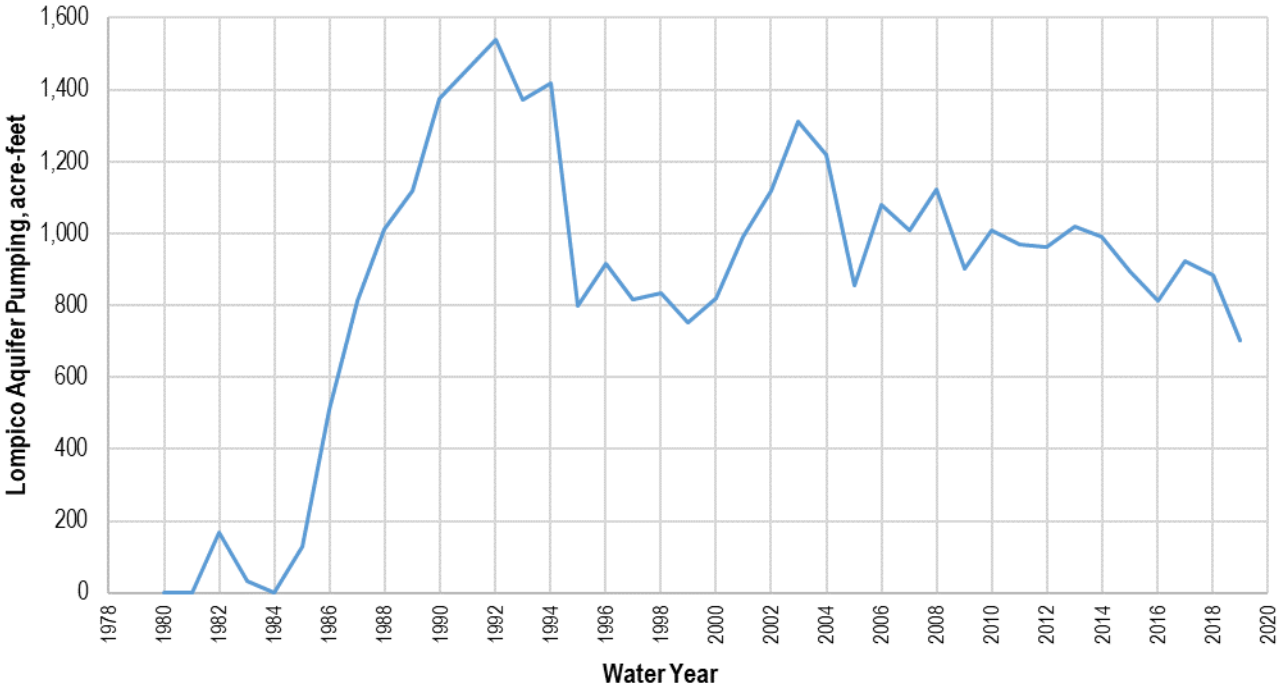


Figure 8. Annual Lompico Aquifer Pumping by Scotts Valley Water District through Water Year 2019

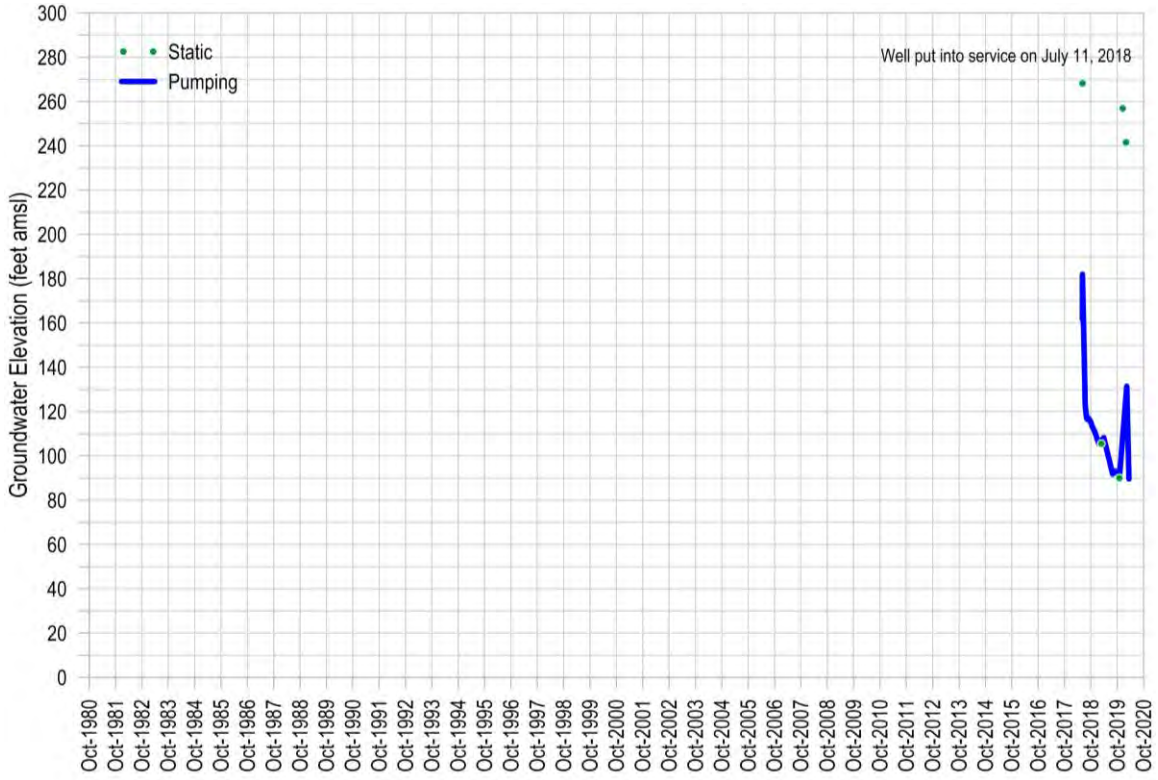


Figure 9. Hydrograph of SVWD Orchard Well (Lompico/Butano Aquifers)

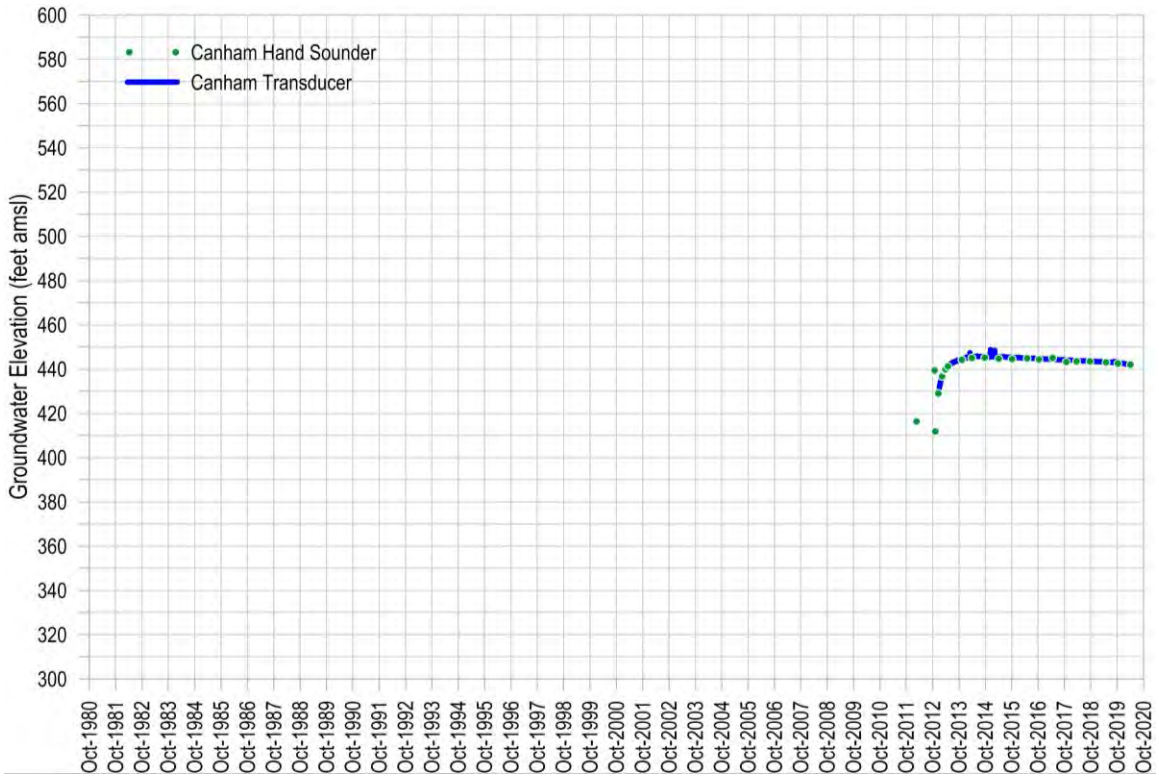


Figure 10: Hydrograph of Canham Monitoring Well (Butano) with Transducer Data

WATER SUPPLY CONDITIONS

It is highly likely that Water Year 2020 annual rainfall in Scotts Valley will be between 55% and 60% of average. Scotts Valley's cumulative two-year rainfall as of April 8, 2020 is 79% of average, and the cumulative three-year rainfall is 73% of average. The below average cumulative rainfall totals will result in less groundwater recharge in all aquifers, but particularly the confined Lompico and Butano aquifers that the District depends on. Examining cumulative totals over multiple years is consistent with the practice of managing groundwater basins in response to multi-year trends rather than single year events. TheDistrict's Lompico aquifer wells generally have increasing trends over the past several years, that started after the wet Water Year 2017 and have continued due to reduced Lompico aquifer pumping even though there has been cumulatively below average rainfall.

The Butano aquifer appears to have a slight declining trend which has occurred relatively uniformly since 2013. The data available for analyzing the Butano aquifer, come from the Canham monitoring well that is located 0.8 miles from the District's Orchard Well. A deep dedicated monitoring well in the Butano aquifer closer to the District's Lompico/Butano aquifer pumping wells will provide an additional groundwater level data point closer to where pumping impacts are occurring and will help in managing the Butano aquifer that appears to be showing the beginnings of effects from long-term pumping.

CONCLUSIONS

Below average rainfall in Water Year 2020 is not yet evident in the groundwater levels in aquifers pumped by the District. This is because the Santa Margarita Basin responds to multi-year trends more than to single-year events. Since record rainfall of 2017, rainfall has been cumulatively below average. Reduced rainfall and limited recharge in Water Year 2018 through Water Year 2020 could potentially lead to declining groundwater levels and reduced groundwater supplies if rainfall in the next few years remains low. However, based on groundwater level trends and pumping volumes in the Lompico aquifer through the drought and beyond, keeping total District pumping below 1,250 acre-feet per year should not stress the aquifers being pumped even in below average rainfall years over the short-term.

Sincerely,
MONTGOMERY & ASSOCIATES

Georgina King
Senior Hydrogeologist

AGENDA REPORT

Scotts Valley Water District

Date: 05/14/20

To: Board of Directors

Item: Business 5.2

Subject: **Capital and Maintenance Projects FY 2021-2025 Budget Projection**

Reason: Supports District's Strategic Goal No. 2 Infrastructure Integrity: Provide Continual Investments in District's Infrastructure

SUMMARY

Recommendation: Receive information and provide input.

Fiscal Impact: The total proposed FY 2021 new appropriations for capital and maintenance projects are $1,630,000. The final request will be included in the FY 2021 proposed budget.

Previous Related Action: On 04/20/19 the Water Resources and Engineering committee reviewed a draft FY 2021-2025 Projects Budget.

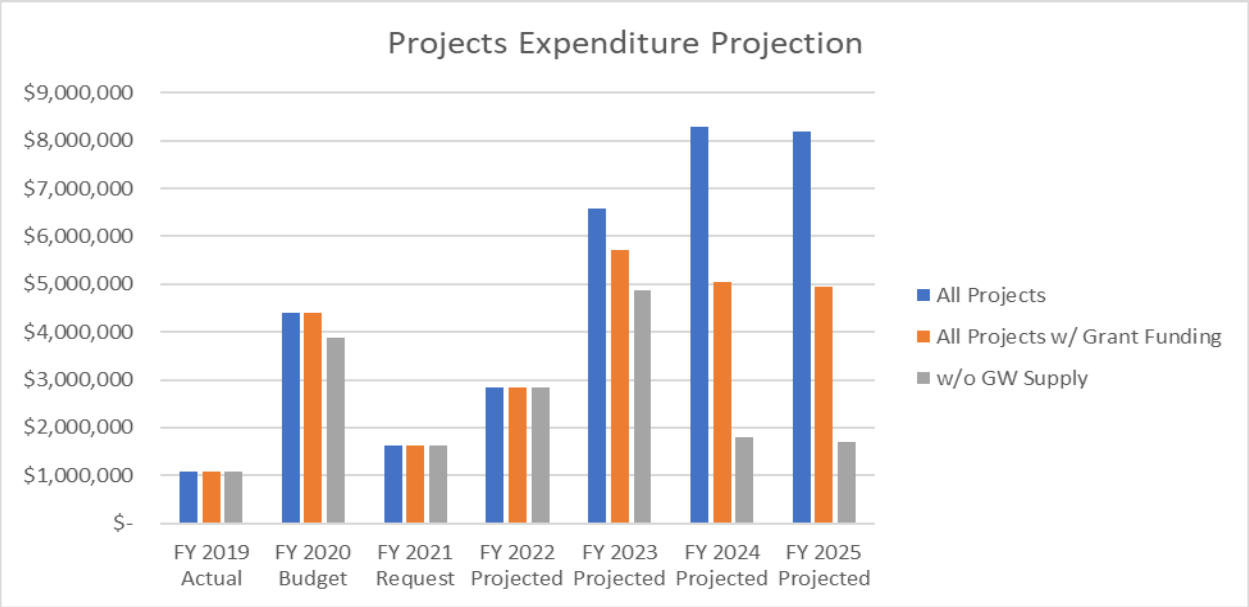
BACKGROUND

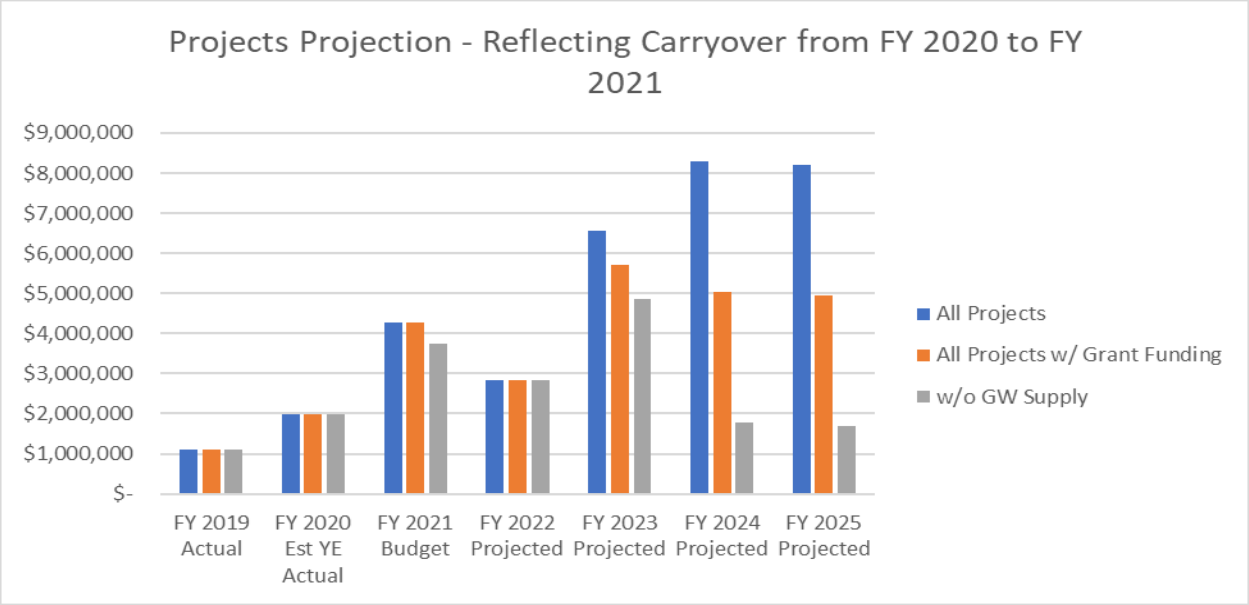
Each year the staff prepares a 5-year plan of District's capital and maintenance projects. Only the upcoming year budget is approved by the board, the rest of years' project costs are presented for reference only.

In compliancy with the Generally Accepted Accounting Principles (GAAP), the definition for a capital improvement project is a new construction project or an expansion; major renovation, rehabilitation, and/or replacement project for an existing facility or facilities with a total cost of at least $5,000 and a useful life of at least 2 years. Project costs can include the cost of land, land improvements, architectural design, engineering, construction, construction management and inspection. Using these criteria all projects were evaluated and categorized either as capital or maintenance. Because the maintenance projects often demand significant time and money resources, they are presented alongside with the capital projects and the staff uses the categorical title of "Project Expenditures" for this component of the budget.

DISCUSSION

The staff has prepared a preliminary budget projection for capital and maintenance projects in FY 2021-2025, prioritizing the projects based on their merit, relative importance to effective operations and cumulative cost. All project costs are estimations and should be used only as a reference for years beyond FY 2021.





The staff anticipates that about $2.0M of the budgeted $4.4M FY 2020 project appropriations will be spent in the current year and $2.6M will be carried over to fund various project activities in the following year. FY 2021 initial request for new appropriations is totaling approximately $1.6M. That includes Potable Main Replacement Program, Orchard Run Water Treatment Plant Improvements, Bethany Tank Rehabilitation, and completion of Advanced Metering Infrastructure Program.

Submitted,

Piret Harmon
General Manager

Enclosed: FY 2021-2025 Projects Budget Projection

SCOTTS VALLEY WATER DISTRICT													Draft 4-29-20
FY 2021 Budget													
CAPITAL IMPROVEMENT AND MAINTENANCE PROJECTS													
Category	**Project Name**	**Project Description**	**FY 2020 Budget**	**FY 2020 Est YE Actual**	**FY 2021 Carryover**	**FY 2021 Request**	**FY 2021 Budget**	**FY 2022 Projected**	**FY 2023 Projected**	**FY 2024 Projected**	**FY 2025 Projected**	**TOTAL FY 2021-2025**	**Notes**
Mains	Main Replacement Program - Potable	Replace and upgrade potable water mains based on leak history, service life, and size	$ 150,000	$ 75,000	$ 75,000	**$ 550,000**	$ 625,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 1,225,000	FY21: Replace 1,100 ft of main in 4 locations ($500 per ft)
	Main Replacement Program - Recycled	Replace old, poor condition recycled water main with high pressure rated pipe	$ -	$ -	$ -	**$ -**	$ -	$ -	$ 250,000	$ -	$ -	$ 250,000	RW main near Valley Gardens: paid by developer
Treatment Plants	Orchard Run Water Treatment Plant Improvements	Implement esthetic taste & odor improvements to treatment process by adding new GAC filter and chlorine analyzer injection system. Infrastructure improvements incude replacing ammonia based H2S air scrubbing system with a Bio Filtration scubber. Replace 40,000 gallon bolted	$ 2,200,000	$ 310,000	$ 1,890,000	**$ 310,000**	$ 2,200,000	$ -	$ -	$ -	$ -	$ 2,200,000	FY20: bid process, FY21: construction
	El Pueblo Water Treatment Plant Improvements	Replace manual 1980's filter control system with programable automated control system linked with SCADA.	$ 100,000	$ 70,000	$ 30,000	**$ -**	$ 30,000	$ -	$ -	$ -	$ -	$ 30,000	FY19: Design + materials, FY20/FY21: Complete installation by in house staff and District SCADA contractor
	Well 10 WTP Water Quality Improvements	Implement esthetic taste & odor improvements by adding additional filter bed and Chlorine analyzer equiment.	$ -	$ -	$ -	**$113,000**	$ 113,000	$ -	$ 300,000	$ 1,500,000	$ 1,500,000	$ 3,413,000	TP Control System Upgrades
	Treatment Facility for New Production Well	New Lompico Formation Production Well and Treatment Plant.	$ 50,000	$ 68,800	$ -	**$ 100,000**	$ 100,000	$ 250,000	$ 3,000,000	$ -	$ -	$ 3,350,000	FY20: Evaluate viable locations and initiate land acquisition if necessary. FY21/FY22: Design & permitting (in conjunction with Lompico Formation Production Well c15007) FY23: Construction
Tanks	Bethany Tank Rehabilitation	Construct additional tank on-site to allow for roof reconstruction and interior and exterior coating replacement of 400,000 gallon Bethany Tank. Project extends tank service life and provides additional permanent	$ 200,000	$ 100,000	$ 100,000	**$ 100,000**	$ 200,000	$ 2,000,000	$ -	$ -	$ -	$ 2,200,000	FY19: geotech and investigation; FY20: temporary tank setup; FY21: condition assessment and conceptual design; FY22: construction (500K-2M)
	Sequoia Tank Rehabilitation	Recoat roof, interior, and exterior of 1.25 million gallon Sequoia Tank that has the original coating from 1983.	$ 400,000	$ 600,000	$ -								
Pump Stations	Hacienda PS Improvements	Pump shed structure is in poor condition and needs to be replaced. Pumps are very loud and run 24 hours a day. Noise mitigation and structural upgrades will provide better protection for pumps and motors and reduce noise emissions considerably.	$ 100,000	$ 100,000	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	FY20: design and construction. To be completed in FY20.
	Polo Ranch PS	Polo Ranch Flow control station has been modified to provide booster pumping into the Southwood pressure zone when needed. The Southwood Booster station on Granite Creek Road will be retired.	$ -	$ -	$ -	**$ 75,000**	$ 75,000	$ -	$ -	$ -	$ -	$ 75,000	To be constructed as part of the Polo Ranch Development project. FY19: flow control station and building construction, FY21: purchase and install pumps (2) and controls.
Wells	Lompico Formation Production Well (Well 9 Replacement)	Construct a new production well that is needed to offset lost production capacity from Well 9 & Well 11A. The replacement well will in part be sited to provide for a more balanced withdrawal rate from the Lompico Aquifer.	$ -	$ -	$ -	**$ 100,000**	$ 100,000	$ 250,000	$ 1,000,000			$ 1,350,000	FY21/FY22: Design & permitting FY23: Construction (in conjunction with Treatment Facility, c20020).
Groundwater Supply	Conjunctive Use with SLVWD or/and SCWD	SLVWD to provide SVWD excess treated surface water in winter when available to reduce pumping and improve groundwater levels in the shared basin.	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	FY18: SVWD entered into an MOU agreement with SLVWD, SVWD and the County. FY21: develop a scope and initial budget /Include in the Operating Budget/

SCOTTS VALLEY WATER DISTRICT | Draft 4-29-20

FY 2021 Budget

CAPITAL IMPROVEMENT AND MAINTENANCE PROJECTS

Category	Project Name	Project Description	FY 2020 Budget	FY 2020 Est YE Actual	FY 2021 Carryover	FY 2021 Request	FY 2021 Budget	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	TOTAL FY 2021-2025	Notes
Recycled Water Supply	Purified Recycled Water Recharge	Supplemental supply project to increase groundwater reliability, especially in dry years (climate change related change). Could be shifted to SMGWA or replaced with conjunctive use.	$ 525,000	$ -	$ 525,000	**$ -**	$ 525,000	$ -	$ 1,700,000	$ 6,500,000	$ 6,500,000	$ 15,225,000	Feasibility study completed. Consider timing, cost and partnerships. FY19-FY20 CEQA, FY21 funding consideration, preliminary design, permits, FY22-23 construction.
	GW Recharge - Grant Reimbursement		*$ -*		*$ -*		*$ -*	*$ -*	*$ (850,000)*	*$ (3,250,000)*	*$ (3,250,000)*	*$ (7,350,000)*	
	GW Recharge - Partner Contributions/Short Term		*$ -*		*$ -*		*$ -*	*$ -*	*$ -*			*$ -*	
	Recycled Water Fill Station	Carry out a program providing free small quantity (up to 250 gpd) recycled water to eligible customers.	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	Determine if there is need to re-open
Distribution System	Pressure Regulator Station Installation - Granite Creek Estates	Install main line regulator station to reduce 200+ PSI in the distribution system that serves Taryn Ct, Lauren Circ, Traci Ct and section of Granite Cr Rd.	$ -	$ -	$ -	**$ -**	$ -	$ 100,000	$ -	$ -	$ -	$ 100,000	This improvement benefits 45 residential services and augments the integrity of the District's potable water system. Preliminary design completed FY19. Implementation pending on results of Distribution System Pressure Study
	PR Station - Third Party Contributions		*$ -*		*$ -*		*$ -*	*$ -*	*$ -*			*$ -*	
Meters	Automated Metering Infrastructure (AMI)	Install AMI transmitters on all meters over 3-4 year period.	$ 200,000	$ 200,000	$ -	**$ 100,000**	$ 100,000	$ -	$ -	$ -	$ -	$ 100,000	FY21: install 500 AMI transmitters
	Meter Replacement Program	Replace all meters installed before 2012 at the rate of 800-1000 meters per year.	$ 150,000	$ 150,000	$ -	**$ 75,000**	$ 75,000	$ -	$ -	$ -	$ -	$ 75,000	FY21: replace 350 5/8" meters
Technology	Utility Billing Software Improvements	Improvements and/or enhancements to Utility Billing (UB) and Payment Processing softwares	$ 20,000	$ -	$ 20,000	**$ 10,000**	$ 30,000					$ 30,000	Possible consideration of a third party financial reporting software, utility billing software and payment platform
Fleet	Vehicle Replacement Program	Replace aging fleet: one vehicle per year on average, starting FY 2019.	$ 37,000	$ 41,362	$ -	**$ 42,000**	$ 42,000	$ 43,000	$ 44,000	$ 45,000	$ 46,000	$ 220,000	
	Specialized Operations Equipment	Replace heavy equipment and specialized vehicles on as-needed basis.	$ 230,000	$ 205,000	$ -	**$ 25,000**	$ 25,000	$ 50,000	$ 85,000	$ 95,000		$ 255,000	FY21: Polo Ranch generator and transfer switch FY22: Sandhill portable generator FY23: Replace and downsize 350kw generator at El Pueblo TP FY24: Replace 500kw generator at Orchard Run TP
Buildings	Administrative Building Improvements	Repairs and modifications to the office facility to support business operations	$ 50,000	$ 60,000	$ -	**$ 30,000**	$ 30,000		$40,000			$ 70,000	FY21: Improvements to the Santa Margarita Community Room: north wall repairs, dias reconfiguration, lighting enhancements
	Total Projects		**$ 4,412,000**	**$ 1,980,162**	**$ 2,640,000**	**$ 1,630,000**	**$ 4,270,000**	**$ 2,843,000**	**$ 6,569,000**	**$ 8,290,000**	**$ 8,196,000**	**$ 22,818,000**	
	Less Other Funding		*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ (850,000)*	*$ (3,250,000)*	*$ (3,250,000)*	*$ (7,350,000)*	
	Net Projects		$ 4,412,000	$ 1,980,162	$ 2,640,000	$ 1,630,000	$ 4,270,000	$ 2,843,000	$ 5,719,000	$ 5,040,000	$ 4,946,000	$ 15,468,000	

AGENDA REPORT

Scotts Valley Water District

Date: 05/14/20

To: Board of Directors

Item: Business 5.3

Subject: **FY 2021 Proposed Budget Summary**

Reason: Supports District Strategic Goal - Financial Stewardship

SUMMARY

Recommendation: Receive information and provide direction

Fiscal Impact: Fiscal Year 2021 (FY 2021) total proposed budget includes $8.3 Million in expenditures, excluding carryover for projects and purchase orders. The proposed budget is comprised of $6.0M in operating expenses, $0.6M in debt service, and $1.6M in new project appropriations.

FY 2021 operating costs, excluding debt service, are proposed to increase by 7%. The proposed operating budget includes $0.28M in budget enhancements for professional services that do not occur annually. Excluding these budget enhancements, FY 2021 operating budget is up 2% from the prior year.

On the revenue side, the proposed budget reflects projected water consumption equal to the average of the past three years with a projected water rate increase of three percent. Total revenue, excluding Notes Receivable, is projected to decrease by 1% from FY 2020 Estimated Actual to $8.6M. Given the projected revenue and proposed expenditures, including project carryover of $2.6M, it is anticipated that there will be an approximately $2.3M draw on fund balance in FY 2021.

Previous Related Action: On 02/25/20, the Finance and Personnel Committee received a report on FY 2021 budget assumptions.

On 03/17/20, the Finance and Personnel Committee reviewed the draft FY 2021 budget revenue projections.

On 04/20/20, the Water Resources and Engineering Committee reviewed and commented on the proposed projects budget.

On 04/21/20, the Finance and Personnel Committee reviewed the draft FY 2021 operating expenditure budget summary.

BACKGROUND

District follows an annual budget cycle with a balanced budget adopted at the June board meeting. The Budget is comprised of the Operating Budget, Debt Service Budget and Projects Budget. The Operating Budget is a line item budget that is organized in functional divisions and major expense categories.

DISCUSSION

FY 2021 proposed budget focuses on the District's operations, allocating personnel, goods, and services to support the District's services and the Board's strategic priorities.

FY 2021 proposed expenditure budget consists of operating, debt service, and project costs. Overall operating costs excluding debt service are up 7 %. The budget for debt service reflects the required payments on the 2016 Installment Purchase Agreement.

Attachment 1 presents a summary of year-to-year operating changes. FY 2021 figures reflect budget enhancements in the Administration, Finance/Customer Service/WUE, and Engineering division budgets.

The proposed budget also includes revenue projections and fund balance projections. The District collects revenue from Potable Water (PW) and Recycled Water (RW) sales, water services, new connections, as well as several non-operating revenues such as property tax, loan repayments, and interest income. Staff projects a 7% decrease in revenue in FY 2021, excluding Notes Receivable. This figure is comprised of 7% decrease in the Potable Water Fund and a 5% decrease in the Recycled Water Fund. The overall decrease is driven primarily by a 48% decrease in projected revenue from New Connections. Attachment 2 presents a summary of anticipated revenue by fund.

The Fund Balance table in Attachment 3 summarizes the anticipated draw on reserves of $2.3M. The fund balance projection reflects estimated actuals for FY 2020 rather than budget, to provide a more accurate estimate of the expected fund balance on 6/30/20. The Projects Budget amounts reflect the District's 'Capital and Maintenance Projects FY 2021-2025 Projections' which was presented to the Board on 05/14/20.

The Fund Balance Projection Charts in Attachment 4 help to show the projected fund balance by year for the next four years, using assumptions for revenue growth (from changes in demand), and project timing.

The final FY 2021 Proposed Budget will be presented to the Board for approval at the June meeting.

Submitted,

Piret Harmon
General Manager

Enclosed: FY 2021 Proposed Budget - Expense
FY 2021 Proposed Budget - Revenue
FY 2021 Projected Fund Balance
Fund Balance Projection Chart

Scotts Valley Water District

FY 2021 Proposed Budget: Operating Expenses & Debt Service

Combined Fund 01 and Fund 02

	FY 2020 Budget	FY 2020 Est. Actual	FY 2021 Budget	FY 2021 Budget to FY 2020 Budget Incr / Decr	
Administration					
Salaries & Benefits	$ 624,052	$ 587,058	$ 641,273	$ 17,221	3%
Services	$ 326,073	$ 291,681	$ 468,685	$ 142,612	44%
Supplies	$ 17,550	$ 17,384	$ 17,200	$ (350)	-2%
Source of Supply	$ 381,821	$ 297,821	$ 330,490	$ (51,331)	-13%
Other	$ -	$ 500	$ 5,000	$ 5,000	
Dept (100) Expense Total:	**$ 1,349,496**	**$ 1,194,443**	**$ 1,462,648**	**$ 113,152**	**8%**
Finance/Customer Service/WUE					
Salaries & Benefits	$ 537,784	$ 534,989	$ 563,967	$ 26,183	5%
Services	$ 205,303	$ 126,575	$ 210,163	$ 4,860	2%
Supplies	$ 5,000	$ 3,200	$ 4,000	$ (1,000)	-20%
Customer Accounts	$ 184,138	$ 189,669	$ 206,378	$ 22,240	12%
Other	$ 1,000	$ 1,017	$ 1,038	$ 38	4%
Debt Service	$ 653,746	$ 554,841	$ 643,161	$ (10,585)	-2%
Dept (200) Expense Total:	**$ 1,586,971**	**$ 1,410,290**	**$ 1,628,707**	**$ 41,736**	**3%**
Operations					
Salaries & Benefits	$ 1,589,423	$ 1,512,821	$ 1,619,059	$ 29,636	2%
Services	$ 192,400	$ 198,846	$ 205,260	$ 12,860	7%
Supplies	$ 30,500	$ 37,220	$ 17,000	$ (13,500)	-44%
General Production	$ 86,100	$ 97,480	$ 97,000	$ 10,900	13%
Source of Supply	$ 130,000	$ 167,921	$ 130,000	$ -	0%
Pumping	$ 386,930	$ 441,553	$ 511,900	$ 124,970	32%
Water Treatment	$ 448,000	$ 346,702	$ 420,000	$ (28,000)	-6%
Transmission & Distribution	$ 134,100	$ 102,399	$ 131,200	$ (2,900)	-2%
Conservation	$ 2,000	$ -	$ -	$ (2,000)	-100%
Dept (300) Expense Total:	**$ 2,999,453**	**$ 2,904,942**	**$ 3,131,419**	**$ 131,966**	**4%**
Engineering					
Salaries & Benefits	$ 95,241	$ 90,455	$ 105,710	$ 10,469	11%
Services	$ 90,210	$ 126,045	$ 189,900	$ 99,690	111%
Supplies	$ 1,000	$ 1,000	$ 1,000	$ -	0%
Dept (400) Expense Totals:	**$ 186,451**	**$ 217,499**	**$ 296,610**	**$ 110,159**	**59%**
Board					
Salaries & Benefits	$ 118,000	$ 105,775	$ 120,077	$ 2,077	2%
Services	$ 22,820	$ 9,540	$ 22,800	$ (20)	0%
Supplies	$ 850	$ -	$ 800	$ (50)	-6%
Dept (900) Expense Totals:	**$ 141,670**	**$ 115,315**	**$ 143,677**	**$ 2,007**	**1%**
Total Expenses	**$ 6,264,041**	**$ 5,842,489**	**$ 6,663,060**	**$ 399,019**	**6%**
Total Expenses excluding Budget Enhancements for Professional Services	$ 6,264,041	$ 5,842,489	**$ 6,382,440**	$ 118,399	2%
Total Expenses excluding Debt Service	$ 5,610,295	$ 5,287,648	**$ 6,019,899**	$ 409,604	7%
Total Expenses excluding Enhancements & Debt Service	**$ 5,610,295**	**$ 5,287,648**	**$ 5,739,279**	**$ 128,984**	**2%**

Scotts Valley Water District

FY 2021 Proposed Budget: Revenue
Fund 01 and Fund 02

Revenue Categories	FY 2020 Budget	FY 2020 Est. Actual	FY 2021 Budget	FY 2021 Budget to FY 2020 Budget Incr / Decr	
Potable Fund 01					
Oper Revenue - Water Sales	$ 4,061,787	$ 3,835,146	$ 3,783,811	$ (277,976)	-7%
Oper Revenue - Water Services	$ 2,065,955	$ 2,063,133	$ 2,168,674	$ 102,719	5%
Oper Revenue - New Connections	$ 1,468,130	$ 927,676	$ 786,110	$ (682,020)	-46%
Non-Oper Revenue - Other	$ 940,352	$ 1,172,345	$ 1,175,391	$ 235,040	25%
Total Potable Fund Revenues	**$ 8,536,225**	**$ 7,998,300**	**$ 7,913,987**	**$ (622,238)**	**-7%**
Recycled Fund 02					
Oper Revenue - Water Sales	$ 490,177	$ 478,857	$ 482,653	$ (7,524)	-2%
Oper Revenue - Water Services	$ 45,124	$ 47,528	$ 65,345	$ 20,221	45%
Oper Revenue - New Connections	$ 90,869	$ 28,388	$ 32,126	$ (58,743)	-65%
Non-Oper Revenue - Other	$ 7,598	$ 10,323	$ 8,573	$ 975	13%
Notes Receivable *	$ 163,019	$ 173,019	$ 169,412	$ 6,393	4%
Total Recycled Fund Revenues	**$ 796,787**	**$ 738,115**	**$ 758,109**	**$ (38,678)**	**-5%**
Combined Fund 01 and Fund 02					
Oper Revenue - Water Sales	$ 4,551,964	$ 4,314,003	$ 4,266,464	$ (285,500)	-6%
Oper Revenue - Water Services	$ 2,111,079	$ 2,110,661	$ 2,234,019	$ 122,940	6%
Oper Revenue - New Connections	$ 1,558,999	$ 956,064	$ 818,236	$ (740,763)	-48%
Non-Oper Revenue - Other	$ 947,950	$ 1,182,668	$ 1,183,964	$ 236,015	25%
Notes Receivable *	$ 163,019	$ 173,019	$ 169,412	$ 6,393	4%
Total Revenue	**$ 9,333,012**	**$ 8,736,415**	**$ 8,672,096**	**$ (660,916)**	**-7%**

* Notes Receivable, included to reflect all sources of cash, is not a revenue.

Scotts Valley Water District
FY 2021 Proposed Budget
Fund Balance Projection

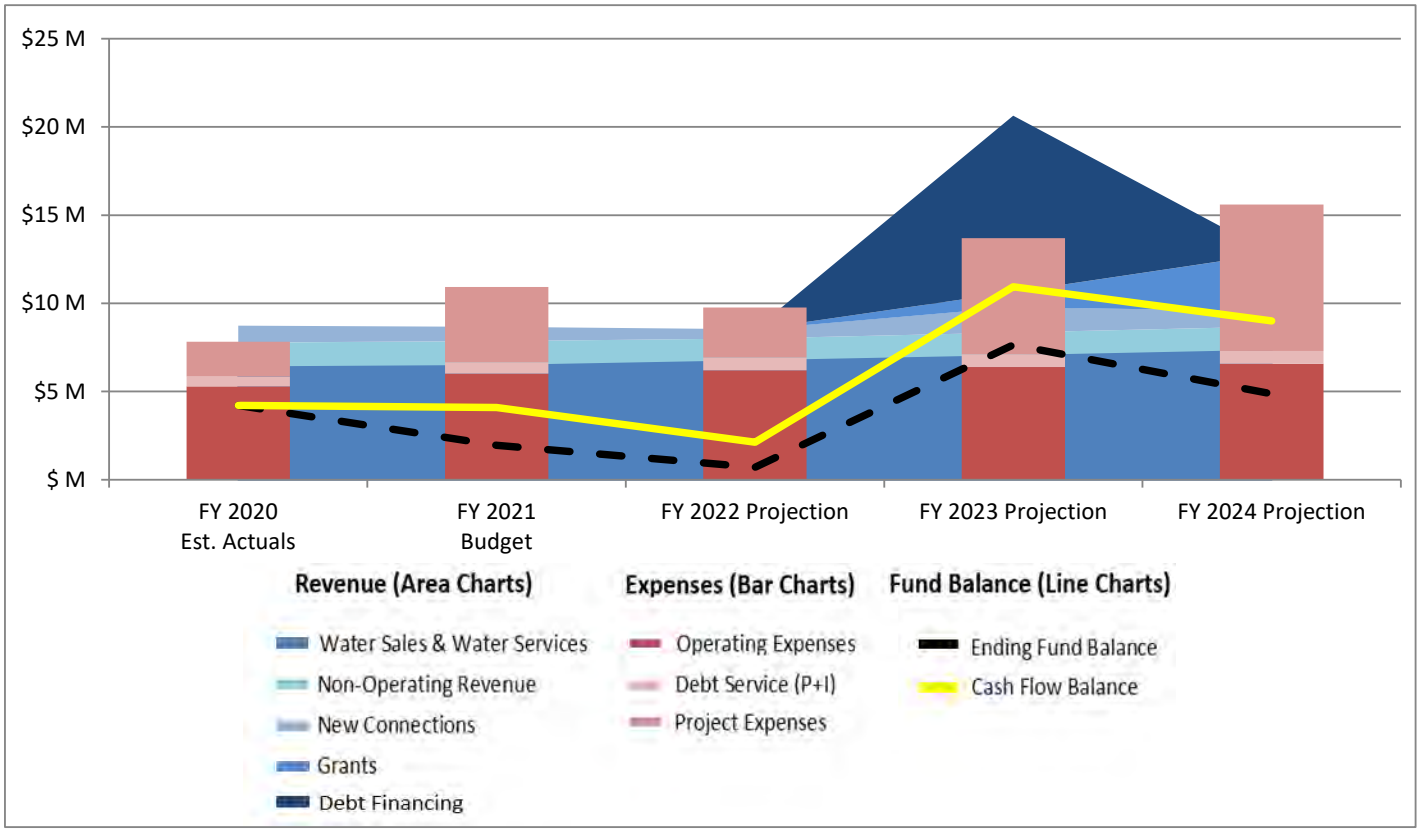
FY 2019		Combined Fund 01 and Fund 02
Current Assets	$	4,507,120
Current Liabilities	$	(1,208,084)
Audited Fund Balance 6/30/2019:	$	3,299,036
FY 2020 (Estimated Actual)		
Audited Fund Balance 6/30/2019:	**$**	**3,299,036**
Revenue	$	8,706,234
Revenue impact of Demand Reduction	$	(142,839)
Notes Receivable	$	173,019
Operating Expense	$	(5,287,648)
Debt Service	$	(554,841)
Project Costs	$	(1,980,162)
Increase/(Decrease) of Fund Balance	$	913,763
Projected Fund Balance 6/30/2020	**$**	**4,212,799**
FY 2021 (Proposed Budget)		
Projected Fund Balance 6/30/2020	**$**	**4,212,799**
Revenue	$	8,831,080
Revenue impact of Demand Reduction	$	(328,396)
Notes Receivable	$	169,412
Operating Expense	$	(6,019,899)
Debt Service	$	(643,161)
Project Budget Request	$	(1,630,000)
Project Carryover	$	(2,640,000)
Increase/(Decrease) of Fund Balance	$	(2,260,964)
Projected Fund Balance 6/30/2021	**$**	**1,951,835**
Debt Service Coverage Ratio for FY 2020		**6.16**
Debt Service Coverage Ratio for FY 2021		**4.37**
Debt Service Coverage Ratio for FY 2021 excluding revenue from new connections		3.10

* required Debt Service Coverage Ratio = 1.2

Scotts Valley Water District
FY 2021 Proposed Budget
Fund Balance Projection Charts

Assumptions:				
Rate Incr (1st Half)	3%	3%	3%	3%
Rate Incr (2nd Half)	3%	3%	3%	3%
Water Sales increases	1%	0%	0%	0%
Water Services increases	1%	1%	1%	1%
Inflation	3%	3%	3%	3%

	FY 2020 Est. Actuals	FY 2021 Budget	FY 2022 Projection	FY 2023 Projection	FY 2024 Projection
Water Sales & Water Services	$ 6,424,664	$ 6,500,483	$ 6,779,191	$ 7,069,849	$ 7,372,969
New Connections	$ 956,064	$ 818,236	$ 511,454	$ 1,445,704	$ 881,399
Non-Operating Revenue	$ 1,355,687	$ 1,353,376	$ 1,233,486	$ 1,270,490	$ 1,308,605
Grant Revenue	$ -	$ -	$ -	$ 850,000	$ 3,250,000
Debt Financing	$ -	$ -	$ -	$ 10,000,000	$ -
Total Revenue	**$ 8,736,415**	**$ 8,672,095**	**$ 8,524,131**	**$ 20,636,043**	**$ 12,812,973**
Operating Expenses	$ 5,287,648	$ 6,019,899	$ 6,200,496	$ 6,386,511	$ 6,578,106
Debt Service (P+I)	$ 554,841	$ 643,161	$ 726,433	$ 723,160	$ 723,811
Project Expenses	$ 1,980,162	$ 4,270,000	$ 2,843,000	$ 6,589,000	$ 8,290,000
Total Expenses	**$ 7,822,651**	**$ 10,933,060**	**$ 9,769,929**	**$ 13,698,671**	**$ 15,591,917**
Beginning Fund Balance	$ 3,299,036	$ 4,212,800	$ 1,951,835	$ 706,037	$ 7,643,410
Ending Fund Balance	**$ 4,212,800**	**$ 1,951,835**	**$ 706,037**	**$ 7,643,410**	**$ 4,864,466**



AGENDA REPORT

Scotts Valley Water District

Date: 05/14/20

To: Board of Directors

Item: Business 5.4

Subject: **11/03/20 Statewide General Election**

Reason: Complies with California Elections Code

SUMMARY

Recommendation: Adopt Resolution No. 04-20 to order an election, request Santa Cruz County Elections Department to conduct election, request to consolidate it with other jurisdictions holding an election on 11/03/20; and authorize the filing of Notice to County Clerk of Elective Offices to be Filled and Transmittal of Map and Boundaries.

Fiscal Impact: If an election is needed, the cost is around $1.50 to $2.50 per registered voter. The District will reimburse the Santa Cruz County Clerk / Elections Department for the cost of the services rendered.

Previous Related Action: On 05/17/18 the Board ordered an election and requested to consolidated it with other jurisdictions holding an election on 11/08/16. The Board selected a 200 word limit for statements of qualification, chose for District to cover the cost of publication and a Director being selected by lot in the event of a tie vote.

DISCUSSION

The District must order an election on 11/03/20 be called for two seats on its Board of Directors:

Four Year Terms
Chris Perri
Danny Reber

The Santa Cruz County Clerk / Elections Department provides election services for the District. The Notice to County Clerk of Elective Offices to be Filled must be filed by 07/01/20 and the Resolution ordering the election is due by 08/07/20.

The Board needs to make the following determinations:

1) A 200 or 400 (double the cost) word limit for the candidates Statement of Qualifications;
2) If the candidate or the District is responsible for paying the Statement of Qualifications;
3) If a Director will be selected by runoff or lot in the event of a tie vote.

The nomination period for candidates is 07/13/20 to 08/07/20. Candidates obtain and file Declaration of Candidacy and Statement of Qualifications with the Santa Cruz County Elections Office.

Submitted,

Piret Harmon
General Manager

Enclosed: Resolution No. 04-20
Notice to County Clerk of Elective Offices to be Filled

RESOLUTION NO. 04-20

RESOLUTION OF THE BOARD OF DIRECTORS OF THE SCOTTS VALLEY WATER DISTRICT ORDERING AN ELECTION, REQUESTING COUNTY ELECTIONS TO CONDUCT THE ELECTION, AND REQUESTING CONSOLIDATION OF THE ELECTION

SCOTTS VALLEY WATER DISTRICT

WHEREAS:

1. Pursuant to Elections Code Section 10002, the governing body of any special district may by resolution request the Board of Supervisors of the county to permit the county elections official to render specified services to the special district relating to the conduct of an election;

2. The resolution of the governing body of the special district shall specify the services requested;

3. Pursuant to Elections Code Section 10002, the special district shall reimburse the county in full for the services performed upon presentation of a bill to the special district;

4. Pursuant to Elections Code Section 10400, whenever two or more elections, including bond elections, of any legislative or congressional district, public district, city, county, or other political subdivision are called to be held on the same day, in the same territory, or in territory that is in part the same, they may be consolidated upon the order of the governing body or bodies or officer or officers calling the elections;

5. Pursuant to Elections Code Section 10400, such election for special districts may be either completely or partially consolidated;

6. Pursuant to Elections Code Section 10403, whenever an election called by a special district, for the submission of any question, proposition, or office to be filled is to be consolidated with a statewide election, and the question, proposition, or office to be filled is to appear upon the same ballot as that provided for that statewide election, the special district, will, at least 88 days prior to the date of the election, file with the board of supervisors, and a copy with the elections official, a resolution of its governing board requesting the consolidation, and setting forth the exact form of any question, proposition, or office to be voted upon at the election, as it is to appear on the ballot, acknowledging that the consolidation election will be held and conducted in the manner prescribed in Section 10418. Upon such request, the Board of Supervisors may order the consolidation;

7. Pursuant to Elections Code Section 10418, if consolidated, the consolidated election shall be held and conducted, election boards appointed, voting precincts designated, candidates nominated, ballots printed, polls opened and closed, voter challenges determined, ballots counted and returned, returns canvassed, results declared, certificates of election issued,

recounts conducted, election contests presented, and all other proceedings incidental to and connected with the election shall be regulated and done in accordance with the provisions of law regulating the statewide or special election, or the election held pursuant to Section 1302 or 1303, as applicable;

8. The resolution requesting the consolidation shall be adopted and filed at the same time as the adoption of the ordinance, resolution, or order calling the election;

9. Various district, county, state and other political subdivision elections may be or have been called to be held on November 3, 2020.

THEREFORE, BE IT RESOLVED AND ORDERED THAT THE BOARD OF DIRECTORS OF THE SCOTTS VALLEY WATER DISTRICT:

1. Hereby orders an election be called and consolidated with any and all elections also called to be held on November 3, 2020 insofar as said elections are to be held in the same territory or in territory that is in part the same as the territory of the Scotts Valley Water District and requests the Board of Supervisors of the County of Santa Cruz to order such consolidation under Elections Code Sections 10401, 10403 and 10418.

2. Requests the Board of Supervisors to permit the Santa Cruz County Elections Department to provide any and all services necessary for conducting the election and agrees to pay for said services, and

3. That the Santa Cruz County Elections Department conduct the election for the following offices on the November 3, 2020 ballot:

SEATS OPEN	OFFICE	TERM
2	Director	4 Years

PASSED AND ADOPTED this 14th day of May 2020 by the following vote:

AYES:
NOES:
ABSENT:

_____
Wade Leishman, President
Board of Directors

Attest: _____
Piret Harmon, Board Secretary

Notice to County Clerk of Elective Offices to be Filled
and Transmittal of Map and Boundaries

SCOTTS VALLEY WATER DISTRICT

To the County Clerk of Santa Cruz County:

(1) Notice is hereby given that the elective offices of the district to be elected

CHECK ONE: ☒ at large or
☐ by division

at the general election scheduled for November 3, 2020, are as follows:

OFFICE	INCUMBENT'S NAME	TERM
Director	Chris Perri	4 Years
Director	Danny Reber	4 Years

SPECIAL DISTRICTS: No election will be held if there is an insufficient number of nominees.

(2) The qualifications of a nominee of an elective officer of the district/city are as follows:

A registered voter in the District:

(3) The Candidate's Statement of Qualifications shall be limited to

CHECK ONE: ☒ 200 words
☐ 400 words (double the cost)

Candidates are permitted to file a statement to be posted online only.

CHECK ONE: ☒ 200 words
☐ 400 words (double the cost)

Candidate are responsible for paying the cost of publishing the Candidate's Statement of Qualifications in the County Voter Information Guide or posting online at the time of filing his/her statement.

CHECK ONE: ❑ Yes
☒ No. The District will pay the cost.

(4) Tie votes for City and District elections are resolved by lot according to Elections Code §15651 and §10551. In lieu of resolving a tie vote by lot the District/City may resolve a tie vote by the conduct of a special runoff election, pursuant to §15651 (b). A special runoff

election shall be held only if the legislative body adopts the provisions of this code prior to the conduct of the election. If a legislative body decides to call a special runoff election in the event of a tie vote, all future elections conducted by that body shall be resolved by the conduct of a special runoff election, unless the legislative body later repeals the authority for the conduct of a special runoff election.

To conduct a tie vote by special runoff election for this election and all future elections, check here. ❑

(5) Date of last map change: September 5, 2019. Who should we contact from your jurisdiction to come to our office at 701 Ocean St., Room 210, in Santa Cruz, to review the map on file to confirm the district boundaries and trustee areas (if any)?

Name: Brody Knutson
Phone: 831-600-1905
E-mail: bknutson@svwd.org

_____

Piret Harmon, General Manager

Dated: _____

****

STAFF REPORT - Finance

Scotts Valley Water District

Date: 05/14/20

To: Board of Directors

From: General Manager

Item: Staff Reports 6.3

Subject: **Financial Reports 07/01/19 through 03/31/20**

Summary

Fiscal Year-to-Date (YTD) figures reflect the period of 07/01/19 through 03/31/20. YTD revenues total $5.9 M and expenses total $5.0 M.

Revenue

March is the ninth month of the fiscal year and the first month of the March-April potable water billing period. YTD potable water sales revenue is $2.9 M, water services revenue is $1.5 M, and new connections revenue is $438 K. Total YTD revenue in the potable water fund is $5.5 M, equal to 65% of the budget and 7% higher than the same period last year.

YTD recycled water sales revenue is $372 K, water services revenue is $31 K, and revenue from new connections of $22 K. Total YTD revenue of $426 K in the recycled water fund equals 64% of the budget, which is 7% higher than for the same period of last fiscal year.

Expenses

Combined operating expenses YTD are below budget, with expenses of $4.0 M representing 70% of the budget. Project expenditures total $581 K and the debt service principal payment of $468K has been made.

Fund Balance

Cash reserves at the end of March were approximately $4.2 M with another $0.8 M booked in Accounts Receivable.

Enclosed

Quarterly Financial Report – Q3 of FY 2020
Budget Status Balance 07/01/19 – 03/31/20
Budget Status Revenue 07/01/19 – 03/31/20
Budget Status Expense 07/01/19 – 03/31/20
Projects Expense 07/01/19 – 03/31/20
Balance Sheet 03/31/20
Check Register 03/01/20 – 03/31/20
Investment Summary – 03/31/20

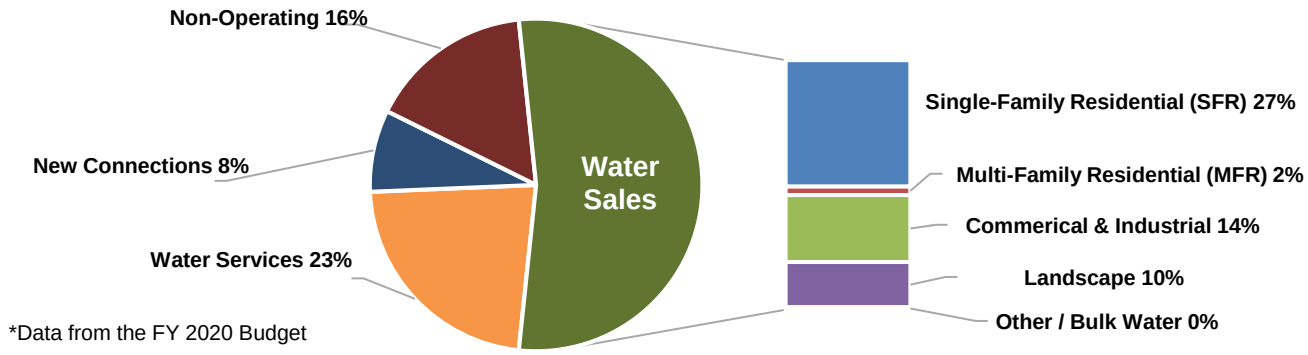
SCOTTS VALLEY WATER DISTRICT

FY 2020 – Q3 Financial Report

July 1, 2019 – March 31, 2020

Revenues

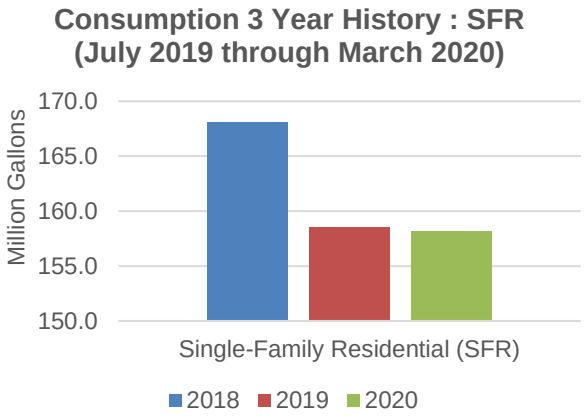
Scotts Valley Water District revenues come from four main sources: Water Sales, Water Services (Ready-to-Serve), New Connections, and Non-Operating*.

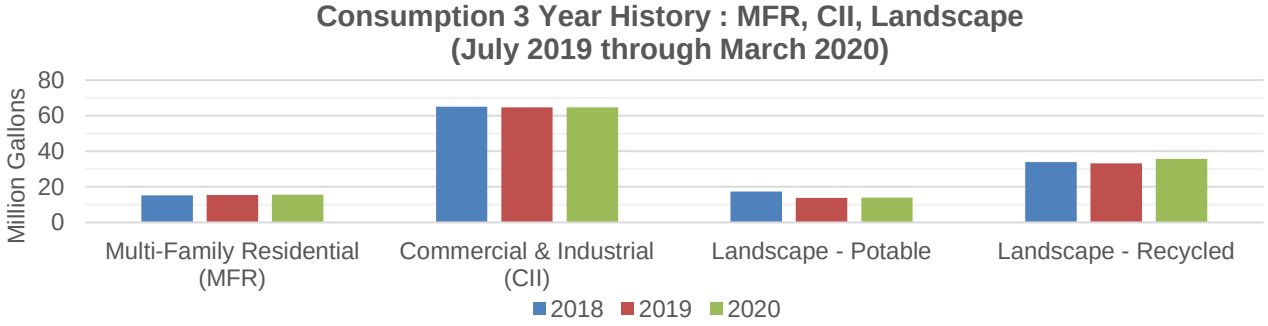


The District's largest revenue category is Single Family Residential (SFR) Water Sales. Revenue from SFR Water Sales for the period of July 2019 through March 2020 is up 8.7% from the same period in the prior year. This increase in revenue is the result of water rate increases, with consumption roughly the same as the prior year.

Consumption

Water consumption by SFR customers from the beginning of the fiscal year through the third quarter is 158 million gallons, equal to the water consumption in the same period of FY 2019.

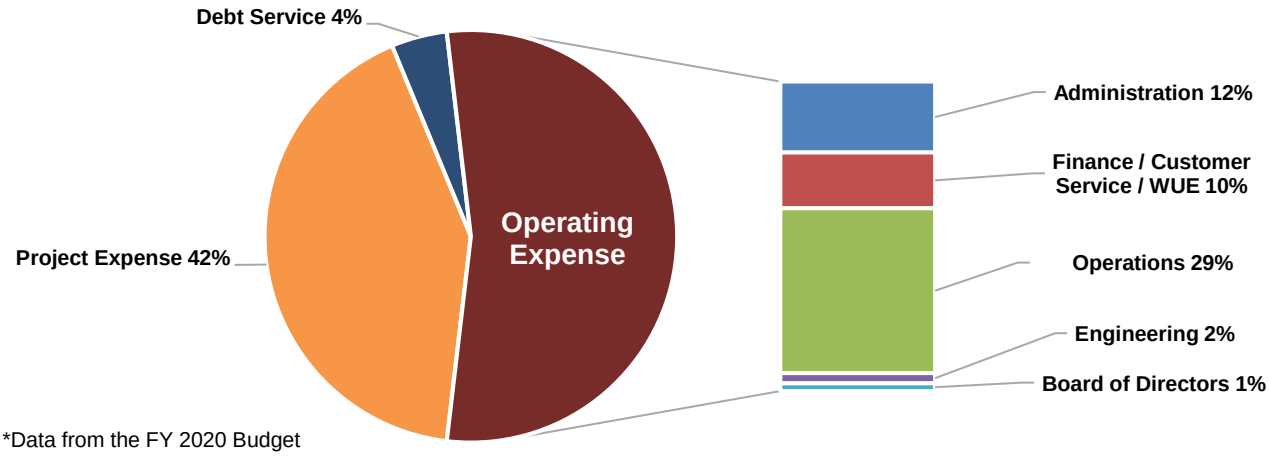




2 Civic Center Drive • Scotts Valley, CA 95066 • 831.438.2363
contact@svwd.org • www.svwd.org

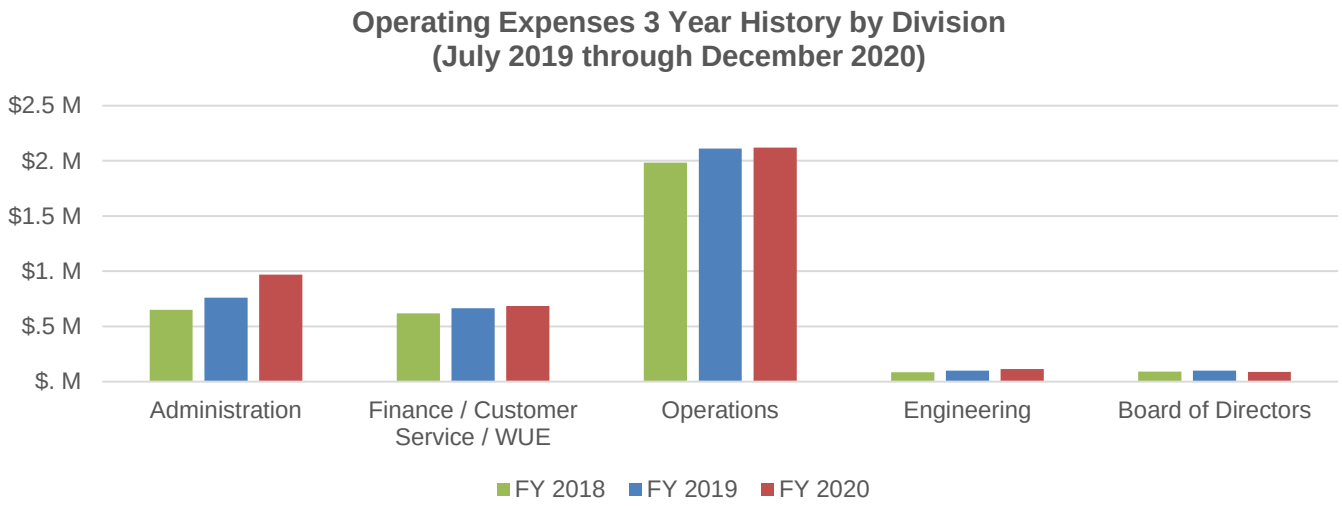
Expenses

District expenses are comprised of three major categories: Operating Expenses, Project Expenses, and Debt Service. The chart below presents the FY 2020 Budget by expense category, with Operating Expenses broken down by Division*.



*Data from the FY 2020 Budget

Operating expenses are the organization's largest expense category. District operating expenses reflect the cost to provide high quality water service consistently across the district service area. Operating expenses through Q3 of FY 2020, which accounts for activity from July 2019 through March 2020, are below budget. Total operating expenses in FY 2020 exceed the FY 2019 total by 6.4%. The chart below compares Operating Expenditures by Division for each of the past three fiscal years.



Budget Status - Balance

Period: 07/01/19 - 03/31/20

FY Remain: 25%

	FY 2019 YTD Actual	FY 2020 YTD Actual	FY 2020 vs. FY 2019	YOY % change	FY 2020 Budget	FY 2020 Remaining Balance	%
Period: 07/01/19 - 3/31/20 (9 months)							
Potable Water - Fund 01							
Water Sales & Services (R10, R20)	$ 4,106,841	$ 4,402,083	$ 295,242	7%	$ 6,127,742	$ 1,725,659	28%
New Connections (R25)	$ 495,374	$ 453,603	$ (41,771)	-8%	$ 1,468,132	$ 1,014,529	69%
Other Revenue (R30, R40)	$ 539,962	$ 662,915	$ 122,953	23%	$ 940,352	$ 277,437	30%
Potable Water Total	**$ 5,142,177**	**$ 5,518,601**	**$ 376,424**	**7%**	**$ 8,536,226**	**$ 3,017,625**	**35%**
Recycled Water - Fund 02							
Water Sales & Services (R10, R20)	$ 353,070	$ 402,495	$ 49,425	14%	$ 535,301	$ 132,806	25%
New Connections (R25)	$ 42,265	$ 22,473	$ (19,792)	-47%	$ 90,869	$ 68,396	75%
Other Revenue (R30, R40)	$ 2,550	$ 824	$ (1,726)	-68%	$ 170,617	$ 169,793	100%
Recycled Water Total	**$ 397,885**	**$ 425,792**	**$ 27,907**	**7%**	**$ 796,787**	**$ 370,995**	**47%**
TOTAL REVENUE	**$ 5,540,062**	**$ 5,944,393**	**$ 404,331**	**7%**	**$ 9,333,013**	**$ 3,388,620**	**36%**
Expenses - Fund 01 and Fund 02 Combined							
Salaries & Benefits (E01)	$ 2,072,054	$ 2,168,152	$ 96,098	5%	$ 2,912,312	$ 744,160	26%
Services & Supplies (E03-E80)	$ 1,639,978	$ 1,807,010	$ 167,032	10%	$ 2,746,154	$ 939,144	34%
Project Expenses	$ 525,704	$ 581,858	$ 56,154	11%	$ 4,412,000	$ 3,830,142	87%
Debt Service - Principal	$ 460,030	$ 468,579	$ 8,549	2%	$ 468,579	$ -	0%
TOTAL EXPENSES *	**$ 4,697,767**	**$ 5,025,600**	**$ 327,833**	**7%**	**$ 10,539,045**	**$ 5,513,445**	**52%**
NET REVENUE	**$ 842,295**	**$ 918,793**	**$ 76,498**		**$ (1,206,032)**	**$ (2,124,825)**	
Period: 07/01/19 - 3/31/20 (9 months)							
Total Revenue	**$ 5,540,062**	**$ 5,944,393**	**$ 404,331**	**7%**	**$ 9,333,013**	**$ 3,388,620**	**36%**
Total Expenses *	**$ 4,697,767**	**$ 5,025,600**	**$ 327,833**	**7%**	**$ 10,539,045**	**$ 5,513,445**	**52%**
Net Revenue	**$ 842,295**	**$ 918,793**	**$ 76,498**		**$ (1,206,032)**		
Period: 07/01/19 - 2/29/20 (8 months)							
Total Revenue	**$ 5,139,469**	**$ 5,461,121**	**$ 321,652**	**6%**	**$ 9,333,013**	**$ 3,871,892**	**41%**
Total Expenses *	**$ 4,333,801**	**$ 4,376,733**	**$ 42,932**	**1%**	**$ 10,530,496**	**$ 6,153,763**	**58%**
Net Revenue	**$ 805,668**	**$ 1,084,388**	**$ 278,720**		**$ (1,197,483)**		

* Expense totals do not include depreciation expense

Budget Status - Revenue

Period: 07/01/19 - 03/31/20 **FY Remain: 25%**

		FY 2019 YTD Actual	FY 2020 YTD Actual	FY 2020 vs. FY 2019	YOY % change	FY 2020 Budget	FY 2020 Remaining Balance	%
Fund 01	**Potable Water**							
R10	Operating Revenue - Water Sales							
01-000-41101	Residential Consumption - SF	$ 1,514,818	$ 1,592,902	$ 78,084	5%	$ 2,321,579	$ 728,677	31%
01-000-41102	Residential Consumption - MF	$ 114,074	$ 125,919	$ 11,845	10%	$ 167,537	$ 41,618	25%
01-000-41103	CII Consumption - Commercial	$ 770,455	$ 813,784	$ 43,329	6%	$ 1,231,742	$ 417,958	34%
01-000-41106	CII Consumption - Other	$ 69,079	$ 98,137	$ 29,058	42%	$ -	$ (98,137)	
01-000-41105	Irrigation Consumption	$ 202,514	$ 226,899	$ 24,385	12%	$ 324,929	$ 98,030	30%
01-000-41200	Other - Bulk Water	$ 26,319	$ 20,607	$ (5,712)	-22%	$ 16,000	$ (4,607)	-29%
	R10 Sub Totals:	$ 2,697,259	$ 2,878,248	$ 180,989	7%	$ 4,061,787	$ 1,183,539	29%
R20	Operating Revenue - Water Services							
01-000-41300	Other - Late Penalty	$ 22,100	$ 15,990	$ (6,110)	-28%	$ 27,260	$ 11,270	41%
01-000-42100	Standby Basic Meter Charge	$ 1,340,806	$ 1,458,008	$ 117,202	9%	$ 1,975,029	$ 517,021	26%
01-000-42121	Standby FP Basic Meter Charge	$ 37,202	$ 42,163	$ 4,961	13%	$ 50,397	$ 8,235	16%
01-000-43300	Other Operating Revenue	$ 9,475	$ 7,675	$ (1,800)	-19%	$ 13,269	$ 5,594	42%
	R20 Sub Totals:	$ 1,409,583	$ 1,523,836	$ 114,253	8%	$ 2,065,955	$ 542,119	26%
R25	Operating Revenue - New Connections							
01-000-42101	Other Meter Fee	$ 7,678	$ 6,452	$ (1,226)	-16%	$ 12,093	$ 5,641	47%
01-000-42102	Other Capacity Fee	$ 482,711	$ 438,496	$ (44,215)	-9%	$ 1,448,187	$ 1,009,691	70%
01-000-42120	Other FP Meter Fee	$ 3,140	$ 3,301	$ 161	5%	$ 4,946	$ 1,645	33%
01-000-43100	Other Will Serve	$ 500	$ 1,000	$ 500	100%	$ 788	$ (212)	-27%
01-000-43200	Other Dev Proj Review	$ 1,345	$ 4,354	$ 3,009	224%	$ 2,118	$ (2,236)	-106%
	R25 Sub Totals:	$ 495,374	$ 453,603	$ (41,771)	-8%	$ 1,468,132	$ 1,014,529	69%
R30	Non-Operating Revenue - Other							
01-000-46000	Property Taxes	$ 505,080	$ 531,306	$ 26,225	5%	$ 920,746	$ 389,440	42%
01-000-47110	Interest & Dividend	$ 3,130	$ 20	$ (3,110)	-99%	$ 4,869	$ 4,849	100%
01-000-47120	Interest - LAIF	$ 7,452	$ 16,897	$ 9,445	127%	$ 11,737	$ (5,160)	-44%
01-000-47520	Misc. Non-Operating Revenue	$ 20,654	$ 111,629	$ 90,975	440%	$ 3,000	$ (108,629)	-3621%
01-000-47530	Unrealized Gain/Loss on Investment	$ 2,925	$ 3,063	$ 137	5%	$ -	$ (3,063)	
	R30 Sub Totals:	$ 539,242	$ 662,915	$ 123,673	23%	$ 940,352	$ 277,437	30%
R40	Non-Operating Revenue - Grants							
01-000-45260	Local Grant - ACWA JPIA	$ 720	$ -	$ (720)	-100%	$ -	$ -	
	R40 Sub Totals:	$ 720	$ -	$ (720)	-100%	$ -	$ -	
	Fund 01 Revenue:	**$ 5,142,177**	**$ 5,518,601**	**$ 376,424**	**7%**	**$ 8,536,226**	**$ 3,017,625**	**35%**
	Fund 01 Rev Excl Grants & Cap Contributions	$ 5,141,457	$ 5,518,601	$ 377,144	7%	$ 8,536,226	$ 3,017,625	35%

Budget Status - Revenue

Period: 07/01/19 - 03/31/20 **FY Remain: 25%**

		FY 2019 YTD Actual	FY 2020 YTD Actual	FY 2020 vs. FY 2019	YOY % change	FY 2020 Budget	FY 2020 Remaining Balance	%
Fund 02	**Recycled Water**							
R10	Operating Revenue - Water Sales							
02-000-41105	Irrigation Consumption	$ 317,291	$ 367,895	$ 50,604	16%	$ 465,177	$ 97,282	21%
02-000-41200	Other - Bulk Water	$ 15,278	$ 3,836	$ (11,443)	-75%	$ 25,000	$ 21,164	85%
	R10 Sub Totals:	$ 332,569	$ 371,730	$ 39,161	12%	$ 490,177	$ 118,447	24%
R20	Operating Revenue - Water Services							
02-000-42100	Standby Basic Meter Charge	$ 20,376	$ 30,740	$ 10,364	51%	$ 45,124	$ 14,384	32%
02-000-43300	Other Operating Revenue	$ 125	$ 25	$ (100)	-80%	$ -	$ (25)	
	R20 Sub Totals:	$ 20,501	$ 30,765	$ 10,264	50%	$ 45,124	$ 14,359	32%
R25	Operating Revenue - New Connections							
02-000-42101	Other Meter Fee	$ 448	$ 562	$ 114	125%	$ -	$ (562)	
02-000-42102	Other Capacity Fee	$ 41,817	$ 21,911	$ (19,906)	-48%	$ 90,869	$ 68,958	76%
	R25 Sub Totals:	$ 42,265	$ 22,473	$ (19,792)	-47%	$ 90,869	$ 68,396	75%
R30	Non-Operating Revenue - Other							
02-000-47110	Interest & Dividend	$ 2,550	$ 824	$ (1,726)	-68%	$ 7,598	$ 6,774	89%
02-000-47560	Reduction of RW Entitlement	$ -	$ -	$ -		$ 163,019	$ 163,019	100%
	R30 Sub Totals:	$ 2,550	$ 824	$ (1,726)	-68%	$ 170,617	$ 169,793	100%
	Fund 02 Revenue:	**$ 397,885**	**$ 425,792**	**$ 27,907**	**7%**	**$ 796,787**	**$ 370,995**	**47%**
	Fund 02 Rev Excl Grants & Cap Contributions	$ 397,885	$ 425,792	$ 27,907	**7%**	$ 796,787	$ 370,995	47%
Revenue Totals:		**$ 5,540,062**	**$ 5,944,393**	**$ 404,331**	**7%**	**$ 9,333,013**	**$ 3,388,620**	**36%**
Revenue Total Excl Grants & Cap Contributions		$ 5,539,342	$ 5,944,393	$ 405,051	7%	$ 9,333,013	$ 3,388,620	36%

Budget Status - Expense

Period: 07/01/19 - 03/31/20

FY Remain: 25%

Fund 01 and Fund 02 Combined

Dept		FY 2019 YTD Actual	FY 2020 YTD Actual	FY 2020 vs. FY 2019	YOY % change	FY 2020 Budget	FY 2020 Remaining Balance	%
				Includes 1.0 FTE Admin Office Assistant (offset by Non-Operating Revenue)				
Dept	**Administration**							
E01	Salaries & Benefits (2.5 FTE)	$ 368,776	$ 443,150	$ 74,374	20%	$ 571,864	$ 128,714	23%
E03	General & Admin - Services	$ 222,655	$ 215,101	$ (7,554)	-3%	$ 326,074	$ 110,973	34%
E05	General & Admin - Supplies	$ 13,545	$ 15,724	$ 2,179	16%	$ 17,550	$ 1,826	10%
E10	Source of Supply	$ 132,231	$ 296,472	$ 164,242	124%	$ 381,821	$ 85,349	22%
	Dept 100 Sub Totals:	**$ 737,206**	**$ 970,448**	**$ 233,241**	**32%**	**$ 1,297,309**	**$ 326,861**	**25%**
				FY 20 includes W.U.E. Coordinator & Services/Supplies				
Dept	**Finance/Customer Service**							
E01	Salaries & Benefits (4 FTE)	$ 309,380	$ 411,809	$ 102,429	33%	$ 537,783	$ 125,974	23%
E03	General & Admin - Services	$ 104,910	$ 101,397	$ (3,513)	-3%	$ 205,303	$ 103,906	51%
E05	General & Admin - Supplies	$ 11	$ 200	$ 189	1718%	$ 9,000	$ 8,800	98%
E35	Customer Accounts	$ 78,055	$ 126,704	$ 48,650	62%	$ 180,138	$ 53,434	30%
E70	Other	$ 989	$ 1,174	$ 185	19%	$ 1,000	$ (174)	-17%
E80	Debt Service - Interest	$ 71,164	$ 43,083	$ (28,081)	-39%	$ 86,358	$ 43,275	50%
	Dept 200 Sub Totals:	**$ 564,508**	**$ 684,367**	**$ 119,859**	**21%**	**$ 1,019,582**	**$ 335,215**	**33%**
Dept	**Operations**							
E01	Salaries & Benefits (11 FTE)	$ 1,165,753	$ 1,163,568	$ (2,184)	0%	$ 1,589,424	$ 425,856	27%
E03	General & Admin - Services	$ 116,112	$ 142,087	$ 25,975	22%	$ 192,400	$ 50,313	26%
E05	General & Admin - Supplies	$ 26,526	$ 23,767	$ (2,759)	-10%	$ 30,500	$ 6,733	22%
E07	General Production	$ 61,756	$ 79,763	$ 18,007	29%	$ 86,100	$ 6,337	7%
E10	Source of Supply	$ 38,512	$ 112,216	$ 73,704	191%	$ 130,000	$ 17,784	14%
E15	Pumping	$ 261,418	$ 323,352	$ 61,934	24%	$ 386,930	$ 63,578	16%
E20	Water Treatment	$ 232,613	$ 187,787	$ (44,826)	-19%	$ 448,000	$ 260,213	58%
E25	Transmission & Distribution	$ 90,907	$ 65,812	$ (25,095)	-28%	$ 134,100	$ 68,288	51%
E35	Conservation	$ -	$ -	$ -		$ 2,000	$ 2,000	100%
E70	Other	$ 116,781	$ 21,619	$ (95,162)	-81%	$ -	$ (21,619)	
	Dept 300 Sub Totals:	**$ 2,110,378**	**$ 2,119,972**	**$ 9,594**	**0%**	**$ 2,999,454**	**$ 879,482**	**29%**
Dept	**Engineering**							
E01	Salaries & Benefits (1 FTE)	$ 62,477	$ 69,400	$ 6,923	11%	$ 95,241	$ 25,841	27%
E03	General & Admin - Services	$ 36,489	$ 43,746	$ 7,257	20%	$ 90,210	$ 46,464	52%
E05	General & Admin - Supplies	$ -	$ -	$ -		$ 1,000	$ 1,000	100%
	Dept 400 Sub Totals:	**$ 98,966**	**$ 113,146**	**$ 14,180**	**14%**	**$ 186,451**	**$ 73,305**	**39%**
Dept	**WUE/Conservation**							
E01	Salaries & Benefits	$ 77,763	$ -	$ (77,763)	-100%	$ -	$ -	
E03	General & Admin - Services	$ 4,138	$ -	$ (4,138)	-100%	$ -	$ -	
E05	General & Admin - Supplies	$ 19,867	$ -	$ (19,867)	-100%	$ -	$ -	
	Dept 500 Sub Totals:	**$ 101,768**	**$ -**	**$ (101,768)**	**-100%**	**$ -**	**$ -**	
Dept	**Board of Directors**							
E01	Salaries & Benefits (7)	$ 87,905	$ 80,224	$ (7,681)	-9%	$ 118,000	$ 37,776	32%
E03	General & Admin - Services	$ 11,125	$ 7,005	$ (4,120)	-37%	$ 22,820	$ 15,815	69%
E05	General & Admin - Supplies	$ 175	$ -	$ (175)	-100%	$ 850	$ 850	100%
	Dept 900 Sub Totals:	**$ 99,206**	**$ 87,229**	**$ (11,977)**	**-12%**	**$ 141,670**	**$ 54,441**	**38%**

Budget Status - Expense

Period: 07/01/19 - 03/31/20

FY Remain: 25%

		FY 2019 YTD Actual	FY 2020 YTD Actual	FY 2020 vs. FY 2019	YOY % change	FY 2020 Budget	FY 2020 Remaining Balance	%
Summary								
E01	Salaries & Benefits	$ 2,072,054	$ 2,168,152	$ 96,098	5%	$ 2,912,312	$ 744,160	26%
E03	General & Admin - Services	$ 495,429	$ 509,336	$ 13,908	3%	$ 836,807	$ 327,471	39%
E05	General & Admin - Supplies	$ 60,124	$ 39,691	$ (20,434)	-34%	$ 58,900	$ 19,209	33%
E07	General Production	$ 61,756	$ 79,763	$ 18,007	29%	$ 86,100	$ 6,337	7%
E10	Source of Supply	$ 170,743	$ 408,688	$ 237,946	139%	$ 511,821	$ 103,133	20%
E15	Pumping	$ 261,418	$ 323,352	$ 61,934	24%	$ 386,930	$ 63,578	16%
E20	Water Treatment	$ 232,613	$ 187,787	$ (44,826)	-19%	$ 448,000	$ 260,213	58%
E30	Conservation	$ -	$ -	$ -		$ 2,000	$ 2,000	100%
E25	Transmission & Distribution	$ 90,907	$ 65,812	$ (25,095)	-28%	$ 134,100	$ 68,288	51%
E35	Customer Accounts	$ 79,044	$ 126,704	$ 47,661	60%	$ 181,138	$ 53,259	29%
E70	Other	$ 116,781	$ 22,793	$ (93,988)	-80%	$ -	$ (21,619)	
E80	Debt Service - Interest	$ 71,164	$ 43,083	$ (28,081)	-39%	$ 86,358	$ 43,275	50%
	Purchase Order Carryover					$ 14,000		
District Expense Total:		**$ 3,712,033**	**$ 3,975,162**	**$ 263,130**	**7%**	**$ 5,658,466**	**$ 1,669,304**	**30%**
Fund 01 and 02 Combined								
E01	Salaries & Benefits	$ 2,072,054	$ 2,168,152	$ 96,098	5%	$ 2,912,312	$ 744,160	**26%**
E03-E80	Services & Supplies	$ 1,639,978	$ 1,807,010	$ 167,032	10%	$ 2,732,154	$ 925,144	**34%**
	Purchase Order Carryover					$ 14,000		
District Expense Total:		**$ 3,712,033**	**$ 3,975,162**	**$ 263,130**	**7%**	**$ 5,658,466**	**$ 1,669,304**	**30%**

Projects - Expense

Period: 07/01/19 - 03/31/20 **FY Remain: 25%**

Fund 01 and Fund 02 Combined

Project	Description	FY 2020 YTD Actual	FY 2020 Budget	FY 2020 Remaining Balance	%
C15016	Accounting & UB S/W Replacement	$ -	$ 20,000	$ 20,000	100%
C15021	Purified Recycled Water Recharge	$ 4,182	$ 525,000	$ 520,818	99%
C16023	Orchard Run WTP Improvements	$ -	$ 2,200,000	$ 2,200,000	100%
C16024	Bethany Tank Rehabilitation	$ 28,003	$ 200,000	$ 171,997	86%
M17011	Meter Replacement Program	$ 140,565	$ 150,000	$ 9,435	6%
C17011	AMI Technology for Meters	$ 77,354	$ 200,000	$ 122,646	61%
C17018	Specialized Operations Vehicle	$ 3,650	$ 230,000	$ 226,350	98%
C18035	Sequoia Tank Rehabilitation	$ 244,551	$ 400,000	$ 155,449	39%
C19020	El Pueblo WTP Improvements	$ -	$ 100,000	$ 100,000	100%
C19030	Hacienda Pump Station Improvements	$ 28,010	$ 100,000	$ 71,990	72%
C20010	Main Replacement Program - PW	$ 1,107	$ 150,000	$ 148,893	99%
C20020	Treatment Facility for New Production Well	$ 2,388	$ 50,000	$ 47,613	95%
C20040	Administrative Building Improvements	$ 52,049	$ 50,000	$ (2,049)	-4%
tbd	FY 20 Vehicle Replacement Program	$ -	$ 37,000	$ 37,000	100%
Projects Expense Totals:		**$ 581,858**	**$ 4,412,000**	**$ 3,830,142**	**87%**

Balance Sheet

Fund 01 and Fund 02 Combined

	03/31/19	03/31/20
Assets		
Cash	$2,799,862	$4,186,783
Investment	$198,981	$0
Accrued Interest	$348	$13,911
A/R Customer-Water	$666,447	$761,370
A/R - Other	$170,258	$245,440
Interfund Loan Receivable	$368,440	$888,040
Inventory	$211,827	$232,601
Prepaid Expense	$53,669	$292,612
Note Receivable	$392,431	$0
JPA Investment	$0	$332,010
Land & Right-of-ways	$650,697	$650,697
Construction-in-progress	$752,178	$1,009,770
Water Rights / Intangible Assets	$5,267,833	$5,267,833
Plant & Equipment	$37,471,983	$38,053,522
Depreciation/Amortization	($21,672,284)	($22,757,538)
Loss on Defeasance of Debt	$36,171	$0
Deferred Pension Outflows	$656,179	$680,989
Deferred OPEB Liability	$0	$153,549
	$28,025,020	**$30,011,588**
Liabilities		
A/P & Accrued Expenses	$8,877	$14,994
Accrued Salaries & Wages	$29,880	$48,576
Accrued Interest Payable	$23,721	$23,590
Customer Deposits	$48,000	$58,210
Interfund Loans	$368,440	$888,040
LT Liabilities Due in 1 Yr	$25,862	$30,508
Unearned Revenue	$2,671	$64,350
Long-term Liabilities	$10,168,744	$9,589,006
Deferred Pension Inflows	$183,523	$212,281
	$10,859,718	**$10,929,554**
Fund Balance		
Investment in Capital Assets	$16,700,288	$16,974,413
Unrestricted Net Position	($1,338,284)	$116,146
	$15,362,004	**$17,090,559**
Total Liabilities and Fund Balance:	$26,221,722	$28,020,113
Total Retained Earnings:	$1,803,298	$1,991,475
Total Fund Balance and Retained Earnings:	$17,165,302	$19,082,034
Total Liabilities, Fund Balance, and Retained Earnings:	**$28,025,020**	**$30,011,588**

Scotts Valley Water District
AP Check Register
March 2020

Vendor Name	Check Date	Check No.	Check Amount	Description
ACWA/JPIA	3/6/2020	28548	$ 38,573.97	EE & Retiree Benefits - Apr 2020
AFSCME COUNCIL 57	3/20/2020	28593	$ 564.33	Union Dues - Mar 2020
AIRTEC SERVICE	3/6/2020	28549	$ 269.00	HVAC Service - Relocate Return Vent
AIRTEC SERVICE	3/20/2020	28594	$ 605.00	Quarterly HVAC Maint - 2 Civic Ctr
APPLE HOMES DEVELOPMENT	3/6/2020	28550	$ 334.52	SA-114 Deposit - Refund Remainder
APPLE HOMES DEVELOPMENT	3/6/2020	28550	$ 334.52	SA-113 Deposit - Refund Remainder
APPLE HOMES DEVELOPMENT	3/6/2020	28550	$ 334.52	SA-112 Deposit - Refund Remainder
BADGER METER	3/6/2020	28552	$ 3,043.80	Cell Charge for PW Meter Reads - Feb 2020
BADGER METER	3/6/2020	28552	$ 59.63	Cell Charge for RW Meter Reads - Feb 2020
BADGER METER	3/20/2020	28595	$ 10,305.95	AMI Endpoints - Qty: 104
BADGER METER	3/20/2020	28595	$ 36,392.85	Meter Purchases - Qty: 250
BENGTSON DAVID	3/6/2020	28553	$ 325.17	SA-121 Deposit - Refund Remainder
BERGMAN MARLYN	3/20/2020	28596	$ 73.47	UB Refund Check - 012613-000
BERNHARDT JEFF	3/20/2020	28597	$ 325.17	SA-132 Deposit - Refund Remainder
BRASS KEY LOCKSMITH	3/20/2020	28598	$ 13.06	OPS Supplies - Key
BRENNTAG PACIFIC INC	3/20/2020	28599	$ 2,016.80	Water Treatment Chemicals
BUSINESS WITH PLEASURE	3/6/2020	28555	$ 41.24	FIN Supplies - 2019 1099 Forms
BUSINESS WITH PLEASURE	3/6/2020	28555	$ 30.77	Office Supplies - Paper
CALL DANIEL	3/20/2020	28600	$ 203.15	SA-116 Deposit - Refund Remainder
CITY OF SCOTTS VALLEY	3/20/2020	28601	$ 390.00	Bacti Samples - Feb 2020
CITY VENTURES	3/20/2020	28602	$ 2,000.00	Refund Deposit - PW Bulk Meter
CIVIL CONSULTANTS GROUP INC	3/6/2020	28556	$ 430.00	Bethany 2nd Tank Addition Task 7: Civil Engineering
CIVIL CONSULTANTS GROUP INC	3/6/2020	28556	$ 480.00	General Engineering Services - Mar 2020
CIVIL CONSULTANTS GROUP INC	3/6/2020	28556	$ 1,800.00	Hacienda PS Improvements Task 2: Planning Coordination
CIVIL CONSULTANTS GROUP INC	3/6/2020	28556	$ 4,154.00	Hacienda PS Improvements Task 3: Piping Plan
CIVIL CONSULTANTS GROUP INC	3/6/2020	28556	$ 4,030.00	Hacienda PS Improvements Task 4: Enclosure & Interior Plans
CIVIL CONSULTANTS GROUP INC	3/6/2020	28556	$ 3,500.00	Hacienda PS Improvements Task 5: Road Improvements
CIVIL CONSULTANTS GROUP INC	3/6/2020	28556	$ 600.00	Hacienda PS Improvements Task 7: Reimburseable Expenses
COUNTY OF SANTA CRUZ	3/6/2020	28557	$ 70.05	Landfill Waste - Feb 2020
COX FREDERICK	3/6/2020	28558	$ 365.48	SA-151 Deposit - Refund Remainder
CWEA TCP	3/20/2020	28603	$ 412.00	CWEA Level 4 Technical Cert - DeBrito
D'ANDREA SHARON	3/20/2020	28604	$ 300.34	SA-126 Deposit - Refund Remainder
DASSELS PETROLEUM	3/20/2020	28605	$ 1,175.00	Vehicle Fuel - Feb 2020
DYNAMIC PRESS INC	3/6/2020	28559	$ 153.69	Business Cards - Knutson, Ravinale, Harmon, Finch, Downing
EUROFINS EATON ANALYTICAL	3/6/2020	28560	$ 430.00	Lab Testing for Water Quality
FASTENAL COMPANY	3/6/2020	28561	$ 322.36	OPS Supplies - Misc
FRONCKOWIAK KYLE	3/6/2020	28562	$ 340.71	SA-143 Deposit - Refund Remainder
GANDRUP ANDRE	3/6/2020	28563	$ 298.81	SA-134 Deposit - Refund Remainder
GRAINGER	3/6/2020	28564	$ 787.12	Treatment Plant Maint - Phase Failure Power Indicators
GRANITE CONSTRUCTION CO	3/20/2020	28606	$ 149.58	Main Maint - Aggregatebase
GRANITE ROCK COMPANY	3/20/2020	28607	$ 135.61	Main Maint - Utility Trench Sand
GREEN WASTE RECOVERY INC	3/20/2020	28608	$ 254.53	Trash Service - El Pueblo - Feb 2020
HACH COMPANY	3/20/2020	28609	$ 1,314.31	Chlorine Analyzer Repair
HAIGHT ROBERT	3/20/2020	28610	$ 598.02	Retiree Medical - Mar 2020
HARMON PIRET	3/6/2020	28565	$ 50.00	Customer Rebate - Pressure Regulator
HENRY CAPRICE	3/6/2020	28566	$ 425.00	Customer Rebate - Low Volume Irrigation
HINTON THOMAS	3/6/2020	28567	$ 325.17	SA-125 Deposit - Refund Remainder
ICON CLOUD SOLUTIONS LLC	3/20/2020	28611	$ 118.32	Phone Service - OPS - Mar 2020
ICON CLOUD SOLUTIONS LLC	3/20/2020	28611	$ 335.00	Phone Service - Mar 2020
ICONIX WATERWORKS (US) INC	3/6/2020	28568	$ 938.75	Small Tools - Tapping Machine Parts
ICONIX WATERWORKS (US) INC	3/20/2020	28612	$ 1,008.46	Sequoia Tank Rehab - Hatch Gaskets
ICONIX WATERWORKS (US) INC	3/20/2020	28612	$ 2,042.74	Service Line Maint - Stock
ICONIX WATERWORKS (US) INC	3/20/2020	28612	$ 1,349.49	Main Maint - Couplings
ICONIX WATERWORKS (US) INC	3/20/2020	28612	$ 2,062.15	Meter Maint - Adapters, Curb Stops
INFOSEND	3/20/2020	28613	$ 641.20	UB Inserts Printing & Mailing - Feb 2020
INFOSEND	3/20/2020	28613	$ 1,777.60	UB Statements Printing & Mailing - Feb 2020
JACKSON LANDSCAPE	3/6/2020	28569	$ 308.75	Landscape Maint - 2 Civic Ctr - Feb 2020
KASSIS WILLIAM	3/20/2020	28614	$ 591.24	Retiree Medical - Mar 2020
KBA DOCUMENT SOLUTIONS LLC	3/6/2020	28570	$ 202.82	Copier Maint & Printing Costs - Feb 2020
KBA DOCUSYS INC	3/6/2020	28571	$ 394.18	Copier Lease - Feb 2020
LAS ANIMAS CONCRETE	3/20/2020	28615	$ 498.24	Main Maint - Sand Slurry
LAUNCH BRIGADE	3/20/2020	28616	$ 300.00	Add'l Website Maint - Fix Logo Stretching
LAW OFFICE OF ROBERT E BOSSO	3/20/2020	28617	$ 500.00	Legal Counsel Services - Bid Bond Complaint
LAW OFFICE OF ROBERT E BOSSO	3/20/2020	28617	$ 3,000.00	Legal Counsel Services - Feb 2020
LAWSON LANE	3/6/2020	28572	$ 100.00	Customer Rebate - Toilet
LOBO SARITA	3/6/2020	28573	$ 270.74	SA-152 Deposit - Refund Remainder
MILLER MAXFIELD INC	3/20/2020	28618	$ 4,993.75	Communication / Public Outreach Services - Feb 2020

Scotts Valley Water District
AP Check Register
March 2020

Vendor Name	Check Date	Check No.	Check Amount	Description
MISSION UNIFORM SERVICE	3/6/2020	28574	$ 388.08	Uniform Laundering & Rental Service - Feb 2020
MONRO INC	3/6/2020	28575	$ 144.22	Vehicle Maint - Oil Change - Truck #11
MONRO INC	3/20/2020	28619	$ 332.98	Vehicle Maint - Hose Clamp Repairs - Truck #18
MONRO INC	3/20/2020	28619	$ 50.00	Vehicle Maint - Alignment - Truck #20
MONTGOMERY & ASSOCIATES INC	3/20/2020	28620	$ 1,612.50	2019 Annual GW Report - Jan 2020
MONTGOMERY & ASSOCIATES INC	3/20/2020	28620	$ 1,912.50	New Production Well & WTP Site - Site Evaluation
MONTGOMERY & ASSOCIATES INC	3/20/2020	28620	$ 475.00	New Production Well & WTP Site - Project Management
NAPA AUTO PARTS	3/20/2020	28621	$ 27.35	Vehicle Maint - Tail Lights - Truck #11 & 18
NAPA AUTO PARTS	3/20/2020	28621	$ 24.78	Vehicle Maint - Distilled Water
NATIONWIDE RETIREMENT SOLUTIONS	3/6/2020	28576	$ 2,508.86	IRS 457 Plan - Payroll Date 2/28/2020
NATIONWIDE RETIREMENT SOLUTIONS	3/20/2020	28622	$ 2,558.86	IRS 457 Plan - Payroll Date 3/13/2020
NELSON SHARON	3/6/2020	28577	$ 100.00	Customer Rebate - Pressure Regulators
NORTON PATRICIA	3/20/2020	28623	$ 18.56	Retiree Vision - Mar 2020
NORTON PATRICIA	3/20/2020	28623	$ 457.11	Retiree Medical - Mar 2020
NORTON PATRICIA	3/20/2020	28623	$ 33.72	Retiree Dental - Mar 2020
OLIVE SPRINGS QUARRY	3/20/2020	28624	$ 68.82	Service Line Maint - Pavement Mix
OLIVE SPRINGS QUARRY	3/20/2020	28624	$ 98.32	Main Maint - Pavement Mix
PACIFIC GAS & ELECTRIC	3/6/2020	28578	$ 61.28	Electricity - RW - Feb 2020
PACIFIC GAS & ELECTRIC	3/6/2020	28578	$ 1,888.81	Electricity - 2 Civic Ctr - Feb 2020
PACIFIC GAS & ELECTRIC	3/6/2020	28578	$ 30,666.23	Electricity - PW - Feb 2020
PACIFIC GAS & ELECTRIC	3/20/2020	28625	$ 62.79	Electricity - Skypark - Feb 2020
PALACE BUSINESS SOLUTIONS	3/20/2020	28626	$ 82.40	Office Supplies - Misc
PERRI CHRISTOPHER	3/20/2020	28627	$ 1,643.80	Director Medical - Mar 2020
REBER DANIEL	3/20/2020	28628	$ 2,044.39	Director Medical - Mar 2020
RED VALVE COMPANY	3/20/2020	28629	$ 5,427.97	Sequoia Tank Rehab - Outlet Valves
REGIONAL WATER MGMNT FOUNDATION	3/6/2020	28579	$ 10,000.00	IRWM Coordination & Support Services - FY2020
RITCHIE MATT	3/20/2020	28630	$ 115.12	SA-138 Deposit - Refund Remainder
SABRE BACKFLOW INC	3/20/2020	28631	$ 121.24	Small Tools - Backflow Calibration Test Kit
SCARBOROUGH LUMBER & BUILDING SUPPLY	3/20/2020	28632	$ 101.34	Sequoia Tank Rehab - Fan & Locks
SCARBOROUGH LUMBER & BUILDING SUPPLY	3/20/2020	28632	$ 95.07	Small Tools - Push Broom, Nut Drivers
SCARBOROUGH LUMBER & BUILDING SUPPLY	3/20/2020	28632	$ 131.27	Admin Office Reconfigure - Misc Electrical Hardware
SCARBOROUGH LUMBER & BUILDING SUPPLY	3/20/2020	28632	$ 42.26	Monte Fiori Generator - Cleaning Supplies
SCARBOROUGH LUMBER & BUILDING SUPPLY	3/20/2020	28632	$ 118.57	Treatment Plant Maint - Chemical Shed Supplies
SCARBOROUGH LUMBER & BUILDING SUPPLY	3/20/2020	28632	$ 21.35	Meter Maint - Soil
SCARBOROUGH LUMBER & BUILDING SUPPLY	3/20/2020	28632	$ 119.89	Meter Maint - Pressure Reducing Valve
SCARBOROUGH LUMBER & BUILDING SUPPLY	3/20/2020	28632	$ 238.17	Well Maint - Transducer Install Supplies
SCARBOROUGH LUMBER & BUILDING SUPPLY	3/20/2020	28632	$ 6.52	Paper Supplies - OPS
SCARBOROUGH LUMBER & BUILDING SUPPLY	3/20/2020	28632	$ 109.74	OPS Supplies - Paint, Buckets, Cleaning Supplies
SCOTTS VALLEY BANNER - VALLEY PRESS	3/20/2020	28633	$ 252.00	SV Banner Ad - Census Time
SCOTTS VALLEY SPORTSMENS CLUB	3/20/2020	28634	$ 2,000.00	Refund Deposit - PW Bulk Meter
SCOTTS VALLEY SPRINKLER	3/6/2020	28580	$ 30.44	Well Maint - Transducer Install Supplies
SCOTTS VALLEY SPRINKLER	3/6/2020	28580	$ 65.18	OPS Supplies - PVC Pipe
SMITH GEORGE	3/6/2020	28581	$ 404.23	SA-115 Deposit - Refund Remainder
SOIL CONTROL LAB	3/20/2020	28635	$ 524.00	Water Quality Testing
SPRINGBROOK SOFTWARE LLC	3/6/2020	28583	$ 160.00	Web Payment Transaction Fees - Feb 2020
STEVENSON LANDSCAPING	3/6/2020	28584	$ 855.00	Landscaping at Misc Locations - Feb 2020
STILES RUTH	3/20/2020	28636	$ 821.90	Director Medical - Mar 2020
SWRCB-DWOCP	3/6/2020	28585	$ 105.00	D5 Cert - Rivera
SYCAL ENGINEERING INC	3/6/2020	28586	$ 1,440.00	Engineering Services for SCADA - Feb 2020
UNITED SITE SERVICES	3/20/2020	28637	$ 393.08	Portable Toilet Rental - 229 Mt Hermon - Feb-Mar 2020
UNITED SITE SERVICES	3/20/2020	28637	$ 194.21	Portable Toilet Rental - Orchard Run WTP - Mar 2020
UNIVERSAL BUILDING SERVICES	3/6/2020	28588	$ 385.00	Janitorial Service - El Pueblo - Feb 2020
UNIVERSAL BUILDING SERVICES	3/6/2020	28588	$ 473.00	Janitorial Service - 2 Civic Ctr - Feb 2020
VALERO MARKETING & SUPPLY CO	3/6/2020	28589	$ 205.89	Vehicle Fuel - Feb 2020
VAN DER STEN ENGINEERING	3/6/2020	28590	$ 5,885.00	Bethany 2nd Tank Addition - Access Road Clearing & Regrading
VERIZON WIRELESS	3/20/2020	28638	$ 312.00	Cell Phones / Tablets - Mar 2020
WREN SUZANNE	3/6/2020	28591	$ 987.69	Customer Rebate - Lawn Replacement
YOUNG HEATHER	3/6/2020	28592	$ 50.00	Customer Rebate - Pressure Regulator
			$ 220,025.62	

Scotts Valley Water District
AP Check Register
March 2020

Vendor Name	Check Date	Check No.	Check Amount	Description

Legend:

Abbreviation:	Meaning:
PW	Potable Water
RW	Recycled Water
WW	Waste Water
WTP	Water Treatment Plant
EE	Employee
ER	Employer
CO	Change Order
TO	Task Order
SA	Service Application
FY	Fiscal Year
OPS	Operations
Eng	Engineering
Adm	Administration
Fin	Finance
WUE	Water Use Efficiency
ENR	Engineering News Record
ACWA	Association of California Water Agencies
LID	Low Impact Development
UB	Utility Billing
AMI	Advanced Metering Infrastructure
PS	Pump Station

Scotts Valley Water District

Investment Summary

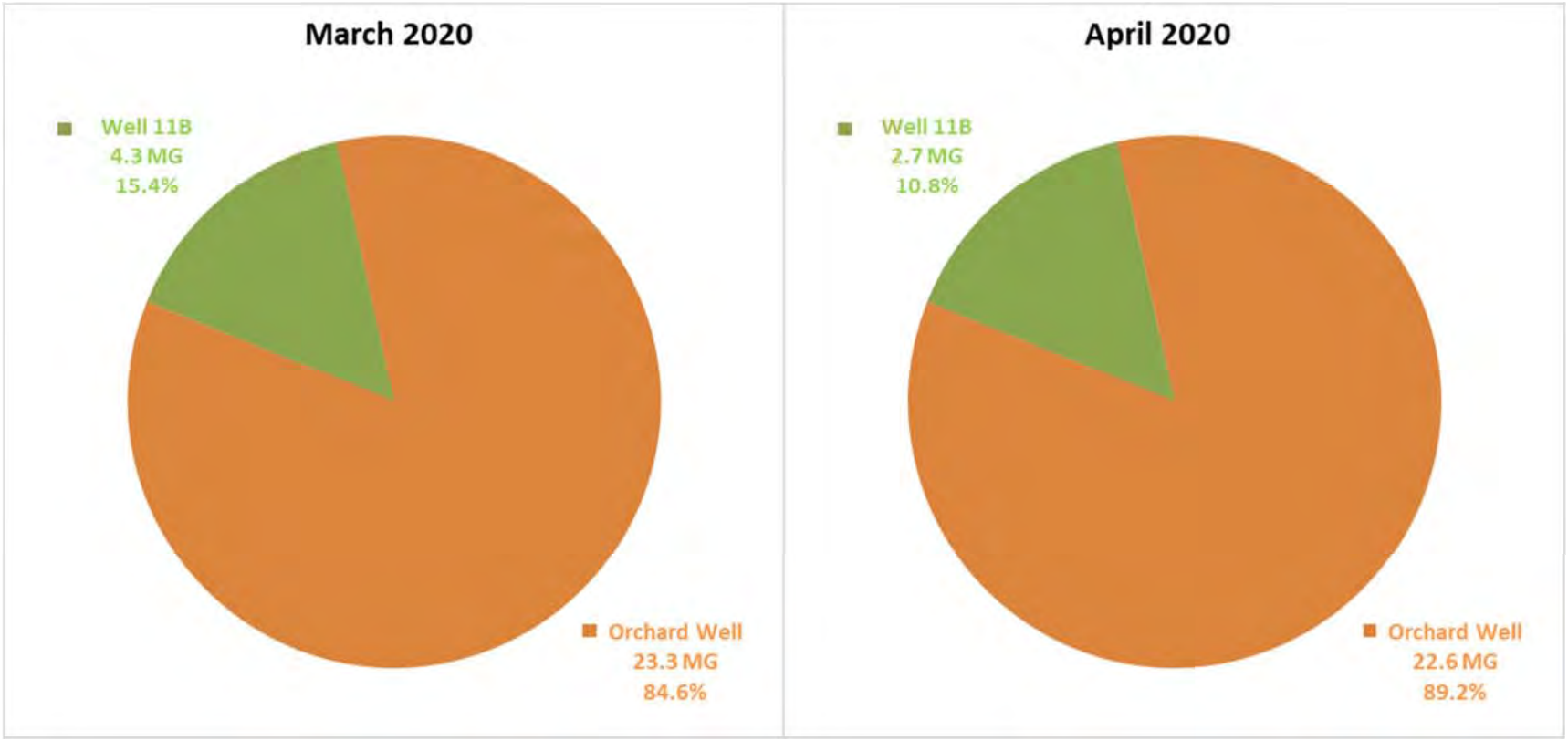
As of 03/31/20

						Rate		Balance as of:		Market Value
Institution	Investment	CUSIP	Purchased	Maturity	Purchase $	12/31/19	03/31/20	12/31/19	03/31/20	03/31/20
Unrestricted Funds:										
LAIF	Local Agency Investment Fund		various			2.191%	2.030%	$ 2,380,252	$ 3,380,097	$ 3,405,384
WFB	Checking - General		various			0.03%	0.03%	$ 9,825	$ 8,584	$ 8,584
WFB	Checking - Payroll		various			0.03%	0.03%	$ 10,515	$ 9,265	$ 9,265
WFB	Checking - Revenue		various			0.00%	0.00%	$ 967,900	$ 761,150	$ 761,150
	Subtotal for Unrestricted Funds:							**$ 2,933,147**	**$ 4,159,096**	**$ 4,184,382**
	Weighted Average Yield						1.65%			

The current investments comply with the requirements of the Investment Policy (P200-14-1)

Sufficient cash is available to meet expected expenditure requirements for the next six months.

Well Production

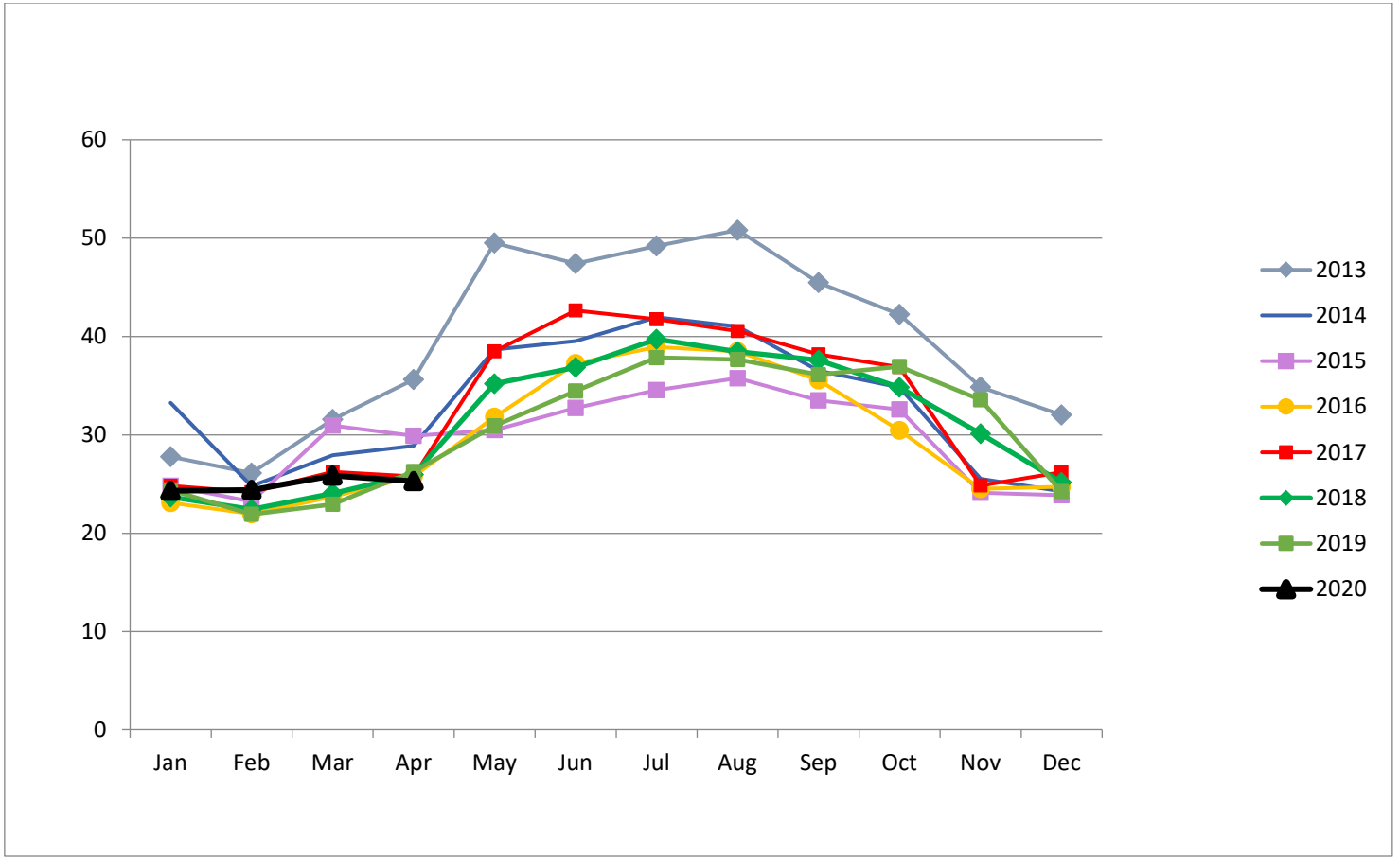


Total Production (Million Gallons)

March 2020	27.6 MG	3.76% increase from February
April 2020	25.3 MG	8.33% decrease from March

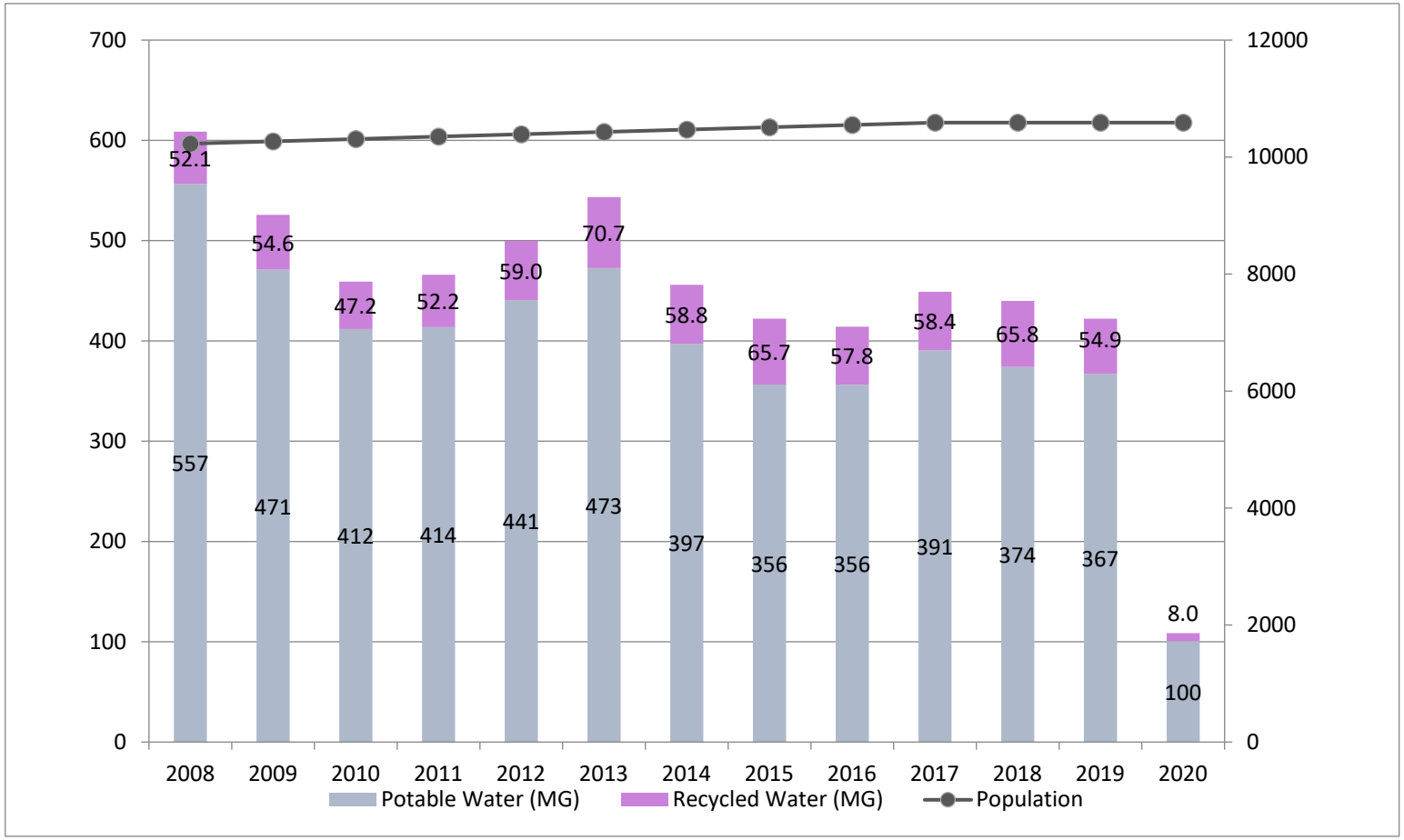
Production is Water Pumped +/- Water used for Well Maintenance Activities

Potable Water Demand



Demand is Production +/- Change in Storage

Potable and Recycled Water Demand vs. Population



Demand is Production +/- the Change in Storage

Potable and Recycled Water Demand

Potable

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
Jan.	27,190,550	23,129,510	31,165,560	27,764,580	33,252,872	24,822,615	23,085,736	24,789,618	23,674,051	24,389,215	24,319,853	26,144,015
Feb.	24,924,790	25,004,280	26,813,840	26,124,132	24,779,862	23,217,640	21,968,896	23,490,314	22,427,754	21,923,206	24,401,667	24,097,853
March	28,930,820	26,079,310	29,752,014	31,559,240	27,946,154	30,953,420	23,910,892	25,837,232	24,042,592	22,948,490	25,855,924	27,074,190
April	27,503,270	30,993,238	29,234,622	35,621,370	28,875,831	29,909,260	28,400,861	25,447,561	25,967,700	26,263,989	25,297,107	28,501,346
May	37,704,720	40,456,736	43,581,989	49,525,756	38,675,936	30,478,823	31,995,591	38,043,826	35,200,764	30,913,334	-	37,657,748
June	47,344,250	38,237,371	46,553,850	47,432,970	39,525,236	32,726,825	36,842,416	42,310,983	36,867,578	34,451,160	-	40,229,264
July	49,625,170	46,417,190	48,634,940	49,192,762	41,957,386	34,544,613	38,892,200	41,757,891	39,728,472	37,857,926	-	42,860,855
Aug.	49,668,620	45,665,550	48,939,190	50,820,800	41,020,790	35,765,167	38,541,952	40,076,059	38,756,447	37,674,398	-	42,692,897
Sept.	46,781,040	43,700,350	42,936,210	45,489,360	36,533,116	33,498,030	35,653,167	38,190,535	37,610,582	36,106,611	-	39,649,900
Oct.	37,889,760	34,771,130	37,982,466	42,248,672	34,840,142	32,589,534	30,517,556	36,888,905	34,839,533	36,940,583	-	35,950,828
Nov.	18,604,914	28,853,908	28,714,236	34,868,300	25,524,197	24,110,286	24,338,656	24,864,436	30,112,415	33,566,905	-	27,355,825
Dec.	15,762,610	30,451,180	26,428,050	32,013,140	24,261,522	23,866,862	24,379,124	26,194,926	25,169,209	24,225,007	-	25,275,163
Total	471,060,380	411,930,514	413,759,753	440,736,967	472,661,082	397,193,044	356,483,075	358,527,047	387,892,285	374,399,297	99,874,551	450,161,099

Recycled

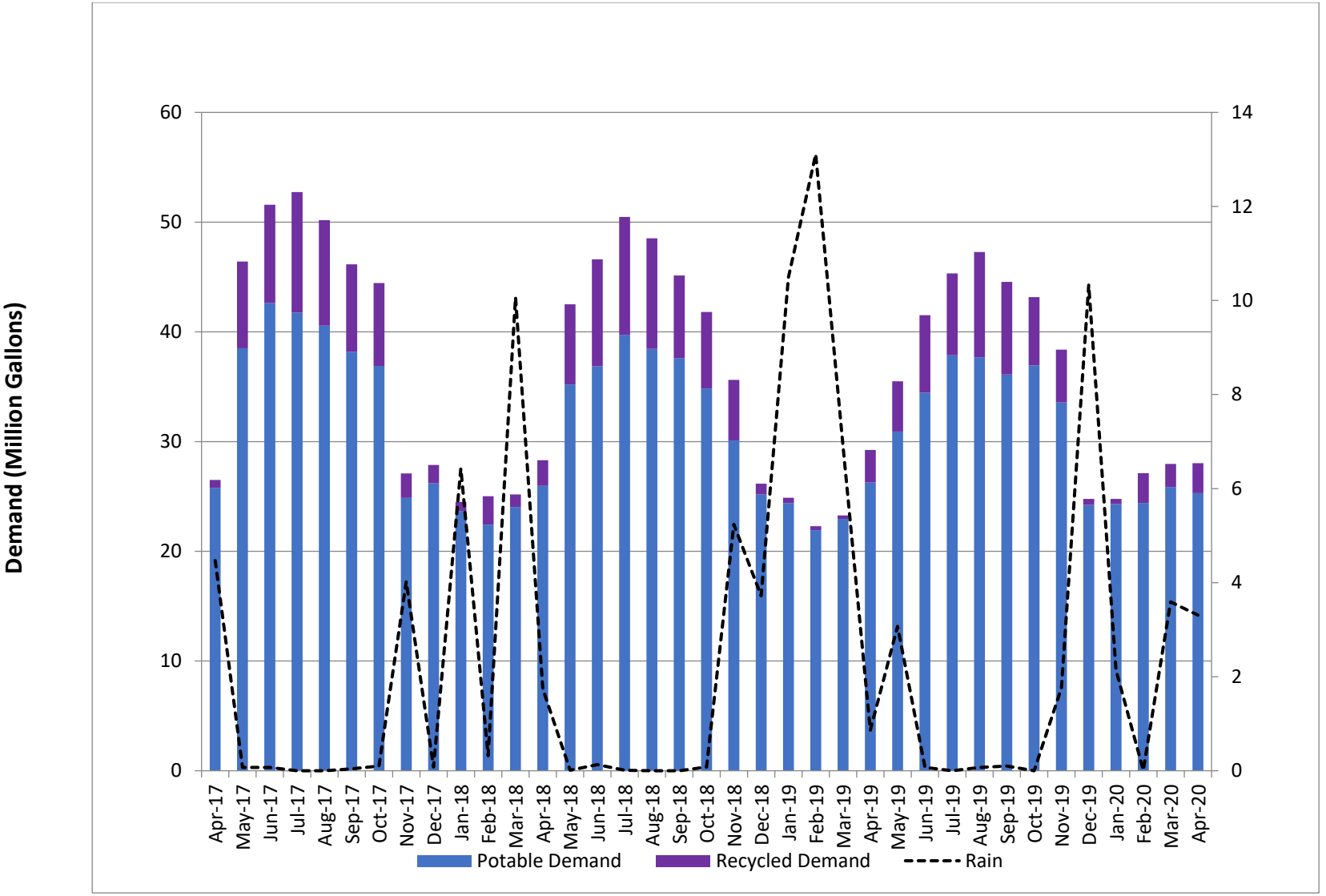
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
Jan.	62,000	496,000	2,139,000	620,000	3,019,613	635,420	862,984	156,267	838,172	493,100	450,147	888,428
Feb.	0	1,120,000	2,352,000	2,268,000	1,248,862	1,545,957	1,813,868	94,521	2,589,717	366,055	2,714,767 *	1,464,886
March	620,000	620,000	1,054,000	2,723,665	1,579,882	4,231,231	972,360	544,666	1,141,831	322,464	2,109,739 *	1,447,258
April	570,000	3,450,000	1,470,000	5,436,705	4,163,175	4,720,887	4,381,911	713,802	2,333,176	2,969,672	2,737,245	2,995,143
May	5,301,000	6,448,000	7,843,000	9,248,455	8,409,175	6,686,359	6,909,436	7,908,386	7,306,666	4,584,239	-	7,064,472
June	8,250,000	6,150,000	9,420,000	9,801,903	9,135,056	7,488,534	9,639,221	8,940,094	9,739,276	7,067,867	-	8,563,195
July	10,013,000	4,936,000	9,610,000	9,394,766	9,911,697	9,935,422	10,841,389	10,981,309	10,744,706	9,461,005	-	9,582,929
Aug.	8,680,000	9,207,000	10,199,000	9,875,446	8,542,111	10,471,389	8,767,020	9,618,897	10,078,073	9,594,307	-	9,503,324
Sept.	8,070,000	8,610,000	7,680,000	8,288,391	6,176,224	9,092,727	8,287,511	7,957,562	7,522,571	8,451,961	-	8,013,695
Oct.	4,681,000	4,185,000	4,960,000	6,537,840	5,282,253	7,233,408	3,956,097	7,557,695	6,967,548	6,228,883	-	5,758,972
Nov.	570,000	1,740,000	1,920,000	4,029,769	1,131,988	2,817,778	1,053,779	2,234,592	5,514,338	4,805,871	-	2,581,812
Dec.	403,000	2,201,000	341,000	2,453,395	236,228	1,119,017	529,158	1,670,966	994,336	544,650	-	1,049,275
Total	51,635,000	47,220,000	49,163,000	58,988,000	70,678,335	58,836,264	65,978,129	58,014,734	58,378,757	65,770,410	8,011,898	53,879,502

Demand is Production +/- the Change in Storage

*Potable Water Addition to Recycled Water System:

Feb. 2020 = 2,402,174
Mar. 2020 = 1,651,680

Potable and Recycled Water Demand vs. Rainfall



Demand is Production +/- the Change in Storage

Rainfall

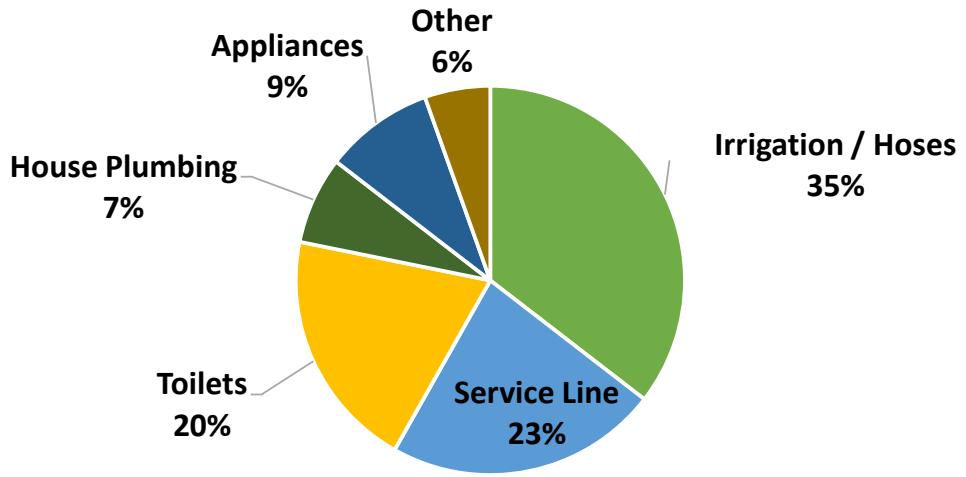
El Pueblo Weather Station

	WATER YEAR	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	*TOTAL*	*% of Ave*
	1981-82	0.14	11.20	5.90	28.80	6.88	8.26	8.40	0.03	0.00	0.00	0.04	1.28	70.93	168%
High Year	**1982-83**	**5.35**	**10.50**	**7.74**	**13.90**	**18.00**	**19.90**	**7.80**	**0.98**	**0.00**	**0.00**	**0.17**	**1.91**	**86.25**	**205%**
	1983-84	1.70	12.70	12.90	0.54	2.49	2.62	1.13	0.02	0.18	0.01	0.00	0.25	34.54	82%
	1984-85	2.80	13.80	2.95	1.72	4.20	7.92	0.73	0.11	0.15	0.09	0.02	0.54	35.03	83%
	1985-86	1.12	7.14	2.62	7.38	22.40	15.00	0.48	0.83	0.00	0.00	0.00	1.30	58.27	138%
	1986-87	0.03	0.05	2.47	4.51	9.06	6.31	0.70	0.00	0.02	0.00	0.00	0.00	23.15	55%
	1987-88	1.19	2.30	10.70	4.58	0.68	0.00	3.13	1.07	0.16	0.00	0.00	0.00	23.81	56%
	1988-89	0.19	5.90	8.89	2.06	1.39	10.60	0.67	0.08	0.03	0.00	0.03	0.83	30.67	73%
	1989-90	3.53	1.58	0.01	3.42	3.69	2.13	0.16	5.79	0.00	0.00	0.12	0.15	20.58	49%
	1990-91	0.50	0.24	1.65	0.61	5.39	17.19	0.51	0.06	0.40	0.00	0.02	0.07	26.64	63%
	1991-92	2.37	1.46	5.42	3.03	15.30	4.65	0.45	0.00	0.82	0.00	0.05	0.00	33.55	80%
	1992-93	3.41	0.20	11.54	18.51	10.22	3.17	1.37	0.96	0.68	0.00	0.00	0.00	50.06	119%
	1993-94	0.73	2.74	5.52	3.51	9.72	0.68	2.75	2.10	0.01	0.00	0.00	0.05	27.81	66%
	1994-95	1.79	8.29	4.78	23.88	0.65	13.62	3.79	0.89	1.04	0.01	0.00	0.00	58.74	139%
	1995-96	0.00	0.32	10.03	13.52	11.35	5.14	2.38	4.31	0.03	0.00	0.00	0.00	47.08	112%
	1996-97	2.89	6.95	22.43	12.33	0.17	1.50	0.58	0.16	0.12	0.00	0.54	0.00	47.67	113%
	1997-98	0.68	10.12	4.06	14.21	21.81	6.17	2.85	3.65	0.01	0.00	0.01	0.17	63.74	151%
	1998-99	1.02	9.11	1.85	9.25	11.08	5.22	2.58	0.03	0.36	0.00	0.02	0.14	40.66	96%
	1999-00	0.35	5.69	0.53	18.02	17.57	2.77	2.69	1.01	0.18	0.00	0.20	0.40	49.41	117%
	2000-01	5.14	1.38	0.94	8.68	10.65	4.05	2.67	0.00	0.07	0.00	0.00	0.16	33.74	80%
	2001-02	1.13	9.93	16.45	4.97	2.69	4.66	0.52	0.90	0.00	0.00	0.05	0.00	41.30	98%
	2002-03	0.00	5.80	21.40	2.77	2.95	2.54	5.75	1.09	0.16	0.00	0.00	0.00	42.46	101%
	2003-04	0.19	3.93	17.55	4.44	9.69	1.19	0.65	0.07	0.00	0.06	0.00	0.11	37.88	90%
	2004-05	7.24	3.25	14.39	8.30	7.20	10.01	3.79	2.13	0.94	0.02	0.00	0.08	57.35	136%
	2005-06	0.19	2.84	21.73	6.55	5.26	15.29	10.44	1.01	0.01	0.00	0.01	0.00	63.33	150%
	2006-07	0.25	3.30	5.67	0.89	9.24	0.30	2.17	0.46	0.00	0.10	0.01	0.33	22.72	54%
	2007-08	1.93	0.52	5.50	17.59	6.96	0.36	0.35	0.00	0.00	0.01	0.00	0.04	33.26	79%
	2008-09	1.59	4.80	4.38	1.80	15.28	3.47	0.52	1.42	0.01	0.00	0.00	0.26	33.53	80%
	2009-10	9.70	0.33	5.21	11.37	8.66	4.35	5.41	1.17	0.00	0.01	0.07	0.00	46.28	110%
	2010-11	3.92	5.13	15.36	1.97	10.59	13.40	0.75	3.42	3.40	0.00	0.04	0.02	58.00	138%
	2011-12	2.93	3.41	0.15	6.80	2.75	11.97	4.09	0.02	0.20	0.02	0.00	0.02	32.36	77%
	2012-13	1.61	11.32	13.25	1.31	0.47	2.66	0.43	0.01	0.11	0.00	0.00	0.70	31.87	76%
Low Year	**2013-14**	**0.01**	**0.87**	**0.78**	**0.05**	**11.52**	**4.02**	**2.02**	**0.01**	**0.02**	**0.09**	**0.01**	**0.92**	**20.32**	**48%**
	2014-15	0.44	4.36	16.52	0.00	4.69	0.47	2.13	0.19	0.04	0.00	0.03	0.02	28.89	69%
	2015-16	0.07	2.54	6.67	16.20	1.16	14.26	1.18	0.35	0.00	0.00	0.00	0.22	42.65	101%
	2016-17	8.66	3.29	10.77	26.13	19.56	7.09	4.47	0.06	0.07	0.00	0.00	0.04	80.14	190%
	2017-18	0.10	4.02	0.08	6.43	0.56	10.07	2.85	0.01	0.13	0.01	0.00	0.00	24.26	57%
	2018-19	0.08	5.24	3.72	10.49	13.11	6.91	0.86	3.07	0.07	0.00	0.07	0.10	43.72	104%
	2019-20	0.00	1.76	8.57	2.14	0.01	3.59	3.31	-	-	-	-	-	19.38	46%
Cumulative 2019-2020		**0.00**	**1.76**	**10.33**	**12.47**	**12.48**	**16.07**	**19.38**	**-**	**-**	**-**	**-**	**-**	**19.38**	
Monthly Average 1981-2019		*1.97*	*4.91*	*7.96*	*8.43*	*8.29*	*6.58*	*2.48*	*0.99*	*0.25*	*0.01*	*0.04*	*0.27*	*42.18*	
Cumulative Ave 1981-2019		*1.97*	*6.88*	*14.84*	*23.28*	*31.57*	*38.15*	*40.62*	*41.61*	*41.86*	*41.87*	*41.91*	*42.18*	*42.18*	

Leak Adjustment Program Report
FY 2020

	RES Requests	CII Requests	Approved	Denied	Appeals	Reason Denied	Total Adjust Credit	Total Excess Use (gallons)
JUL	1	1	2	0	0		$774	71,847
AUG	9	0	8	1	0	< 5 years since last adjustment	$4,889	324,089
SEPT	20	5	23	2	0	< 5 years since last adjustment	$6,197	443,527
OCT	6	1	6	1	0	< 5 years since last adjustment	$2,320	190,767
NOV	11	0	10	1	0	< 5 years since last adjustment	$4,143	275,777
DEC	29	1	23	4	1	< 5 yrs(2), no repair(1), no inc.(1)	$11,828	842,502
JAN	6	1	7	0	0		$1,745	128,201
FEB	10	0	8	2	0	< 5 years since last adjustment	$3,626	203,698
MAR	8	0	8	0	1		$2,486	186,709
APR								
MAY								
JUN								
Total	**100**	**9**	**95**	**11**	**2**		**$38,009**	**2,667,117**

Sources of Leaks



STAFF REPORT – Water Use Efficiency

Scotts Valley Water District

Date: 05/14/20

To: Board of Directors

From: Water Use Efficiency Coordinator

Item: Staff Reports 6.5

Subject: **Water Use Efficiency Biannual Report 11/01/19 through 03/31/20**

Regional Planning and Collaboration

Continued participation in Water Conservation Coalition of Santa Cruz County: attended coalition meetings and collaborated on the creation of a Dual Plumbing Ordinance for the bay area and a new county-wide Value of Water Campaign. Met with Soquel Creek Water Staff for feedback on value of WaterSmart for their district.

Professional Development

Attended AWWA Drought Webinar and 3-day Water Leadership Training.

Community Relations

Received recognition at a County Green Business event for re-certification.

Leak Adjustments: 119
House Calls and/or Leak Checks: 80
Water Waste Violations: Provided education to 2 customers.
Pre-Rebate Inspections: 14
Post-Rebate Inspections: 17

Participated in WaterSmart integration meetings.

Fielded over 400 Customer Service and Water Use Efficiency phone calls.

Submitted content ideas community relations and communication consultant Miller Maxfield.

Continued to promote the Monterey Bay Friendly Landscape program and educate realtors on the City of Scotts Valley Retrofit Upon Resale program.

Rebates Processed	# of Rebates	Total Amount
Lawn Replacement	11	$11,364
Spray to Drip	8	$1,603
Toilet Replacement	15	$1,350
Pressure Regulators	16	$850
Smart Controllers	4	$400
Small Stream Sprayers	0	$0
Greywater Harvesting	0	$0
Rainwater Harvesting	0	$0
Downspout Diversion	0	$0
Hardscape Replacement	0	$0

Rebates / Give-Aways Summary

Rebate/Give Away	Rebate Offerings	Accounts	Units/Gals/ Sq ft	Cost	Water Savings gal/year	Gallons Saved per $ Spent
High Efficiency Toilet	$25-$125	15	18	$1,350	150,996	112
Lawn Replacement	$1.00/sq ft	11	11,364	$11,364	202,166	18
Low Volume Irrigation	$0.50/sq ft	8	3,407	$1,603	56,045	35
Hardscape Replacement	$1.00/sq ft	0	0	0	N/A	N/A
Smart Irrigation Controller	$100	4	4	$400	N/A	N/A
Greywater Irrigation	$150	0	0	0	N/A	N/A
Rainwater Catchment	$0.25/gal	0	0	0	N/A	N/A
Downspout Diversion	$75	0	0	0	N/A	N/A
Pressure Regulator	$50	16	17	$850	N/A	N/A
Pre-Rinse Spray Valve	Free	0		0	0	0
Shower Head	Free			0	.7 gpm	Average gallons saved per $ spent
Faucet Aerator	Free			0	1.45 gpm	
Shut Off Nozzle	Free			0	Prevents waste	
Totals		**54**		**$15,567**	**409,207**	**26**

RAFTELIS

The Financial Impact of the COVID-19 Crisis

on U.S. Drinking Water Utilities

APRIL 14, 2020

American Water Works Association

Dedicated to the World's Most Important Resource®

ASSOCIATION OF METROPOLITAN WATER AGENCIES

This project was funded by the Water Industry Technical Action Fund of AWWA

Table of Contents

List of Tables

List of Figures

Appendices

Executive Summary

Drinking water utilities across the U.S. have experienced, and are anticipated to continue to experience, revenue and cost impacts associated with the COVID-19 crisis. This report was prepared for the American Water Works Association ("AWWA") and the Association of Metropolitan Water Agencies ("AMWA") to estimate the financial impacts of the crisis on drinking water utilities in the U.S.

The anticipated financial impacts were estimated by (1) obtaining recent and relevant data regarding observed or anticipated financial and operational water utility impacts, (2) monetizing the impacts, and (3) scaling up or aggregating the impacts to estimate the impacts on a national level.

The results of the assessment indicate that the aggregate financial impact of COVID-19 on drinking water utilities will likely be approximately $13.9 billion, representing an overall 16.9 percent financial impact on the drinking water sector. These impacts are a result of drinking water utilities eliminating shut offs for non-payment, anticipated increased delinquencies as a result of high unemployment rates, reductions in non-residential water demands and associated revenues offset by increases in residential consumption, and lower customer growth. A summary of the financial impacts associated with these factors are provided in the table below.

Due to these financial impacts, drinking water utilities across the nation are anticipated to delay and reduce capital expenditures by as much as $5 billion (annualized) to help manage cash flows due to the crisis. These capital expenditure reductions will have a cascade effect on economic activity in communities across the U.S. As a result, **communities will experience a reduction in economic activity by as much as $32.7 billion** (annualized) in aggregate when considering economic multiplier effects. The reduction in capital expenditures is also anticipated to result in a loss of 75,000 to 90,000 private sector jobs.

Drinking water utilities may also experience additional future revenue losses estimated at approximately $1.6 billion in aggregate as a result of deferrals of planned water rate increases, bringing **the total combined impact of the crisis on drinking water utilities to more than $15 billion**. These deferrals will further exacerbate community economic impacts by further reducing capital spending and will put the water sector further behind in addressing its capital infrastructure needs.

The financial impact of the COVID-19 crisis on water and wastewater utilities combined is estimated to exceed $27 billion.

Estimated Total Aggregate Financial Impact on Drinking Water Utilities

Description	2 Months	4 Months	6 Months	Annualized
Marginal Cost of Non-Shut Offs	$0.10B	$0.19B	$0.29B	$0.57B
Revenue Loss Due to Increased Delinquencies	$0.82B	$1.64B	$2.46B	$4.92B
Reduction in Commercial Revenues	$1.23B	$2.46B	$3.69B	$7.38B
Increase in Residential Revenues	($0.44B)	($0.88B)	($1.32B)	($2.64B)
Increase in Personnel Expenses	$0.10B	$0.21B	$0.31B	$0.63B
Reduction in System Development Charges	$0.43B	$0.87B	$1.30B	$2.60B
Reduction in Revenues from Lower Customer Growth	$0.01B	$0.05B	$0.09B	$0.41B
Total Aggregate Financial Impact	**$2.3B**	**$4.5B**	**$6.8B**	**$13.9B**

This assessment and report was funded by the Water Industry Technical Action Fund ("WITAF") of AWWA. WITAF is managed by the Water Utility Council to support projects, studies, analyses, reports and presentations in support of AWWA's legislative and regulatory agenda. WITAF is funded by a portion of organizational member's dues.

1 Introduction

1.1. Background and Objectives

This report was prepared for the American Water Works Association ("AWWA") and the Association of Metropolitan Water Agencies ("AMWA") to assist in estimating the financial impact that the novel COVID-19 virus is anticipated to have on water utilities in the United States ("U.S.") The intent of the report is to aid AWWA and AMWA in advocating for securing Federal funding for the drinking water sector to help deal with this crisis and to provide AWWA and AMWA membership with information regarding the aggregate financial impact of the COVID-19 crisis on the sector. This assessment and report was funded by the Water Industry Technical Action Fund ("WITAF") of AWWA. The WITAF is managed by the Water Utility Council to support projects, studies, analyses, reports and presentations in support of AWWA's legislative and regulatory agenda. WITAF is funded by a portion of organizational member's dues.

1.2. Scope of Work

Drinking water utilities across the U.S. have experienced and are anticipated to experience revenue and cost impacts associated with the national, state, and local response to the COVID-19 crisis. The scope of this work consisted of estimating the aggregate financial impacts on drinking water utilities due to the following:

1. Changes in utility policies to not shut off water service to customers with delinquent accounts and providing forgiveness of late penalty fees. This included preparing estimates of the anticipated rise in delinquencies due to the policy change, as well as due to anticipated rising unemployment rates.

2. Losses in revenue from non-residential (i.e., commercial, industrial, and institutional) customers, net of residential revenue increases, as a result of national and state directives for the temporary shutdown of non-essential businesses and "stay at home" orders.

3. Operational actions taken, or anticipated to be taken, by water utilities to ensure safe and reliable water service, such as sequestering water operators and other key staff.

4. Reducing, deferring or eliminating capital expenditures to preserve cash and help maintain financial sustainability.

5. Reduction in system development charges and user charges from new growth due to slowing of economic growth and development.

Due to the rapidly developing and changing crisis, the scope of work was initiated on April 1, 2020 and was completed on April 13, 2020.

The financial assessment summarized in this report was prepared based on relevant data and information available as of the date of this report. It does not incorporate any facts or information which may have come into existence after the date of the report, and such information could have a material effect on the findings and conclusions contained herein. As such, the estimates contained in this report are early estimates based on available data that may understate the financial impacts on drinking water utilities depending upon the length and severity of the crisis. The analyses focused on the national impacts to drinking water utilities in the U.S. and did not consider or involve developing specific state or city impacts, or a detailed estimate of the impacts to wastewater utilities.

1.3. Methodology

In general, the methodology used to estimate the financial impacts of the COVID-19 crisis on drinking water utilities consisted of (1) obtaining recent and relevant data regarding observed or anticipated financial and operational water utility impacts, (2) monetizing the impacts, and (3) scaling up or aggregating the impacts to estimate monthly and annualized national impacts. Specific methodologies used to identify and quantify the various financial impacts of COVID-19 on drinking water utilities are provided in Section 2.

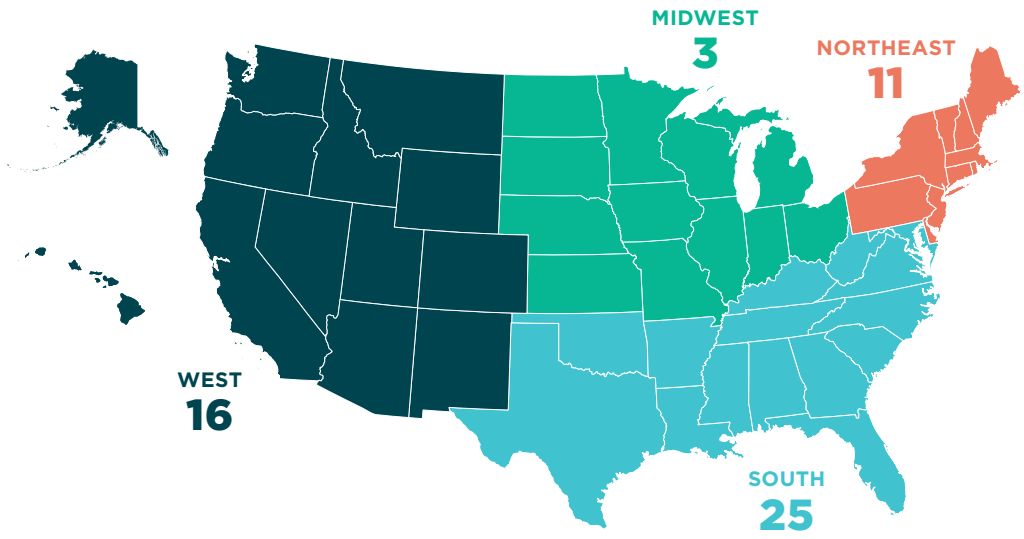


Figure 1-1.
Location of Utilities Responding to Raftelis Questionnaire

1.4. Data and Information Sources

Information that was used to complete the financial impact assessment was compiled from various AWWA and AMWA sector surveys, sector publications, responses from a questionnaire prepared and distributed to water utilities, and financial data and information from recent rate studies completed by Raftelis for various drinking water utility clients. Specific sector surveys and publications that were relied upon to complete the assessment, included the following:

- COVID-19 Survey Conducted by AWWA on March 25-30, 2020;
- 2019 Water and Wastewater Rate Survey. AWWA;
- Utility Benchmarking: Performance Management for Water and Wastewater. AWWA 2019;
- INSIGHT – Utility Financial Information Database. AMWA 2018;
- Dun & Bradstreet, First Research Industry profile for the Water Industry. 2018;
- Public Spending on Transportation and Water Infrastructure, 1956 to 2017. Congressional Budget Office, October 2018;
- U.S. Census Bureau, Population Survey (2019);
- U.S. Census Bureau, American Housing Survey Data (2017);
- U.S. Census Bureau, Historical Labor Force Unemployment Rate Statistics;
- U.S. Census Bureau, Building Permit Survey (2019);
- Residential End Uses of Water, Version 2 Executive Report, Water Research Foundation, April 2016;
- Back-of-the-Envelope Estimates of Next Quarter's Unemployment Rate. The Federal Reserve Bank of St. Louis, March 24, 2020;
- COVID-19: Economic Scenarios. Moody's Analytics. March 27, 2020;
- The Daily Shot: Consumers Cut Spending by About 50 Percent, Wall Street Journal, April 8, 2020;
- National Impact Fee Survey, Duncan Associates, 2019;
- Local Government Investment in Municipal Water and Sewer Infrastructure: Adding Value to the National Economy, Prepared for the U.S. Conference of Mayors by The Cadmus Group, Inc. August 14, 2008; and
- The Economic Benefits of Investing in Water Infrastructure, Bureau of Economic Analysis, 2018.

AWWA surveyed member utilities and other sector organizations between March 25 - 30, 2020 to gauge the impacts of COVID-19 and actions being taken to manage risk and plan for contingencies. AWWA received 615 responses to the survey, of which 532 responses were from unique utilities, and 81 were from non-utility survey participants. Results from this survey were used in this assessment, where noted.

Raftelis prepared a questionnaire focused on the financial and operational impacts of the COVID-19 crisis on drinking water utilities and distributed the questionnaire to more than 150 water utilities. The questionnaire was completed between April 6 – 8, 2020. A total of 102 responses to the survey were received, of which 55 responses were usable, complete, and represent responses from unique drinking water utilities. Responses from this questionnaire were used in this assessment, where noted. In addition, the full questionnaire and a summary of the responses are provided in Appendix A.

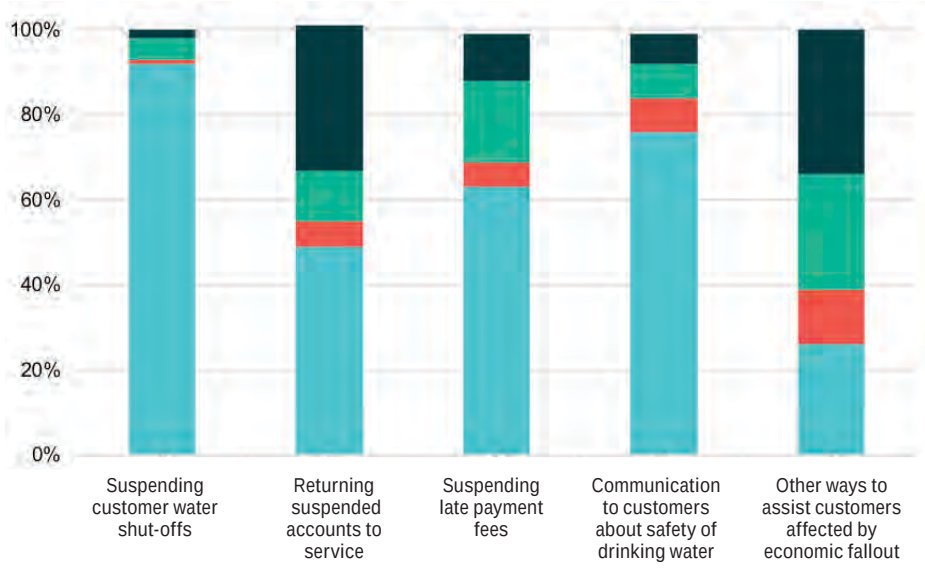
2 Analysis and Results

This section of the report provides a detailed description of the methodologies and analyses employed to quantify the financial impacts of the COVID-19 crisis on drinking water utilities and summarizes the results of the analyses.

2.1. Financial Losses Due to Changes in Customer Delinquency Policies

Many drinking water utilities have changed their shut-off and late bill payment fee policies for delinquent accounts in reaction to the crisis. According to the recent COVID-19 survey completed by AWWA in March 2020, approximately 98% of respondents indicated that policies are either in place to suspend customer water shut-offs, in development, or indicated that they are considering implementing such policies, as show in Figure 2-1.

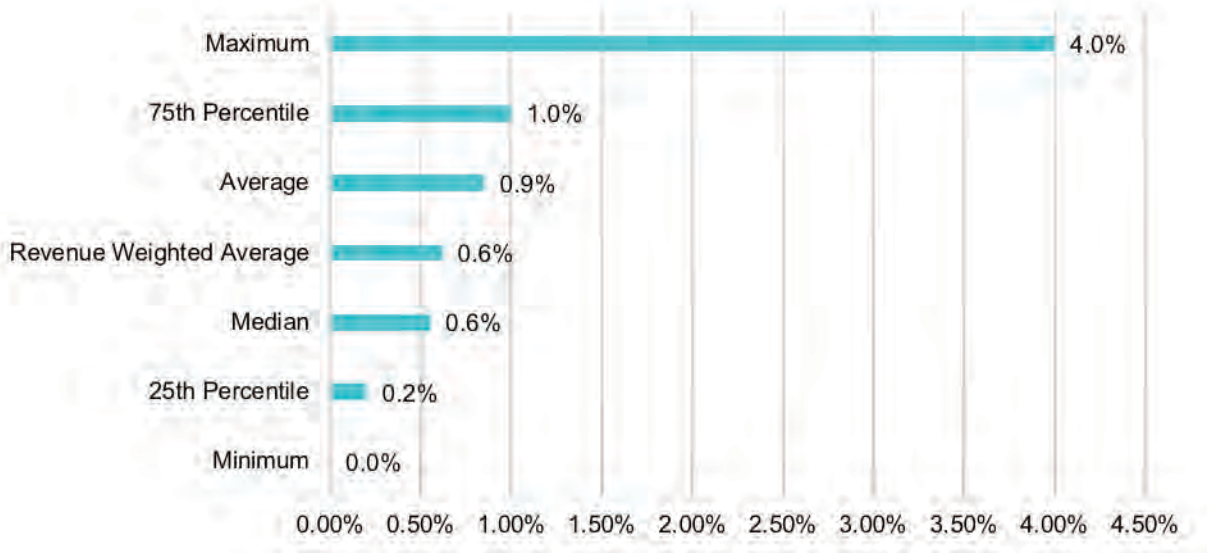
Figure 2-1. **Water Utility Changes to Delinquency Policies**



	Suspending customer water shut-offs	Returning suspended accounts to service	Suspending late payment fees	Communication to customers about safety of drinking water	Other ways to assist customers affected by economic fallout
Currently no plans to develop	2%	34%	11%	7%	34%
Considering	5%	12%	19%	8%	27%
Currently in development	1%	6%	6%	8%	13%
Currently in place	92%	49%	63%	76%	26%

Responses from the Raftelis COVID-19 impact questionnaire indicated that the median annual uncollectable percentage for drinking water utilities prior to the COVID-19 crisis was approximately 0.6 percent, as shown in Figure 2-2. In addition, survey respondents indicated the likelihood that delinquencies would increase significantly in the coming months.

Figure 2-2. **Pre-Crisis Water Utility Uncollectible Rates (N=42)**



Due to changes in water utility shut-off policies and rising unemployment rates, delinquencies and annual uncollectible percentages will likely increase significantly, resulting in incremental water utility revenue deferrals or losses. Some specific examples of delinquency policy changes that have been implemented are as follows:

Manchester Water Works (NH) is not charging late fees or performing shut-offs for not payment.

City of Tulsa (OK) is working on extending its payment arrangement plans without penalty. In some cases, it anticipates the need to write off the debt.

City of Chandler (AZ) is helping water customers financially burdened due to COVID-19 by suspending disconnections, not charging late fees, and extending payment plans.

WaterOne in Johnson County (KS) has eliminated late payment fees and anticipates a 53 percent reduction in late payment fees assuming that it foregoes changing these fees for six months.

2.1.1. Methodology

The steps used to estimate drinking water utility financial losses due to changes in delinquency policies are summarized as follows:

1. Estimate the marginal cost impact of non-shut offs of delinquent accounts:

a. Identify typical delinquency rates and bad debt ratios using the AMWA INSIGHT survey, AWWA benchmarking study, and responses from the Raftelis water utility questionnaire.

b. Estimate the typical marginal cost of water defined as variable costs (e.g. power, chemicals, etc.) as a percentage of the typical water utility total budget from sector survey results and Raftelis experience.

c. Multiply marginal cost of water percentage by an estimate of the aggregate National water utility revenue and expenditure estimate.

d. Estimate the monthly marginal cost impact by dividing the figure above by a factor of 12.

2. Estimate the deferred or lost revenue to drinking water utilities due to increased bill delinquencies:

a. Use national unemployment statistics to estimate increases in delinquencies due to the crisis.

b. Estimate additional delinquencies due to moral hazard / lack of consequences of customers not paying their utility bills. Estimated from sample of sector data from past events.

c. Estimate incremental delinquency rate due to (a.) and (b.) above.

d. Multiply the increased delinquency rate by the Aggregate National water utility revenue estimate.

e. Estimate the monthly deferred revenue impact by dividing the figure above by a factor of 12.

f. Estimate the portion of utilities that may implement a policy to relieve customers from having to pay their delinquent, unpaid bills from Raftelis questionnaire results.

g. Estimate the potential monthly permanent revenue loss by multiplying the estimated value of delinquent water bills by the percentage of utilities implementing debt forgiveness policies.

3. Estimate lost revenue from the portion of utilities that may implement a policy to relieve customers from having to pay late bill fees.

a. Estimate the typical amount of late bill fees collected by drinking water utilities as a percentage of total revenues from the AMWA INSIGHT survey.

b. Multiply the late bill fee revenue percentage by the Aggregate National water utility revenue estimate.

c. Estimate the proportion of drinking water utilities that have or plan to implement late bill fee forgiveness policies from the March 2020 AWWA survey.

d. Multiply the proportion of drinking water utilities that have or plan to implement late bill fee forgiveness policies by the aggregate National late bill fee revenue estimate.

2.1.2. Analysis

The aggregate national level of annual revenues generated by drinking water utilities in the U.S. was estimated based on household and drinking water sector data as detailed in Table 2-1.

Table 2-1. Estimated Aggregate Annual Drinking Water Utility Revenues

Description		Reference	Parameter
a.	Number of U.S. Households	[1]	128.579M
b.	U.S. Households on Private Wells	[2]	10.72%
c.	U.S. Households on Public/Private Water Systems	1 - b	89.28%
d.	U.S. Households on Public/Private Water Systems	a x c	114.8M
e.	Median Monthly Residential Water Utility Bill	[3]	$42.41
f.	Estimated Annual Residential Water Utility Rate Revenue	d x e x 12	$58.4B
g.	Residential Share of Total Water Utility Rate Revenue	[4]	71%
h.	Estimated Annual Water Sector Revenues in 2019	f / g	$82.3B

[1] U.S. Census Bureau Population Survey (2019).

[2] U.S. Census Bureau, American Housing Survey Data (2017). Note that the estimated number of U.S. households on public or private water systems was calculated based on U.S Census data and is slightly lower than an estimate calculated using the USEPA data on the population served by Community Water Systems of approximately 311 million. Dividing the USEPA population figure by an assumption of 2.5 people per household, results in an estimate of approximately 124 million households connected to community water systems. If estimate prepared using USEPA data was used, the financial impacts estimated in this report would be higher.

[3] AWWA Water and Wastewater Rate Survey (2019).

[4] AMWA Insight Survey (2018) indicating 51% of revenue is residential, 29% non-residential, and 20% wholesale/other. Adjusted residential and non-residential percentages to reflect that approximately 7.25% of non-residential is multifamily.

The estimated annual water sector revenues shown in Table 2-1 are used to calculate financial losses due to changes in customer delinquency policies and other financial impacts estimated herein.

The financial impact of delinquent account policy changes was then estimated by quantifying the financial impact of (1) drinking water utilities continuing to provide service to delinquent accounts, instead of enacting shut-offs, and (2) deferred or lost revenue associated with observed and anticipated higher delinquency rates during the COVID-19 crisis, as detailed in Tables 2-2 and 2-3. The temporary elimination of late payment fees was not estimated to have a significant impact on water utility revenues.

The estimate of deferred or lost revenue due to increased bill delinquencies was prepared based on the increase in unemployment rates and the potential for additional bill delinquencies due to the inability to pay and the lack of consequences for non-payment, as detailed in Table 2-2. This estimate includes consideration of the moral hazard (i.e., lack of consequences of customers not paying their utility bills) resulting in higher bill delinquencies.

Table 2-2. **Estimated Deferred or Lost Revenue Due to Increased Bill Delinquencies**

Description		Reference	Parameter
a.	Delinquent Account Write-offs as % of Total Revenues	[1]	0.6%
b.	Pre COVID-19 Unemployment Rate	[2]	3.5%
c.	Unemployment Rate During COVID-19 Crisis	[3]	12.0%
d.	% Increase in Delinquencies Due to Higher Unemployment Rate	c / b	342.9%
e.	% Increase in Delinquencies Due to Moral Hazard	[4]	320.0%
f.	Adjusted Delinquencies as % of Total Revenues	a x d x e	6.6%
g.	% Difference in Delinquencies	f - a	6.0%
h.	Annual Aggregate Water Utility Revenues	[5]	$82.3B
i.	Annualized Incremental Delinquencies	g x h	$4.9B
j.	Monthly Incremental Delinquencies	i / 12	$410M

[1] Results from Raftelis COVID-19 questionnaire.

[2] Labor Force Unemployment Rate Statistics from the U.S. Bureau of Labor Statistics for February 2020.

[3] Blended unemployment rate estimate for the second quarter of 2020 from Federal Reserve Bank of St. Louis, Moody's Global Economic Forecast publication dated March 27, 2020, and various news articles on the estimated unemployment rate.

[4] Data from observed increases in delinquencies from Seattle Public Utilities due to cessation of service shut-offs during new billing system conversion. Seattle observed an increase in delinquencies from 1.54% to 5.03% during this event. Factor adjusted based on AWWA March 2020 survey that indicated that approximately 98% of water utilities surveyed have suspended or are planning to suspend shut-offs in response to the COVID-19 crisis.

[5] Calculation as provided in Table 2-1.

The elimination of shut-offs will result in an added cost to drinking water utilities as they continue to supply customers with delinquent bills with water service, rather than enacting shut-offs. An estimate of the incremental cost of continuing to supply these customers with water service is detailed in Table 2-3.

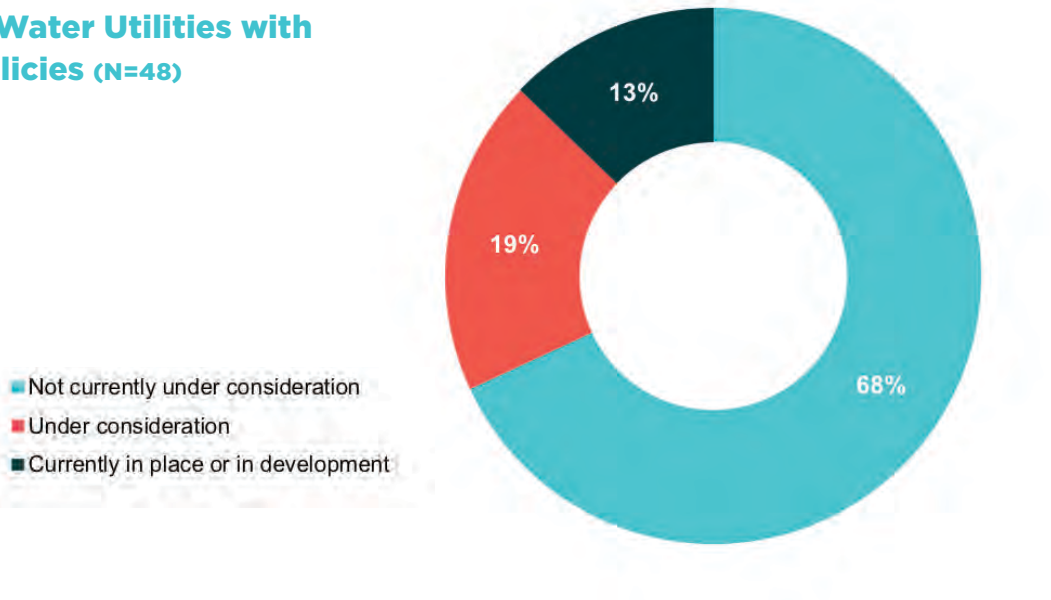
Table 2-3. Estimated Marginal Cost Impact of Non-Shut Offs of Delinquent Accounts

Description		Reference	Parameter
a.	Operating Ratio (O&M expenses / operating revenue)	[1]	58%
b.	Variable Expenses as % of Total O&M expenses	[2]	20%
c.	Marginal Cost	a x b	11.6%
d.	Aggregate Annual Water Utility Revenue	[3]	$82.3B
e.	Aggregate Annual Marginal Cost	c x d	$9.5B
f.	Delinquent Account Uncollectable Rate % of Total Revenues	[4]	6%
g.	Marginal Cost Impact of Non-Shut Offs - Annualized	e x f	$0.6B
h.	Marginal Cost Impact of Non-Shut Offs - Monthly	g / 12	$47.6M

[1] AWWA Utility Benchmarking Survey (2019), Table 2-6A.
[2] AMWA INSIGHT Survey and Raftelis experience.
[3] Calculation as provided in Table 2-1.
[4] Calculated in Table 2-2.

Based on Raftelis questionnaire responses, 12 percent of respondents have already put in place policies for debt forgiveness, and 19 percent are considering implementing such a policy as shown in Figure 2-3. Therefore, a significant portion of the increase in bill delinquencies are anticipated to result in water utility write-offs and permanent losses in revenue.

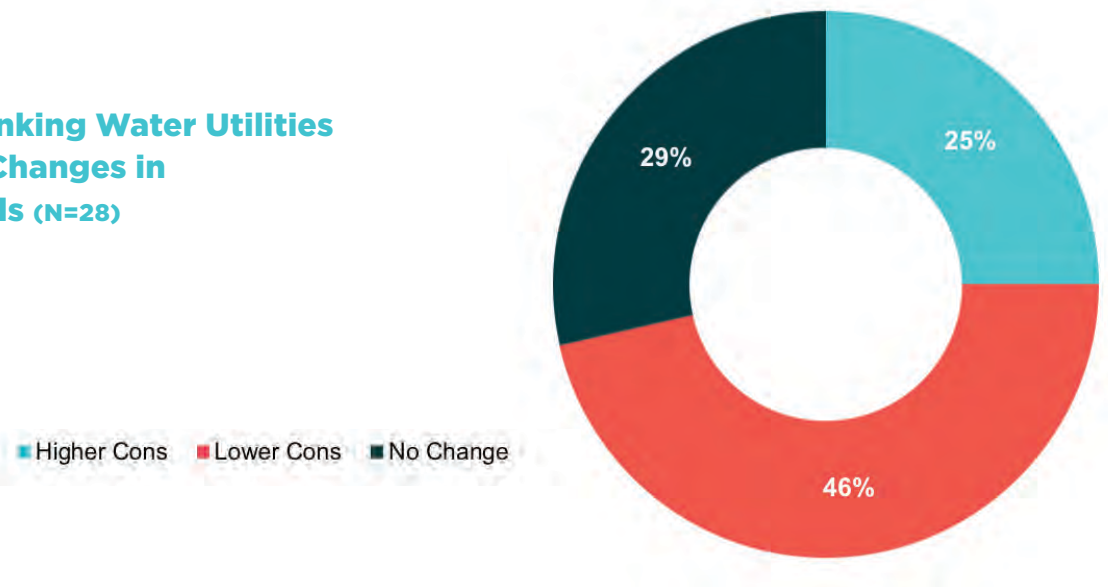
Figure 2-3. Drinking Water Utilities with Debt Forgiveness Policies (N=48)



2.2. Revenue Loss Due to Declines in Consumption

Approximately half of drinking water utilities responding to the Raftelis COVID-19 questionnaire indicated that they have already experienced reductions in water demands during the crisis that are a direct result of Federal, State, and local stay-at-home orders and reductions in commercial, industrial, and institutional activities, as shown in Figure 2-4.

Figure 2-4. **Drinking Water Utilities Experiencing Changes in Water Demands (N=28)**



Due to customer water metering frequencies (typically monthly, bi-monthly, or quarterly), there is a lag in observable changes in water consumption associated with the crisis, and for many utilities, it is too early to precisely estimate the impacts. However, it is anticipated that the vast majority of drinking water utilities across the U.S. will experience revenue loss due to water consumption declines. These reductions in demands are anticipated to result in losses in revenue from non-residential customers. Some specific utility examples of where consumption declines are occurring include:

A mid-sized utility in Pennsylvania experienced a 10 percent loss in water demands for the four-day average from March 1 – 4, 2020, as compared to the four-day average demands from a period in February prior to the crisis.

A large water utility in Virginia experienced a decline in demands between March 25 – 31, 2020 compared to the same time period in 2019 of approximately 6.7 percent.

A large water utility in Colorado has experienced reduction of more than 35 percent in water usage from non-residential customers, and approximately a 10 percent increase in residential water usage based on a small sample of customer meter data from the utility's AMI metering system.

Toho Water (FL) is anticipating experiencing a 52 percent reduction in commercial water usage and 12.5 percent reduction in reclaimed water sales over a six-month period, with a total annual revenue loss of approximately 9.2 percent.

Pittsburgh Water and Sewer Authority (PA) has experienced large college residential vacancies and commercial facilities shutdown that have resulted in reduction in total demands of approximately 12 percent.

South Central Connecticut Regional Water Authority (CT) has experienced a water production decline of approximately 6 percent. This utility serves primarily residential customers, but among their top 10 customers are universities and hospitals.

2.2.1. Methodology

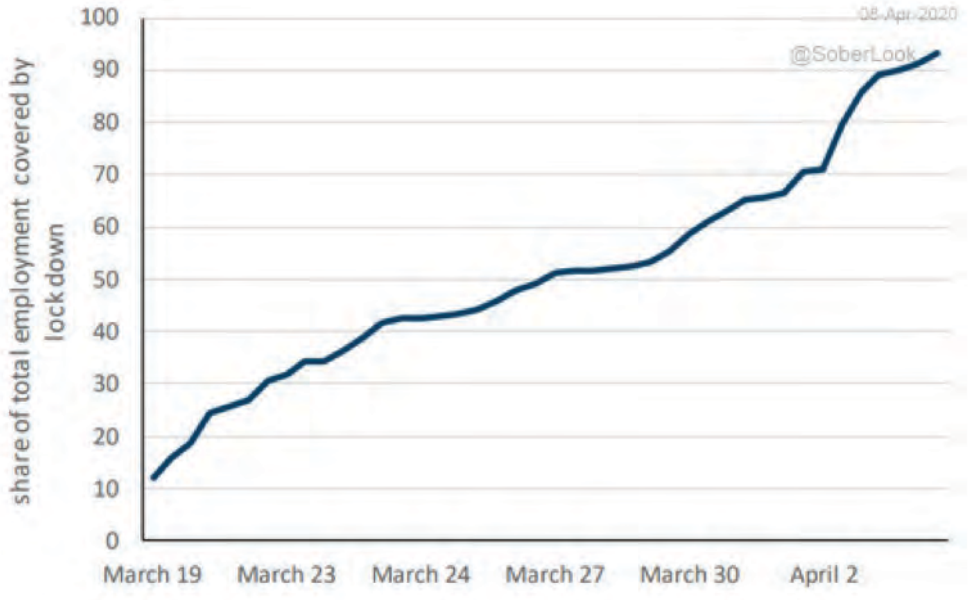
The potential loss in revenue due to anticipated declines in consumption was estimated as follows:

1. Identify the typical percentage of revenues generated by drinking water utilities from residential and non-residential customers based on the AMWA INSIGHT survey.
2. Estimate the reduction in non-residential water demands and revenues based on an aggregate sector analysis of affected stay-at-home orders and responses from the Raftelis COVID-19 questionnaire.
3. Estimate the typical water utility revenue reduction by multiplying the percentage of revenues associated with non-residential customers by the estimated reduction in non-residential water demands.
4. Multiply the estimate of the typical reduction in water utility revenues by the Aggregate National water utility revenue estimate.
5. Offset estimated losses on non-residential revenue with the estimated increase in revenue from residential water usage due to impacts of Federal and State stay-at-home orders.
6. Divide resulting revenue reduction number by 12 to convert to a monthly value.

2.2.2. Analysis

Recent U.S. labor market information indicates that stay-at-home orders and lockdowns during the COVID-19 crisis have impacted over 90 percent of the labor force[1], as shown in Figure 2-5.

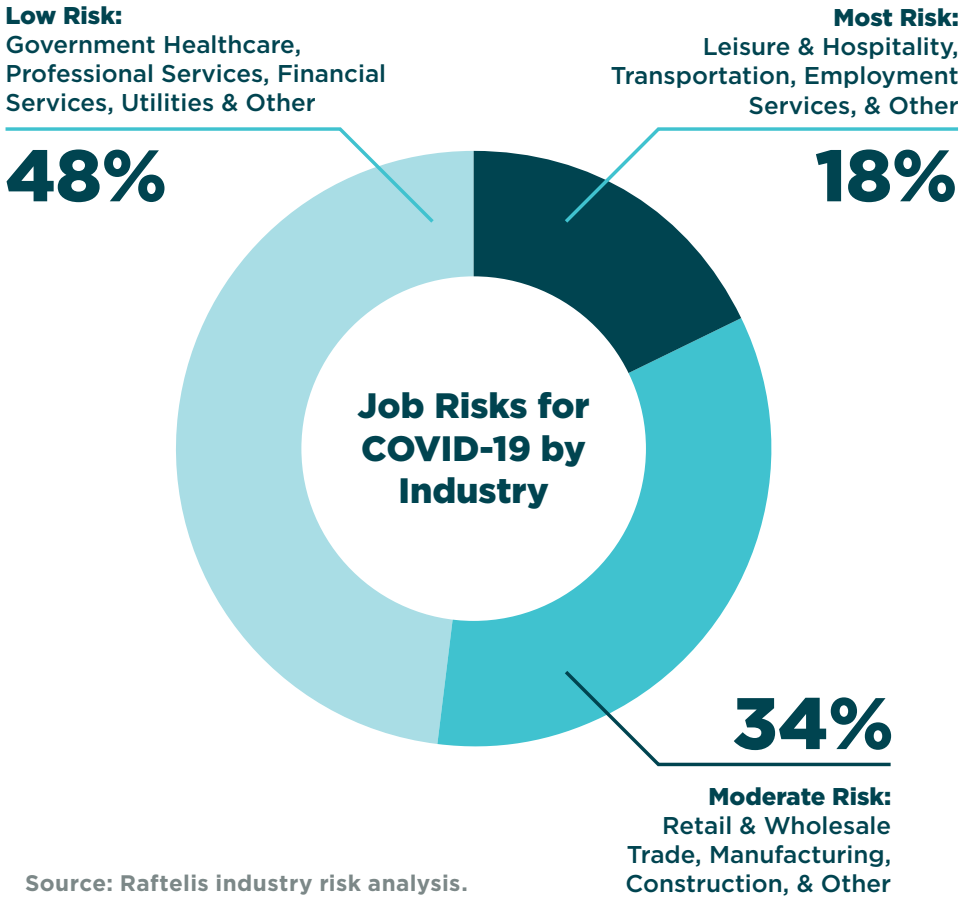
Figure 2-5. **Cumulative Share of Labor Market Subject to State Lockdowns**



1) The Wall Street Journal, April 8, 2020. https://blogs.wsj.com/dailyshot/2020/04/08/the-daily-shot-consumers-cut-spending-by-about-50/

Such stay-at-home orders have significantly impacted water demands from non-residential customers. A commercial sector risk assessment was completed to estimate the potential reduction of water demands and revenues from commercial and industrial businesses. Based on this analysis, it is anticipated that drinking water utilities will experience significant water demand reductions from industries in the leisure, hospitality, and transportation sectors, and moderate to significant reductions in water demands from other industries, such as retail and wholesale trade, manufacturing, and construction. The composition of these industries is summarized in Figure 2-6.

Figure 2-6. **Industries Anticipated to Experience Significant Water Demand Reductions**



Source: Raftelis industry risk analysis.

Based on the industry risk analysis, it was estimated that there is the potential for nearly full reduction in water demands from high risk industries and partial reduction (we assumed 50% reduction) in water demands from moderate risk industries. These estimates were used to assess the potential revenue loss due to water demand declines during the COVID-19 crisis, as detailed in Table 2-4.

Table 2-4. Estimated Revenue Loss Due to Declines in Non-Residential Consumption

Description		Reference	Parameter
a.	Typical Non-Residential Revenue as % of Total Revenue	[1]	29.0%
b.	Reduction in Non-Residential Water Demand	[2]	35.0%
c.	Estimated Reduction in Revenue from Non-Residential	a x b	10.2%
d.	Annual Aggregate Water Utility Revenue	[3]	$82.3B
e.	Annualized Reduction in Water Utility Revenues	c x d	$8.4B
f.	Marginal Cost Savings %	[4]	11.6%
g.	Marginal Cost Savings $	e x f	($1.0B)
h.	Net Annualized Reduction in Water Utility Revenues	e - g	$7.4B
i.	Monthly Reduction in Water Utility Revenues	e / 12	$615M

[1] AMWA INSIGHT Survey (2018).

[2] Estimated based on analysis of U.S. industry risk exposure to COVID-19 (https://www.raftelis.com/insight/stress-testing-your-financial-plan/) considering reduction in demands from high risk industries, including leisure & hospitality, transportation, and other, and moderate reduction in demand from moderate risk industries, such as retail & wholesale trade, manufacturing, and construction industries.

[3] Calculation as provided in Table 2-1.

[4] Calculation as provided in Table 2-3.

The estimated loss in non-residential revenues are anticipated to be somewhat offset by an increase in water demands and revenues from residential customers due to Federal and State stay-at-home orders and as indoor water use increases due to greater homeowner occupancy during normal working hours. The estimated increase in residential consumption and associated revenues as a result of the COVID-19 crisis are detailed in Table 2-5.

Table 2-5. Estimated Increase in Residential Consumption

Description		Reference	Parameter
a.	Increase in Residential Indoor Water Use	[1]	8.00%
b.	Indoor Water Use as % of Total Water Use	[2]	60.00%
c.	Increase in Residential Water Use Due to COVID19 Crisis	a x b	4.80%

[1] Estimated increase in indoor water use from a 33% increase in toilet use from an increase of eight hours at home (8 hrs / 24 hrs = 33.3%) times the percentage of toilet use as a % of total indoor water use of 24% from the publication: Residential End Uses of Water, Version 2 Executive Report, Water Research Foundation, April 2016.

[2] Residential End Uses of Water, Version 2 Executive Report, Water Research Foundation, April 2016.

Note that this estimate does not consider the potential that some residential customers may curtail water usage (e.g. outdoor water usage for irrigation) during the crisis to help lower their water bills.

Table 2-6. Estimated Revenue Increase Due to Increases in Residential Consumption

Description		Reference	Parameter
a.	Residential Revenue as % of Total Revenue	[1]	71.0%
b.	Increase in Residential Water Demand	[2]	4.8%
c.	Increase in Residential Water Revenue (%)	a x b	3.4%
d.	Annual Aggregate Water Utility Revenue	[3]	$82.3B
e.	Annualized Increase in Water Utility Revenues	c x d	$2.8B
f.	Less: Adjustment for Increase in Residential Write-offs	[4]	6.0%
g.	Net Annualized Increase in Water Utility Revenues	e x (1-f)	$2.6B
h.	Estimated Monthly Increase in Water Utility Revenues	e / 12	$220M

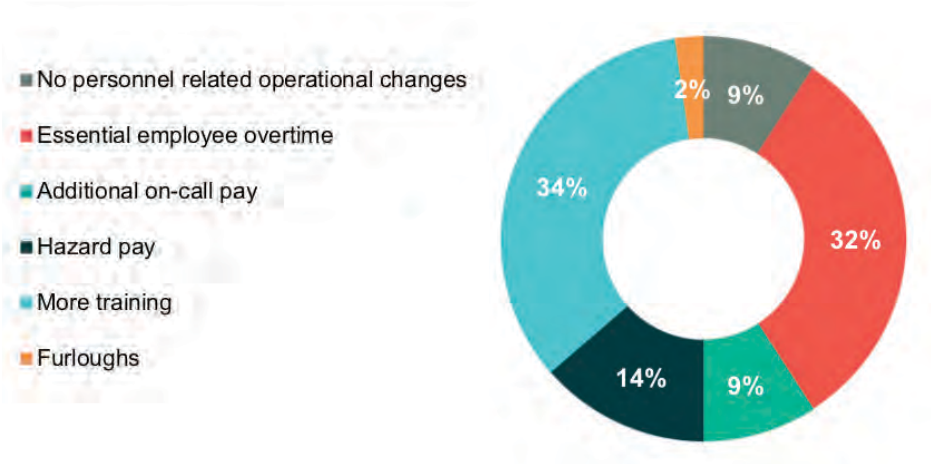
[1] AMWA INSIGHT Survey (2018).
[2] Calculated in Table 2-5.
[3] Calculation in Table 2-1.
[4] Calculation in Table 2-2.

The total estimated net decrease in water utility revenues is anticipated to be $4.7 billion on an annualized basis considering the anticipated $7.4 billion decrease in non-residential revenues and a $2.7 billion increase in residential revenues.

2.3. Financial Impact of Water Utility Operational Policy Changes

Some drinking water utilities have implemented new operational policies in response to the COVID-19 crisis, such as new operating hours for essential water utility staff, sequestering operations staff, and providing increased compensation for essential employees. Based on the Raftelis COVID-19 questionnaire response, personnel-related changes included paying essential employees overtime, providing additional compensation to employees as "hazard pay," incurring more employee on-call personnel expenses, and in some cases furloughing employees, as summarized in Figure 2-7.

Figure 2-7. Personnel Expense Changes (N=27)



For approximately the 40 percent of drinking water utilities responding that personnel expenses are anticipated to increase due to the crisis, the weighted average percent change in personnel expenses was approximately 6.5 percent. Specific examples from drinking water utilities responding to the questionnaire include the following:

A large utility in North Carolina is paying a 5% premium to essential workers.

El Paso Water Utilities Public Service Board (TX) is experiencing personnel impacts related to emergency administrative leave.

Great Lakes Water Authority (MI) indicated that it had increased the pay of all operation and maintenance personnel by $1.00 per hour in response to the crisis.

Des Moines Water (IA) has sequestered treatment plant operating personnel enough for 12-hour shifts, and is paying each of these staff for 24 hours per day. The balance of personnel is being paid regular salaries, even though some will not be working.

La Puente Valley County Water District (CA) is implementing alternative work schedules in which a portion of staff is paid to be home at the ready.

2.3.1. Methodology

Estimation of the financial impacts of operational actions taken, or anticipated to be taken, by drinking water utilities that impact personnel expenses consisted of:

1. Obtain information from Raftelis questionnaire regarding % changes to personnel expenses due to crisis.
2. Obtain typical percentage of personnel expenses compared to total water utility expenditures from AWWA and AMWA survey data.
3. Multiply % change to personnel expenses by personnel expense estimate as % of total expense. Then multiply this resulting percentage by the national revenue estimate from the CBO source to aggregate to the national level.
4. Divide resulting national personnel expense impact by 12 to convert to a monthly value.

2.3.2. Analysis

An estimate of the personnel expense impact of changes to drinking water utility personnel policies was calculated as detailed in Table 2-7.

Table 2-7. Estimated Operation Policy Change Impacts on Personnel Expenses

	Description	Reference	Parameter
a.	Increase in Personnel Expenses Due to COVID-19 Crisis	[1]	6.5%
b.	Weighted Average Personnel Expense Increases	[2]	3.2%
c.	Personnel Expenses as % of Total Budget	[3]	23.8%
d.	Increase in Personnel Expense as % of Total Revenue	b x c	0.8%
e.	Annual Aggregate Water Utility Revenue	[4]	$82.3B
f.	Aggregate Annual Increase in Personnel Expense	d x e	$0.6B
g.	Aggregate Monthly Increase in Personnel Expense	f / 12	$52M

[1] Raftelis questionnaire response. Average increase in personnel expense for those respondents indicating increased expenses.

[2] Raftelis questionnaire response. Weighted responses by revenue, including those respondents indicating no expense increase.

[3] Operating Ratio (58%) x Personnel Expense as % of operating & maintenance expense (41%). From 2019 AWWA Utility Benchmarking Survey, Table 2-6A and the 2019 AMWA INSIGHT Survey.

[4] Calculated in Table 2-2.

Some utilities also responded to the Raftelis COVID-19 questionnaire that they anticipate experiencing increases in non-personnel related expenses due to the crisis, while others indicated potential decreases in non-personnel expenses due to the crisis. Reported increases in expenses consisted of equipment to enable employees to work from home (e.g. computers, monitors) and personal protective equipment. Reported decreases in expenses included items such as reduced travel and conference expenses, reductions in utilities and chemicals due to lower water production, reductions in material costs from reduction in non-essential work activities. Some specific examples of changes to non-personnel expenses are as follows:

Salt Lake City, Department of Public Utilities (UT) is anticipating additional chemical costs in order to have excess supplies in place if there are interruptions in vendor services, and additional personal protective equipment material and supply costs.

Portland Water District (ME) has incurred additional cost related to a remote workforce, including new personal computers, monitors, server, and software. In addition, it anticipates additional expenses in personal protective equipment.

Lehigh County Authority (PA) has experienced a significant investment in IT/technology expenses to support work-from-home arrangements, including rapid purchase and deployment of laptops and reimbursement for internet service and cell phone usage for employees working from home.

Manchester Water Works (NH) has reduced non-essential work activities which may reduce the purchase of certain materials and supplies.

Fort Pierce Utilities Authority (FL) has experienced increases in materials and supplies costs for disinfectants, towel wipes, respirators, thermometers, and masks. It also anticipates incurring additional expenses associated with sanitation of lobby areas and health monitoring when customer service offices open and employees return to utility offices after working from home.

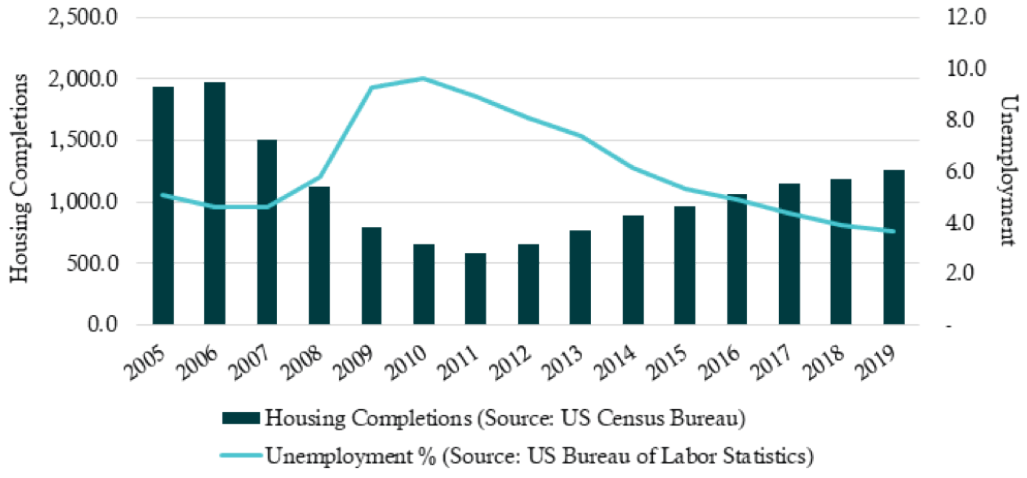
Dare County (NC) anticipates a decrease in chemical usage and utility costs.

Due to the variable responses from the Raftelis COVID-19 questionnaire, a definitive estimate of increased non-personnel expenses could not be made.

2.4. Financial Loss Due to Slower Customer Growth

The COVID-19 crisis is anticipated to slow the growth in new development and housing starts, which will further impact the revenues of drinking water utilities. Historical data on the correlation between the unemployment rate and housing development activity was gathered, reviewed, and analyzed. The analysis of this data indicated that that a significant decrease in real estate development is likely to occur due to the COVID-19 crisis as a result of increased unemployment, as indicated in Figure 2-8.

Figure 2-8. Historical Trends in Housing Completions vs. Unemployment



Source: Labor force and unemployment statistics from the U.S. Census Bureau.

This anticipated slower growth in development will likely result in deferrals or losses associated with system development charges ("SDCs") and user charge revenues from new customers. Some specific examples of drinking water utilities anticipating growth-related impacts are as follows:

Charlotte Water (NC) has revised its SDC projections to be flat or slightly lower in 2020 as compared to 2019. Prior to the crisis, Charlotte Water was anticipating an increase in SDCs from these fees due to development growth in the Charlotte region.

East Bay Municipal Utility District (CA) anticipates reductions in development activity and SDCs could be severe.

Tucson Water (AZ) expects approximately a 20 percent reduction in development activity and SDCs because prospective homebuyers might not be able to buy at this time.

Tualatin Valley Water District (OR) expects a 20 percent reduction in new connections and SDCs due to a reduction in growth and development.

2.4.1. Methodology

The deferrals or financial losses associated with anticipated lower development activity was estimated as follows:

1. Estimate the deferrals or losses from lower system development charges:

a. Estimate pre-COVID-19 aggregate residential and non-residential SDCs from sector publications on system development and impact fees.

b. Estimate the anticipated percent reduction in building permits during the COVID-19 crisis from U.S. Census Building Permit Survey data, information from the response to the Raftelis COVID-19 questionnaire responses and Raftelis estimates.

c. Multiply the estimate of the percent reduction in building permits by the aggregate annual SDC estimate.

d. Divide resulting reduction in SDCs by 12 to convert to a monthly value.

2. Estimate the net loss in anticipated water utility rate revenues due to slower customer growth

a. Estimate the anticipated reduction in housing unit construction based on U.S. Census Building Permit Survey data, information from the response to the Raftelis questionnaire, and Raftelis estimates.

b. Estimate the typical monthly water bill for residential customers based on the AWWA rate survey.

c. Multiply the monthly reduction in housing unit construction by the typical monthly water bill for residential customers.

d. Adjust the calculated revenue loss by an estimate of the reduction in water utility marginal cost of serving new customers.

e. Calculate the cumulative net revenue loss if the COVID-19 crisis lasts 2-months, 4-months, or 6-months.

2.4.2. Analysis

The aggregate loss in system development charges was estimated as detailed in Table 2-8.

Table 2-8. Estimated Aggregate Loss of System Development Charges

Description		Reference	Parameter
a.	Aggregate Residential System Development Charges (2019)	[1]	$2.4B
b.	Residential as % of Total	[2]	69%
c.	Aggregate Total System Development Charges (2019)	a / b	$3.5B
d.	Anticipated % Reduction in Building Permits During Crisis	[3]	75%
e.	Annualized Reduction in System Development Charges	d x e	$2.6B
f.	Monthly Reduction in System Development Charges	f / 12	$217M

[1] U.S. Census Bureau Building Permit Survey (2019) and National Impact Fee Survey, Duncan Associates, 2019.

[2] AMWA INSIGHT Survey (2018).

[3] Raftelis estimate.

The loss of future rate revenue from anticipated declines in new customer connections was estimated as detailed in Table 2-9.

Table 2-9. Estimated Loss of Rate Revenue from Lower New Customer Growth

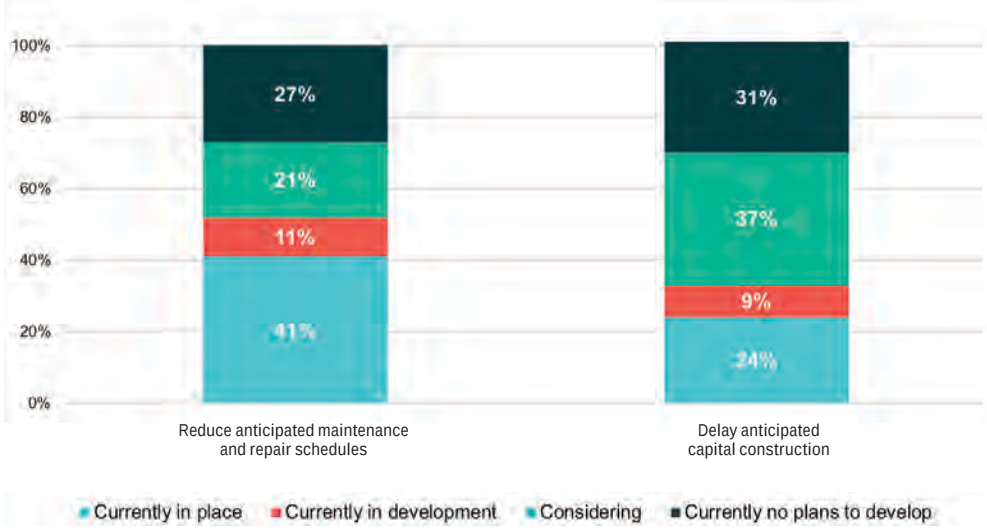
Description		Reference	Parameter
a.	Anticipated % Reduction in Building Permits During Crisis	[1]	75%
b.	Monthly Lost Housing Unit Equivalents	[2]	85,647
c.	Median Monthly Residential Water Bill	[3]	$42.41
d.	Monthly Reduction in Aggregate Residential Water Revenue	b x c	$3.63M
e.	Non-Residential Revenue as a % of Total Revenue	[4]	29%
f.	Monthly Reduction in Aggregate Non-Residential Water Revenue	d x e/(1-e)	$1.48M
g.	Total Monthly Aggregate Reduction in Water Revenue	d + f	$5.12M
h.	Marginal Cost Factor	[5]	11.6%
i.	Less Marginal Cost	g x h	$0.59M
j.	Net Monthly Aggregate Reduction in Water Revenue (Month 1)	g - i	$4.52M
k.	Annualized Aggregate Reduction in Water Revenue	calculation	$0.4B

[1] Raftelis estimate.
[2] U.S. Census 2019 Building Permit Survey data multiplied by % reduction in building permits in (a.).
[3] AWWA Water and Wastewater Rate Survey (2019).
[4] AMWA INSIGHT Survey (2018).
[5] Calculated in Table 2-4.

2.5. Economic Impact of Reduced Capital Expenditures

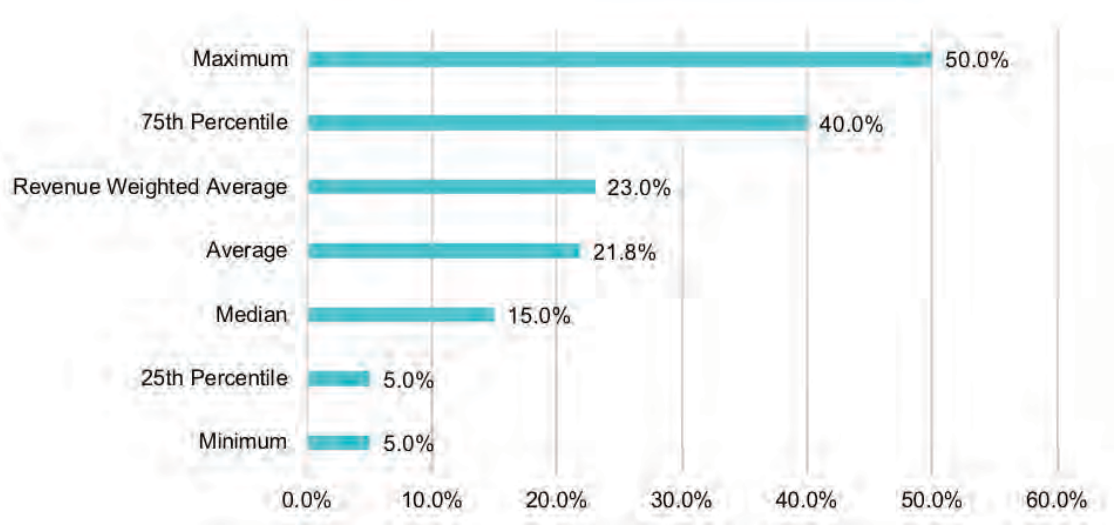
Some drinking water utilities are deferring a portion of their previously planned capital expenditures to manage cash flows during the COVID-19 crisis and to comply with required Federal or State temporary shutdown of non-essential businesses activities and "stay at home" orders. According to a recent COVID-19 survey completed by AWWA in March 2020, approximately 69 percent of water utility respondents were considering or anticipating delays in capital construction, as shown in Figure 2-9.

Figure 2-9. Drinking water utilities Indicating Delays in Capital Construction



Responses from the Raftelis COVID-19 impact questionnaire indicated that the anticipated range of capital expenditure changes for those drinking water utilities that expect declines in capital construction is between 5 percent and 50 percent, with a weighted average of approximately 23 percent, as shown in Figure 2-10.

Figure 2-10. Anticipated Annual Capital Expenditure Adjustments (N=11)



Some specific examples of anticipated levels of decline in capital construction from the responses to the questionnaire include the following:

Salt Lake City, Department of Public Utilities (UT) has reduced both cash funded and debt financed capital expenditures by 32 percent due to COVID-19.

Tucson Water (AZ) anticipates reducing both cash funded and debt financed capital expenditures by 50 percent.

Lehigh County Authority (PA) plans to reduce both cash funded and debt financed capital expenditures by 40 percent.

This capital expenditure deferral is anticipated to result in a loss in jobs and economic stimulus (e.g. GDP) in local economies across the country.

2.5.1. Methodology

An estimate of the economic impacts to local economies of a decrease in drinking water utility capital spending was prepared based on the following methodology:

1. Estimate the percentage of drinking water utilities that plan to defer or reduce capital expenditures from the March 2020 AWWA survey results and the responses from the Raftelis COVID-19 questionnaire.
2. For the portion of drinking water utilities that plan to defer or reduce capital expenditures, estimate the typical percent capital expenditure reduction from the results of the Raftelis COVID-19 questionnaire.
3. Multiply the percentage of utilities planning deferred or reduced capital expenditures by the percent reduction in planned capital expenditures to derive the overall percent reduction in capital expenditures.
4. Multiply the estimated percent reduction in capital expenditures by the estimated aggregate national level annual water utility capital expenditure amount.
5. Divide resulting revenue reduction number by 12 to convert to a monthly value.
6. Estimate lost economic stimulus on the local economy by multiplying the monthly national value of capital expense deferrals by the economic multipliers from published sources.

2.5.2. Analysis

The economic impact of delaying capital construction projects may help utilities preserve cash and postpone the need to secure additional financing during the crisis, but the delay in capital construction can have a significant impact on economic activity in the local community. A report prepared for the U.S. Conference of Mayor reported that for each dollar spent on water supply and sewer systems, there is an increase in private sector output (i.e. Gross Domestic Product) in the long-term of $6.35.[2] In addition, this report cites the U.S Department of Commerce's Bureau of Economic Analysis estimates that for each dollar of revenue of the water and sewer sector, there is an increase in revenue that occurs in private industry of $2.62 in that year. Furthermore, a publication by the U.S. Bureau of Economic Analysis indicates that 15 to 18 jobs are created or sustained for each $1 million of drinking water capital spending.[3]

Based on these economic multiplier effects, the economic impact that deferred capital construction expenditures are anticipated to have on local economies across the U.S. were estimated, as detailed in Table 2-10.

Table 2-10. Estimated Economic Impacts of Deferred Capital Construction Expenditures

Description		Reference	Parameter
a.	Utilities Anticipating Reduction in Capital Spending	[1]	70%
b.	Anticipated Reductions in Capital Spending	[2]	23%
c.	Aggregate Annual Water Utility Capital Expenditures	[3]	$31B
d.	Annualized Aggregate Reduction in Water Utility Capital Spending	a x b x c	$5B
e.	Monthly Aggregate Reduction in Water Utility Capital Spending	d / 12	$416M
f.	Capital Spending – GDP Economic Multiplier	[4]	$6.55
g.	Monthly Aggregate Loss in GDP from Reduced Capital Spending	f x e	$2.7B
h.	Annualized Aggregate Loss in GDP from Reduced Capital Spending	f x d	$32.7B
i.	Jobs Created Per $1M in Water Capital Spending	[5]	15-18
j.	Jobs Impact of Reduced Water Utility Capital Spending	d x h	75,000 – 90,000

[1] Raftelis questionnaire results.

[2] Ratelis questionnaire results.

[3] Public Spending on Transportation and Water Infrastructure, 1956 to 2017. Congressional Budget Office. October 2018.

[4] Local Government Investment in Municipal Water and Sewer Infrastructure: Adding Value to the National Economy, Prepared for the U.S. Conference of Mayors by The Cadmus Group, Inc. August 14, 2008.

[5] The Economic Benefits of Investing in Water Infrastructure, Bureau of Economic Analysis, 2008.

As estimated in Table 2-10, it is anticipated that communities across the nation will experience a reduction in economic activity and jobs as a result of lower drinking water utility capital spending. The aggregate reduction in community economic activity is estimated to be as much as $32.7 billion (annualized) when considering these public infrastructure multiplier effects. The reduction in water utility capital spending is also anticipated to result in a loss of between 75,000 to 90,000 private sector jobs. These economic impact estimates highlight the added "bang-for-the-buck" impact that drinking water utility capital spending has on the overall economy.

2) Local Government Investment in Municipal Water and Sewer Infrastructure: Adding Value to the National Economy, Prepared for the U.S. Conference of Mayors by The Cadmus Group, Inc. August 14, 2008.

3) The Economic Benefits of Investing in Water Infrastructure, Bureau of Economic Analysis, 2008.

2.6. Other Impacts and Considerations

The COVID-19 crisis is anticipated to have other financial impacts that have not been quantified in the analysis above. Based on the responses from the Raftelis COVID-19 questionnaire, these other impacts may also include:

- Reductions or deferrals of drinking water utility rate increase that were previously planned;
- Financial impacts associated with directives by City or County government management for across the board spending reductions by all units of government, including water departments, which could impact the level of service of drinking water utilities impacted by such directives;
- Financial impacts associated with directives by City or County management for enterprise funds, including water enterprise funds, to transfer a portion of available cash balances to the General Fund, leaving some drinking water utilities more vulnerable to cash flow issues as the crisis drags on;
- Delays in securing financing for capital improvements as a result of bond market volatility and uncertainty, thereby increasing the magnitude of delays in capital spending.

Some specific examples of these other impacts are provided below:

The City of Springfield (MA) originally planned to have a 7% water rate increase but is now considering a 17% increase due to anticipated revenue losses from consumption declines. The utility is concerned about having such a large increase at this time.

The Austin City Council (TX) has cut residential water and sewer rates by 10 percent in reaction to the COVID-19 crisis.

The City of Tacoma (WA), which has a six-year rate plan, was asked to review the plan to determine the impact of reducing it.

South Central Connecticut Regional Water Authority (CT) is conducting budget and projection revisions and has decided to defer a planned rate application.

For one utility in the Midwest, its City Council enacted an inter-fund loan from the water and power utilities to the General Fund to help address General Fund budget shortfalls. This included authorizing a $15 million transfer from the water utility to the General Fund, representing essentially all of the utility's capital improvement project funds and excess reserves, leaving only a 45- to 60-day operating cash reserve.

One utility in the West (anonymous), with a fiscal year of July 1 – June 30, was in process of adopting its FY 2021 budget prior to the economic disruption related to COVID-19. It is now proposing a revised and reduced budget.

Dayton Water (OH) received a general government request for reduction in expenditures, except essential purchases or COVID-19-related purchases.

It is anticipated that many drinking water utilities may defer or reduce planned water rate increases as a result of the COVID-19 crisis because of political pressure, even though they have or will experience negative financial impacts associated with the crisis. Therefore, an estimate of the potential lost future revenue associated with reduction or deferral of water rate increases was prepared as detailed in Table 2-11.

Table 2-11. Estimated Revenue Loss from Reduction and Deferral of Water Rate Increases

Description		Reference	Parameter
a.	Aggregate Annual Water Utility Revenue	[1]	$82.3B
b.	Historical Average Annual Water Rate Increase	[2]	4%
c.	Annual Increase in Aggregate Water Utility Revenue	a x b	$3.3B
d.	% Reduction in Annual Rate Increases due to COVID-19	[3]	50%
e.	Annualized Lost Revenue from Water Rate Increase Deferrals	c x d	$1.6B

[1] Calculated in Table 2-1.

[2] Water and Wastewater Maintenance Index, Bureau of Labor Statistics.

[3] Raftelis estimate.

The analysis indicates the potential for drinking water utilities to experience additional aggregate revenue loss of approximately $1.6 billion. Much of the need to raise water rates in the U.S. is to obtain funds to ensure adequate water supplies, continue to meet drinking water regulations, and address aging infrastructure.[4] As a result of additional deferment of water rate increases and associated reductions in capital expenditures, the COVID-19 crisis will put the water sector further behind in addressing its capital infrastructure needs.

2.7. Estimated Total Aggregate Financial Impact on U.S. Drinking Water Utilities

The aggregate total direct financial impacts on drinking water utilities if the crisis lasts two months, four months, or six months are shown in Table 2-12. However, these monthly estimates do not consider the lingering impacts that are likely to be experienced after the crisis subsides, such as continued negative financial impacts from a potential extended economic recession. Therefore, the estimated aggregate annualized financial impact on drinking water utilities of $13.9B may be a better estimate of the total potential direct financial impact.

Table 2-12. Estimated Total Aggregate Financial Impact

Description	2 Months	4 Months	6 Months	Annualized
Marginal Cost of Non-Shut Offs	$0.10B	$0.19B	$0.29B	$0.57B
Revenue Loss Due to Increased Delinquencies	$0.82B	$1.64B	$2.46B	$4.92B
Reduction in Commercial Revenues	$1.23B	$2.46B	$3.69B	$7.38B
Increase in Residential Revenues	($0.44B)	($0.88B)	($1.32B)	($2.64B)
Increase in Personnel Expenses	$0.10B	$0.21B	$0.31B	$0.63B
Reduction in System Development Charges	$0.43B	$0.87B	$1.30B	$2.60B
Reduction in Revenues from Reduced Customer Growth	$0.01B	$0.05B	$0.09B	$0.41B
Aggregate Financial Impact[1]	**$2.3B**	**$4.5B**	**$6.8B**	**$13.9B**

[1] Note $13.9B compared to drinking water sector size of $82.3B equals an overall estimated financial impact of 16.9%.

Raising water rates on customers to offset these impacts is likely not an option for many drinking water utilities due to political considerations and because increasing water rates at a time crisis may result in even higher revenue losses due to increased delinquencies. Moreover, responses from the Raftelis COVID-19 questionnaire indicate that many drinking water utilities may be deferring or decreasing planned water rate increases, rather than raising water rates to offset these losses. The analysis results indicate the potential for drinking water utilities to experience additional aggregate future revenue loss of approximately $1.6 billion as a result of these future deferment of water rate increases. Therefore, the combined potential impact, including the impact on current and future revenues, is anticipated to be as much as $15.5 billion.

2.8. Wastewater Sector Potential Impacts

While this report focused on estimating the financial impacts to drinking water utilities, similar impacts are likely to be experienced by wastewater utilities across the U.S. Assuming aggregate annual wastewater sector revenues of approximately $63 billion, the wastewater sector financial impact may be in the range of $12 billion (16.9% impact x $63B). If deferrals of wastewater rate increases occur similar in frequency as those anticipated for drinking water utilities, the combined impact may be as high as $11 billion. A preliminary estimate prepared by the National Association of Clean Water Agencies indicates the impact may be in the $12.5 billion range. Therefore, the combined water and wastewater sector impact of COVID-19 is estimated to be more than $27 billion.

4) 2019 State of the Water Industry Report, AWWA.

3 Conclusions

The following are the primary results and conclusions from the financial impact analysis:

1. Customer delinquincies

Water utilities are expected to experience at least a 6.0 percent increase in customers delinquent in paying their water bills as a result of the COVID-19 crisis and policy changes eliminating water service shut-offs, which may result in an annualized shortfall of $4.9 billion for drinking water utilities. As water utilities continue to provide water to customers with bill delinquencies, rather than enacting shut-offs, they will incur an estimated $0.6 billion of additional costs.

2. Revenue shortfall

Drinking water utilities across the nation are expected to experience an estimated revenue shortfall of $7.4 billion (annualized) due to declines in commercial, industrial, and institutional water consumption due to the COVID-19 crisis. This revenue shortfall may be offset by an increase in residential user charge revenue of approximately $2.6 billion due to "stay-at-home" orders.

3. Reduced system development charges

The COVID-19 crisis is anticipated to slow the growth in new development and housing starts, which will further impact the financial losses of drinking water utilities. Slowing of new customer growth will reduced system development charges of drinking water utilities by an estimated $2.6 billion (annualized). Declines in new customer growth may also result in additional reductions in planned water rate revenues of $0.4 billion (annualized) as new customer accounts are slower to be added to service territories of drinking water utilities, causing utilities to carry the already built excess capacity of drinking water systems longer.

4. Increased personnel expenses

Operational policies implemented by drinking water utilities to ensure essential staff remain healthy and available to help provide essential water service to the U.S. population are anticipated to increase personnel expenses of drinking water utilities by an estimated $0.6 billion, with the potential for additional costs associated with other non-personnel related materials, supplies, and equipment.

5. Aggregate current financial impact

The combined aggregate financial impact of COVID-19 on drinking water utilities from the current financial impacts quantified above is estimated to be approximately $13.9 billion representing an overall 16.9 percent impact on drinking water sector revenues.

6. Delayed and reduced capital expenditures

Due to these financial impacts, drinking water utilities across the nation are anticipated to delay and reduce capital expenditures by as much as $5 billion (annualized) to help manage cash flow due to the COVID-19 crisis. These capital expenditure reductions will have a multiplier effect on economic activity in communities across the U.S. As a result, communities will experience a reduction in economic activity by as much as $32.7 billion (annualized) in aggregate when considering these public infrastructure multiplier effects. This reduction in water utility capital expenditures is also anticipated to result in a loss of 75,000 to 90,000 private sector jobs.

7. Deferred water rate increases

Drinking water utilities may also experience future revenue losses estimated at approximately $1.6 billion in aggregate as a result of deferrals of planned water rate increases, bringing the total combined impact of the COVID-19 crisis to more than $15 billion. These deferrals may further exacerbate community economic impacts by further reducing drinking water utility capital spending, and will put the water sector further behind in addressing its capital infrastructure needs.

8. Combined financial impact

The combined current and future financial impact of the COVID-19 crisis on water and wastewater utilities is estimated to exceed $27 billion.

Appendix COVID-19 Questionnaire Results

1. Please state the name of your organization.					
n	Northeast	Midwest	West	South	
55	11	3	16	25	
See open ended tables for list of organizations willing to self identify.					

2. Please enter your name and title.
Names are not reported to maintain respondent privacy.
Titles are not reported to maintain respondent privacy but generally included Utility Directors and Chief Financial Officers.

3. What are your drinking water utility's total annual revenues from the following sources for the most recent full fiscal year (Residential rate revenue, Non-residential rate revenue, Other rate revenue (e.g. bulk or wholesale), System development fees (i.e. capacity fees), Other miscellaneous revenue)? Note: Reported summary statistics use revenue totals across sources and were used to calculate revenue weighted averages for select questions.					
n	Min	Max	Average	Median	
51	$2,274,000	$1,524,000,000	$137,439,975	$60,067,052	

4. If your drinking water utility has experienced changes in daily water demand from typical levels since the Covid-19 crisis started having impacts in your area (around early or mid-March 2020 for most geographies), please provide information on how such demands have changed:					
Typical normal daily water demand (MGD)					
n	Min	Max	Average	Median	
36	1.45	548.00	66.52	41.45	
% reporting Covid-19 crisis demand impact					
n	No change	Higher Demand	Lower Demand	Average % change	
28	29%	25%	46%	-0.7%	

5. If you have experienced changes in water demand since the Covid-19 crisis started, please describe the nature of the change you have observed:
See open ended tables.

6. Have you or do you anticipate instituting a policy of debt forgiveness of delinquent KII amounts for customers in response to the Covid-19 crisis? Please select one.			
n	Currently in place or in development	Under consideration	Not currently under consideration
47	13%	19%	68%

7. If currently in place, in development, or under consideration, please describe any criteria you are considering for offering customer debt forgiveness for debt accumulated during the Covid-19 crisis:
See open ended tables.

8. What is your annual uncollectible, or write-off, percentage of total revenue in a typical year?					
n	Min	Max	Average	Median	Revenue Weighted Average
42	0%	4%	0.85%	0.55%	0.62%

9. Do you anticipate implementing any of the following personnel-related operational changes as a result of the Covid-19 crisis? Please select all that apply. Note: Reported as % selecting each option.	
n	27
Does not apply / no personnel related operational changes	9%
Essential employee overtime	32%
Additional on-call pay	9%
Hazard pay	14%
More training	34%
Furloughs	2%
Other	See open ended tables.

10. Please provide an estimate of the total percent change in monthly personnel expenses resulting from your operational changes during the crisis:					
n	Min	Max	Average	Revenue Weighted Average	Revenue Weighted Average (among non-zero, *n* =10)
25	0%	+25%	+2.6%	+3.2%	+6.5%

11. Do you anticipate changes to any of the following non-personnel related operating line items as a result of the Covid-19 crisis? Please select all that apply.	
n	36
Does not apply / no non-personnel related operational changes	10%
Professional / contract services	28%
Chemicals	9%
Materials & supplies	32%
Fuel	14%
Utilities	7%
Other, please desribe	See open ended tables.

12. Please provide an estimate of the total percent change in monthly non-personnel expenses resulting from your operational changes during the crisis:					
n	Min	Max	Average	Revenue Weighted Average	Revenue Weighted Average (among non-zero, *n* =7)
7	-10%	+5%	-3%	-2.2%	-2.2%

13. If you wish to elaborate on these non-personnel related operational expense changes you may describe them further here:
See open ended tables.

14. Is your drinking water utility part of a larger municipal government (i.e. City or County Government)? Please select yes or no.		
n	Yes	No
54	57%	43%

15. Have you experienced across-the-board directives by the general government to limit water utility spending on non-essential activities? Please select yes or no.		
n	Yes	No
30	40%	60%

16. Please provide the potential percentage reduction in expenses as part of these directives by the general government to limit spending on non-essential activities.

n	Min	Max	Average	Median
8	0%	75%	10.62%	0%

17. If you wish to elaborate on these reductions in spending as part of these directives you may describe them further here:

See open ended tables.

18. Has your general government requested the transfer of cash reserves from the drinking water utility enterprise fund to the general fund in response to the crisis?

n	Yes	No
28	4%	96%

19. Please provide the amount of cash reserves requested to be transferred to the general fund from your drinking water utility enterprise fund in response to the crisis.

n	0

20. Have or do you plan to adjust, delay, or defer any of the following capital spending due to the COVID-19 crisis? (% responding to each)

n	47
Cash funded capital expenditures	23%
Debt financed capital expenditures	0%
Both cash funded and debt financed capital expenditures	34%
None / no plan to adjust, delay, or defer spending on capital projects	43%

21. Please provide the percentage of your annual capital expenditures you have already or anticipate adjusting, delaying or deferring due to the Covid-19 crisis.

n	Min	Max	Median	Average	Revenue Weighted Average
11	5%	50%	15%	22%	23%

22. Have you experienced, or do you anticipate experiencing reductions in system development fees (i.e. capacity fees) due to reduced development activity associated with the Covid-19 crisis? (% responding to each)

n	43
Yes	44%
No	33%
Not applicable / we don't charge SDFs	23%

23. Please provide the percentage reduction in annual system development fee revenues you anticipate due to reduced development activity associated with the Covid-19 crisis.

n	Min	Max	Median	Average	Revenue Weighted Average
9	-8%	*-50%*	-20%	-23%	-19%

24. Do you anticipate experiencing reductions in the growth in new customers connecting to your drinking water system? (% responding to each)

n	42
Yes	50%
No	50%
If yes, please elaborate	See open ended tables.

25. Are there any other details or financial impacts to your utility resulting from COVID-19 that have not been covered within this survey? If yes, please share.
See open ended tables.

26. Would you be willing to allow us to attribute the data you provided with your utility's name in our report?	
n	51
Yes	63%
No	37%

1. Please state the name of your organization.			
Region	State	Organization	
Midwest	OH	Dayton Water Department	
Midwest	Anonymous Midwestern Utility		
Midwest	Anonymous Midwestern Utility		
Northeast	CT	South Central Connecticut Regional Water Authority	
Northeast	ME	Portland Water District	
Northeast	NH	Manchester Water Works	
Northeast	NY	Suffolk County Water Authority	
Northeast	RI	Newport, RI Dept of Utilities	
Northeast	RI	Providence Water Supply Board	
Northeast	PA	Pittsburgh Water And Sewer Authority	
Northeast	PA	Lehigh County Authority	
Northeast	Anonymous Northeastern Utility		
Northeast	Anonymous Northeastern Utility		
Northeast	Anonymous Northeastern Utility		
South	AL	The Water Works Board of the City of Birmingham	
South	AR	Central Arkansas Water	
South	FL	City of Lakeland	
South	FL	Martin County Utilities	
South	FL	Charlotte County Board of County Commissioners	
South	FL	Fort Pierce Utilities Authority	
South	GA	Gwinnett County Water Resources	
South	NC	Charlotte Water	
South	NC	Dare County, NC	
South	NC	Raleigh Water	
South	OK	City of Tulsa	
South	TX	City of Round Rock, Texas	
South	TX	El Paso Water Utilities Public Service Board	
South	Anonymous Southern Utility		
South	Anonymous Southern Utility		
South	Anonymous Southern Utility		
South	Anonymous Southern Utility		
South	Anonymous Southern Utility		
South	Anonymous Southern Utility		
South	Anonymous Southern Utility		
South	Anonymous Southern Utility		
South	Anonymous Southern Utility		
South	Anonymous Southern Utility		
South	Anonymous Southern Utility		
South	Anonymous Southern Utility		
West	AZ	City of Chandler	
West	AZ	City of Tucson - Tucson Water	
West	CA	City of San Diego Public Utilities	
West	CA	East Bay Municipal Utility District	
West	CA	La Puente Valley County Water District	
West	CA	Metropolitan Water District of Southern California	
West	CO	Centennial Water and Sanitation District	
West	CO	City of Greeley, Colorado	

1. Please state the name of your organization. (continued)			
Region	State	Organization	
West	OR	Tualatin Valley Water District	
West	UT	Salt Lake City Department of Public Utilities	
West	Anonymous Western Utility		
West	Anonymous Western Utility		
West	Anonymous Western Utility		
West	Anonymous Western Utility		
West	Anonymous Western Utility		
West	Anonymous Western Utility		

5. If you have experienced changes in water demand since the Covid-19 crisis started, please describe the nature of the change you have observed:	
South Central Connecticut Regional Water Authority	We are seeing a decline in production. We are largely residential and have not seen an increase. Our top ten customers are primarily universities and hospitals.
City of Round Rock, Texas	Not enough data to distinguish change in usage yet.
Martin County Utilities	MCU has decreased pressures to relieve stress on surficial wells. This water is blended with deeper brackish water (wells) and treated through RO membranes. We are at the peak of Florida's dry season and are experiencing very dry conditions. This coupled with increased residential water demands drove demands well over 12 MGD (highest demand on record was 14 MGD April 2018). Decrease in non-residential demand is masked.
City of Chandler	Chandler has been tracking higher for water use in 2020 when compared to 2019 with the biggest factor being Intel. Governor Ducey, announced shelter in place in March and we took a dip. However our large industrial demands and outdoor water use are ramping up. Bottom line is we have not seen a reduction in water use.
Gwinnett County Water Resources	Overall demand has increased March 1 through March 19. We do not have the data for consumption after that point yet. We are continuing to monitor consumption data closely as April bills go out (March consumption).
Salt Lake City Department of Public Utilities	We are unable to determine the specific impacts at this time. Consumption for March 2020 compared to March 2019 is higher in both categories. April will provide better insights to usage patterns.
Charlotte County Board of County Commissioners	Our county is very seasonal so we see many changes in demand around this time normally. We have seen an increase in demand, slightly less than normal, but we are not easily able to determine if it relates to COVID.

5. If you have experienced changes in water demand since the Covid-19 crisis started, please describe the nature of the change you have observed: (continued)	
Charlotte Water	We have noticed that our residential consumption has increased by .05 Ccf and our commercial consumption has decreased by almost the same amount.
Tualatin Valley Water District	Anomalies in weather are making it difficult to attribute demand reductions to COVID-19. We our deliveries appear to be on par with past years. And our bimonthly billing cycles have not allowed a more detailed analyses. But we're worried.
Dare County NC	We do not know because of increasing seasonality.
City of San Diego Public Utilities	Too soon to tell, but i imagine we are seeing a spike in residential use and probably a larger dip in non-residential use, because of lack of tourists in hotels and theme parks, etc.
Pittsburgh Water And Sewer Authority	Large college residential vacancies and commercial facilities shutdown has reduced demand somewhat.
Manchester Water Works	Decreased non-residential demand.
Suffolk County Water Authority	Very slight (3%) increase in demand; this is mostly on the East end of Long Island. Right now, our assessment is that this is a result of Manhattan residents fleeing the city for their summer residences. We appear to be a month ahead of schedule for where our demand normally sits.
City of Tulsa	We won't see the numbers for consumption for March until tomorrow, which I can forward to you by customer classification. Water demand numbers provided above are for pumpage. For the last two years, we are actually seeing our consumption numbers decrease, while our pumpage numbers are increasing due to the amount of flushing we need to perform on dead-end lines to keep disinfectant residuals up in a chloraminated system.
The Water Works Board of the City of Birmingham	Overall, potable water production is up 2% for year-to-date 2020 over the similar period in 2019. That's a little surprising given how much rainfall we had in January/February and the assumed curtailment of commercial restaurant usage.
Lehigh County Authority	Too early to tell. Impact appears to be minimal. Industrial usage is maintained due to high percentage of food / beverage manufacturing on our system.
7. If currently in place, in development, or under consideration, please describe any criteria you are considering for offering customer debt forgiveness for debt accumulated during the Covid-19 crisis:	
City of Lakeland	There has been discussions about deferring payments or allowing customers to make pre-set payments until caught up but at this time debt forgiveness has not been discussed.

7. If currently in place, in development, or under consideration, please describe any criteria you are considering for offering customer debt forgiveness for debt accumulated during the Covid-19 crisis: (continued)	
Gwinnett County Water Resources	We are considering removing late fees for bills accumulated during the crisis.
Tualatin Valley Water District	Still in development. We're very concerned about the ability to assess needs since we don't have access to data for means testing.
Dare County NC	Governor's executive order
City of San Diego Public Utilities	Too early to know.
Portland Water District	Waiving late fees on deliquent accounts
Pittsburgh Water And Sewer Authority	Similar to the requirements for debt forgiveness for low income residents. $300 per year if efforts to pay are made.
Manchester Water Works	We are not charging late fees or doing shut offs for non-payment during this time.
Suffolk County Water Authority	SCWA is considering eliminating the late charges during the COVID crisis.
City of Tulsa	Only under consideration now. We are working on extending our payment arrangement plans. Knowing it will take time for recovery of jobs, income, other bills, credit cards, etc., we would rather have the money that is owed to us, but extend the payment arrangement plans (without penalty). In some cases though, we anticipate we will just need to write off the debt.
City of Tucson - Tucson Water	Mayor and Council Policy Direction
Centennial Water and Sanitation District	We have suspended disconnects and working with customers on payment plans. We are developing options for reducing or finding other funding sources to assist customers in need.
Dayton Water Department	Currently only delay of payment, wave late fees, no shut offs, could evolve.
Lehigh County Authority	Low-income or unemployed customers are our primary concern. We may consider either extending due dates for a longer period to pay prior to assessing penalties / terminations once the pandemic has ended.

9. Do you anticipate implementing any of the following personnel-related operational changes as a result of the Covid-19 crisis? Please select all that apply. Note: Reported as % selecting each option.	
South Central Connecticut Regional Water Authority	We are currently paying all employees and paying overtime, if incurred. We are also considering options to reduce expenses.
City of Lakeland	Non-essential employees paid Administration leave.
East Bay Municipal Utility District	Two week rotation with pay for field and operating staff as a precaution against sudden widespread infection of field and operating staff
Metropolitan Water District of Southern California	Non-essential employees teleworking.
Charlotte County Board of County Commissioners	Operational schedule changes only - employees working from home
Charlotte Water	Altered work schedules
Tualatin Valley Water District	Not at this time. But we're monitoring things carefully and may implement furloughs if revenues are too far below plan.
Fort Pierce Utilities Authority	Admin time for those unable to telework from home
EL PASO WATER UTILITIES PUBLIC SERVICE BOARD	Emergency Administrative Leave, new Fedreral COVID-19 Laws
Pittsburgh Water And Sewer Authority	employee make 2 teams with furloughs every other week
Manchester Water Works	only essential employees working, all others are home with pay
La Puente Valley County Water District	Alternative schedules in which a portion of the staff is paid to be home at the ready.
City of Tulsa	Reduction in temporary employment services
City of Tucson - Tucson Water	Hiring Freeze, Suspended all temp personnel, layoffs
Dayton Water Department	Essential employees report, non-essential on paid leave.
Raleigh Water	paying critical employees 5% premium
Lehigh County Authority	Extensive work-from home for administrative staff

11. Do you anticipate changes to any of the following non-personnel related operating line items as a result of the Covid-19 crisis? Please select all that apply.	
East Bay Municipal Utility District	some field work not getting done, so might have some small non labor cost savings
Tualatin Valley Water District	Reduction in training that requires travel.
Fort Pierce Utilities Authority	Sanitization, PPE, Safety/Heath Monitoring
Dare County NC	Chemicals & Utilities will decrease
Central Arkansas Water	travel
City of Tucson - Tucson Water	essential only purchases for water operations
Lehigh County Authority	Technology purchases to support work from home.

13. If you wish to elaborate on these non-personnel related operational expense changes you may describe them further here:	
South Central Connecticut Regional Water Authority	We are revising our budget for our upcoming fiscal year due to COVID-19 as well as year current year projection.
Gwinnett County Water Resources	Additional laptops, VPN licenses, computer monitors.

13. If you wish to elaborate on these non-personnel related operational expense changes you may describe them further here: (continued)	
Salt Lake City Department of Public Utilities	We anticipate additional chemical costs to have supplies in place if there are interruptions on vendor services. Additional materials and supply costs are anticipated to properly protect our employees during this time.
Tualatin Valley Water District	Most are related to reduction in training and the elimination of travel for training events. Training is limited to those individual and activities that are required to maintain certifications.
Fort Pierce Utilities Authority	Disinfectants, Towel wipes, Respirators, Thermometers, Masks, etc. H2O2 Air purifiers, and the ultimate sanitization of the lobby area before we reopen to serve customers.
Portland Water District	Items related to remote working - pc, monitors, new server and software, PPE some programs not being done so savings may result - hydrant inspection/painting, etc.
Pittsburgh Water And Sewer Authority	Masks, daily medical screening testing of staff and vendors entering WTP and Operations yards.
Manchester Water Works	We are not performing any non-essential work, therefore the materials we would have purchased to do these jobs will not be bought. In addition, we don't have crews driving around the City because they are not working so we will likely save on fuel costs as well.
La Puente Valley County Water District	Difficult to accurately factor at this time.
City of Tucson - Tucson Water	Applies to discretionary spending
The Water Works Board of the City of Birmingham	Janitorial Services-including sanitizing the facilities. Material-Purchasing PPE material
Dayton Water Department	Mostly related to fuel and petroleum based products. Ethanol production is in crisis with severe demand reduction requiring refineries to support a much reduced volume.
Lehigh County Authority	Some increase in fuel due to allowing all staff to travel home in utility vehicles. Many construction projects are on hold, so we're not sure of the impact to those contracts. Significant investment in IT / technology to support work-from-home arrangements including rapid purchase and deployment of laptops and reimbursement (if needed) for internet service and cell phone service for employees working from home.

17. If you wish to elaborate on these reductions in spending as part of these directives you may describe them further here:	
City of Round Rock, Texas	City of Round Rock is doing only targeted department and program reductions at this time. No water utility reductions related to COID at this time.
City of Chandler	General non-essential operating contracts
Gwinnett County Water Resources	None have been given at this time.
Salt Lake City Department of Public Utilities	We were not asked to curtain non-essential spending but have revised our FY21 budget request.
Manchester Water Works	No specific directives on spending as we are an enterprise fund, but we have been directed by the Mayor to only have essential employees working on essential tasks.
City of Tulsa	The water utility has plenty of unencumbered cash-funded capital to that could be used via budget amendment for any shortfall in revenues not covered by expense savings. Employees are being asked to watch expenses, but not to the point that it would impact any service delivery.
Dayton Water Department	Essential purchases only or COVID-19 related

24. Do you anticipate experiencing reductions in the growth in new customers connecting to your drinking water system? (% responding to each)	
East Bay Municipal Utility District	Unknown but could be severe
Tualatin Valley Water District	New connections (and SDCs) are still above plan. But we're anticipating a reduction in growth and development.
Pittsburgh Water And Sewer Authority	Development activities are reduced
City of Tulsa	Commercial customers - small businesses; residential is still expected to increase slightly.
City of Tucson - Tucson Water	Prospective homebuyers might not be able to buy at this time. Anticipated recovery might take quite some time.
The Water Works Board of the City of Birmingham	Customers are less inclined to move during these uncertain times.
Lehigh County Authority	Short-term reductions due to work stoppage for private construction. Not sure about long-term impact!

25. Are there any other details or financial impacts to your utility resulting from COVID-19 that have not been covered within this survey? If yes, please share.	
South Central Connecticut Regional Water Authority	As part of our budget and projection revisions, we are deferring a planned rate application.
City of Chandler	Helping water customers financially burdened due to COVID-19 by suspending disconnections, not charging late fees, and extending payment plans.
Tualatin Valley Water District	We are working hard to anticipate the impacts of the potential economic slowdown on our customers. We're in the middle of a major infrastructure investment and see the potential to help our local economy recover by maintaining investment in infrastructure post-COVID-19 pandemic. Essentially we're in the shovel-ready business right now and have capital plans that can be executed as soon as funding is available.
Portland Water District	Investment Interest income expected to be lower. Delay in installation of summer seasonal accounts will reduce review
Suffolk County Water Authority	SCWA is in a unique situation as we are currently going through a bond offering, which has been delayed. We anticipate that this deal will conclude, but it has been an abnormal process due to the crisis and resulting market conditions.
City of Tulsa	Are you planning on changing future rate increases due to COVID-19? Yes. Water remains at 0% for FY21 (July 2020 - June 2021). Sewer is changing from a 7% increase in additional revenue required to a 3%.

US Water Alliance

COVID-19 Relief and Recovery: Guiding Principles to Secure Our Water Future

Water is the lifeblood of our communities and our economy. We know water is playing an essential role in our health and well-being during the public health crisis brought about by the global COVID-19 pandemic. Clean, affordable, and accessible water service is fundamental to public health and thriving communities. Modern treatment processes are intended to ensure all viruses, including COVID-19, stay out of the water supply. Water and wastewater systems are one of the greatest public health achievements in this country and cannot be taken for granted. The challenges facing water systems in a time of crisis will affect communities differently—those already in the midst of ongoing economic, environmental, and public health challenges may be hardest hit.

During this moment of crisis, we offer four principles that knit together enduring water issues critical at this time: who has access to it, who manages it, how it is paid for, and how all communities are kept safe and healthy. We see both challenges and solutions worthy of our collective attention right now. There is responsibility at every level of government—local, state, and federal—to make sure everyone has access to water. It is critical that the systems delivering this essential resource are strong enough to endure economic challenges in the short and long term, meeting the needs of all communities along the way.

Water connects us all. This is an important moment for the United States to commit to a future where everyone can count on reliable and safe water service—now and for future generations.

Read the principles below and the list of 239 diverse organizations that endorse these principles. Join the others by adding your organization's name at the bottom of this form.

Principle 1: Ensure water is reliable and affordable for all

Our shared well-being depends on everyone having access to quality, affordable housing, healthcare, food, and water and sewer service. Yet growing income inequality in the United States puts more people at risk of being unable to afford these essentials. The COVID-19 pandemic is bringing the challenge of water affordability sharply into focus. Water utilities depend on rates for system revenues, and shutoffs are commonly used to enforce bill payment. In response to the pandemic, water utilities are proactively suspending shutoffs and restoring service to people. Other economic impacts are also reducing utility revenues, which may mean rate increases are necessary over time to meet the costs of providing service. That, in turn, will worsen the affordability problem.

During this public health emergency, there should be a national moratorium on shutoffs and restoration of water service to households that have lost access. State and federal assistance should be provided to families to help pay water bills and to water utilities to offset the economic losses associated with free or below-cost service provision during the crisis.

In the longer term, there should be a commitment at every level of government to ensure access to a basic level of water and sewer service for all, regardless of income. While there are assistance programs for other utilities, such as the Low-Income Home Energy Assistance Program (commonly known as LIHEAP), there is no equivalent for water. And, while water assistance programs can help, rate structures designed to ensure affordability are also needed. We must work together as a nation—with co-investment by water providers and local, state, and federal government—to ensure that everyone has safe and reliable water service.

Principle 2: Strengthen water utilities of all sizes

Water utilities are anchor institutions in their communities, providing an essential public health service. Water and wastewater professionals are among the nation's critical infrastructure workforce who remain on the job—potentially putting their health at risk—during this pandemic. Maintaining safe water for cleaning and handwashing and maintaining wastewater treatment to prevent disease spread are critical tools in the fight against COVID-19. As the nation continues to grapple with the increasingly devastating effects from COVID-19, water utilities are serving their customers, protecting public health, and safeguarding their workforce.

Simultaneously, water utilities are experiencing sudden drops in revenue as economic activity precipitously declines. Tourism and convention activities are canceled, sports arenas are closed, hotels and schools are empty, and restaurants and bars are deserted. In addition to dropping revenues, water utilities are also incurring new, additional costs to staff critical operations during the pandemic. While water utilities of all sizes are struggling, small water systems are likely to need extra support since they have fewer customers capable of paying their bills and fewer workers to rely on when others fall ill. Small water systems may fail entirely without emergency action.

Any emergency relief and recovery dollars must include resources to keep water utilities strong and go directly to the agencies operating the water systems. Funding for affected water utilities is critical to help offset lost revenue, the costs associated with moratoriums on shutoffs, and the essential public health protections being put in place by water utilities through their emergency response. All utility personnel who are classified as essential workers should be eligible for state and federal emergency support and health protections. Grant or low-interest loan funding must be made available to help utility operations at a time when revenues are dropping dramatically. A portion of funds made available should be dedicated to water systems facing the greatest public health risk. Wherever possible, funding support for water utilities should come through established programs like the State Revolving Loan Funds, WIFIA, Community Development Block Grants, and USDA Rural Water programs.

Principle 3: Close the water access gap

COVID-19 has made it clear that there is no public health without clean water for all. If one person or community does not have clean water, the health and well-being of everyone else is at risk. Curbing COVID-19's spread requires people to increase handwashing, personal hygiene, and cleaning standards. But for the more than two million Americans who lack running water, indoor plumbing, or wastewater services in their homes and communities, these seemingly simple measures are out of reach. Many of those without access to water infrastructure live in rural and tribal areas, or are part of high-risk groups for COVID-19 including the elderly, disabled, homebound, people with preexisting conditions, and the homeless.

The Federal Emergency Management Agency and the US Army Corps of Engineers should partner to close the water access gap using existing natural disaster response protocols, prioritizing disadvantaged communities where local capacity may be limited. These agencies should also partner with states and municipalities to provide water deliveries and set up hand-washing stations for people without water immediately. These emergency measures should be supplemented with longer-term solutions to close the water access gap.

Principle 4: Fuel economic recovery by investing in water systems

To weather this global pandemic, we need immediate and sustained intervention to protect people's health and well-being. But we must also begin planning for an economic recovery that leaves our communities and economy stronger and more resilient. If water infrastructure fails, it creates a domino effect across the economy and threatens our environment and public health. One-fifth of the US economy —agriculture, healthcare, manufacturing, and electricity—would grind to a halt without a reliable and clean supply of water. Yet, we have chronically underinvested in water for too long. As a result, a water main breaks every two minutes in the United States. The American Society of Civil Engineers estimates the country must spend at least $1.2 trillion over the next 20 years on our drinking water and wastewater systems.

One of the smartest ways to jumpstart economic recovery is investing in our nation's water and wastewater infrastructure. Closing the water infrastructure investment gap would create more than 1.5 million American jobs, more than the entire employed workforce in 20 states. It would generate over $260 billion in economic activity annually, which exceeds the gross domestic product generated by 28 states. Major investment in water systems is a smart and sustainable way to bring our economy back and build up communities so they can all thrive.

Signed by
Agua Sana Wua
Albuquerque Bernalillo County Water Utility Authority
Alexandria Renew Enterprises
Alliance for the Great Lakes
Alliance for Water Efficiency
Alliance of Indiana Rural Water
American Public Health Association
American Public Works Association
American Rainwater Catchment Systems Association
American Rivers
American Society of Civil Engineers
American Society of Plumbing Engineers
American Water
American Water Chemicals
American Water Resources Association
American Water Works Association
Aspen Institute Energy and Environment Program
Association for Farmers Rights Defense
Association of Boards of Certification
Association of Idaho Cities
Association of Metropolitan Water Agencies
Atlanta Department of Watershed Management
Atlantic County Utilities Authority
Audubon California
Bay Area Council
Black & Veatch
Black Hills Clean Water Alliance
blueW
Boston Water and Sewer Commission
Brown and Caldwell
Buckman Direct Diversion Water Treatment Facility
Buffalo Sewer Authority
California Association of Sanitation Agencies
California Coastkeeper Alliance
California Institute of Environmental Design & Management (CIEDM)
California League of Conservation Voters
California Municipal Utilities Association
Carollo Engineers
Cascade Water Alliance
Center for Community Progress
Center for Neighborhood Technology
Ceres
Chamita Mutual Domestic Water Consumer's Association
Charles Stewart Mott Foundation
Chattahoochee Riverkeeper
Chemtex Environmental Laboratory Inc.
Cimino Backflow Testing & Inspection
City of Des Moines
City of Roseville
City of Sacramento
City of Santa Cruz Water Department
City of Santa Fe Water System
Clean Water Action/Clean Water Fund
Clean Water Services
Cleveland Neighborhood Progress
Cleveland Water Alliance
Common-Unity PGH
Community Foundation for Greater Buffalo
Community Water Center
Congressional Black Caucus Foundation
Contra Costa Water District
Cooper's Ferry Partnership
Cotton Research Institute
The Conservation Fund
Cream City Conservation
Creative New Jersey
Crescent Heights Water Supply Corporation
Current
Cynthia & George Mitchell Foundation
DayZero Products Co.
DC Water
Denver Water
The Dew Water Corporation
DigDeep
Dream In Green
Drink Local Drink Tap
Duke University, Nicholas School for the Environment
Earth Economics
Eco-Engineering International, Inc.
EcoWorks
Elevate Energy
EJ Water Cooperative, Inc.
EMA, Inc.
Engineers Without Borders USA
Environmental Community Action (ECO-Action)
Environmental Defense Fund
Environmental Policy Innovation Center
Environmental Resolutions, Inc.
EPCOR USA
Evoqua
Faiths for Safe Water
FLOW (For Love of Water)
Freshwater Future
GA Industries
Geosearch Limited
Global Water Alliance
GlobeWater & Solar
Global Water 2020
Greater Cincinnati Water Works
Greater Edwards Aquifer Alliance
Greeley and Hansen
Green Infrastructure Leadership Exchange
Green Water-Infrastructure Academy
Greenbelt Alliance
Greenprint Partners
Greer Commission of Public Works
GRW Engineers, Inc.
Gulf Coast Center for Law & Policy
Hampton Roads Sanitation District
Harris & Associates
Harris County Utility District 15
Hazen and Sawyer
Houston Water
Illinois Environmental Council
Innovyze
INTERA
The International Association of Plumbing and Mechanical Officials (IAPMO Group)
International Union of Painters & Allied Trades
Isle Utilities
Jacobs
Jersey Water Works

KC Water
Kiewit Water
Laborers' International Union of North America
Lancaster Area Sewer Authority
Leadership Counsel for Justice and Accountability
Louisville Water
Louisville/Jefferson County Metropolitan Sewer District
Madison Metropolitan Sewerage District
Madison Water Utility
Metropolitan Council
Metropolitan Planning Council
Metropolitan Water Reclamation District of Greater Chicago
Mi Familia Vota
Michigan Environmental Council
Michigan League of Conservation Voters
Michigan Welfare Rights Organization
Milwaukee Metropolitan Sewerage District
Milwaukee Water Commons
Milwaukee Water Works
Moonshot Missions
Monte Vista Water District
Mount Laurel Municipal Utilities Authority
Mount Pleasant Waterworks
National Association of Clean Water Agencies
National Black Worker Centers Project
National Rural Water Association
National Wildlife Federation
Natural Resources Defense Council
Nevada Department of Environmental Protection (NDEP)
New England Water Environment Association (NEWEA)
New Jersey Future
NEW Water
New York State Backflow Testers Association
Nia Solutions
Northeast Biosolids & Residuals Association
Northeast-Midwest Institute
Northeast Ohio Regional Sewer District
ONG ASSAUVET
Oregon Citizens' Utility Board
Oregon Environmental Council
Oregon Freshwater
Pacific Institute
Palouse Basin Water Summit, Inc.
Partnership for Southern Equity
PCAIRO Management Consulting LLC
Philadelphia Water Department
Phoenix Water
Pittsburgh Water and Sewer Authority
Plumbing Manufacturers International
PolicyLink
PRR
PUSH Buffalo
Raleigh Water
Raybern Utility Solutions
Regional Water Authority
Recode
Regional Water Authority
River Network
Robert Redford Conservancy for Southern California Sustainability at Pitzer College
Rural Community Assistance Partnership
S. D. Bechtel, Jr. Foundation
San Francisco Public Utilities Commission
San Jerardo Cooperative, Inc.
Scott Miller Strategies
Scotts Valley Water District
Seattle Public Utilities
Separation Processes, Inc.
Sewerage and Water Board of New Orleans
Signal Group
Sisters of Mercy of the Americas Justice Team
Slavic Village Development
Smart Growth America
Southeast Rural Community Assistance Partnership
Southwest Environmental Finance Center
Stantec
Superior Water Management of Texas
Sustainable Conservation
Sustainable Silicon Valley
Sustainable Synthesis Limited, PBC
Svanda & Coy Consulting
Swiftwater Solutions, LLC
Tetra Tech
Texas Rural Water Association
Texas Water Infrastructure Network (TXWIN)
Training Research Education for Empowerment (TREE)
Tucson Water
Union of Concerned Scientists
United for Infrastructure
United Methodist Committee on Relief
The University of Pittsburgh, School of Public Health, Center for Health Equity
University of Wollongong
UrbanKind Institute
Urban Water Works
US Water Alliance
U.S. Water Partnership
Valley Water
Value of Water Campaign
Vermont Rural Water Association
Washington Suburban Sanitary Commission (WSSC Water)
Water Design-Build Council
Water and Wastewater Equipment Manufacturers Association
Water Environment Federation
Water For People
Water Foundation
Water Hub
WaterNow Alliance
Water Systems Consulting, Inc.
Water Pigeon
The Water Research Foundation
Water.Org
West Atlanta Watershed Alliance
West Big Data Innovation Hub
We the People of Detroit
Willamette Partnership
Woodard & Curran
Xylem
York Sewer District
Zephyr Mangata

To learn more about these guiding principles, share ideas, or ask questions, please contact the US Water Alliance: info@uswateralliance.org. Endorse these principles by adding your information below. List updated 12:00 PM ET May 5, 2020

Add Your Organization's Name as an Endorser *

Your answer

Your First and Last Name *

Your answer

Your Title *

Your answer

Your Email *

Your answer

Check here to confirm you are authorized to endorse these principles on behalf of your organization. *

- [ ] I am authorized to endorse these principles on behalf of my organization.

Submit

SCOTTS VALLEY
WATER DISTRICT

April 24, 2020

The Honorable Nancy Pelosi, Speaker
United States House of Representatives
1236 Longworth House Office Building
Washington, D.C. 20515

The Honorable Mitch McConnell, Leader
United States Senate
317 Russell Senate Office Building
Washington, D.C. 20510

The Honorable Kevin McCarthy, Leader
United States House of Representatives
2468 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Charles Schumer, Leader
United States Senate
322 Hart Senate Office Building
Washington, D.C. 20510

RE: Scotts Valley Water District Request for COVID-19 Federal Relief Funding

Dear Leader McConnell, Speaker Pelosi, Leader Schumer, and Leader McCarthy

Scotts Valley Water District respectfully requests that subsequent COVID-19 relief bills address the needs of local government agencies, especially for their water and wastewater systems. The District is a medium size public utility providing water services to residential and commercial customers in Santa Cruz County. The community of Scotts Valley places a high value on livability, innovation and planning for the future. Scotts Valley Water District is proud to play a vital role in supporting those efforts by providing a reliable and sustainable local water supply**.**

As the nation continues to struggle with the devastating effects of the coronavirus, public water agencies in California are working tirelessly to ensure their customers continue to have safe and reliable water services and to protect the health and safety of their workforce. However, local governments, in particular special districts and cities, need assistance in the face of increased expenses and reduced revenue due to the financial burdens on ratepayers during the COVID-19 pandemic.

On behalf of Scotts Valley Water District, we request federal relief bills include:

- **Federal assistance for special districts and cities** to cover costs associated with suspensions of water service disconnections and reconnections of delinquent accounts, that water districts have implemented in response to the pandemic**;**

- **Direct ratepayer assistance** to assist ratepayers struggling financially;

- **Establish a $100 billion relief fund specifically for local governments, in particular special districts and cities**, to utilize for continuation of essential services, such as water and wastewater operations across the country;

2 Civic Center Drive • Scotts Valley, CA 95066 • 831.438.2363
contact@svwd.org • www.svwd.org

- **Include local government eligibility for emergency paid leave payroll tax credit.** While all public agencies are required to provide paid COVID-19 sick and family leave, special districts and local government agencies are currently excluded from the credit, putting them at a disadvantage.

Scotts Valley Water District is among the nation's essential workforce and urges Congress to provide federal assistance to keep California's water sector whole.

Thank you for your attention to this request.

Sincerely,

Piret Harmon

Piret Harmon, General Manager

CC:
U.S. Senator Dianne Feinstein
U.S. Senator Kamala Harris
U.S. Congresswoman Anna Eshoo
U.S. Senate Committee on Appropriations
U.S. Senate Committee on Finance
U.S. House of Representatives Committee on Ways & Means
U.S. House of Representatives Committee on Appropriations

Monterey Bay Community Power

2019 COMMERCIAL & AGRICULTURAL ANNUAL BENEFITS SUMMARY

SCOTTS VALLEY WATER DISTRICT

is benefiting from clean energy at a lower cost – and more!

2,211,295
kWh of carbon-free electricity

$ 9,330
in on-bill savings

34%
of energy from renewable sources

204 MT CO2e
emissions avoided

20
accounts served

6.96 lbs CO2/MWh
emissions factor

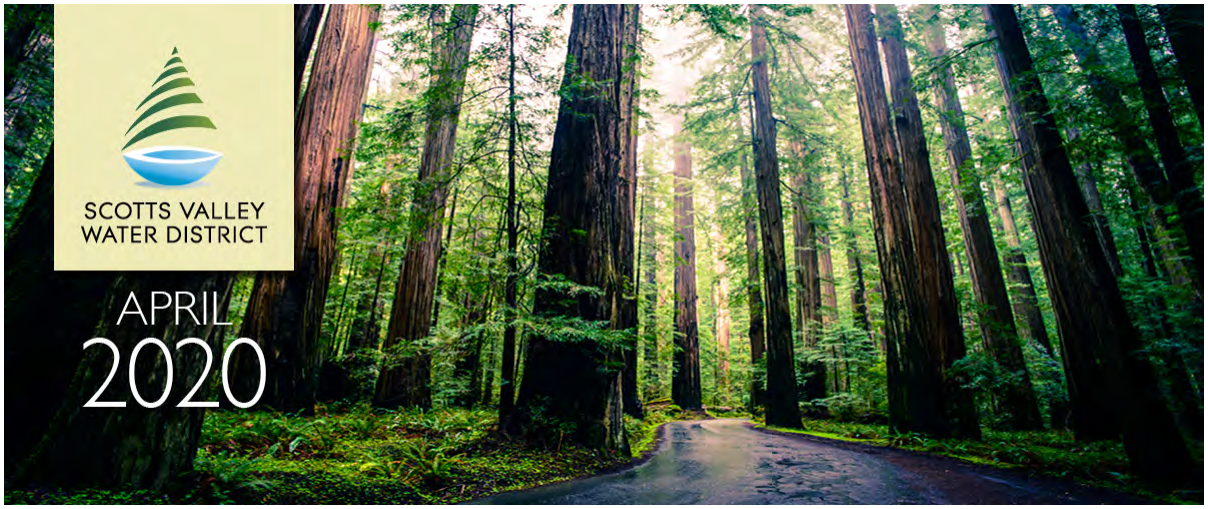
Services available to

SCOTTS VALLEY WATER DISTRICT

- Commercial customer round tables and webinars
- Presentations for board members and sustainability teams
- Access to Energy Program funding to offset costs associated with electrifying transportation and building resources, as well as improving energy resiliency

2019 MBCP Achievements

- Estimated **560,000 metric tons of greenhouse gas emissions** reduced through our carbon-free electricity power mix sources such as wind, solar, and hydroelectric to date
- **$16.8 Million** in total customer on-bill savings
- **270,000+** customers served; **94%** of all electricity customers in MBCPs service area
- **$5.5 million** dedicated to local energy programs like EV incentives, EV charging station no-cost solar for affordable housing units in 2019
- Increased average electric-generation rate savings from **3%** in 2018 to **5%** in 2019 and now **7%** in 2020
- **150%** increase in Net Surplus Compensation (NSC) payback rates for NEM solar & wind customers
- Increasing California solar + storage with new **150 megawatt** solar + storage energy project



The Great Water Main Break, Feb. 29, 2020

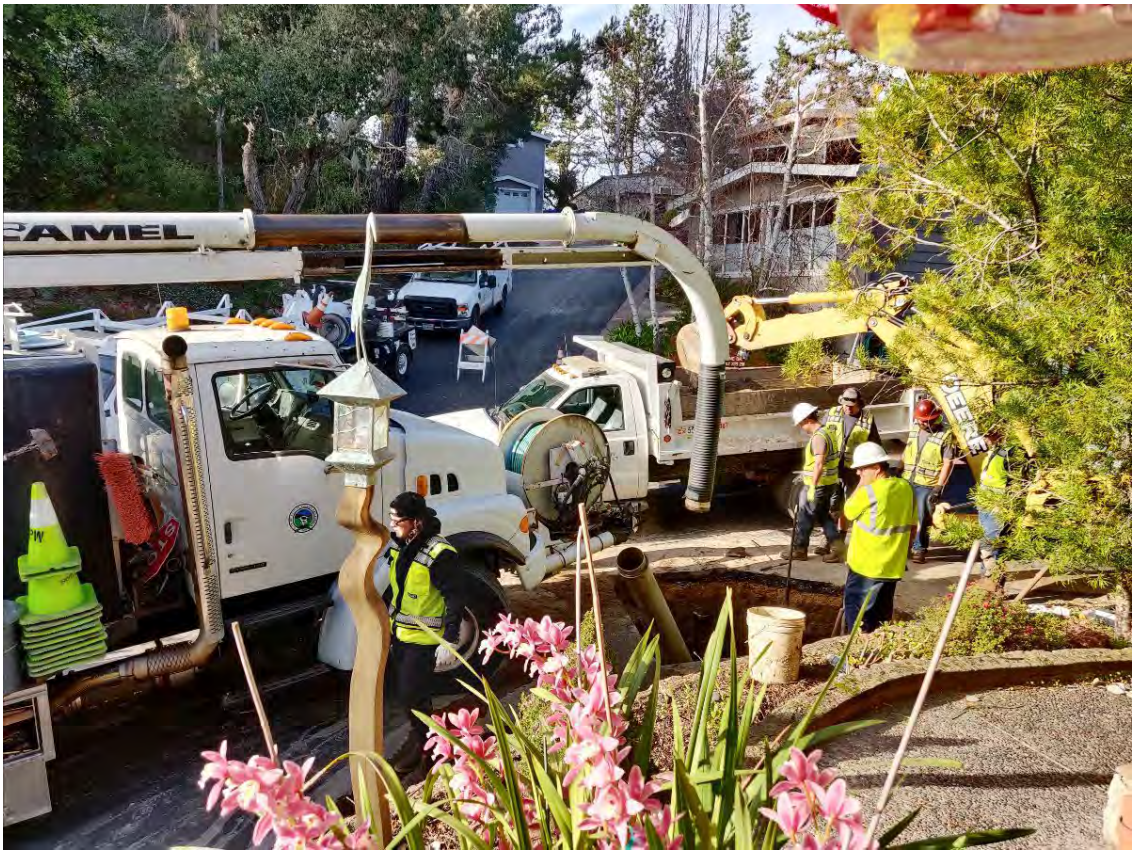
By Greg Edmundson, republished from the Montevalle Mirror with permission

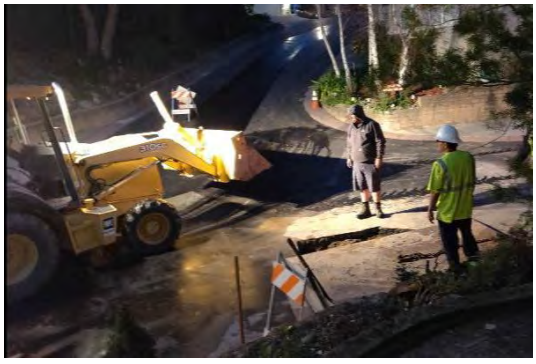
It all started one Saturday morning. Ginnie Mickelson was walking her dog, Toby, at about 7 a.m. She noticed water running down the street, and followed it up to #204, where it was coming up between the asphalt and concrete apron. She didn't have the Montevalle Directory in her pocket (it has the number to call), so she called 911.

Scotts Valley Water District responded with several (eventually, many) workers and equipment. First they had to actually find the leak. The water can travel quite a distance under the road before it emerges on the surface. Once they had the general location, they brought in a backhoe to dig it up. They pumped the water out, but it was refilling the hole so quickly that they needed the city to bring in the big gun, an apparatus which can remove lots of water quickly.

Water was shut off for Lupine Road most of the day, and for Sorrento for the last half. The culprit was eventually determined to be a large redwood root, which had lifted the main from underneath and caused it to break. Water was restored at about 7 p.m. The crew remained on scene until the repair was made, and the hole covered with steel plates.

The following Monday, they were back again to fill the hole with slurry (a mixture of sand and cement—hard enough to be stable, soft enough to be worked). The following day they completed work by replacing the asphalt.





COVID-19 Billing Update

The District understands that some customers may face financial hardships as a result of the COVID-19 emergency and will not be charging late fees on delinquent accounts or disconnecting water service for non-payment until further notice. Learn more.

Meeting recap: SMGWA Board reviews groundwater quality goals

Santa Margarita Groundwater Agency held its first-ever all-remote-access meeting Thursday, March 26, 2020, due to the Santa Cruz County Shelter-in-Place Order amidst the coronavirus outbreak. About 30 people, including SMGWA board members, attended.

The SMGWA is a three-member agency comprised of the Scotts Valley Water District, the San Lorenzo Valley Water District and the County of Santa Cruz, to oversee the groundwater management activities of the Santa Margarita Basin Area in Santa Cruz County

The informational session for this meeting focused on groundwater demand projections, building the foundation to move on to the next sustainability indicator – groundwater level – and groundwater quality, state-required elements of the Sustainable Management Criteria (SMC) within the Groundwater Sustainability Plan (GSP). The presentations were led by Georgina King of Montgomery & Associates and Piret Harmon, General Manager of the Scotts Valley Water District.

The presentation covered significant and unreasonable conditions, measurable objectives and undesirable results for water quality. King summarized that “significant and unreasonable” water quality conditions occur if SMGWA projects, or management activities cause, an increase in the concentration of constituents (chemical components) in groundwater that lead to non-compliance with drinking water standards. This could create adverse impacts on beneficial users or uses of groundwater or surface water. Diminished water supply or undue costs for mitigating such negative impacts are examples of additional adverse impacts that could occur.

King explained it’s important to understand that SMGWA is only responsible for adverse effects on water quality conditions caused by agency projects and management actions. For example, if SMGWA recommended, and partner agencies moved forward with, injectin treated water in the aquifer, this action should not have a negative impact on water quality.

Increasing water quality testing through more-frequent sampling from municipal wells, as well as adding sampling from monitoring wells, would help track water quality impacts as basin sustainability projects are implemented.

Because the majority of the basin's beneficial users are municipal and domestic water use, King recommended SMGWA use current drinking water standards as the agency's water quality desired result. This water quality level also would need to be adequate for fish habitat. She also made specific recommendations for measurable objectives for constituents found in groundwater in the basin. Generally, the recommendations are to use the average concentration of constituents from the last 10 years as the goal, with the understanding that some are naturally occurring and variable. If the concentration of constituents caused by human activities did increase as a result of SMGWA activities, this would be an undesirable result and a significant impact on basin water users.

The final GSP for the Santa Margarita Basin is due to the State Department of Water Resources in January 2022.

Due to COVID-19 and the current Shelter-in-Place order for Santa Cruz County, the next SMGWA Board of Directors meeting also will be via remote access only. That meeting will be held Thursday, April 23 at 5:30 p.m. More information.

Santa Cruz Sentinel

Coronavirus: Water agencies across Santa Cruz County study budgets

Jessica York, Santa Cruz Sentinel 5/6/20

SANTA CRUZ — Facing the double difficulty of a dry winter and coronavirus-related economic turmoil, local water supplies across Santa Cruz County are in the thick of budgeting with many unknowns for the coming fiscal year.

During meetings this week, Santa Cruz Water Department and Soquel Creek Water District officials described predictable water use changes aligning with the area's shelter-in-place order — with residential water use increasing somewhat and commercial use dramatically down. The San Lorenzo Valley Water District board also is set to meet this week to discuss scheduled rate increases and potential establishment of low-income rate assistance programs, among other topics.

The usage change comes in the context of Gov. Gavin Newsom's recommendation that utilities offer customers a waiver of late payment fees and a moratorium on service disconnections during the coronavirus emergency, a policy change both local water agencies' officials said they expected to have an impact to collected revenue. In fact, a Soquel Creek budget report for its meeting Tuesday cited a recent study by consultant Raftelis for the American Water Works Association projecting that water agencies were expected to see at least a 6% increase in delinquency rates and a significant revenue shortfall due to declines in commercial water consumption offset by an increase in residential consumption, which could ultimately reduce water revenues by close to 16.9%, according to the district.

For the city of Santa Cruz, Water Department Director Rosemary Menard said Monday that she will not recommend the city implement any official water use restrictions from the coming year, even acknowledging a drier-than-normal year. The city came into this year with a healthy reserve in its water storage at Loch Lomond Reservoir, Menard said, and establishing a "Stage 1" conservation effort made little impact on customer water use in 2018, but might have a demoralizing effect on people concerned with handwashing this year.

"From my perspective, regardless of the economic condition or what's going on in the community, if we really honestly believed that we needed more restrictions in place, we would have recommended them," Menard said. "Whatever else was going on, if we were putting people at risk of not having enough water this year or significantly putting people at risk next year, we would definitely not be taking the position that we're taking."

The San Mateo-Santa Cruz Unit Cal Fire issued a Santa Cruz County residential backyard burn suspension effective May 1, “with 2020 starting out with February being the driest month since the 1850s in California.” Burn permits may still be issued by Cal Fire.
Both the Santa Cruz Water Commission and Soquel Creek Water District board discussed this week their efforts to balance alleviating struggling customers’ immediate struggles to pay their water bills and plans that may include future water rate increases. Soquel Creek Water District is in the midst of a multi-year rate increase plan.

“Every effort will be made to avoid additional rate increases outside of those already authorized through 2023, including enacting emergency rates,” a report from district Financial and Business Services Manager Leslie Strohm reads. “The focus will be on ensuring the continuity of essential services and covering new and existing debt obligations.”

In the case of the City of Santa Cruz, the commission is looking at a several-month effort to establish priority spending plans and rework the way customers will be charged for their water usage. A preliminary city schedule assumes the commission will make a rate structure recommendation including five years of rate increases at its November meeting to the Santa Cruz City Council, with potential implementation in July 2021. Menard said the existing political uncertainty, however, may cause that schedule to shift.