SCOTTS VALLEY WATER DISTRICT

AGENDA PACKET

REGULAR BOARD MEETING
06/10/21 at 6:00 p.m.

Santa Margarita Community Room
2 Civic Center Drive, Scotts Valley, California

This meeting is being conducted in a hybrid setting.

Directors and Associate Directors may attend the meeting remotely or in person. If attending in person arrive no later than 5:30 p.m.

Public participation is encouraged, members of the public may attend remotely through the meeting link https://zoom.us/j/94029886697 or by phone: 669 900 9128 Webinar ID: 940 2988 6697

The public has opportunities to make comments throughout the meeting: to comment online, use the raise hand option, by phone press *9.

BOARD OF DIRECTORS

Bill Ekwall, President
Ruth Stiles, Vice President
Wade Leishman, Director
Chris Perri, Director
Danny Reber, 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
FY – Fiscal Year
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
WY – Water Year

SCOTTS VALLEY WATER DISTRICT

Board of Directors

Regular Meeting

06/10/21 at 6:00 p.m.

Santa Margarita Community Room
2 Civic Center Drive, Scotts Valley, California

Agenda

This meeting is being conducted in a hybrid setting.
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To comment online, use the raise hand option, by phone press *9.
If experiencing technological difficulties online, then join the meeting via phone.

1. Convene

1.1. Call to Order and Roll Call

1.2. Pledge of Allegiance and Invocation

1.3. Closed Session Report (none)

1.4. Additions/Deletions to the Agenda

1.5. Oral Communications

2. Presentations (none)

None

3. Administrative

Items are informational in nature and do not include an agenda report.

3.1. Approval of Minutes Regular Board Meeting 05/13/21

3.2. Committee and other Agency Meeting Reports

Engineering and Water Resources Committee 05/24/21
Executive & Public Affairs Committee 05/24/21
Finance & Personnel Committee 05/28/21
Interagency Committee (none)
Santa Margarita Groundwater Agency (SMGWA) Board 05/27/21 - oral

4. Consent (none)
Items are routine in nature, may be approved by one motion and each item includes an agenda report.

5. Public Hearings
Items include an agenda report with recommendation, an oral staff report or presentation.

The California Water Code requires that prior to adoption of the 2020 Urban Water Management Plan and the 2020 Water Supply Contingency Plan the Board conduct a public hearing to receive and consider community input.

5.1 Draft 2020 Urban Water Management Plan and Draft 2020 Water Shortage Contingency Plan

Recommendation: 1) Open the public hearing, receive public testimony and close the public hearing; 2) Adopt Resolution No. 05-21 approving the 2020 Water Shortage Contingency Plan; and 3) Adopt Resolution No. 06-21 approving the 2020 Urban Water Management Plan and authorizing it to be filed with the California Department of Water Resources by 06/30/21.

6. Business
Items are complex in nature, considered individually, each item includes an agenda report with recommendation and an oral staff report or presentation.

6.1. Rate Study Rate and Proposed Rate Increases

Recommendation: Receive information, discuss and provide direction.

6.2. Fiscal Year 2022 Proposed Budget

Recommendation: Approve the Fiscal Year 2022 (FY 2022) Budget, including the FY 2022 Work Plan

7. Staff Reports

7.1. Legal
District Counsel - oral

7.2. Administrative
General Manager – oral
Board Compliance Tracker
Board Regulations Review Schedule

7.3. Finance
Financial Reports 07/01/20 through 04/30/21

7.4. Operations

Operations Report - oral
Production, Demand and Rainfall Data through 05/31/21
Leak Adjustment Program Report 07/01/20 through 04/30/21

8. Directors Reports

Travel and Meetings
ACWA and ACWA/JPIA Updates
Other

9. Written Correspondence

SLVWD Letter and Board Memo: Exploration of Consolidation 05/24/21

Letter of Opposition: AB 377 Water Quality: Impaired Waters 05/18/21

10. Community Relations

May Newsletter
Take the Water Savings Challenge
District declares Stage 2 water shortage KSBW 05/20/21
District offers new rebates and programs amidst Stage 2 water shortage Sentinel 05/21/21
County drought conditions update: How are water restrictions affecting you? Lookout 05/21/21
Possibility of merger between SLVWD and SVWD grinds to a halt Sentinel 05/25/21

11. Closed Session (none)

12. Report on Closed Session and Additional Items (none)

13. Future Items

City-District Recycled Water Allocation
Water Rate Study and Proposed Rate Increases

14. Meetings and Event Calendar

Board Meetings
- 07/08/21
- 08/12/21
- 09/09/21

Committee Meetings
- 06/21/21 Engineering & Water Resources
- 06/21/21 Executive & Public Affairs
- 06/23/21 Finance & Personnel

Santa Margarita Groundwater Agency

Board Meetings

06/24/21
07/22/21
08/22/21

Association of California Water Agencies (ACWA) Events

2021 Fall Conference and Exhibition 11/30/21 – 12/03/21 Pasadena

15. Adjourn

The next regular meeting of the Scotts Valley Board of Directors is scheduled for 07/08/21.

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 WWW.SVWD.ORG AND 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
05/13/21 at 6:00 p.m.
Minutes

1. Convene

1.1. Call to Order and Roll Call

President Ekwall called the meeting to order at 6:01 p.m. The meeting was conducted in remote access format in compliance with Executive Order N-29-20.

Directors	Staff
Bill Ekwall	Bob Bosso, Legal Counsel
Wade Leishman	Piret Harmon, General Manager
Chris Perri	Nick Kurns, Finance & Customer Service Manager
Danny Reber	David McNair, Operations Manager
Ruth Stiles	Donna Paul, Assistant to General Manager
	LeAnne Ravinale, Water Use Efficiency Coordinator
Associate Directors	**Audience**
Noelle Downing (absent)	6 guests
Annie Finch	

1.2. Pledge of Allegiance and Invocation

Associate Director Finch led the pledge of allegiance and Director Reber provided the invocation.

1.3. Closed Session Report (none)

1.4. Additions/Deletions to the Agenda

The presentations from Business 6.1 Debt Financing for Capital Projects and Pension Liability Funding Strategy were added to item 2. Presentations.

1.5. Oral Communications

2. Presentations

LeAnne Ravinale, Water Use Efficiency Coordinator presented the Biannual Water Use Efficiency Report

David McNair, Operations Manager presented the Capital and Maintenance Projects Fiscal Year 2022 – 2026. Click here to view the presentation.

Wing-See Fox, Urban Futures Inc., Nicki Tallman, Brandis Tallman, Juan Galvan, Jones Hall presented Debt Financing for Capital Projects. Click here to view the presentation.

Julio Morales, Urban Futures Inc., presented the Pension Liability Funding Strategy. Click here to view the presentation.

3. Administrative

3.1. Approval of Minutes
Regular Board Meeting 04/08/21

MOTION carried to approve the minutes of the 04/08/21 meeting by unanimous roll call vote.

3.2. Committee and other Agency Meeting Reports

Engineering and Water Resources Committee 04/26/21
There was nothing further to add to the written report.

Executive & Public Affairs Committee (none)

Finance & Personnel Committee 04/28/21
There was nothing further to add to the written report.

Interagency Committee (none)

Joint City–District Committee 04/12/21 and 05/06/21
Director Stiles and Director Perri reported on discussions with the City on an agreement regarding delivery of recycled water for City use in the event of a disruption in recycled water availability.

Santa Margarita Groundwater Agency (SMGWA) Board 04/22/21
In addition to the written report, Director Perri and Director Stiles provided individual comments.

3.3. ACWA Region 5 Call for Candidates

General Manager Harmon provided information on this item.

3.4. LAFCO Service and Sphere Review for Scotts Valley Water District

General Manager Harmon and LAFCO Executive Officer Serrano provided comments.

4. Consent

MOTION carried to approve the consent agenda by unanimous roll call vote.

4.1 Reclassification of an Electrician/Instrumentation Technician position

Recommendation: Approve the reclassification of one (1) Electrician /

Instrumentation Technician position to alternatively staffed Electrical Instrumentation Technician / Electrical Instrumentation Technician Senior position.

4.2. Surplus Vehicles

Recommendation: Declare 2004 Ford F250 VIN 1FTMF20L84EC16472 and 2016 Ford F150 VIN FTRF17253NB26395 as surplus and authorize the advertisement of the vehicles for public sale.

5. Public Hearings (none)

6. Business

6.1. Debt Financing for Capital Projects and Pension Liability Funding Strategy`

Finance and Customer Service Manager Kurns provided the staff report

MOTION carried to 1) authorize staff to proceed with efforts necessary for financing capital projects; and 2) authorize the General Manager to proceed with the winning financing bid and execute necessary documents; and 3) receive information and provide input on strategies for paying down the District's unfunded pension liability by unanimous roll call vote.

MOTION carried to adopt Resolution 04-21 Establishing Policy P200-21-1 Debt Management by unanimous roll call vote.

6.2. Water Supply Outlook and Demand Strategy 2021

General Manager Harmon provided the staff report and responded to Board questions.

MOTION carried to establish Stage 2 Water Supply Conditions for Water Year 2021 and direct staff to implement Add-on Drought Rates for the 2 billing periods: June-August, August-October by unanimous roll call vote.

6.3. Water Use Efficiency Program Think Twice 2021 Update and Rebate Program 2021 Update

General Manager Harmon provided the staff report.

The Board determined that pool covers are mandatory and to activate the recycled water fill station.

MOTION carried to 1) approve the Think Twice Water Use Efficiency Program; and 2) approve the Rebate Program by unanimous roll call vote.

6.4. FY 2022 Proposed Budget Summary

Finance and Customer Service Manager Kurns provided the staff report

Information and provide input.

7. Staff Reports

7.1. Legal
District Counsel Bosso reported that he worked with staff on several matters and that two bills AB 339 Brown Act revisions and AB1334 per capita water use both have stalled in committee.

7.2. Administrative
The General Managers report is appended.

7.3. Finance
Financial Reports 07/01/20 through 03/31/21

7.4. Operations
Operations Manager McNair reported on the Orchard Run Water Treatment upgrades, the last AMI meter was installed and Alan Bainbridge has been hired as Water Facilities Operator I.
Production, Demand and Rainfall Data through 04/30/21
Leak Adjustment Program Report 07/01/20 through 03/31/21

7.5. Water Use Efficiency
Biannual Activity Report 11/01/20 through 04/30/21

8. Directors Reports

Director Perri reported that he attended JPIA and ACWA virtual conference.
Directors determined that the June meeting will be held in a hybrid setting.

9. Written Correspondence

Letter of Opposition: AB 1434 Indoor Residential Water Use Standards 04/09/21
Letter of Support: AB 1500 Safe Drinking Water, Wildfire Prevention, Drought Preparation, Flood Protection, Extreme Heat Mitigation, and Workforce Development Bond Act of 2022.

10. Community Relations

A Dry Year Leads Water Manager to Think about Conservation Measures, KSBW 8, 04/09/21

11. Closed Session (none)

12. Report on Closed Session and Additional Items (none)

13. Future Items

Budget Fiscal Year 2022
Urban Water Management Plan 2020
AWIA Risk and Resilience Assessment
Water Rate Study

14. Meetings and Event Calendar

Board Meetings
- 06/10/21
- 07/08/21
- 08/12/21

Committee Meetings
- 05/24/21 Executive & Public Affairs
- 05/26/21 Finance & Personnel
- 05/24/21 Engineering & Water Resources
- 06/03/21 Interagency

Santa Margarita Groundwater Agency

Board Meetings
- 05/27/21
- 06/24/21
- 07/22/21

Association of California Water Agencies (ACWA) Events

2021 Fall Conference and Exhibition 11/30/21 – 12/03/21 Pasadena

15. Adjourn

The meeting adjourned at 9:05 p.m.

Approved: Attest:

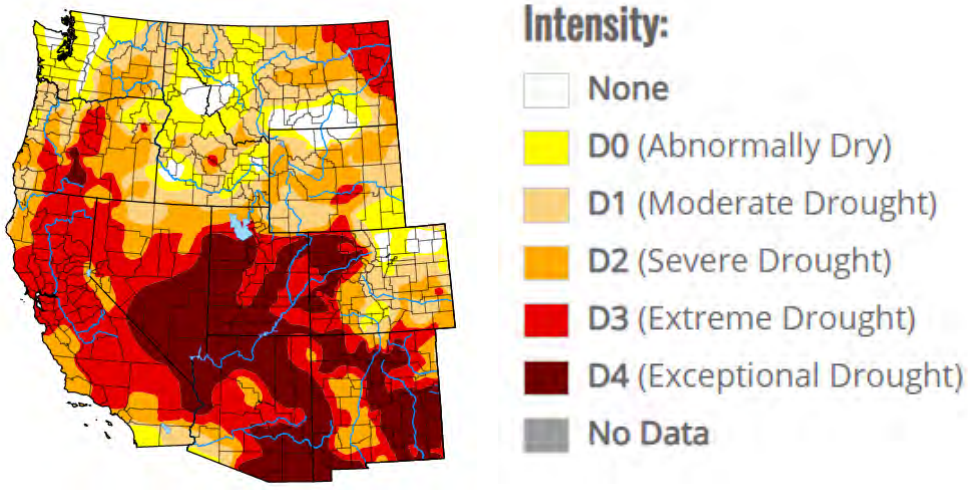
_____ _____

Bill Ekwall, Board President Piret Harmon, Board Secretary

STAFF REPORT – General Items
Scotts Valley Water District
Date: May 13, 2021
To: Board of Directors
From: General Manager

1. San Lorenzo Valley Water District Board of Directors appointed Jayme Ackemann for the vacant seat on May 6. The potential consolidation item is expected to be on agenda at their May 20 board meeting.
2. I attended ACWA JPIA Virtual Board Meeting on 5/10 and ACWA Virtual Spring Conference on 5/12-5/13.
3. District's insurance carrier ACWA JPIA pooled programs highlights:
    a. Liability: 335 members, no increase in pricing in last 14 years
    b. Property: 280 members, 10% increase in pricing for the new year
    c. Workers' Compensation: 200 members, 10% reduction in pricing
    d. Employee Benefits: 264 members, no increase in pricing in last 3 years

    Each year JPIA reconciles the Rate Stabilization Fund. For those agencies that have a balance that exceeds the attachment point, a refund check is issued. In early 2021, 195 members received a refund and the total amount refunded was $6.2 million. District received a check in the amount of $32,401.26.
4. On May 10, Governor Newsom expanded his drought emergency declaration to 41 of California 58 counties. The new order covers the Sacramento and San Joaquin river watersheds, the Tulare Lake basin region and the Klamath region in far Northern California. About 30% of the state's population is now covered by the declaration.



Information about current conditions, the state's response and resources available to the public are available at the state's new drought preparedness website.

5. On May 10, the Governor also announced $5.1 Billion package of immediate drought response and long-term water resilience investments to address immediate, emergency needs, build regional capacity to endure drought and safeguard water supplies for communities, the economy and the environment. In addition to the $5.1 billion investment, the Governor is proposing $1 billion to help Californians pay their overdue water bills.

   The Governor's $5.1 billion proposed investment, over four years, aligns with his July 2020 Water Resilience Portfolio, a roadmap to water security for all Californians in the face of climate change. It is shaped by lessons learned during the 2012-16 drought, such as the need to act early and gather better data about water systems. The package includes:

   - $1.3 billion for drinking water and wastewater infrastructure, with a focus on small and disadvantaged communities.
   - $150 million for groundwater cleanup and water recycling projects.
   - $300 million for Sustainable Groundwater Management Act implementation to improve water supply security, water quality and water reliability.
   - $200 million for water conveyance improvements to repair major water delivery systems damaged by subsidence.
   - $500 million for multi-benefit land repurposing to provide long-term, flexible support for water users.
   - $230 million for wildlife corridor and fish passage projects to improve the ability of wildlife to migrate safely.
   - $200 million for habitat restoration to support tidal wetland, floodplain, and multi-benefit flood-risk reduction projects.
   - $91 million for critical data collection to repair and augment the state's water data infrastructure to improve forecasting, monitoring, and assessment of hydrologic conditions.
   - $60 million for State Water Efficiency and Enhancement Program grants to help farmers reduce irrigation water use and reduce greenhouse gas emissions from agricultural pumping.
   - $33 million for fisheries and wildlife support to protect and conserve California's diverse ecosystems.
   - $27 million for emergency and permanent solutions to drinking water drought emergencies.

SCOTTS VALLEY WATER DISTRICT

svwd.org svwater

Engineering and Water Resources Committee
Santa Margarita Community Room
2 Civic Center Drive, Scotts Valley, California

05/24/21 4:00 p.m.

Meeting Report

1. Convene

The meeting convened at 4:00 p.m. It was conducted in a hybrid setting.

Present

Members: Director Leishman (remote), Director Perri (remote), Community Member Krotcov (remote).

Staff: General Manager Harmon (in person), Finance Customer Service Manager Kurns (in person), Operations Manager McNair (remote).

Guests: Director Ekwall (remote), Director Stiles (remote).

2. Discussion Items

2.1. Leak Adjustment Program Report 07/01/20 through 04/30/21

Staff presented the report and discussed some of the untypical incidents. Committee members asked questions about linking WaterSmart customer behavior to the Leak Adjustment Program eligibility guidelines.

2.2. City-District Recycled Water Allocation

General Manager Harmon provided an update on the negotiations with the City Manager Friend on establishing guidelines on recycled water allocation for City in case of a disruption in recycled water supply availability. Director Perri provided additional information about the outcome of the City-District Joint Committee process.

2.3. Urban Water Management Plan Update 2020

General Manager Harmon provided information on the upcoming public hearing and required notification.

3. Oral Communications

None

4. Future Agenda Items

Leak Adjustment Program Review

5. Adjourn

The meeting adjourned at 4:55 p.m.

SCOTTS VALLEY
WATER DISTRICT
svwd.org svwater

Executive and Public Affairs Committee
Santa Margarita Community Room
2 Civic Center Drive, Scotts Valley, California

05/24/21 10:30 a.m.

Meeting Report

1. Convene

The meeting convened at 10:34 a.m. It was conducted in a hybrid setting.

Present

Members:	President Ekwall (in person) and Vice President Stiles (remote).
Staff:	General Manager Harmon (in person)
Guests:	Bill Maxfield, and 3 public participants via Zoom remote access

2. Discussion Items

2.1. Potential Consolidation of SVWD and SLVWD

General Manager Harmon informed the committee that SLVWD Board discussed the item at its 5/20/21 meeting and decided not to pursue exploring the consolidation. Director Stiles reported that she had attended that meeting. The Committee directed staff to provide an update at the next Board and include the SLVWD agenda report for review. Staff will work with Miller Maxfield to update the information on the svwd.org.

2.2. Community Outreach and Communication Update

Bill Maxfield reported on recent outreach and communication activities and outlined the plan for the upcoming 3-6 months. The focus will be on Stage 2 Water Shortage, Think Twice Program, Water Savings Challenge, Rate Study and Proposed Rate Increases along with the more routine public education and participation tools.

2.3. Proposed Water Rate Increase Outreach

General Manager Harmon presented the staff suggestion to ramp up the outreach about potential rate increases to inform the customers about the reasons for rate increases and intricacies of the rate design with the goal to invite active participation and inquiries ahead of the Proposition 218 notices. Committee members offered ideas for consideration to get the word out and encourage public attendance at the 6/10/21 Board meeting when this item will be presented.

2.4. Board Meeting Format in June

General Manager Harmon advised that in compliance with the current CalOSHA Emergency Temporary Standards on Covid-19, attendees at indoor in person meetings

must wear face masks. Committee members were in agreement about still holding a hybrid Board meeting in June.

3. Oral Communications
   None.

4. Future Agenda Items
   General Manager Mid-Contract Performance Review
   Program Evaluation: Junior Associate Board Member
   Community Members of Board Committee

5. Adjourn
   The meeting adjourned at 11:26 a.m.

SCOTTS VALLEY WATER DISTRICT
svwd.org svwater

Finance and Personnel Committee
Santa Margarita Community Room
2 Civic Center Drive, Scotts Valley, California
05/26/21 4:00 p.m.

Meeting Report

1. Convene

The meeting convened at 4:07 p.m. It was conducted in a hybrid setting.

Present

Members: Community Member Callahan(remote), Director Ekwall (in person) and Director Reber (remote).

Staff: General Manager Harmon (in person), Finance and Customer Service Manager Kurns (remote), Assistant to General Manager Paul (remote).

Guests: None.

2. Discussion Items

2.1. Water Study: Update on Rate Design

Finance and Customer Service Manager Kurns reported on the allocation of revenue offsets and provided information on ¾" residential services that have been billed at the 5/8" rates and basic meter charge equity. The Committee recommends a revenue offset allocation that favors tier 1 and possibly tier 2.

2.2. Financial Reports 07/01/20 through 04/30/21

The committee reviewed and discussed the financial reports.

3. Oral Communications

None.

4. Future Agenda Items

Water Rate Study
Compensations Adjustments At-will (July)
Identity Theft Prevention Program

5. Adjourn

The meeting adjourned at 5:06 p.m.

AGENDA REPORT

Scotts Valley Water District

Date: 06/10/21

To: Board of Directors

Item: Public Hearing 5.1

Subject: **Draft 2020 Urban Water Management Plan (UWMP) and Draft 2020 Water Shortage Contingency Plan (WSCP)**

Reason: Complies with the Urban Water Management Planning Act

SUMMARY

Recommendation: 1) Open the public hearing, receive public testimony and close the public hearing; 2) Adopt Resolution No. 05-21 approving the 2020 Water Shortage Contingency Plan; and 3) Adopt Resolution No. 06-21 approving the 2020 Urban Water Management Plan and authorizing it to be filed with the California Department of Water Resources by 06/31/21.

Fiscal Impact: No direct impact from this action.

Previous Related Action: On 06/09/16 the Board adopted Resolution No. 04-16 approving and adopting the 2015 Urban Water Management Plan for Scotts Valley Water District.

On 03/20/21 and 04/26/21 the Engineering and Water Resources Committee reviewed two elements (Water Demand Projections and Water Shortage Contingency Plan) of the Draft 2020 Urban Water Management Plan, concurred with the proposed approach and directed the staff to present the draft information to the Board.

BACKGROUND

The Urban Water Management Planning Act (Act) requires water agencies to develop UWMPs that provide framework for long term water planning and inform the public of a supplier's plans for long term resource planning that ensures adequate water supplies for existing and future demands. The WSCP contains details on water shortage contingency planning and shortage response actions.

In the UWMP, urban suppliers provide information on water management specific to their service areas. Other planning processes such as City and County General Plans, Integrated Regional Water Management Plans, Groundwater Management Plans should be integrated and coordinated with the UWMP to accomplish urban planning.

There are specific public hearing and noticing requirements associated with UWMP adoption. The relevant land use jurisdictions, Santa Cruz County and the City of Scotts Valley, were notified on 06/24/21, of the District's intention to hold public hearings and consider adoption of the Draft 2020 UWMP. Newspaper notices were published in the Santa Cruz Sentinel on 05/28/21 and 06/04/21 and in the Press Banner on 05/28/21 and 06/04/21. The Draft 2020 UWMP was made available in hard copy at the District office and online at the District website as stated in the newspaper notices.

DISCUSSION

The Act requires periodic UWMP updates. This time San Lorenzo Valley Water District (SLVWD) and Scotts Valley Water District (SVWD) decided to develop a joint UMWP and contracted with Water Systems Consulting, Inc. (WSC) to prepare the document in alignment with the UWMP Guidebook issued by the California Department of Water Resources (DWR).

A WSCP is a document that stands alone, meaning it should be created separately from the UWMP and amended as needed without amending the corresponding UWMP. The 2020 WSCP must be included as part of the 2020 UWMP when submitted to DWR.

The complete Draft 2020 UWMP and Draft 2020 WSCP, without appendices, are enclosed. The Draft UWMP with the appendices can be viewed at www.svwd.org/uwmp

Submitted,

Piret Harmon
General Manager

Enclosed: Resolution No. 05-21
Resolution No. 06-21
2020 Urban Water Management Plan

RESOLUTION No. 05-21

RESOLUTION OF THE BOARD OF DIRECTORS OF THE
SCOTTS VALLEY WATER DISTRICT
ADOPTING THE 2020 WATER SHORTAGE CONTINGENCY PLAN
FOR SCOTTS VALLEY WATER DISTRICT AND SAN LORENZO VALLEY WATER DISTRICT

WHEREAS:

1. The California Urban Water Management Planning Act (Act), Water Code section 10610 et seq. requires every urban water supplier to prepare an Urban Water Management Plan (UWMP);

2. As part of the UWMP, Water Code section 10632 requires urban water suppliers to prepare and adopt a Water Shortage Contingency Plan (WSCP);

3. Scotts Valley Water District meets the Act's definition of an urban retail water supplier required to submit an UWMP and WSCP;

4. A WSCP is a standalone document that is created separately from the UWMP and included as part of the UWMP;

5. On February 22, 2021 the Scotts Valley Water District issued a notice of preparation of the Draft 2020 UWMP and WSCP for review and comment;

6. On May 27, 2021 the Scotts Valley Water District issued a notice of public hearing and availability of the Draft 2020 UWMP and WSCP for review and comment;

7. On June 10, 2021 the Board of Directors of the Scotts Valley Water District conducted a public hearing pursuant to California water Code sections 10642 and 10608.26 to consider and receive input on the Draft 2020 UWMP and Draft 2020 WSCP.

THEREFORE, BE IT RESOLVED:

The Scotts Valley Water District Board of Directors hereby approves the 2020 WSCP for Scotts Valley Water District and San Lorenzo Valley Water District and authorizes it to be filed with the California Department of Water Resources.

RESOLUTION No. 05-21

PASSED AND ADOPTED this 10th day of June 2021, by the following vote:
AYES:
NOES:
ABSENT:

_____
Bill Ekwall, President
Board of Directors

Attest: _____
Piret Harmon, General Manager

RESOLUTION No. 06-21

RESOLUTION OF THE BOARD OF DIRECTORS OF THE
SCOTTS VALLEY WATER DISTRICT
ADOPTING THE 2020 URBAN WATER MANAGEMENT PLAN
FOR SCOTTS VALLEY WATER DISTRICT AND SAN LORENZO VALLEY WATER DISTRICT

WHEREAS:

1. The California Urban Water Management Planning Act (Act), Water Code section 10610 et seq. requires every urban water supplier to prepare an Urban Water Management Plan (UWMP) and electronically submit their 2020 UWMP to the California Department of Water Resources by July 1, 2021;

2. The Act requires periodic review and update of the UWMP every five years;

3. Scotts Valley Water District meets the Act's definition of an urban retail water supplier required to submit an UWMP;

4. The Scotts Valley Water District Board of Directors has reviewed the 2020 UWMP, determined that the 2020 UWMP is consistent with the Act and the California Department of Water Resources 2020 UWMP Guidebook, and is an accurate representation of the water system, current and projected water uses, sources of water, water supply reliability, water shortage contingency planning and demand management measures;

5. On February 22, 2021 the Scotts Valley Water District issued a notice of preparation of the Draft 2020 UWMP for review and comment;

6. On May 27, 2021 the Scotts Valley Water District issued a notice of public hearing and availability of the Draft 2020 UWMP for review and comment;

7. On June 10, 2021 the Board of Directors of the Scotts Valley Water District conducted a public hearing pursuant to California water Code sections 10642 and 10608.26 to consider and receive input on the Draft 2020 UWMP.

THEREFORE, BE IT RESOLVED:

The Scotts Valley Water District Board of Directors hereby adopts the 2020 UWMP for Scotts Valley Water District and San Lorenzo Valley Water District and authorizes it to be filed with the California Department of Water Resources.

PASSED AND ADOPTED this 10th day of June 2021, by the following vote:
AYES:
NOES:
ABSENT:

_____
Bill Ekwall, President
Board of Directors

Attest: _____
Piret Harmon, General Manager

SCOTTS VALLEY WATER DISTRICT

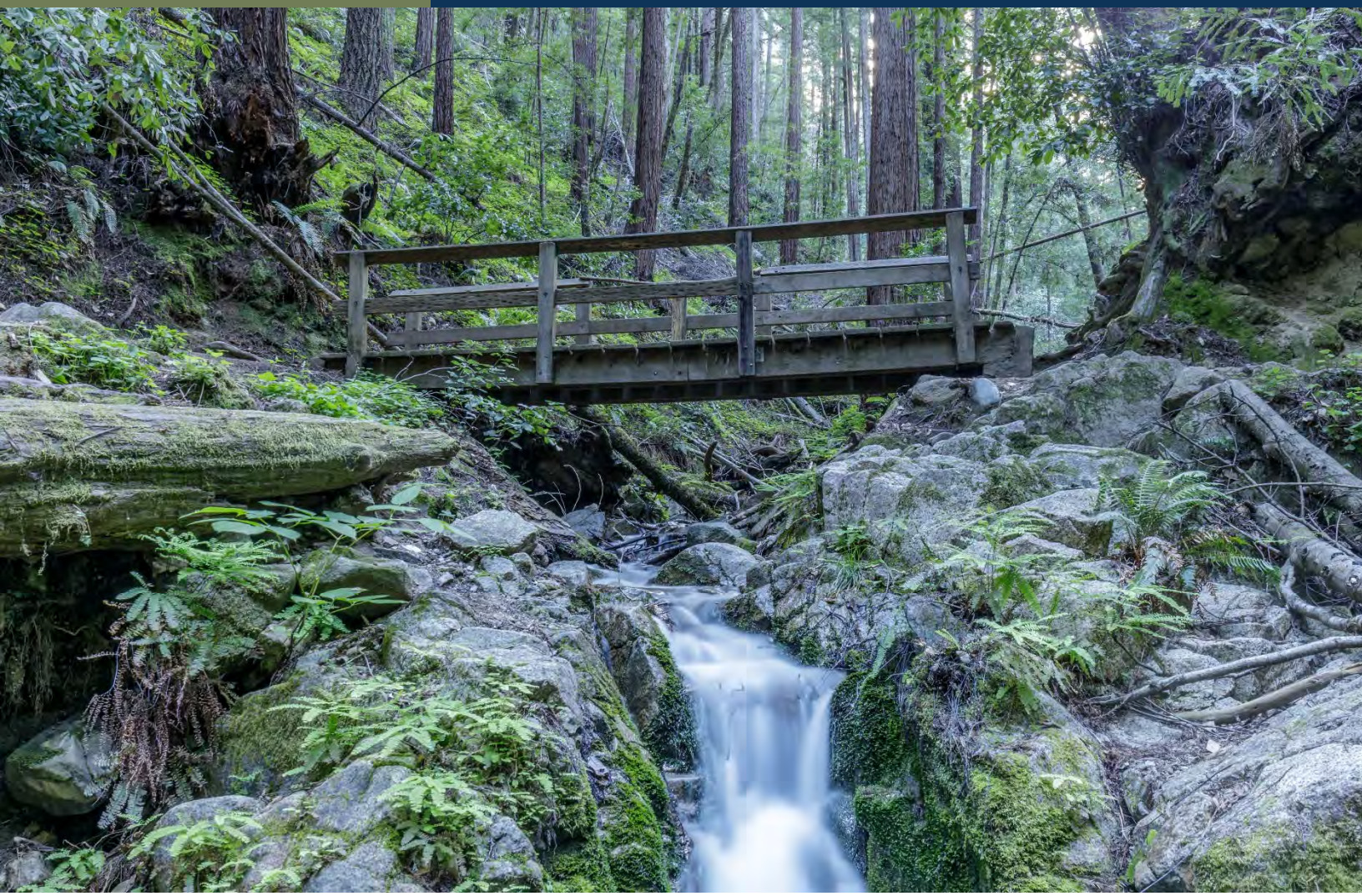
San Lorenzo Valley WATER DISTRICT

2020 Urban Water Management Plan

Public Review Draft

JUNE 2021

SCOTTS VALLEY WATER DISTRICT & SAN LORENZO VALLEY WATER DISTRICT



MONTGOMERY & ASSOCIATES

WSC

SCOTTS VALLEY WATER DISTRCIT &
SAN LORENZO VALLY WATER DISTRICT

2020 Urban Water Management Plan

JUNE 2021

Prepared by Water Systems Consulting, Inc. & Montgomery & Associates

ACKNOWLEDGMENTS

This document was prepared in partnership between Water Systems Consulting Inc. (WSC), Scotts Valley Water District (SVWD), and San Lorenzo Valley Water District (SLVWD). In addition, Montgomery & Associates (M&A) assisted with development of Chapters 4-10 and Chapter 13. WSC thanks the following people for their contributions:

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ACRONYMS & ABBREVIATIONS

°F	Degrees Fahrenheit
AB	Assembly Bill
AF	Acre Foot
AFY	Acre Feet per Year
AMBAG	Association of Monterey Bay Area Governments
AMI	Advanced Metering Infrastructure
AWWA	American Water Works Association
Cal-Am	California American Water
CAW	California American Water
CCF	Hundred Cubic Feet
CCR	California Code of Regulations
CII	Commercial, Industrial, and Institutional
CIMIS	California Irrigation Management Information System
CWC	California Water Code
DMM	Demand Management Measure
DWR	California Department of Water Resources
EPA	United States Environmental Protection Agency
ERP	Emergency Response Plan
ETo	Reference Evapotranspiration
GIS	Geographical Information System
GPCD	Gallons per Capita per Day
gpf	Gallons per Flush
GPM	Gallons per Minute
GSA	Groundwater Sustainability Agencies
GSP	Groundwater Sustainability Plan
GWMP	Groundwater Management Plan
HOA	Homeowners Association
kwh	Kilowatt-hours
LAFCO	Local Agency Formation Commission
LHMP	Local Hazard Mitigation Plan
LID	Low Impact Development

MF	Multi-family
MG	Million Gallons
MGD	Million Gallons per Day
MGY	Million Gallons per Year
MHA	Mount Hermon Association
MHP	Mobile Home Park
NRW	Non-revenue Water
PGC	Pasatiempo Golf Course
RGF	Regional Growth Forecast
RHNA	Regional Housing Needs Allocation
RMP	Representative Monitoring Point
RRA	Risk and Resiliency Assessment
SB X7-7	Senate Bill 7 of Special Extended Session 7
SCCWD	Santa Cruz City Water Department
SF	Single Family
SLVWD	San Lorenzo Valley Water District
SMGB	Santa Margarita Groundwater Basin
SMGWA	Santa Margarita Groundwater Agency
SVWD	Scotts Valley Water District
USGS	United States Geological Survey
UV	Ultraviolet
UWMP	Urban Water Management Plan
UWMP Act	Urban Water Management Planning Act
WEWAC	Water Education-Water Awareness Committee
WRF	Water Reclamation Facility
WSCP	Water Shortage Contingency Plan
WTP	Water Treatment Plant
WUE	Water Use Efficiency
WWTP	Wastewater Treatment Plant
WY	Water Year

URBAN WATER MANAGEMENT PLAN

1 Introduction and Lay Description

This chapter provides a brief overview of the Scotts Valley Water District (SVWD) and San Lorenzo Valley Water District (SLVWD) and the purpose of this 2020 Urban Water Management Plan (UWMP). It also describes how the UWMP is organized and how it relates to other local and regional planning efforts that SVWD and SLVWD are involved in.

This document presents the regional 2020 Urban Water Management Plan (UWMP) for SVWD and SLVWD (collectively referred to as the Districts). The Districts completed individual UWMPs in prior years; however, they decided to prepare a regional UWMP in 2020 because they are adjacent water districts that share groundwater and have a long history of partnering on various projects and activities.

IN THIS SECTION

- About SVWD and SLVWD
- Purpose
- UWMP Organization
- Relationship to other documents

About Scotts Valley Water District

SVWD was established in 1961 and served approximately 10,600 people in its service area in 2020.

SVWD service area boundaries include most of the City of Scotts Valley (City) as well as some unincorporated areas north of the City. Groundwater from the Santa Margarita Basin is the source of potable water supply for SVWD.

SVWD's sewer service in the Scotts Valley area is provided by the City, and the City produces recycled water for SVWD to be distributed primarily for irrigation use.

About San Lorenzo Valley Water District

SLVWD was established in 1941 and served approximately 23,000 people in its service area in 2020.

SLVWD service area boundaries include the unincorporated communities of Boulder Creek, Brookdale, Ben Lomond, Lompico, Manana Woods subdivision, the town of Felton and portions of the City and adjacent unincorporated areas. SLVWD relies on surface water and groundwater supplies from the Santa Margarita Groundwater Basin.

SLVWD's service area is primarily on septic sewage systems; however, a portion of the south service area is served by the City. SLVWD does not supply recycled water but SVWD does provide recycled water to the Spring Lakes Mobile Home Park within SLVWDs' service area.

1.1 Urban Water Management Plan Purpose and Overview

In 1983, the State of California Legislature (Legislature) enacted the Urban Water Management Planning Act (UWMP Act). The law required an urban water supplier, providing water for municipal purposes to more than 3,000 customers or serving more than 3,000 acre-feet per year (AFY), to adopt an UWMP every five years demonstrating water supply reliability under normal as well as drought conditions. The UWMP Act applies to wholesale and retail suppliers.

Since the original UWMP Act was passed, it has undergone significant expansion, particularly since the Districts' previous individual UWMPs were prepared in 2015. Prolonged droughts, groundwater overdraft, regulatory revisions, and changing climatic conditions affect the reliability of local water supply as well as the statewide water resource's reliability overseen by California Department of Water Resources (DWR), the State Water Resources Control Board (State Water Board), and the Legislature. Accordingly, the UWMP Act has grown to address changing conditions and the current requirements are found in Sections 10610-10656 and 10608 of the California Water Code (CWC).

DWR provides guidance for urban water suppliers by developing an Urban Water Management Plan Guidebook 2020 (Guidebook) (California Department of Water Resources, 2021), conducting workshops, developing tools, and providing program staff to help water suppliers prepare comprehensive and useful water management plans, implement water conservation programs, and understand the requirements in the CWC. Suppliers prepare their own UWMPs in accordance with the requirements and submit them to DWR. DWR then reviews the plans to make sure they have addressed the requirements identified in the CWC and submits a report to the Legislature summarizing the status of the plans for each five-year cycle. The Guidebook, finalized in April 2021, was used to complete this UWMP.

The purpose of this UWMP is for the Districts to conduct long-term resource planning and establish management measures to ensure adequate water supplies are available to meet existing and future demands. The UWMP provides a framework to help water suppliers maintain efficient use of urban water supplies, promote conservation programs and policies, ensure that sufficient water supplies are available for future beneficial use, and provide a response mechanism during drought conditions or other water supply shortages.

The UWMP is a valuable planning tool used for multiple purposes including:

- Provides a standardized methodology for water utilities to assess their water resource needs and availability.
- Serves as a resource to the community and other interested parties regarding water supply and demand, conservation and other water related information.
- Provides a key source of information for cities and counties when considering approval of proposed new developments and preparing regional long-range planning documents such as city and county General Plans.
- Informs other regional and Statewide water planning efforts, such as Integrated Regional Water Management Plans and the California Water Plan.

CWC Section 10632 also includes updated requirements for suppliers to prepare a Water Shortage Contingency Plan (WSCP). The WSCP documents a supplier's plans to manage and mitigate an actual water shortage condition, should one occur because of drought or other impacts on water supplies. In the 2015 UWMP cycle, the WSCP was part of the UWMP. For the 2020 cycle, the WSCP is required to be a standalone document so that it can be updated independently of the UWMP but must be referenced in and attached to the UWMP. The WSCP is provided in **Chapter 13** of this UWMP.

1.2 UWMP Organization

This UWMP was prepared in compliance with the CWC and generally followed DWR's recommended organizational outline. New requirements to include lay descriptions are accounted for in this section and at the beginning of each Chapter.

Below is a summary of the information included in this UWMP:

Chapter 1 – Introduction.

This chapter provides background information on the UWMP process, new regulatory requirements, and an overview of the information covered throughout the remaining chapters. The UWMP was prepared to maintain compliance with CWC and DWR requirements. SVWD and SLVWD will maintain eligibility for DWR and other grants with submission of the UWMP by July 1, 2020, subject to final review and approval by DWR.

Chapter 2 – UWMP Preparation & UWMP Adoption.

This chapter provides information on the processes used for developing the UWMP, including efforts in coordination and outreach, the steps taken to prepare the UWMP, hold a public hearing, adopt, and submit the UWMP, and implementation of the adopted UWMP. The UWMP was prepared to efficiently coordinate water supply planning and management efforts in the region. The UWMP was also prepared in a transparent manner and various stakeholders were engaged to seek and distribute relevant information. All public noticing, UWMP adoption, and UWMP submittal requirements were conducted as outlined by DWR's 2020 Guidebook.

Chapter 3 – System Description.

This chapter describes the Districts' water systems, service areas, population demographics, climate, and land uses. SVWD's service area includes most of the City as well as some unincorporated areas north of the City. Groundwater is SVWD's source of potable water and SVWD is a distributor of recycled water to permitted uses. SLVWD owns, operates, and maintains two separately managed water systems, which are the North/South System (or San Lorenzo Valley System) and the Felton System. The San Lorenzo Valley System service area includes the unincorporated communities of Boulder Creek, Brookdale, Ben Lomond, Mañana Woods, Lompico and portions of the City of Scotts Valley and adjacent unincorporated neighborhoods. The Felton Service Area includes the town of Felton and adjacent unincorporated areas. Local groundwater and surface water are the only sources of supply for SLVWD.

Chapter 4 – SVWD Water Use Characterization.

This chapter describes and quantifies the current and projected water uses through 2045 within the water service area of SVWD by customer category. In 2020, residential customers used approximately 72% of the total water distributed in SVWD's service area.

Chapter 5 – SLVWD Water Use Characterization.

This chapter describes and quantifies the current and projected water uses through 2045 within the water service areas of SLVWD by customer category. In 2020, residential customers used approximately 90% of the total water distributed in the SLVWD service area.

Chapter 6 – SVWD SBX7-7 Baseline and Targets.

This chapter describes the Water Conservation Act of 2009, also known as SB X7-7, Baseline, Targets, and 2020 Compliance. The calculated GPCD for 2020 is 96 GPCD, which meets SVWD's 2020 SB X7-7 target of 154 GPCD.

Chapter 7– SLVWD SBX7-7 Baseline and Targets.

This chapter describes the Water Conservation Act of 2009, also known as SB X7-7, Baseline, Targets, and 2020 Compliance. Due to the annexation of the Lompico service area in 2016, updated baseline and target calculations were prepared. The calculated GPCD for 2020 is 80

GPCD, which meets SLVWD's updated 2020 SB X7-7 target of 82 GPCD.

Chapter 8 – Groundwater Supply Characterization.

This chapter describes the Santa Margarita Groundwater Basin and quantifies the current and projected groundwater supply source utilized by both Districts.

Chapter 9 – SVWD Water Supply Characterization.

This chapter describes and quantifies the current and projected potable and non-potable water supplies for SVWD. Each water source is characterized with information needed to manage water resources, assess supply reliability, perform the Drought Risk Assessment, and prepare and implement the WSCP. SVWD anticipates meeting customer demands through 2045.

Chapter 10 – SLVWD Water Supply Characterization.

This chapter describes and quantifies the current and projected potable and non-potable water supplies for SLVWD. Each water source is characterized with information needed to manage water resources, assess supply reliability, perform the Drought Risk Assessment, and prepare and implement the WSCP. SLVWD anticipates meeting customer demands through 2045.

Chapter 11 – SVWD Water Service Reliability.

This chapter describes SVWD's water supply reliability during normal, single dry, and multiple dry water years through 2045. A Drought Risk Assessment (DRA) for the next five years is also included. The water service reliability assessment and DRA results indicate that no water shortages are anticipated within the next 25-years under normal, single dry water years, and multiple dry water years.

Chapter 12 – SLVWD Water Service Reliability.

This chapter describes SLVWD's water supply reliability during normal, single dry, and multiple dry water years through 2045. A DRA for the next five years is also included. The water service reliability assessment and DRA results indicate that no water shortages are anticipated within the next 25-years under normal, single dry water years, and multiple dry water years.

Chapter 13 – Water Shortage Contingency Plan.

This chapter includes the standalone WSCP which is a detailed plan for how SVWD and SLVWD will identify and respond to foreseeable and unforeseeable water shortages. A water shortage occurs when the water supply is reduced to a level that cannot support demand at any given time or when reduction in demand is required for various reasons.

Chapter 14 – SVWD Demand Management Measures.

This chapter describes SVWD's efforts to promote efficient use of water, reduce water demand and minimize water waste. SVWD recognizes that using water efficiently is an integral component of a responsible water management strategy and is committed to providing education, tools, and incentives to help its customers manage the amount of water they use. Water demand has already shown significant decline in SVWD's service area in recent years, which can be attributed to ongoing water use efficiency activities, expansion of the recycled water distribution network, deployment of advanced metering infrastructure and efforts to reduce water waste.

Chapter 15 – SLVWD Demand Management Measures.

This chapter describes SLVWD's efforts to promote conservation and reduce water demand, including discussions of specific demand management measures. SLVWD actively promotes public awareness and education about SLVWD's water supply sources, the San Lorenzo River watershed, and the public's role in conserving water and protecting shared resources. SLVWD is committed to implementing cost effective programs that will increase water efficiency throughout the service area.

1.3 UWMPs in Relation to Other Efforts

In addition to jointly preparing the UWMP, the Districts are involved in several other partnerships and collaborate with a variety of stakeholders to ensure alignment and consistency of various planning documents. Other planning processes that integrate with the UWMP include the City of Scotts Valley General Plan, County of Santa Cruz General Plan, recycled water facilities planning reports, groundwater management program annual reports, water and recycled water master plans, the Santa Cruz Integrated Regional Water Management Plan, and the Santa Margarita Basin Groundwater Sustainability Plan. These documents have been considered in development of this UWMP to allow for consistency and integration of water management planning and to optimize the use of water resources within the Districts' service areas and the greater Santa Cruz region. SVWD and SLVWD are signatories to the Memorandum of Agreement for the Santa Cruz Integrated Regional Water Management Plan; and signatories to the Memorandum of Agreement among the City of Santa Cruz, SLVWD, SVWD, and the County of Santa Cruz Exploring Potential Projects for the Conjunctive Use of Surface and Groundwater Resources. The Districts also both actively participate in Conservation Coalition of Santa Cruz County. In addition, the Districts are members of the Santa Margarita Groundwater Agency and are involved with current efforts to prepare the Santa Margarita Groundwater Sustainability Plan (GSP). The GSP is being developed to ensure groundwater compliance is maintained and supplies remain sustainable in the region. This UWMP has been prepared in coordination with ongoing GSP efforts.

1.4 UWMPs and Grant or Loan Eligibility

In order for a water supplier to be eligible for a grant or loan administered by DWR, and potentially other agencies, the supplier must have a current UWMP on file that meets the requirements set forth by the CWC. A current UWMP must also be maintained by the supplier throughout the term of any grants or loans received.

SVWD and SLVWD have prepared this UWMP under guidance from DWR's 2020 UWMP Guidebook.

1.5 Demonstration of Consistency with the Delta Plan for Participants in Covered Actions

The Districts rely solely upon local water supplies and do not anticipate participating in or receiving water supply benefits from the Delta. Therefore, this section is not applicable.

URBAN WATER MANAGEMENT PLAN

2 Plan Preparation

This chapter of the UWMP provides information on the processes used for developing the UWMP, including efforts in coordination and outreach.

IN THIS SECTION

- UWMP Preparation
- Coordination and Outreach
- UWMP Adoption and Notification
- UWMP Submittal to the State

This UWMP was prepared following guidance from DWR's Guidebook (California Department of Water Resources, 2021), DWR Urban Water Management Plans Public Workshops and Webinars, Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use (SB X7-7 Guidebook) (California Department of Water Resources, 2016), and the 2020 DWR Review Sheet Checklist (**Appendix A**).

The UWMP was prepared in a transparent manner and the Districts engaged neighboring agencies, the City of Scotts Valley, County of Santa Cruz, and the public to seek and distribute information to strengthen the ability to assess and plan for the region's water future. Details regarding the Districts' UWMP preparation, coordination, adoption, and outreach efforts are provided in this chapter.

DWR's 2020 UWMP schedule is summarized in **Table 2-1** below.

Table 2-1. DWR 2020 UWMP Schedule

DATE	EVENT
December 2020	Draft Guidebook released
December 2020-January 2021	DWR Workshops
March 2021	Draft Final Guidebook released
April 2021	Final Guidebook released
July 1, 2021	UWMPs due to DWR

2.1 UWMP Preparation

The Districts prepared this UWMP in accordance with CWC Section 10617, which requires water supplier with 3,000 or more service connections, or water deliveries in excess of 3,000 AFY to prepare an UWMP. Suppliers are required to update UWMPs at least once every five years on or before July 1, in years ending in six and one, incorporating updated and new information from the five years preceding each update. The UWMP must be submitted to DWR by July 1, 2021. The Districts have included all requisite data in the development of this UWMP.

2.2 Basis for Preparing an UWMP

The Districts' UWMP was prepared to efficiently coordinate water planning and management efforts within the region. SVWD served approximately 10,600 people in its service area, through 4,306 metered connections, and supplied 1,135 AFY of potable water in 2020. SLVWD served approximately 23,000 people in its service area, through 7,908 metered connections, and supplied 2,049 AFY of potable water in 2020. **Table 2-2** and **Table 2-3** provide a summary of SVWD and SLVWD potable public water systems.

Throughout this UWMP, water volume is represented in units of AFY. Data is presented on a water year basis (October 1st - September 30th) for SVWD and on a calendar year basis for SLVWD for consistency with each agency's 2015 UWMP and individual tracking systems.

Table 2-2. DWR 2-1R Public Water Systems - SVWD

PUBLIC WATER SYSTEM NUMBER	PUBLIC WATER SYSTEM NAME	NUMBER OF POTABLE CONNECTIONS 2020	VOLUME OF POTABLE WATER SUPPLIED 2020 (AFY)
CA4410013	SCOTTS VALLEY WATER DISTRICT	4,306	1,135

Table 2-3. DWR 2-1R Public Water Systems - SLVWD

PUBLIC WATER SYSTEM NUMBER	PUBLIC WATER SYSTEM NAME	NUMBER OF POTABLE CONNECTIONS 2020	VOLUME OF POTABLE WATER SUPPLIED 2020 (AFY)
CA4410014	SAN LORENZO VALLEY WATER DIST	7,908	2,049

2.3 Coordination and Outreach

To prepare this UWMP, the Districts coordinated with a variety of agencies in their service areas, which include the City of Scotts Valley, County of Santa Cruz, and other water agencies. The efforts were conducted to 1) inform the agencies of the Districts' efforts and activities; 2) gather high quality data for use in developing this UWMP; and 3) coordinate planning activities with other related regional plans and initiatives.

The Districts welcome community participation in water planning. Stakeholders were informed about the development of the UWMP along with the schedule of activities. The activities conducted by the Districts are summarized in **Table 2-4**. Copies of the 60-day notification letters and public hearing notice are provided in **Appendix B**.

Table 2-4. Agency Coordination

AGENCY/ORGANIZATION	PARTICIPATED IN PLAN DEVELOPMENT	COMMENTED ON DRAFT	ATTENDED PUBLIC MEETINGS	WAS CONTACTED FOR ASSISTANCE	WAS NOTIFIED OF PLAN AVAILABILITY[1]	WAS SENT A NOTICE OF INTENTION TO ADOPT 60 DAYS PRIOR TO PUBLIC HEARING
WATER SUPPLIERS						
Big Basin Water Company					x	x
City of Santa Cruz Water Department					x	x
County of Santa Cruz-Water Resources Division					x	x
Soquel Creek Water District					x	x
PUBLIC AGENCIES						
City of Scotts Valley				x	x	x
Scotts Valley Fire District					x	x
Santa Cruz LAFCO					x	x
Mt. Hermon Association					x	x
City of Santa Cruz – Watershed Compliance Manager					x	x
City of Santa Cruz – Planning Department					x	x
Association of Monterey Bay Area Governments				x		

[1]Was notified of availability of Draft UWMP and directed to an electronic copy of the draft plan on the Districts' websites.

2.4 UWMP Adoption, Submittal, and Implementation

This section describes the steps taken to adopt and submit the UWMP and to make it publicly available and includes a discussion of the Districts plan to implement the UWMP.

2.4.1 Notice of UWMP and WSCP Preparation and Adoption

CWC Section 10621(b) requires that suppliers notify cities and counties in which they serve water that the UWMP and WSCP are being updated and reviewed at least 60 days prior to the public hearing. To fulfill this requirement, the Districts sent a joint letter of notification of preparation to the City of Scotts Valley and the County of Santa Cruz as identified in **Table 2-4**, within 60 days prior to the public hearing.

The Districts also made the UWMP and WSCP available for public review on June 2, 2021 and held public hearings on June 10, 2021 (SVWD) and on June 17, 2021 (SLVWD). The notice to the public was made once a week for two successive weeks. The public hearing was first noticed in the Sentinel on May 27, 2021 and in the Press Banner on May 28, 2021 and noticed again on June 3, 2021 and June 4, 2021, respectively. Public hearing notifications were also sent to the same distribution list as

the 60 day notifications via email. The hearing notices are attached as **Appendix B**. SVWD and SLVWD maintained a copy of the UWMP and WSCP in their offices prior to the public hearing for review and on both Districts websites at www.svwd.org and www.slvwd.com.

2.4.2 Public Hearing and Adoption

The UWMP and WSCP were included as separate agenda items, noticed, and reviewed in a Public Hearing at the regularly scheduled Board of Directors meeting for SVWD on June 10, 2021 and for SLVWD on June 17, 2021, 2021. This hearing provided agencies and members of the public a chance to comment on the Draft UWMP and WSCP. The public hearing took place before the adoption allowing opportunity for the report to be modified in response to public input. The UWMP and WSCP were adopted by SVWD and SLVWD Board of Directors on dates to be determined. Copies of each Boards' resolutions of UWMP and WSCP adoption are included as **Appendix C**.

2.4.3 Submittal of the UWMP and WSCP

The UWMP and WSCP were submitted to DWR by July 1, 2021 (within 30 days of adoption) using the DWR WUE Data Portal. The documents were also submitted to the California State Library, the City, and County of Santa Cruz within 30 days of adoption.

2.4.4 Public Availability

Commencing no later than within 30 days of adoption, the Districts will have a copy of the UWMP and WSCP available for public review at the Districts' offices (see addresses below) during normal business hours. The documents will also be posted on each Districts' website as noted below.

Scotts Valley Water District
2 Civic Center Drive
Scotts Valley, CA 95066
www.svwd.org

San Lorenzo Valley Water District
13060 CA-9
Boulder Creek, CA 95006
www.slvwd.com

2.4.5 Amending and Adopting an UWMP or WSCP

Implementation of this UWMP will be carried out as described unless significant changes occur between the adoption of this UWMP and the 2025 UWMP. If such significant changes do occur, the Districts will amend and readopt the UWMP as required by the CWC. The same applies to the WSCP.

Amendments to the Districts' UWMP and WSCP will be on an as needed basis. Should the Districts need to amend the adopted UWMP or WSCP in the future, a public hearing for review of the proposed amendments to the documents will be required. The Districts will need to send a 60-day notification letter to the City and the County of Santa Cruz and notify the public in the same manner as set forth earlier in this chapter. Once the amended documents are adopted, a copy of the final version will be sent to the California State Library, DWR (electronically using the WUEdata reporting tool), the City, and County of Santa Cruz within 30 days of adoption. The finalized version will also be made available to the public both online and on the Districts' websites and in person at the Districts' offices during normal business hours.

URBAN WATER MANAGEMENT PLAN

3 System Description

This chapter describes the Districts' service area boundaries, customer types, land uses, climate, population, and demographics.

IN THIS SECTION

- Service Area
- Service Area Climate, Population and Land Uses

Both Districts are located in the San Lorenzo River watershed in the Santa Cruz Mountains, approximately five miles inland from the Monterey Bay. The San Lorenzo River watershed extends 21 miles from the river's mouth at Monterey Bay in Santa Cruz to the river's headwaters along Santa Cruz County's northern boundary.

The valley is framed by the crest of the Santa Cruz Mountains along the north and northeast (maximum elevation 3,200 feet above mean sea level [ft msl]), and Ben Lomond Mountain along the west (2,600 ft msl). The climate of the Districts' service areas is mild and occupies a coastal valley climate zone. For both Districts, water service is provided primarily to residential customers with some commercial, industrial, institutional, recreational, and landscape customers and for other uses, such as fire protection and pipeline cleaning; however, SVWD provides considerably more water to commercial, industrial, and institutional customers than SLVWD. Together, the Districts served a total population of approximately 33,510 people in 2020.

3.1 General Description

3.1.1 Scotts Valley Water District

SVWD was formed under County Water District Law, specifically CWC Section (CWC§) 30321 and received certification from the California Secretary of State in 1961. Its boundaries include most of the City of Scotts Valley (City) as well as some unincorporated areas north of the City. It is approximately five miles from north to south and one mile east to west with an approximate area of 4.8 square miles (3,045 acres). **Figure 3-2** shows the location of SVWD's service area and City limits. No changes to SVWD's service area have occurred since the 2015 UWMP was prepared; however, an amendment to the Sphere of Influence occurred in 2016 and a subsequent annexation occurred in 2019. Changes to the Sphere of Influence did not result in a change to SVWD's water service area that would impact information provided in the 2015 UWMP.

SVWD overlies a large portion of the Santa Margarita Basin (DWR Basin 3-027), as further discussed in the water supply characterization chapters. Groundwater is the only source of potable water supply for SVWD. Sewer service in the Scotts Valley area is provided by the City. SVWD partners with the City to provide recycled water to SVWD customers and the Spring Lakes Mobile Home Park in the SLVWD service area as described in **Chapter 4**.

3.1.2 San Lorenzo Valley Water District

Established in 1941, SLVWD serves several communities within the 136 square-mile San Lorenzo River watershed. SLVWD service area ranges in elevation from approximately 200 ft msl near Felton to as high as 1,400 ft msl along the eastern flank of Ben Lomond Mountain. SLVWD serves a combined area of approximately 98 square miles (62,749 acres). **Figure 3-3** shows the location of SLVWD and its service area. **Figure 3-1**Figure 3-3 shows the location of the Districts' service areas.

SLVWD owns, operates, and maintains two separately managed water systems, which are the North/South System (or San Lorenzo Valley System) and the Felton System. SLVWD's 2015 UWMP characterized different North, South, and Felton systems and service areas. However, since the 2015 UWMP, SLVWD acquired and connected the Lompico system, connected the North and South systems, and now serves these systems as one San Lorenzo Valley System. The North/South service area includes the unincorporated communities of Boulder Creek, Brookdale, Ben Lomond, Mañana Woods, Lompico and portions of the City of Scotts Valley and adjacent unincorporated neighborhoods. The Felton Service Area was acquired by SLVWD from California American Water (CAW or Cal-Am) in September 2008 and includes the town of Felton and adjacent unincorporated areas. It was owned and operated by Citizen Utilities Company of California prior to 2002.

On June 1, 2016, the Lompico service area was annexed into the San Lorenzo Valley System. The Lompico County Water District was formed in 1963 by the community of Lompico Canyon, adjacent to the SLVWD service area boundary. In 1964, the 70 registered voters in Lompico approved a 1.5-million-dollar water infrastructure bond. In 1974 the State of California set a moratorium limiting customer hookups to no more than 500, based on a limited water supply. The system was completed in 1978, and the last of the four series of 40- year bonds paid off in 2018. In 2015, the Lompico County Water District was named by the State as one of 17 small water systems in danger of running out of water resources during the drought. With funding through an emergency grant from the State of California, an intertie was installed connecting the Lompico County Water District service area (Lompico) to the SLVWD service area. The emergency intertie has been converted to a full-time water supply for Lompico Canyon residents (Lompico Assessment District Oversight Committee, 2019).

In 2016, SLVWD completed the process with the State Water Resources Control Board and obtained a consolidation permit for the entire service area. SLVWD is designated as Public Water System (ID #

CA4410014) as defined by the California Health and Safety Code. SLVWD's sources of water are solely from local groundwater and surface water.

SLVWD service area is primarily on individual septic sewage systems. However, SLVWD owns, operates, and maintains a wastewater system in Boulder Creek's Bear Creek Estates, which serves 56 homes. The system collects and treats domestic wastewater which is discharged to a subsurface 2.3 acre leach field. In addition, a portion of the SLVWD south service area is served by the City. SLVWD does not supply recycled water to its service area.

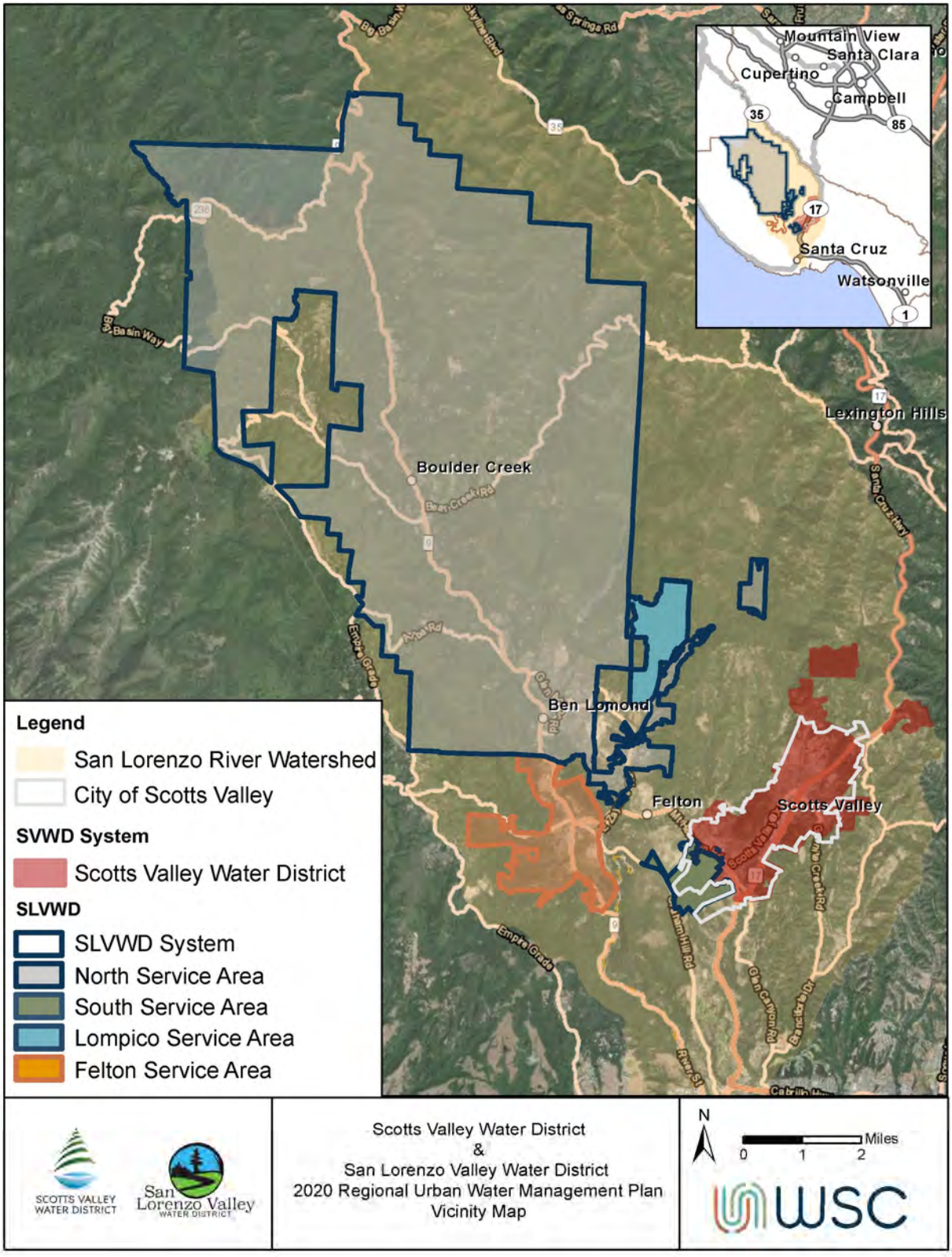


Figure 3-1. SVWD & SLVWD Service Areas

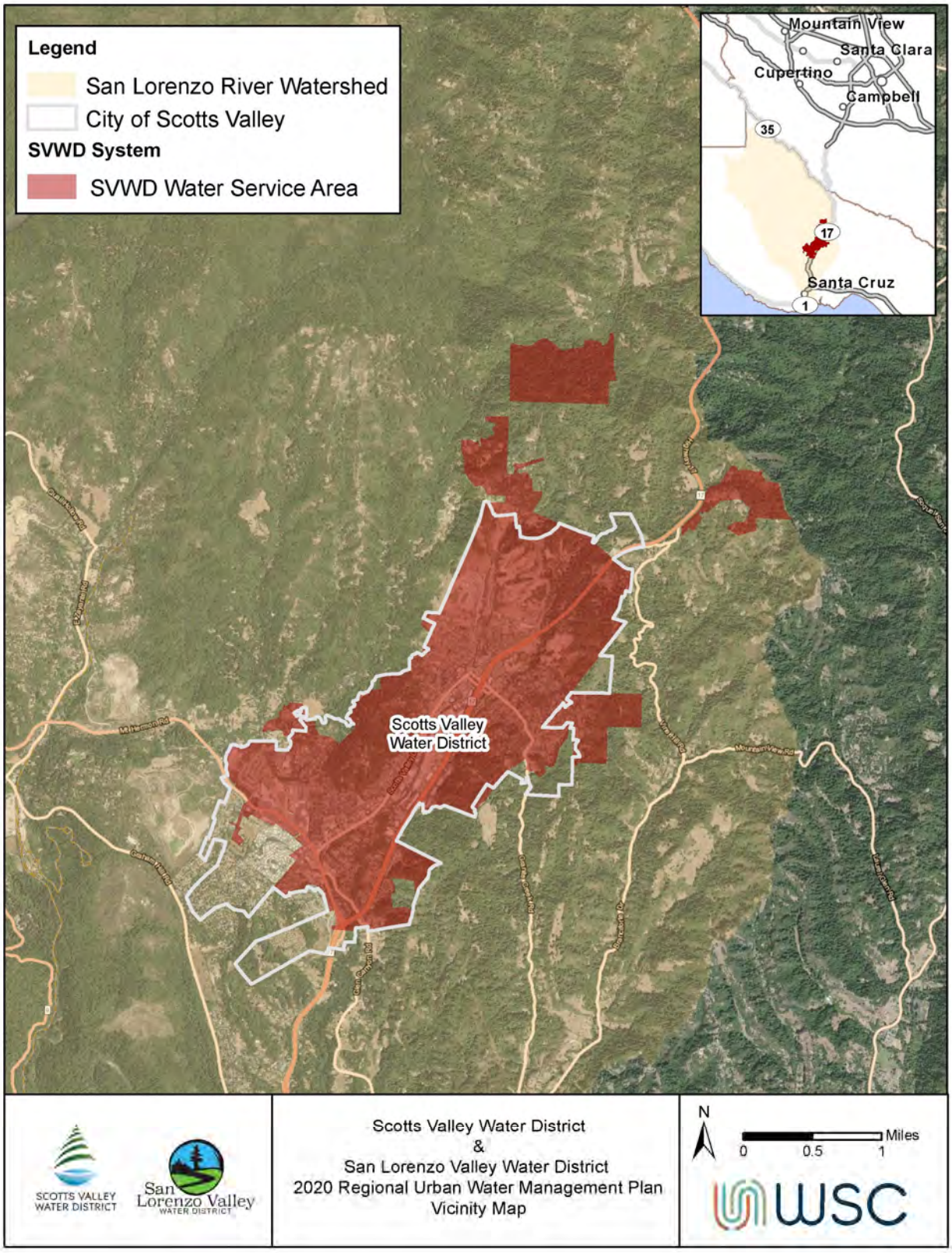


Figure 3-2. Scotts Valley Water District Service Area Boundary

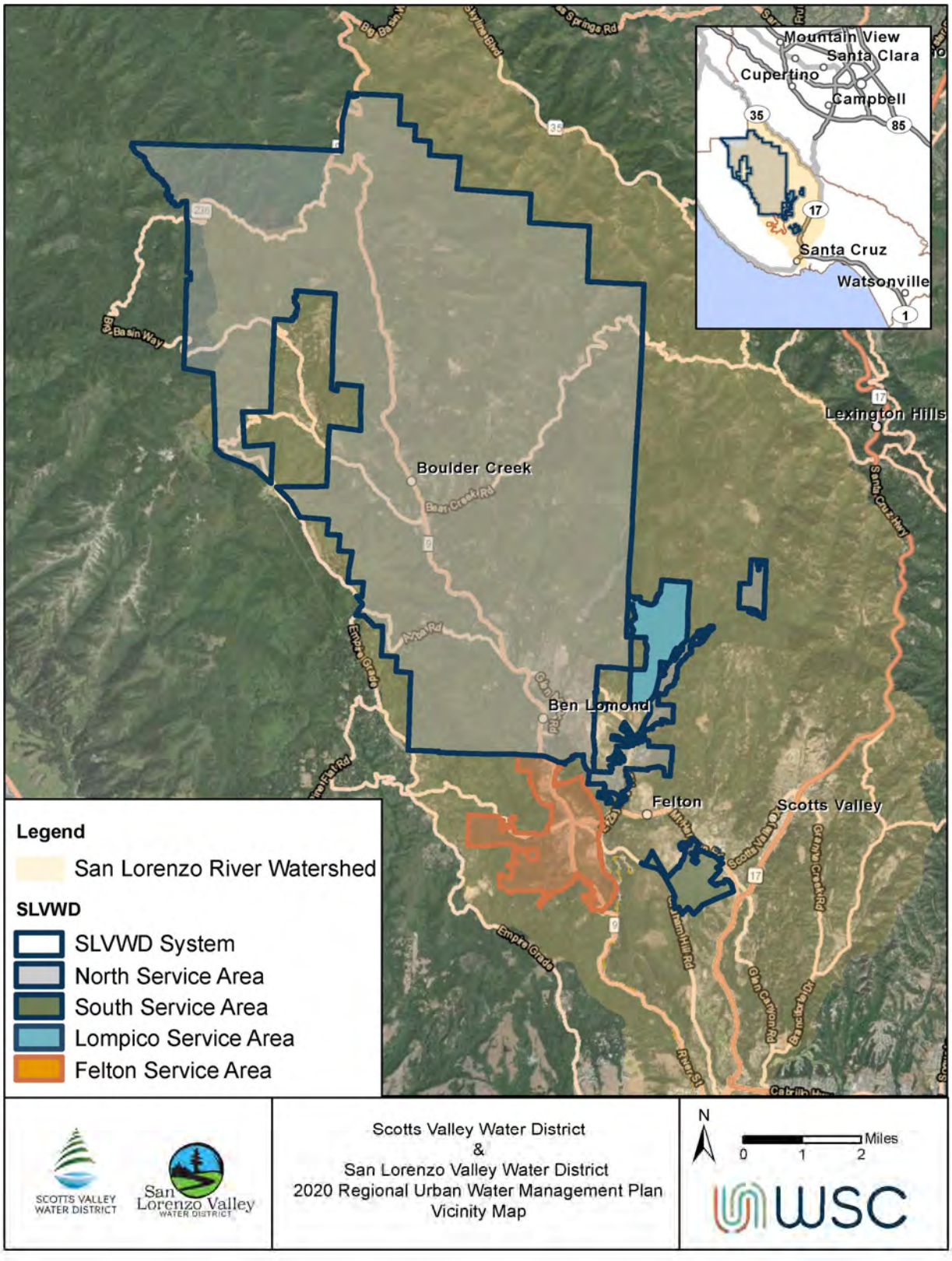


Figure 3-3. San Lorenzo Valley Water District Service Area Boundary

3.2 Service Area Climate

The climate of the Districts' service areas is mild. The area is cooled in the summer by early morning and evening coastal fog. The Districts occupy a coastal valley climate zone that receives significant winter precipitation and relatively little summer coastal fog. **Table 3-1** presents average climate data for the Districts' service areas, including temperature, rainfall, and reference evapotranspiration (ETo). As shown in **Table 3-1**, the warmest month of the year is typically September with an average temperature of 67.7 degrees Fahrenheit (°F), while the coldest month of the year is December with an average temperature of 54.3°F.

SVWD and SLVWD closely monitor rainfall within their service areas using their own rain gauges and precipitation can vary significantly in the different microclimates in the valley. The annual average precipitation within SVWD's service areas is 41.63 inches and 48.3 inches in SLVWD's service area. The majority of rainfall occurs in the months of November through March with January typically being the wettest month.

Evapotranspiration from plants is variable, differing with the type of vegetation cover and with weather and soil conditions. Evaporation in the area is generally low in the winter months and peaks in the summer. Comparison of the monthly rainfall and evaporation amounts reveal that winter is characterized by a surplus of rainfall over ETo. This rainfall is then available for runoff and natural groundwater recharge. Native vegetation ETo is reduced substantially in summer when rainfall is minimal and soil moisture is depleted. At this time, however, landscape irrigation demands become greatest. This contributes to high water demands in the late summer creating a time lag between periods of high demand and high supply.

Table 3-1. Average Climate for SVWD and SLVWD

MONTH	AVERAGE TEMPERATURE (°F)[1]	AVERAGE STANDARD ETO (INCH)[1]	SVWD MONTHLY AVERAGE RAINFALL (INCH)[2]	SLVWD MONTHLY AVERAGE RAINFALL (INCH)[3]
January	55.1	1.9	8.27	10.02
February	55.4	2.6	8.08	9.48
March	57.8	3.9	6.50	7.31
April	60.1	4.9	2.50	2.93
May	62.2	5.8	1.00	1.15
June	65.3	6.2	0.24	0.24
July	66.2	5.8	0.01	0.01
August	67.1	5.1	0.04	0.06
September	67.7	4.5	0.26	0.17
October	65.4	3.5	1.92	1.98
November	58.7	2.1	4.83	5.63
December	54.3	1.6	7.98	9.31
ANNUAL AVERAGE/TOTAL	**66.8**	**47.9**	**41.63**	**48.30**

1) Data based on CIMIS weather station 104 De Laveaga; https://cimis.water.ca.gov/. Averages calculated from 2010-2020 data.

2) Data provided by SVWD (El Pueblo Yard weather station) and represents average rainfall from water year 1981-1982 through water year 2019-2020.

3) Data provided by SLVWD (gauge located at 13060 Highway 9) and from water year 1981-1982 through water year 2019-2020.

3.3 Service Area Population and Demographics

This section describes the population in the Districts' service areas, including current and projected population, and demographic information.

3.3.1 Service Area Population

The 2020 population estimate for the Districts' separate service areas were calculated using DWR's Population Tool, which utilizes Geographical Information Systems (GIS) service area boundaries, Districts' service connection data, and Census data. The DWR Population Tool overlaps GIS shapefiles with Census populations by Census block. The tool calculates the 2020 persons-per-connection by creating a trend line of the persons-per-connection from the year 2000 to the year 2010 and continuing that trend to the year 2020. However, the persons-per-connection from the year 2010 was used to estimate 2020 population. SVWD population projections were developed in conjunction with the City Planning Department's known and estimated development projects though 2030 as well as the General Plan buildout population of 15,000. It was assumed that SVWD's water service area would grow at the same rate as the City from its 2020 population to the buildout population of 15,000 in 2060, which resulted in an annual growth of 0.87% from 2020 to 2045. SLVWD utilized the Association of Monterey Bay Area Governments (AMBAG) 2018 Regional Growth Forecast (RGF) (Association of Monterey Bay Area Governments, 2018) Transportation Analysis Zone GIS data to determine an annual growth rate of 0.15% from 2020 through 2040, which was assumed to continue to 2045. **Table 3-2** provides an estimate of population projection through 2045 in the Districts' service areas.

Table 3-2. DWR 3-1R SVWD and SLVWD Current and Projected Population

POPULATION SERVED	2020	2025	2030	2035	2040	2045
Scotts Valley Water District	10,582	11,082	11,582	12,082	12,582	13,082
San Lorenzo Valley Water District	22,928	23,101	23,276	23,452	23,630	23,809
TOTAL	**35,510**	**23,101**	**34,858**	**35,534**	**36,212**	**36,891**

3.3.2 Other Social, Economic, and Demographic Factors

SVWD and SLVWD provide water service primarily to residential customers with some commercial, industrial, institutional, recreational, and landscape customers. Water is also supplied for fire protection and temporary construction uses. SVWD provides more water to commercial, industrial, and institutional customers than SLVWD. The Districts' service areas continue to experience modest increases in single family residential construction. Although the population has increased somewhat, the demand for potable water has trended downward, which is most likely linked to permanent water savings achieved during the recent drought, the implementation of water use efficiency programs, continued use of recycled water and focus on reducing water losses and minimizing water waste. The region expects to see some continuing modest development activity in the near-term.

Based on 2015-2019 data, the U.S. Census Bureau estimates that households within Santa Cruz County are composed of 2.72 people per household. Approximately 48.5% of households are comprised of married-couples with families. The median age of a resident in Santa Cruz County is 37 years old. Based on 2015-2019 Census data, 86% of people 25 years or older has at least graduated from high school and 40% obtained a bachelor's degree or higher. It was estimated that 13.7% of people did not complete high school.

Throughout Santa Cruz County, approximately 60% of the working population (ages 16 and over) were employed. A majority held a private wage or salary position (74%), while 16% were employed by the

federal, state, or local government. Educational services and health care (24.7%) is the most common industry that Santa Cruz County residents work in, followed collectively by professional, scientific, management, and administrative and waste management services (12.6%). The median household income is $82,234.

The U.S. Census Bureau reported that of the people of Santa Cruz County that identify as one race alone, 74.8% were White. Approximately 4.8% identified as two or more races. Of the total population, an estimated 57.3% identified as White non-Hispanic and 33.6% as Hispanic. The U.S. Census Bureau clarifies that people of Hispanic origin may be of any race (United States Census Bureau).

3.4 Land Uses within Service Area

Land use planning in the valley is the responsibility of the County of Santa Cruz and the City of Scotts Valley. Boulder Creek, Felton, Lompico, and Ben Lomond are all census-designated areas within the county but are not incorporated towns (Santa Margarita Groundwater Agency, 2020). **Figure 3-4** shows the distribution of various land use types within the Districts' service areas and the surrounding area. Land uses include timber, State, and regional parks, rural residential, low-density urban residential and commercial, quarries, agriculture, and other open space. The majority of the Districts' customers are low density and rural residential customers within areas zoned primarily as rural (1 residence or less per acre).

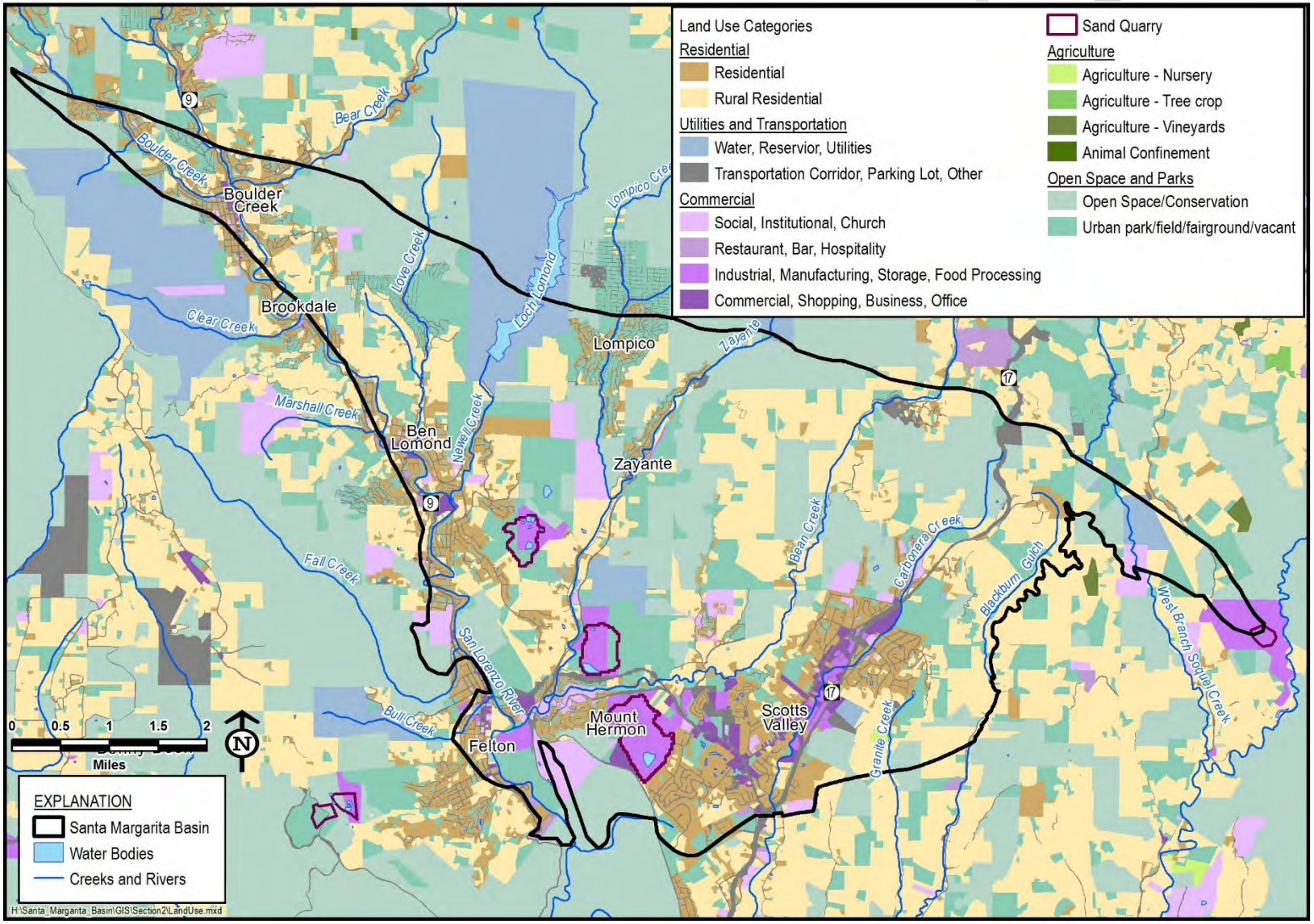


Figure 3-4. Land Use in the Santa Margarita Basin (Santa Margarita Groundwater Agency, 2020)

URBAN WATER MANAGEMENT PLAN

4 SVWD Water Use Characterization

Residential customers consume the majority of water served by SVWD. In 2020, single-family and multi-family customers used approximately 72% of the total water consumed in the service area. This chapter summarizes past and current water uses and projected demands through 2045.

This chapter describes and quantifies SVWD's current and projected water use through the year 2045. Accurately tracking and reporting water use allows SVWD to properly analyze the use of their resources to conduct diligent resource planning. Estimating future water use as accurately as possible allows SVWD to manage its water supply and appropriately and plan for infrastructure investments. Assessments of future growth and related water use provides essential information for developing water use projections to manage resources for the service area needs.

IN THIS SECTION

- Non-Potable vs. Potable Water Use
- Water Use by Sector
- Projected Demand

4.1 Non-Potable Versus Potable Water Use

Groundwater is the source of potable water in SVWD's service area. Recycled water is supplied to a limited number of customers and is primarily used for irrigation. Recycled water is an important supplemental supply source for SVWD. Potable and recycled water demands and supplies cannot be used interchangeably when preparing reliability assessments and as such they have been separated and are described separately. Additional information regarding the potable water supply as well as the treatment and distribution of recycled water within SVWD's service area is provided in **Chapter 9** of this UWMP.

4.2 Past, Current, and Projected Water Use by Sector

Water suppliers have the option to track water use by the categories that are applicable to their systems.

SVWD uses the following customer categories:

- Single-family residential
- Multi-family residential
- Commercial, industrial, and institutional (CII)
- Landscape
- Fire service
- Other (Bulk temporary)

The categories above are used to present past, current, and projected water uses for SVWD in this chapter.

4.2.1 Past Water Use

Table 4-1 and **Figure 4-1** show the volume and percentage of water used by each customer category in 2020 rounded to the nearest percent and includes losses. Water losses were calculated as the difference between billed consumption and water entering the distribution system.

Table 4-1. Past Water Use, Acre-Feet Per Year (AFY).

TYPE	2020
Single-Family	661
Multi-Family	67
CII	226
Landscape	59
Fire Service	1
Bulk/Temp	4
Losses	118
TOTAL USE	**1,135**

Data from SVWD metered accounts

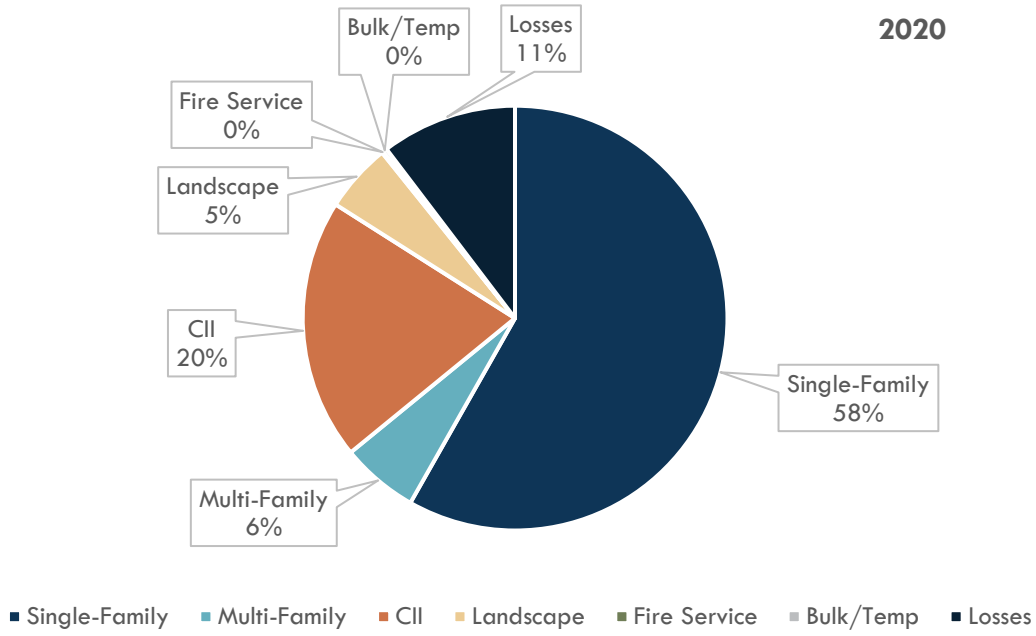


Figure 4-1. 2020 Percentage of Water Use by Customer Category

4.2.2 Potable Distribution System Water Losses

Water losses can include "real losses", which are physical losses from the water distribution system (and the supplier's storage facilities) as well as "apparent losses", which represent losses due to metering inaccuracies, data handling errors and/or unauthorized consumption. Non-revenue water (NRW) is defined as the water losses plus authorized unbilled (metered and unmetered) water consumption. Suppliers are required to report their distribution system water loss for each of the five years preceding the UWMP update [Water Code Section 10631(d)(3)] in accordance with the rules adopted pursuant to Water Code Section 10608.34. In addition, suppliers are required to provide data demonstrating whether the supplier will meet its State Water Board water loss performance standard. Although the standard has not yet been implemented and may not go into effect until the future, the data needs to be in 2020 UWMPs per the Water Code.

Water loss over the last five years has ranged from 96 AFY to 129 AFY. Water loss assessments completed since 2015 using American Water Works Association (AWWA) Water Audit Software are provided in **Appendix D** and summarized in **Table 4-2**. AWWA Water Audits are reported in calendar years.

Table 4-2. DWR 4-4R 12 Month Water Loss Audit Reporting

REPORT PERIOD START DATE		
MM	YYYY	VOLUME OF WATER LOSS, AFY*
1	2015	114
1	2016	129
1	2017	100
1	2018	96
1	2019	98

* Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet. Note that AWWA reporting is conducted by calendar year. Data for 2015 obtained from 2015 UWMP, which provided water loss for 2015 with the reporting period between July 2014 and June 2015.

4.2.3 Projected Water Use

Demands were estimated for residential, CII, and landscape utilizing the best available growth data from the City's Planning Department, population data, historical growth trends, and anticipated reductions in water losses to comply with the State's water loss standards.

Residential demands were estimated using a Gallons Per Capita Per Day (GPCD) method. Demand was estimated by multiplying the GPCD by projected populations. Projected populations are described in **Chapter 3**. It is assumed that residential GPCD will reduce from 61 GPCD in 2020 to 52 GPCD in 2040 and 49 GPCD in 2060. Residential GPCD is assumed to reduce because of water use efficiency achieved through technological improvements and regulatory compliance as well as customer conservation. Five-year increment values were calculated using interpolation between 2020, 2040 and 2060.

Commercial demands were estimated to grow at a rate of 10%, based on historical proportionality of CII to Residential customers, between 2020, 2040 and 2060. Five-year increment values were calculated using interpolation between 2020, 2040 and 2060.

Landscape demands were assumed to stay relatively constant through the planning horizon due to a balance of slightly increased irrigation demand for new development and savings achieved through outdoor water use efficiency rebates and activities.

Water losses were assumed to decrease at a rate of 10% between 2020, 2040 and 2060. Water losses are assumed to experience a downward trend due to increased efforts on pressure control, leak detection and innovative data analytics and management. Five-year increment values were calculated using interpolation between 2020, 2040 and 2060.

SVWD is aware that future water use standards are under development by DWR, which will supersede SB X7-7 standards, and will likely require demands to be lower than the SB X7-7 target. Therefore, SVWD plans to continue implementing water use efficiency activities to meet future water use standards and to enhance resiliency for drought and other water shortage conditions as described in **Chapter 11**, **Chapter 13**, and **Chapter 14**. **Table 4-1** presents actual water demands in 2020 and **Table 4-3**Error! Reference source not found. presents projected water demands through 2045.

Table 4-3. DWR 4-2R Projected Demands for Water (AFY)

		PROJECTED WATER USE				
USE TYPE	ADDITIONAL DESCRIPTION	2025	2030	2035	2040	2045
Single Family		646	649	658	661	673
Multi-Family		64	64	65	65	66
Other	Commercial, Industrial, Institutional	249	250	254	255	259
Landscape		56	56	57	57	58
Other	Fire Service	1	1	1	1	1
Other	Bulk / Temporary	6	6	6	6	6
Losses		89	89	78	79	80
	TOTAL:	**1,111**	**1,115**	**1,119**	**1,123**	**1,144**

DWR advises suppliers to include anticipated water conservation savings when developing future demand projections and must identify in the UWMP if conservation savings were considered and included in developing demand estimates for the next 20 years. **Table 4-4Error! Reference source not found.** satisfies the requirement and details on various sources used to project demand are discussed in this section.

Table 4-4. DWR 4-5R Inclusion in Water Use Projections

Are Future Water Savings Included in Projections? Refer to Appendix K of UWMP Guidebook.	Yes
Section or page number where the citations utilized in the demand projects can it be found:	Section 4.2.3
Are Lower Income Residential Demands Included in Projections?	Yes

4.2.4 Characteristic Five-Year Water Use

In addition to past and projected uses, the UWMP more closely analyzes anticipated conditions for the next five years (2021 – 2025). In the next five years, SVWD anticipates that demands remain fairly constant. Details on an analysis for the next five years are discussed in **Chapter 11**.

4.3 Water Use for Lower Income Households

The California Water Code section 10631.1 requires demand projections to include projected water use for single-family and multi-family residential housing needed for lower income households. Low-income households are defined as households making less than 80% of median household income.

The AMBAG Regional Housing Needs Allocation (RHNA) Plan: 2014-2023 (Association of Monterey Bay Area Governments, 2013) determines the housing needs in its service area over the planning period of 2014-2023. For this planning period, 2,515 new very low-income units and 1,640 new low-income units are projected to be needed by 2023 in the AMBAG region, which includes the counties of Monterey, Santa Cruz, and San Benito. The allocation of these units throughout the region is based on the 2014 Regional Growth Forecast housing needs and employment growth over the planning period. It was assumed that SVWD will accommodate the RHNA for the City of Scotts Valley which totals 34

new very low-income units and 22 new low-income units. Assuming SVWDs' 2020 average water usage of 0.197 AFY/single family residential connection, the projected demand for the low-income residential units within SVWD's service area is shown in **Table 4-5**. The low-income deliveries projections are included in SVWDs' total projected water deliveries shown in **Table 4-3**.

Table 4-5. Low Income Housing Units and Demand Estimate

	2020	2021	2022	2023	TOTAL
New Low-Income Residential Housing Units – AMBAG Area	416	416	416	416	1,664
New Low-Income Residential Housing Units – SVWD Service Area	6	6	6	6	24
2020 SVWD Residential Demand Factor, AFY/single family connection	0.197	0.197	0.197	0.197	0
New Low-Income Residential Housing Demand, AFY – SVWD Service Area	1	1	1	1	4

4.4 Climate Change Considerations

Future water use may be affected by climate change.

"Projections of climate change in California indicate a further intensification of wet and dry extremes and shifting temperatures that can…affect both water use and supplies. Extreme and higher temperatures can lead to increases in water use…Projections of more frequent, severe, and prolonged droughts could lead to not only less surface water available, but also exacerbating ongoing stressors in groundwater basins across the state" (California Department of Water Resources, March 2021).

Higher temperatures decrease the amount of precipitation available for groundwater recharge and from surface water sources while increasing water use, especially for outdoor use. Reductions in future supply due to impacts associated with climate change were considered as part of the projected groundwater supply discussed in **Chapter 9** and **Chapter 11**. Increases in future water use patterns due to climate change factors were considered as part of the demand projection provided in this chapter.

URBAN WATER MANAGEMENT PLAN

5 SLVWD Water Use Characterization

Residential customers consume the majority of water served by SLVWD. In 2020, single-family and multi-family customers used approximately 90% of the total water consumed in the service area. This chapter summarizes past and current water uses and projected demands through 2045.

This chapter describes and quantifies SLVWD's current and projected water use through the year 2045. Accurately tracking and reporting water use allows SLVWD to properly analyze the use of their resources in order to conduct diligent resource planning. Estimating future water use as accurately as possible allows SLVWD to manage its water supply and appropriately plan for infrastructure investments. Assessments of future growth and related water use provides essential information for developing water use projections to manage resources for the service area needs.

IN THIS SECTION

- Non-Potable vs. Potable Water Use
- Water Use by Sector
- Projected Demand

5.1 Non-Potable Versus Potable Water Use

A combination of surface water and groundwater sources are used by SLVWD to meet customer potable water needs. Non potable water in the form of recycled water is distributed to one multi-residential customer in SLVWDs' service area by SVWD. Potable and recycled water demands, and supplies cannot be used interchangeably when preparing reliability assessments and as such they have been separated and are described separately. Additional information regarding the potable water supply as well as the treatment and distribution of recycled water within SLVWD's service area is provided in **Chapter 10** of this UWMP.

5.2 Past, Current, and Projected Water Use by Sector

Water suppliers have the option to track water use for the sectors that are applicable to their systems.

SLVWD tracks water use by the following sectors.

- Single-family residential
- Multi-family residential
- Commercial, industrial, and institutional (CII)
- Landscape
- Surplus

The sectors above are used to present past, current, and projected water uses for SLVWD. Note that SLVWD tracks CII water uses as a single category because there is not a large number of industrial and institutional customers in the service area and these sectors have similar water usage. SLVWD does not have industrial users that require significant volumes of process water which would make it more important to track this use sector separately.

5.2.1 Past Water Use

Table 5-1 and **Figure 5-1** show the volume and percentage of water used by each customer sector in 2020 and includes losses. Water losses were calculated as the difference between billed consumption and water entering the distribution system.

Table 5-1. Past Water Use, Acre-Feet Per Year (AFY).

TYPE	2020
Single-Family	1,179
Multi-Family	252
CII	141
Landscape	9
Surplus	6
Losses	463
TOTAL USE	**2,049**

Data from SLVWD metered accounts. The Lompico System was annexed in 2017.

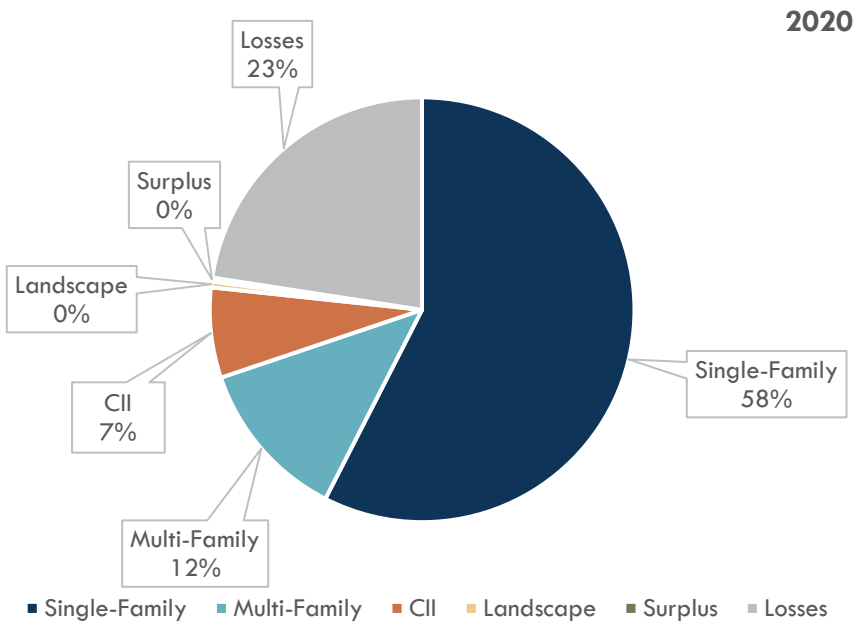


Figure 5-1. 2020 Percentage of Water Use by Customer Sector

5.2.2 Distribution System Water Losses

Water losses can include "real losses", which are physical losses from the water distribution system (and the supplier's storage facilities) as well as "apparent losses", which represent losses due to metering inaccuracies, data handling errors and/or unauthorized consumption. Non-revenue water (NRW) is defined as the water losses plus authorized unbilled (metered and unmetered) water consumption. Suppliers are required to report their distribution system water loss for each of the five years preceding the UWMP update [Water Code Section 10631(d)(3)] in accordance with the rules adopted pursuant to Water Code Section 10608.34. In addition, suppliers are required to provide data demonstrating whether the supplier will meet its State Water Board water loss performance standard. Although the standard has not yet been implemented and may not go into effect until the future, the data needs to be in 2020 UWMPs per the Water Code.

Water loss over the last five years has ranged from 298 AFY to 516 AFY. Water loss assessments completed since 2015 using American Water Works Association (AWWA) Water Audit Software are provided in **Appendix E** and summarized in **Table 5-2**. AWWA Water Audits are reported in calendar years.

Table 5-2. DWR 4-4R 12 Month Water Loss Audit Reporting

REPORT PERIOD START DATE		
MM	YYYY	VOLUME OF WATER LOSS, AFY*
1	2015	298
1	2016	378
1	2017	516
1	2018	505
1	2019	433

* Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet. Note that AWWA reporting is conducted by calendar year.

5.2.3 Projected Water Use

Demands were estimated using a Gallons Per Capita Per Day (GPCD) method. The total demand was estimated by multiplying the GPCD by the projected populations for 2025, 2030, 2035, 2040, and 2045. Projected populations are described in **Chapter 3**. **Table 5-4** presents projected demands through 2045.

Demand projections are based on the assumption that the current GPCD will rebound to the selected target of 85 GPCD in 2025 and stay constant thereafter. **Chapter 7** describes the methodology used to develop SB X7-7 baseline and targets in detail. Since 1995, per capita water usage varied from a high of 104 GPCD in 2006 to a low of 70 GPCD in 2015. Overall, per capita consumption has decreased, which is most likely due to the recent drought, state mandated water use reduction targets, more efficient appliances and plumbing, and conservation efforts made by SLVWD and its customers. While the 2020 GPCD was below the SB X7-7 target, future demand could increase due to a variety of factors and this UWMP conservatively projects demand to proactively develop water resources management strategies for these potential demands. However, SLVWD is aware that future water use standards are under development by DWR, which will supersede SB X7-7 standards, and will likely require demands to be lower than the SB X7-7 target. Therefore, SLVWD plans to continue encouraging efficient water use and implementing water use efficiency measures to support meeting future water use standards and to enhance resiliency for drought and other water shortage conditions as described in **Chapter 12**, **Chapter 13**, and **Chapter 15**.

DWR advises suppliers to include anticipated water conservation savings when developing future demand projections and must identify in the UWMP if conservation savings were considered and included in developing demand estimates for the next 20 years. **Table 5-3** satisfies the requirement and details on various sources used to project demand are discussed in this section. Conservation savings were considered and included in developing demand estimates for the next 20 years by using the selected SB X7-7 target of 85 GPCD, which is assumed to include conservation savings.

Table 5-3. DWR 4-5R Inclusion in Water Use Projections

Are Future Water Savings Included in Projections? Refer to Appendix K of UWMP Guidebook.	Yes
Section or page number where the citations utilized in the demand projects can it be found:	Section 5.2.3
Are Lower Income Residential Demands Included in Projections?	Yes

Table 5-4. DWR 4-2R Projected Demands for Water (AFY)

-		PROJECTED WATER USE				
USE TYPE	ADDITIONAL DESCRIPTION	2025	2030	2035	2040	2045
Single Family		1,207	1,216	1,225	1,235	1,244
Multi-Family		258	259	261	263	265
Other	Commercial, Industrial, Institutional	141	143	144	145	146
Landscape		9	9	9	9	9
Other	Surplus	6	6	6	6	6
Losses		589	594	598	603	607
	TOTAL:	**2,210**	**2,227**	**2,243**	**2,260**	**2,277**

5.2.4 Characteristic Five-Year Water Use

In addition to past and projected uses, the UWMP more closely analyzes anticipated conditions for the next five years (2021 – 2025). In the next five years, SLVWD anticipates that demands may increase by approximately 161 AFY from 2020. This increase is based on normal year conditions representing a "rebound" from current 2020 use, which is likely lower than typical unconstrained demand as many of the City's residents continue to conserve water after the most recent drought that ended in 2016. Details on an analysis for the next five years are discussed in **Chapter 12**.

5.3 Water Use for Lower Income Households

The California Water Code section 10631.1 requires demand projections to include projected water use for single-family and multi-family residential housing needed for lower income households. Low-income households are defined as households making less than 80% of median household income.

The AMBAG Regional Housing Needs Allocation Plan: 2014-2023 (Association of Monterey Bay Area Governments, October 2013) determines the housing needs in its service area over the planning period of 2014-2023. For this planning period, 2,515 new very low-income units and 1,640 new low-income units are projected to be needed by 2023 in the AMBAG region, which includes the counties of Monterey, Santa Cruz, and San Benito. The allocation of these units throughout the region is based on the 2014 RGF housing needs and employment growth over the planning period. It was assumed that SLVWD will accommodate 3% of the population within AMBAG's service area based on the derived SLVWD population in 2023 (23,032) and projected AMBAG total population in 2023 updated under the 2018 RGF (806,684). Assuming SLVWDs' 2020 average water usage of 0.165 AFY/single-family residential connection, the projected demand for the low-income residential units within SLVWD's service area is shown in **Table 4-5**. The low-income deliveries projections are included in SLVWD total projected water deliveries shown in **Table 5-4**.

Table 5-5. Low Income Housing Units and Demand Estimate

	2020	2021	2022	2023	TOTAL
New Low-Income Residential Housing Units – AMBAG Area	416	416	416	416	1,664
New Low-Income Residential Housing Units – SLVWD Service Area	12	12	12	12	48
2020 SLVWD Residential Demand Factor, AFY/single-family connection	0.165	0.165	0.165	0.165	0
New Low-Income Residential Housing Demand, AFY – SLVWD Service Area	2	2	2	2	8

5.4 Climate Change Considerations

Future water use may be affected by climate change.

"Projections of climate change in California indicate a further intensification of wet and dry extremes and shifting temperatures that can…affect both water use and supplies. Extreme and higher temperatures can lead to increases in water use…Projections of more frequent, severe, and prolonged droughts could lead to not only less surface water available, but also exacerbating ongoing stressors in groundwater basins across the state" (California Department of Water Resources, March 2021).

Higher temperatures decrease the amount of precipitation available for groundwater recharge and from surface water sources while increasing water use, especially for outdoor use. Reductions in future supply due to impacts associated with climate change were considered as part of the projected groundwater supply discussed in **Chapter 8**, **Chapter 10,** and **Chapter 12**. Increases in future water use patterns due to climate change factors were considered as part of the conservative demand projection provided in this chapter.

URBAN WATER MANAGEMENT PLAN

6 SVWD SB X7-7 Baseline, Targets and 2020 Compliance

This chapter describes SVWD compliance with the Water Conservation Act of 2009 Baseline, Targets, and 2020 Compliance. The goal of this chapter is to demonstrate compliance with the 2020 targeted water-use reduction of 20 percent

Senate Bill X7-7 (SB X7-7), which was incorporated into the UWMP Act in 2009, requires all water suppliers to increase water use efficiency with the overall goal to decrease per-capita water consumption within the state by 20 percent by the year 2020. SB X7-7 required DWR to develop certain criteria, methods, and standard reporting forms through a public process that could be used by water suppliers to establish baseline water use and determine water conservation targets.

IN THIS SECTION

- Target and Baseline Method Summary
- Baselines & Targets
- SB X7-7 Forms and Tables
- 2020 Compliance

This chapter describes SVWD's methods for calculating baseline and target water consumption in accordance with DWR's Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use (California Department of Water Resources, 2016). The SB X7-7 Verification Forms and Compliance Forms, which are required to be submitted to DWR to demonstrate compliance with the SB X7-7 requirements, are presented in **Appendix F**. This chapter also shows that SVWD achieved the 2020 water use target of 154 GPCD, with a calculated GPCD for 2020 of 96 GPCD.

6.1 SB X7-7 Forms and Tables

The SB X7-7 Verification Form was submitted as part of SVWD's 2015 UWMP to establish the baseline and 2020 water use target. Since the 2015 UWMP there have been no changes to SVWD's service area. However, the 2015 UWMP baseline and 2020 targets have been revised in this UWMP to account for more accurate population data. The updated baseline and 2020 water use target are summarized in **Table 6-1**.

SVWD selected SB X7-7 Method 1, which uses water conservation target defined as a 20 percent reduction of average per-capita use from the 10-year continuous baseline period. Method 1 results in the 2020 target of 154 gallons per capita per day GPCD. Regardless of the target calculation method, each agency must confirm that the calculated 2020 target meets the minimum reduction required. This minimum reduction amount is defined as 5 percent of the 5-year baseline per capita water use of 177 GPCD shown in **Table 6-1**. The 2020 target must be less than 95% of the 5-year baseline. Since the 2020 Target of 154 GPCD is less than 95% of 177, or 168 GPCD, the 2020 target meets the minimum required reduction and does not need to be adjusted. A copy of the completed SB X7-7 Verification Forms is included in **Appendix F**.

Table 6-1. DWR 5-1R Baselines and Targets Summary

BASELINE PERIOD	START YEAR	END YEAR	AVERAGE BASELINE GPCD*	CONFIRMED 2020 TARGET *
10-15 Year	1995	2004	193	154
5 Year	2003	2007	177	

*All values are in Gallons per Capita per Day (GPCD)
* All cells in this table are populated manually from the supplier's SB X7-7 Verification Form.

6.2 2020 Compliance Daily Per-Capita Water Use (GPCD)

SVWD must demonstrate compliance with its 2020 water use target by completing the SB X7-7 2020 Compliance Form. This Form is an abbreviated version of the SB X7-7 Verification Form solely for 2020 compliance calculations. A summary of the 2020 SB X7-7 2020 compliance table is shown in **Table 6-2**. There were no extreme cases that warranted an adjustment to the GPCD compliance calculation. The calculated GPCD for 2020 is 96 GPCD, which meets SVWD's 2020 SB X7-7 target of 154 GPCD. A copy of the completed SB X7-7 Compliance Forms is included in **Appendix F**.

Table 6-2. DWR 5-2R 2020 Compliance

	OPTIONAL ADJUSTMENTS TO 2020 GPCD						
ACTUAL 2020 GPCD*	EXTRAORDINARY EVENTS*	ECONOMIC ADJUSTMENT*	WEATHER NORMALIZATION*	TOTAL ADJUSTMENTS*	ADJUSTED 2020 GPCD*	2020 CONFIRMED TARGET GPCD*	SUPPLIER ACHIEVED TARGETED REDUCTION IN 2020
96	0	0	0	0	96	154	Yes

*All values are in Gallons per Capita per Day (GPCD)
*All cells in this table are populated manually from the supplier's SB X7-7 Verification Form.

URBAN WATER MANAGEMENT PLAN

7 SLVWD SB X7-7 Baseline, Targets and 2020 Compliance

This chapter describes SLVWD compliance with the Water Conservation Act of 2009 Baseline, Targets, and 2020 Compliance. The goal of this chapter is to demonstrate compliance with the 2020 targeted water-use reduction of 20 percent.

Senate Bill X7-7 (SB X7-7), which was incorporated into the UWMP Act in 2009, requires all water suppliers to increase water use efficiency with the overall goal to decrease per-capita water consumption within the state by 20 percent by the year 2020. SB X7-7 required DWR to develop certain criteria, methods, and standard reporting forms through a public process that could be used by water suppliers to establish baseline water use and determine water conservation targets.

IN THIS SECTION

- Target and Baseline Method Summary
- Baselines & Targets
- SB X7-7 Forms and Tables
- 2020 Compliance

This chapter describes SLVWD's methods for calculating baseline and target water consumption, as presented in the 2015 UWMP, in accordance with DWR's Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use (California Department of Water Resources, 2016). In addition, due to annexation of the Lompico Service area in 2016, updated baseline and target calculations are presented. The SB X7-7 Verification Forms and Compliance Forms, which are required to be submitted to DWR to demonstrate compliance with the SB X7-7 requirements, are presented in **Appendix G**. This chapter also shows that SLVWD achieved the 2020 water use target of 82 GPCD, with a calculated GPCD for 2020 of 80 GPCD.

7.1 Updated Calculations from 2015 UWMP to the 2020 UWMP

SLVWD is required to update calculations from the 2015 UWMP because the Lompico service area was annexed on June 1, 2016. **Appendix P** of the 2020 Guidebook provides that service areas that have expanded need to account for the newly annexed areas in one of three ways. SLVWD selected the second method described in **Appendix P**, which includes calculating and reporting baselines and targets separately for the original and annexed service areas, but then calculating and reporting only one combined 2020 target. SLVWD's 2020 compliance is analyzed as one entity for all service areas.

Below is a summary of the calculations required for the method selected.

- **STEP 1** - Calculate baselines and targets separately for both areas. When calculating the target for the newly merged/annexed area, prorate the target
- **STEP 2** - Calculate a single 2020 target by creating a population weighted average of each system's target.
- **STEP 3** - Complete and submit separate SB X7-7 Verification Forms for each separate area.

SLVWD's service area prior to annexation of Lompico had a baseline per capita water use of 104 gallons per capita per day (GPCD) and a 2020 water use target of 84 GPCD in 2020. The Lompico service area has a baseline per capita water use of 50 GPCD and a 2020 prorated water use target of 117 GPCD. Using a population weighted average of SLVWD's service area (prior to Lompico annexation) and the Lompico service area, a single 2020 target of 85 GPCD was calculated.

7.1.1 Update of the Baseline and Target Method

In 2015, SLVWD selected SB X7-7 Method 1, which uses a water conservation target defined as a 20 percent reduction of average per-capita use from the 10-year continuous baseline period. The target method used in the 2015 UWMP may not be changed in the 2020 UWMP. In addition, suppliers may not change the years selected for the baseline periods in the 2015 UWMP. However, no data was available for the Lompico service area prior to the annexation, so SLVWD used data starting in January 2017, the first calendar year after the annexation occurred (June 1, 2016). This approach is consistent with DWR's guidance in **Appendix P** of the 2020 Guidebook.

7.2 SB X7-7 Forms and Tables

To comply with SB X7-7, SLVWD was required in the 2015 UWMP to calculate and report its baseline per capita water use and its 2020 water use target. The SB X7-7 Verification Form was submitted as part of the 2015 UWMP for SLVWD's service prior to the annexation of Lompico. A summary of the SB X7-7 Verification Form is presented in **Table 7-1**. The baseline per capita water uses and 2020 water use target for Lompico was calculated using data available starting in 2017. A summary of the SB X7-7 Verification Form for Lompico is presented in **Table 7-2**. The single 2020 target calculated using the weighted average of SLVWD and Lompico service areas is provided in **Table 7-3**. A copy of the completed SB X7-7 Verification Forms is included in **Appendix G**.

Table 7-1. DWR 5-1R SLVWD Service Area Prior to Lompico Annexation Baselines and Target Summary

BASELINE PERIOD	START YEAR	END YEAR	AVERAGE BASELINE GPCD*	CONFIRMED 2020 TARGET *
10-15 Year	1999	2008	104	84
5 Year	2003	2007	106	

*All values are in Gallons per Capita per Day (GPCD)
* All cells in this table are populated manually from the supplier's SB X7-7 Verification Form.

Table 7-2. DWR 5-1R Lompico Service Area Baselines and Target Summary

BASELINE PERIOD	START YEAR	END YEAR	AVERAGE BASELINE GPCD*	CONFIRMED PRORATED 2020 TARGET *
10-15 Year	2017	2017	50	117
5 Year	2017	2017	50	

*All values are in Gallons per Capita per Day (GPCD)
*All cells in this table are populated manually from the supplier's SB X7-7 Verification Form.
* 5-year baseline per capita water use is less than 100 gpcd therefore the 5 year baseline check does not apply (California Department of Water Resources, 2016).

Table 7-3. Revised 2020 Target After Annexation

	SLVWD (WITHOUT LOMPICO)	LOMPICO
Target GPCD	84	117
2020 Population	21,957	971
Population Weight	0.96	0.04
Population Weighted GPCD	85	

7.3 2020 Compliance Daily Per-Capita Water Use (GPCD)

SLVWD must demonstrate compliance with its 2020 water use target by completing the SB X7-7 2020 Compliance Form. This Form is an abbreviated version of the SB X7-7 Verification Form solely for 2020 compliance calculations. A summary of the 2020 SB X7-7 2020 compliance table is shown in **Table 7-4.** In August 2020 the CZU Lightning Complex Fire impacted much of SLVWD's service area resulting in temporary increases in water usage from sprinklers being left on during the fire and impacts to SLVWD's supply infrastructure. Impacts from the fire were not included as an optional adjustment to the 2020 GPCD. The calculated GPCD for 2020 is 80 GPCD, which meets SLVWD's 2020 SB X7-7 target of 82 GPCD. A copy of the completed SB X7-7 Compliance Form is included in **Appendix G**.

Table 7-4. DWR 5-2R Compliance – SLVWD

	OPTIONAL ADJUSTMENTS TO 2020 GPCD						
ACTUAL 2020 GPCD*	EXTRAORDINARY EVENTS*	ECONOMIC ADJUSTMENT*	WEATHER NORMALIZATION*	TOTAL ADJUSTMENTS*	ADJUSTED 2020 GPCD*	2020 CONFIRMED TARGET GPCD*	SUPPLIER ACHIEVED TARGETED REDUCTION IN 2020
80	0	0	0	0	80	82	Yes

*All values are in Gallons per Capita per Day (GPCD)
*All cells in this table are populated manually from the supplier's SB X7-7 Verification Form.

URBAN WATER MANAGEMENT PLAN

8 Groundwater Supply Characterization

This chapter summarizes SVWD and SLVWD shared groundwater resources and provides the basis for normal, single year, and multiple dry year supply reliability.

IN THIS SECTION

- Groundwater Supply Characterization
- Basin Setting
- SVWD & SLVWD Wells
- Available Groundwater Supplies

The Santa Margarita Groundwater Basin (SMGB) is the source of groundwater supplies for SVWD and SLVWD. SVWD relies on groundwater from the SMGB to meet the potable supply needs of its customers and SLVWD relies on groundwater from the SMGB and surface water to serve its customers. Prudent management of the groundwater resource is essential for maintaining a sustainable supply for the Districts. The shared groundwater resource is also overseen by the Santa Margarita Groundwater Agency (SMGWA), which is preparing a Groundwater Sustainability Plan (GSP).

Shared management of the supply source and enhanced collaborative planning efforts were driving factors for SVWD and SLVWD to develop a regional UWMP rather than individual UWMPs. An overview of the SMGB along with information regarding the SMGB setting in relation to SVWD and SLVWD is provided upfront in this chapter. Details regarding the overall current and projected water supplies for SVWD and SLVWD are discussed separately in **Chapter 9** and **Chapter 10**.

8.1 UWMP Water Supply Characterization - Groundwater

The SMGB is a main source of water supply for Scotts Valley, San Lorenzo Valley, and the. The SMGB covers over 34 square miles (21,760 acres) in the Santa Cruz Mountains foothill forming a triangular area that extends from Scotts Valley to the east, Boulder Creek to the northwest and Felton to the southwest. The SMGB is a geologically complex area that was formed by the same tectonic forces that created the Santa Cruz Mountains. SMGB is bounded by two regional faults, the Ben Lomond Fault to the west and the Zayante Fault to the north. The SMGB is completely within the County and there are no adjudicated areas within the SMGB. To the southeast of the SMGB is the Santa Cruz Mid-County Basin, and to the south the West Santa Cruz Terrace Basin. The SMGB contains the City of Scotts Valley, and the communities of Boulder Creek, Brookdale, Ben Lomond, Lompico, Zayante, Felton, and Mount Hermon. The SMGB and neighboring basins are shown in **Figure 8-1**.

The larger water purveyors that directly rely on the supply from the SMGB are SVWD, SLVWD, and Mount Hermon Association (MHA). The SMGB is also the sole supply source for 11 small water systems and over 777 private well owners. Soquel Creek Water District has a small portion of their service area overlying the SMGB; however, the Soquel Creek Water District extracts groundwater from the adjacent Santa Cruz Mid-County Basin and does not have any active service connections or extract groundwater in the SMGB (Santa Margarita Groundwater Agency, 2021). **Figure 8-2** provides the jurisdictional areas within the SMGB.

Under the Sustainable Groundwater Management Act (SGMA) of 2014, most groundwater basins need to be managed by newly formed Groundwater Sustainability Agencies (GSA) through the development of GSP's for non-overdraft high and medium priority basins. For SMGB, the GSP must be completed by January 31, 2022, and the basin must reach sustainability by 2042. The SMGB is classified as a medium-priority basin because groundwater is a primary source of supply for many residents and because there has been a historical decline in groundwater levels in Scotts Valley. The SMGWA is the GSA for the SMGB. The SMGWA was formed as a joint power's authority by SVWD, SLVWD and the County in June 2017. The Board of Directors of the SMGWA is comprised of two members from each of the Districts, one from the County, one from the City of Scotts Valley, one from the City of Santa Cruz, one from the MHA, and two private well owner representatives. Development of this UWMP was coordinated closely and in parallel with development of the SMGB GSP.

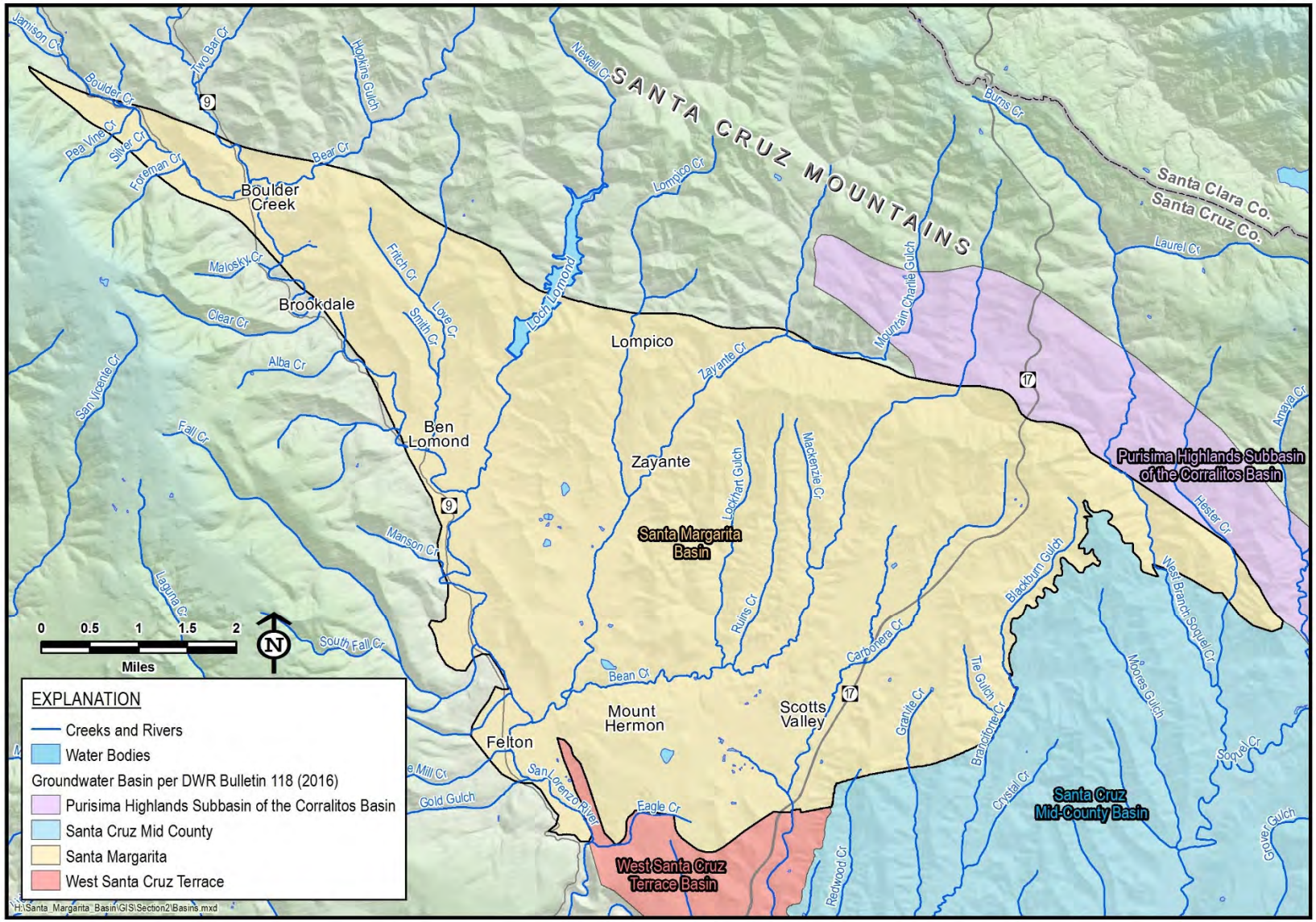


Figure 8-1. SMGB and Adjacent Basins (Santa Margarita Groundwater Agency, 2021)

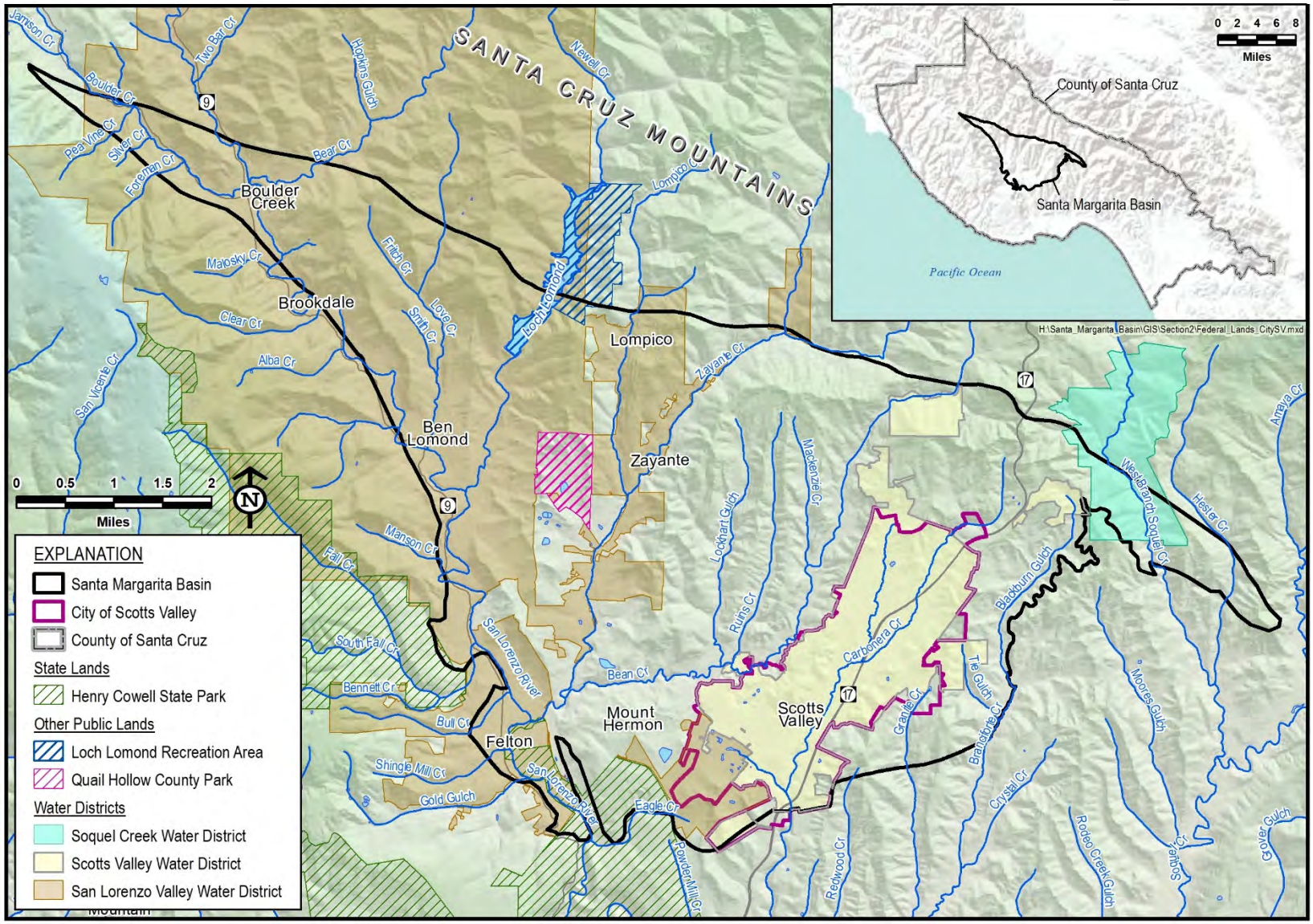


Figure 8-2. Jurisdictional Areas within the SMGB (Santa Margarita Groundwater Agency, 2021)

8.1.1 Basin Setting

Previously, DWR Bulletin 118 (DWR 2003) did not identify the SMGB as a groundwater basin but rather recognized three smaller basins in the vicinity: Scotts Valley Basin, Felton Area Basin, and Santa Cruz Purisima Formation. These basins did not accurately reflect the hydrogeologic makeup of the groundwater resources in the North Santa Cruz County. SVWD with support from SLVWD and the County prepared a boundary modification request that was submitted to DWR in January 2016. In March of 2016, DWR approved the basin modification request.

The SMGB (DWR Basin 3-027) as defined in DWR Bulletin 118 (2018) consists of a sequence of sandstone, siltstone, and shale that is underlain by granite. This sequence of sedimentary rocks is divided into several geologic formations that are defined on the basis of the type of rock and their relative geologic age. Sandstone units serve as the principal aquifers pumped to supply much of the SMGB water demand (Santa Margarita Groundwater Agency, 2021).

The SMGB principal aquifers are:

- Santa Margarita Sandstone (Santa Margarita aquifer)
- Monterey Formation
- Lompico Sandstone (Lompico aquifer)
- Butano Formation (Butano aquifer)

The Santa Margarita and Lompico aquifers have long been recognized as principal water supply aquifers. The Santa Margarita aquifer demonstrates rapid response to climatic conditions and recharges quickly, although it also appears to drain quickly to streams and creeks without holding much long-term storage.

The Lompico aquifer is currently the principal groundwater producing unit in the Scotts Valley area (Santa Margarita Groundwater Agency, 2021). Besides some outcrops in the north and east of the SMGB, the Lompico aquifer is primarily recharged by water percolating through the Santa Margarita Sandstone in areas where the two are in direct contact (Kennedy/Jenks Consultants, 2015b). There are two locations where the Lompico aquifer outcrops in the San Lorenzo River that are discharge points (Santa Margarita Groundwater Agency, 2021). The relatively small area of the Lompico Sandstone's outcrop in the SMGB and its confined location beneath the Santa Margarita aquifer and Monterey Formation limits its natural recharge and thus it is known to be relatively slow to respond to recharge events (Kennedy/Jenks Consultants, 2015b).

The Butano aquifer has been recognized as a deep aquifer underlying most of the basin (ETIC Engineering, Inc., 2007). The production history of wells in the Butano aquifer indicate that it is capable of producing significant volumes of groundwater. The Butano aquifer is recharged in the extreme northern portions of the SMGB by direct infiltration of precipitation and streambed infiltration where streams cut across surface exposures of the Butano aquifer. Review of groundwater elevation data indicate that the Butano aquifer groundwater elevations recover more quickly than the Lompico aquifer, suggesting the Butano aquifer is a more actively recharged aquifer (Kennedy/Jenks Consultants, 2015b).

The Monterey Formation contains sandstone interbeds, especially closer to the base of the formation, that are used for water supply. In general, the sandstone interbeds of the Monterey Formation are more hydrogeological connected to the underlying Lompico Sandstone than the overlying Santa Margarita Sandstone (Kennedy/Jenks Consultants, 2015b). The sandstone interbeds and the fractured siltstones in the Monterey Formation can locally produce groundwater; however, the Monterey Formation has limited water supply potential that is typically used for private domestic wells rather than for municipal supply (Santa Margarita Groundwater Agency, 2021).

8.1.1.1 Climate

Precipitation is the only source of groundwater recharge in the SMGB and can enter the SMGB's shallowest aquifers either as direct infiltration through the soil or indirectly as streamflow that infiltrates through stream and creek beds. Most streams are fed by groundwater that is recharged by precipitation. Reductions in groundwater recharge can occur either naturally through reduced precipitation during a drought, or as a result of anthropogenic impermeable surfaces that intercept potential groundwater recharge water.

The climate in the SMGB is classified as Mediterranean, characterized by distinct rainy and dry seasons, warm summers, and mild winters. Almost all the SMGB's precipitation is rainfall, though occasionally snow does fall on the higher elevations. In an average year, almost all of the precipitation occurs from November through April. Precipitation increases to the north and west of the SMGB, due to increased elevation and the orographic effect of the Ben Lomond Mountain to the west. Overall, conditions are typically warmer and drier to areas southeast of the SMGB and in the SMGB's valley floor. During the wet season between November and April, the average minimum, and maximum monthly temperatures of around 32ºF and 77ºF, respectively. In the warmer dry season, from May to October, average minimum and maximum monthly temperatures are around 41ºF and 95ºF, respectively.

8.1.1.2 Groundwater Quality

In 1985, in response to the detection of groundwater contamination from an industrial solvent, the EPA designated a 40-square-mile area of the Santa Margarita aquifer under the authority of the Safe Drinking Water Act.

Groundwater in the SMGB is generally of good quality and does not regularly exceed primary drinking water standards prior to treatment. However, both naturally occurring and anthropogenic constituents are present in some aquifers and areas (Santa Margarita Groundwater Agency, 2021).

SVWD and SLVWD monitor the production wells for constituents with a frequency that complies with the Safe Drinking Water Act requirements as outlined in the California Code of Regulations, Title 22 requirements. The Districts incorporate new constituents into the monitoring program as a result of new regulatory mandates. The water quality testing results are reported to the California State Water Resources Control Board Division of Drinking Water.

SVWD annually prepares and distributes the "Scotts Valley Water District Water Quality Report" and SLVWD annually prepares and distributes "Consumer Confidence Reports (CCRs)" to keep customers informed about their drinking water quality. These reports provide the public with detailed results of water-quality testing, a description of the water source, answers to common questions about water quality, and other useful water quality information. SVWD's CCRs (Water Quality Reports) are available at svwd.org and SLVWD's CCRs are available at **https://www.slvwd.com/water-quality/pages/consumer-confidence-reports-ccrs**. These reports include detailed information about the source water quality and treated water quality.

The esthetic characteristics of water delivered to customers may vary depending on the groundwater source and necessary level of treatment. The source of supply in any single point in the Districts' distribution systems may vary over the course of a day, a week, or a year.

8.1.1.3 Groundwater Levels and Monitoring

Groundwater has been a main source of water in the SMGB for domestic, municipal, and sand mining users since the early part of the 20th century. Due to dry climatic events and growth in the region, the SMGB experienced a decline in groundwater elevations particularly in the Lompico aquifer. Starting in the 2000s, focused groundwater management and water use efficiency programs by SVWD and SLVWD have largely stabilized groundwater levels although levels are still well below 1980's levels.

The total pumping from SMGB has decreased by 45% since 1997. For the last 10 years, the demand and supply in the SMGB have been in balance.

Groundwater elevations have been recorded by SLVWD in active pumping areas since the 1960's. In 1984, SVWD formally adopted a Groundwater Management Plan (GWMP) to monitor and manage groundwater in the Scotts Valley area. As part of the GWMP, SVWD has been preparing annual groundwater reports since 1994. Starting in 2013, the reports began following a two-year cycle with a more comprehensive regional report prepared in even years and odd year reports being more concise summaries focused on SVWD operations. As of 2020, all SVWD extraction and monitoring wells are equipped with pressure transducers to continuously record groundwater levels. MHA measures groundwater levels and extraction data from its two active wells. These data are reported to SVWD as part of the GWMP (Santa Margarita Groundwater Agency, 2021). Annual reports from the past several years are available from SVWD's website. Additional information regarding historic groundwater levels and trends within each aquifer in the SMGB is available in the Draft SMGB GSP and at https://smgwa.org/.

8.1.2 SVWD & SLVWD Wells

SVWD produces groundwater from five active wells. SVWD wells primarily extract groundwater from the Lompico aquifer with well #3B and Orchard well also extracting water from the Butano aquifer. SVWD's wells are listed in **Table 8-1**, and shown in **Figure 8-3**. Additional details regarding each SVWD well are available in the draft **Chapter 2** of the SMGB GSP.

Table 8-1. SVWD Wells

WELL NAME	WELL STATUS	SMGB AQUIFER
SVWD Well #3B	Active	Lompico, Butano
SVWD Orchard Well	Active	Lompico, Butano
SVWD Well #9	Standby	Monterey
SVWD Well #10A	Active	Lompico
SVWD Well #11A	Active	Lompico
SVWD Well #11B	Active	Lompico

Source: (Santa Margarita Groundwater Agency, 2021)

SLVWD pumps groundwater from three wellfields. The Quail Hollow and Olympia wellfields extract groundwater from the Santa Margarita aquifer and the Pasatiempo wellfield extracts from the Lompico aquifer in the south Scotts Valley area. SLVWD active and inactive wells are summarized in **Table 8-2** and shown in **Figure 8-3**. Note that wells used by the Lompico County Water District prior to annexation into SLVWD's system have been abandoned due to water quality and quantity issues and are not part of SLVWD groundwater supply. In addition, the Mañana Woods wells were taken offline for rehabilitation and were not brought back into service due to sufficient production from the system's other active wells. All groundwater extracted by SLVWD wells is used within the San Lorenzo Valley System. Additional details regarding each SLVWD well are available in the draft **Chapter 2** of the SMGB GSP.

Table 8-2. SLVWD Wells

WELL NAME	WELL STATUS	SMGB AQUIFER
SAN LORENZO VALLEY SYSTEM – NORTHERN PORTION		
Quail Hollow #4A	Active	Santa Margarita
Quail Hollow #5A	Active	Santa Margarita
Olympia #2	Active	Santa Margarita
Olympia #3	Active	Santa Margarita
SAN LORENZO VALLEY SYSTEM – SOUTHERN PORTION		
Pasatiempo #5A	Active	Lompico
Pasatiempo #7	Active	Lompico
Pasatiempo #8	Active	Lompico
Mañana Woods #1	Inactive	Santa Margarita / Lompico
Mañana Woods #2	Inactive	Santa Margarita / Lompico

Source: (Santa Margarita Groundwater Agency, 2021)

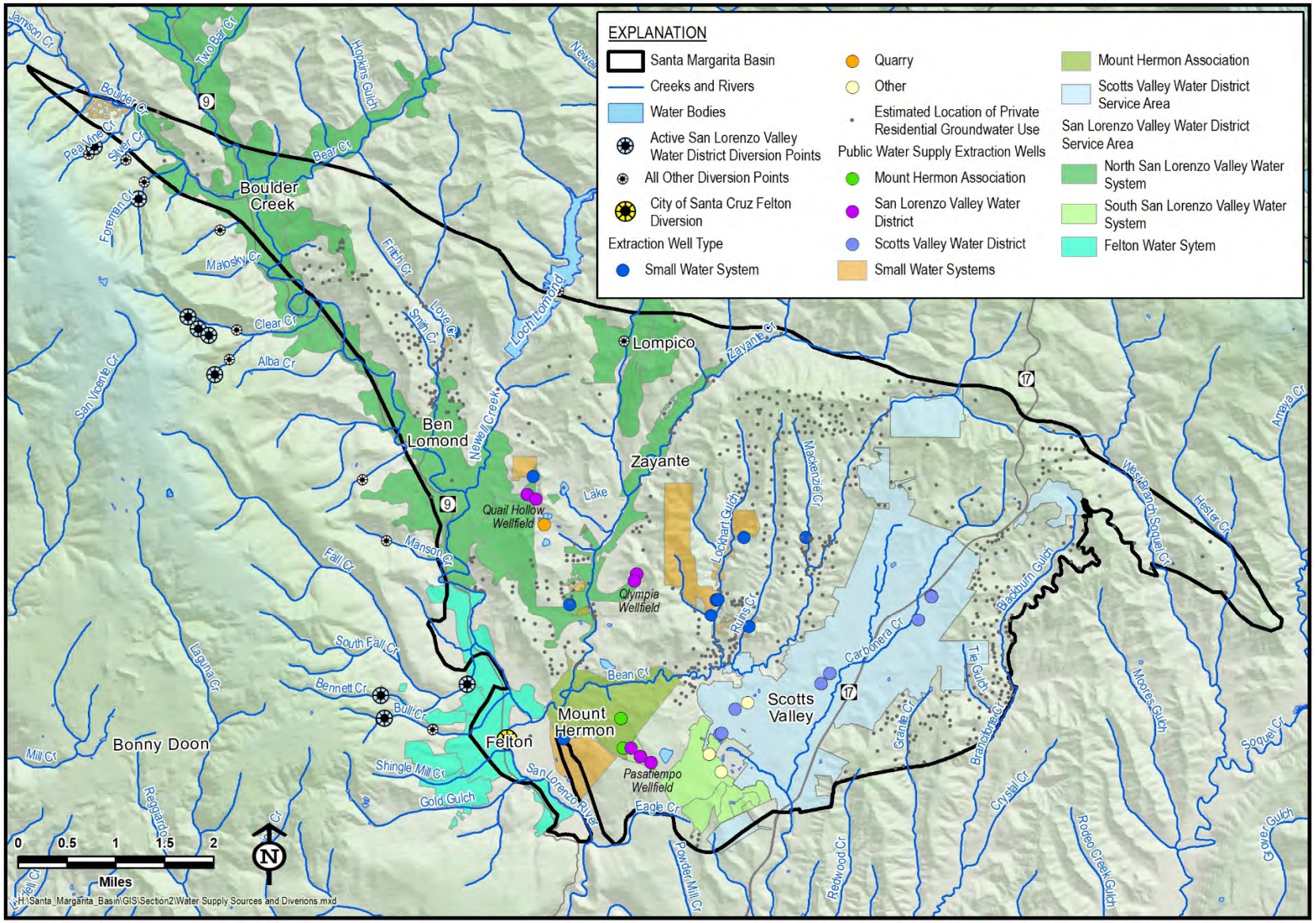


Figure 8-3. SVWD and SLVWD Well Locations (Santa Margarita Groundwater Agency, 2021)

8.1.3 Available Groundwater Supplies

Drought and possible other water shortage conditions impact the purveyors that rely on the local water supplies. Reduced recharge in times of extended droughts presents a concern for supply reliability. Since groundwater is shared by all pumpers in the SMGB, pumping within the sustainable yield is the collective responsibility of all SMGB pumpers. The GSP does not apportion the sustainable yield by purveyor as this is more like an adjudication of groundwater use, which is not the intent of the GSP. For purposes of the UWMP, the assessment of groundwater conditions by SVWD and SLVWD includes comparing each Districts' average pumping by aquifer over the last five-years to projected long-term average annual pumping (Baseline Pumping) under groundwater model simulated baseline conditions.

Groundwater conditions are assessed based on the following data:

- Total well pumping data from both Districts totaled by aquifer; and
- Five-year pumping average for each of the Districts to compare against the Districts' Baseline Pumping (**Table 8-3**).

Table 8-3. SVWD and SLVWD Baseline Pumping (AFY)

BASELINE PUMPING	SANTA MARGARITA AQUIFER	LOMPICO AQUIFER	BUTANO AQUIFER	TOTAL
Scotts Valley Water District	0	950	350	**1,300**
San Lorenzo Valley Water District	620	300	0	**920**

Baseline Pumping is based on groundwater model simulations developed for the SMGB GSP (Santa Margarita Groundwater Agency, 2021).

URBAN WATER MANAGEMENT PLAN

9 SVWD Water Supply Characterization

This chapter describes and quantifies the current and projected SVWD water supplies. Each water source is characterized with information needed to manage water resources, assess supply reliability, perform the Drought Risk Assessment, and prepare and implement the WSCP.

The following chapter provide an overview of SVWD current and projected water supplies through 2045. SVWD uses groundwater and recycled water as described in more detail in the following chapter. SVWD anticipates meeting customer demands through 2045.

IN THIS SECTION

- Water Supply Characterization
- Future Water Projects
- Climate Change Effects
- Energy Intensity

9.1 SVWD Water Supply Overview

This section describes and quantifies the current and projected sources of water available to SVWD for the 25-year period covered by the UWMP. **Table 9-1** and **Table 9-2** provide a summary of the existing and planned SVWD potable and non-potable water supply volumes from 2020 to 2045 in five-year increments.

Table 9-1. Summary of SVWD Current and Projected Potable Water Supplies (AFY) (DWR Tables 6-8 and 6-9)

WATER SUPPLY	ADDITIONAL DETAIL ON WATER SUPPLY	2020	2025	2030	2035	2040	2045
Groundwater	Santa Margarita Groundwater Basin	1,300	1,300	1,300	1,300	1,300	1,300

Table 9-2. Summary of SVWD Current and Projected Non-Potable Water Supplies (AFY) (DWR Tables 6-8 and 6-9)

WATER SUPPLY	ADDITIONAL DETAIL ON WATER SUPPLY	2020	2025	2030	2035	2040	2045
Recycled Water	Non-potable	130	136	145	193	149	154

Recycled water totals do not include recycled water delivered, or projected to be delivered, by SVWD to SLVWD's service area.

9.2 SVWD Water Supply Characterization

SVWD relies on groundwater to meet potable water demands. Recycled water distributed by SVWD reduces the pumping in the basin. Water sources used to supply SVWD customers are described below.

9.2.1 Purchased or Imported Water

SVWD does not purchase water from any wholesale water suppliers and has no current or future plans to acquire imported water supplies.

9.2.2 Groundwater

Information regarding the SMGB setting, water suppliers that extract groundwater from the SMGB, and estimated available supplies is provided in **Chapter 8**. This section focuses on SVWD's historical and projected groundwater supplies.

Table 9-3 presents SVWD annual production from 2016 to 2020. Historical groundwater pumping data dating back to 1976 shows that prior to 2003, groundwater extraction increased linearly with increasing population in Scotts Valley. From 1977 through 2003, groundwater extraction rose steadily from about 500 AFY to 2,100 AFY in 1997. However, since 2004 SVWD has actively worked on reducing the system demand through introduction of a recycled water supply, implementation of water use efficiency programs, and minimizing water waste. use efficiency

Table 9-3. Groundwater Volume Production by SVWD (AFY) (DWR 6-1R)

GROUNDWATER TYPE	LOCATION OR BASIN NAME	2016	2017	2018	2019	2020
Alluvial Basin	Santa Margarita Groundwater Basin 3-027	1,104	1,164	1,130	1,113	1,135

Groundwater production provided by SVWD based on metered data.

SVWD operates wells that vary in depth from 450 feet to 1,750 feet. Pumped water is filtered through a pressurized system of sand, gravel, and anthracite to remove iron, manganese, and hydrogen sulfide from the water. Chemicals are introduced before and after filtration to oxidize the iron and disinfect the water. This treatment enables SVWD to meet Federal and State drinking water standards.

There are three treatment plants that SVWD uses to produce potable water for customers:

- Orchard Run Water Treatment Plant treats water from Orchard well and well 3B and has a capacity of 1,100 gallons per minute.
- El Pueblo Water Treatment Plant treats water from wells 11A and 11B and has a capacity of 1,000 gallons per minute.
- Well 10 Treatment Plant treats water from well 10A and has a capacity of 800 gallons per minute.

Although there have been a significant number of dry years in the recent past, the groundwater in storage in the SMGB is adequate to meet current, and anticipated future demand (**Chapter 4** and **Chapter 11**). The long-term resiliency and reliability of the supply may be bolstered by improving managed aquifer recharge, the introduction of supplemental supply, and reduction in groundwater pumping through continued water use efficiency efforts. **Chapter 4** of the SMGWA Draft GSP identifies a list of projects that are ongoing, planned, being studied and conceptual which are intended to strengthen local groundwater supplies.

The very nature of groundwater alleviates the short-term impact of drought years because of the availability of stored supply, but long-term impacts need to be addressed through appropriate projects and management actions.

9.2.3 Surface Water

SVWD does not have surface water rights but is defined as a place of use for specific surface water sources of the neighboring water agencies. Surface water could be used in the future as a supplemental supply through conjunctive use projects. Due to the uncertainty of this supply as a future resource it is not currently included in the supply summaries in this UWMP.

9.2.4 Stormwater

Low impact development (LID) projects consist of applying stormwater best management practices – such as infiltration basins, vegetated swales, bio-retention and/or tree box filters – to retain and infiltrate stormwater that is currently being diverted into the storm drain system. The infiltrated stormwater recharges the shallow aquifers in a manner similar to natural processes. The infiltration helps augment groundwater levels and sustains groundwater contributions to stream baseflow that supports local fishery habitats. A complicating factor in implementing LID projects in the Scotts Valley area is that there is no centralized stormwater collection system, which limits the ability to do large scale projects to direct groundwater augmentation to the most beneficial areas.

SVWD has implemented 3 LID facilities which all overlie the Santa Margarita aquifer. The Transit Center LID is a retrofit at the Scotts Valley Transit Center to construct a vegetated swale, below ground infiltration basin, and pervious pavement. In WY 2020 a total of 1.5 AF was infiltrated at this location. The Woodside HOA LID is a stormwater recharge facility at the Woodside HOA along Scotts Valley Drive. The facility includes a large below ground infiltration basin and in WY 2020 a total of 14.97 AF was infiltrated at this location. The Scotts Valley Library LID includes a below ground infiltration basin at the Scotts Valley Library. In WY 2020 a total of 2.94 AF was infiltrated at this location (Montgomery & Associates, 2021).

9.2.5 Wastewater and Recycled Water

Municipal recycled water is wastewater that has been treated to a specified quality to allow its use for certain permitted purposes. The term recycled water is defined in the CWC more broadly than municipal recycled water. For the purposes of the UWMP, recycled water means only water that has been treated and conveyed from a municipal wastewater facility.

This section of the UWMP describes the existing and future recycled water opportunities available to SVWD and SLVWD service areas with estimates of potential supply and demand for 2025 to 2045 in five-year increments.

9.2.5.1 Recycled Water Partnerships

The City of Scotts Valley is responsible for the collection and safe disposal of wastewater generated within SVWD's service area. The City's sanitary sewer collection system is made up of approximately 40 miles of pipeline. Wastewater is treated to both secondary and tertiary levels at the City's Water Reclamation Facility (Scotts Valley WRF). The portion of the wastewater generated in Scotts Valley that is treated to Title 22 standards for tertiary disinfected recycled water, suitable for unrestricted non-potable use is stored and delivered to customers by SVWD.

Recycled water has been available in Scotts Valley since 2002 and its availability has increased steadily through expansion of the distribution system and the addition of service connections. The City and SVWD had an agreement that the City would provide up to one million gallons of recycled water per day. The agreement was amended in 2017 by SVWD reducing its entitlement and enabling the City to enter into an agreement with the Pasatiempo Golf Course (PGC) for providing disinfected secondary effluent to PGC where it is further treated by the PGC Tertiary Plant and used on the course. The City has agreed to deliver up to 35 million gallons per year to PCG for 30 years and PCG has the option to purchase more if SVWD has no need for it. Use of recycled water for PGC irrigation reduces the demand for Santa Cruz Water District potable water during the summer months as it replaces and offsets PGC's potable water supply that would be required without recycled water.

9.2.5.2 Wastewater Collection, Treatment and Disposal

The Scotts Valley WRF is a conventional activated sludge wastewater treatment facility with a design dry weather treatment capacity of 1.5 million gallons per day (MGD) and a design peak wet weather treatment capacity of 5.0 MGD. The Scotts Valley WRF has sufficient capacity to support the City through planned build-out.

Major facilities include an influent pump station, a flow equalization structure with 0.9 million gallons (MG) of storage capacity, two aeration basins with fine-bubble diffuser panels, two secondary clarifiers, a chlorine contact tank, and an effluent pump station. As previously noted, disinfected secondary effluent is either conveyed to Santa Cruz where it is discharged into the Monterey Bay or delivered to PGC. A portion of the wastewater treated at the Scott Valley WRF receives tertiary treatment and is used by recycled water customers primarily in SVWD's service area.

The Scotts Valley WRF tertiary recycled water treatment facility has a design treatment capacity of 1.0 MGD. The facility is used to treat secondary effluent to a tertiary level using chemical coagulation and flocculation, filtration, denitrification, and ultraviolet (UV) disinfection. The treated effluent meets California Department of Public Health Title 22 recycled water standards for unrestricted use. In 2001, the City received a permit from the Regional Water Quality Control Board to produce recycled water for unrestricted irrigation use. The recycled water is used primarily for irrigation at local parks, schools, residences, landscape medians, and businesses. Recycled water from the Scotts Valley WRF is purchased by SVWD, the only tertiary treated recycled water purveyor in the Scotts Valley area.

The existing recycled water system includes approximately 6 miles of distribution main, a pump station and 0.6MG storage tank. **Figure 9-1** shows SVWD recycled water distribution system.

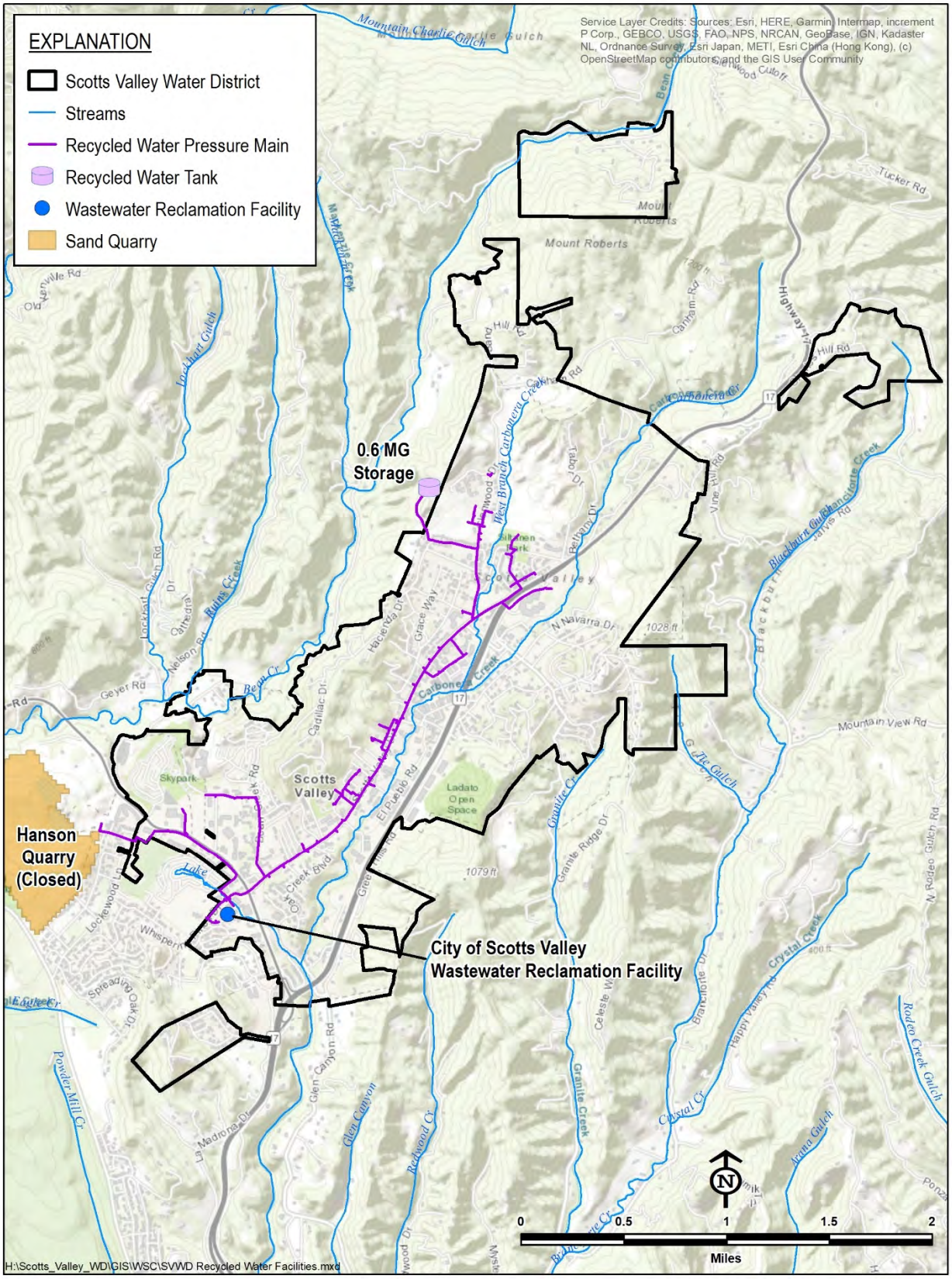


Figure 9-1. SVWD Recycled Water Facilities

9.2.5.3 Recycled Water Use

In Water Year 2020 (WY20) SVWD supplied a total of 178 AF of tertiary treated water to 71 connections. Recycled water demand primarily occurs in the summer months for irrigation. SVWD provides recycled water for irrigation at parks, schools, homeowners associations, landscaped medians, and businesses. The two largest SVWD recycled water customers within SVWD's service area are the City and the School District, which make up approximately 33% of the total consumption. SVWD primarily serves customers within SVWD's service area; however, it also provides recycled water to the Spring Lakes Mobile Home Park (Spring Lakes MHP), which is located withing SLVWD's service area, to fill decorative ponds. The average demand for the Spring Lakes MHP over the last three years has been approximately 48 AFY.

Recycled water demand has been relatively flat for the last 9 years and it typically fluctuates based on the precipitation amount received in any given year. There has been an increase in recycled water customers over the years; however, the total demand has not increased significantly which is likely due to recycled water customers becoming more efficient like potable water customers.

Secondary treated water from the WRF that is not treated for recycled water or provided to the PGC Tertiary Treatment Plant is discharged to the Pacific Ocean through the Santa Cruz ocean outfall. **Table 9-4** and **Table 9-5** present 2020 wastewater collection, treatment, and discharge information. In 2020, 845 AF of wastewater was collected from SVWD and SLVWD service areas and treated, and 178 AF was tertiary treated and distributed by SVWD within SVWD's and SLVWD's service area.

SVWD recognizes that recycled water continues to be an important and reliable source of supplemental supply for the region as the population increases and climate change negatively impacts the natural recharge in the watershed. SVWD has completed evaluations of existing and future recycled water demands throughout the service area and region. SVWD's unique situation where groundwater is limited, and imported water is not available indicate that recycled water is an important element of SVWD's water portfolio. The reliability of the recycled water resource of SVWD is unaffected by climactic conditions given that the source of recycled water is wastewater.

The Santa Margarita Groundwater Basin Regional Groundwater Replenishment Program Draft Facilities Planning Report (Kennedy/Jenks Consultants, 2016b) indicated that up to 286 AFY of additional recycled water demand for irrigation exists in SVWD's service area. However, much of that demand is not likely to be served due to distance from recycled water infrastructure. Based on recent trends SVWD has established a planning-level assumption that recycled water use within SVWD's service area will moderately increase through 2045.

9.2.5.3.1 Planned versus Actual Use of Recycled Water

The 2015 UWMP projected 210 AF would be delivered in 2020. As summarized in **Table 9-7**, for WY20, SVWD reports that there was a total of 130 AFY of recycled water delivered within its service area. The actual demand in 2020 did not meet the projected demand from 2015. As previously noted, total demand is likely impacted by recycled water customers becoming more efficient like potable water customers.

Table 9-4. Wastewater Collected within UWMP Service Area in 2020 (DWR 6-2R)

WASTEWATER COLLECTION			RECIPIENT OF COLLECTED WASTEWATER			
NAME OF WASTEWATER COLLECTION AGENCY	WASTEWATER VOLUME METERED OR ESTIMATED	WASTEWATER VOLUME COLLECTED FROM UWMP SERVICE AREA IN 2020 (AFY)	NAME OF WASTEWATER AGENCY RECEIVING COLLECTED WASTEWATER	WASTEWATER TREATMENT PLANT NAME	WASTEWATER TREATMENT PLANT LOCATED WITHIN UWMP AREA	WWTP OPERATION CONTRACTED TO A THIRD PARTY
City of Scotts Valley	Metered	717	City of Scotts Valley	Scotts Valley Water Reclamation Facility	Yes	No

Note - Wastewater volume does not include a portion of wastewater collected from SLVWD's service area which is collected and treated at the Scotts Valley WRF. The estimated volume of wastewater from SLVWD's service area is 128 AFY. In WY20, the total volume of wastewater collected and treated at the Scotts Valley WRF was 845 AF.

Table 9-5. Wastewater Treatment and Discharge within UWMP Service Area in 2020 (DWR 6-3R)

						2020 VOLUMES (AFY)				
WASTEWATER TREATMENT PLANT NAME	DISCHARGE LOCATION NAME OR IDENTIFIER	DISCHARGE LOCATION DESCRIPTION	METHOD OF DISPOSAL	PLANT TREATS WASTEWATER GENERATED OUTSIDE THE SERVICE AREA	TREATMENT LEVEL	WASTEWATER TREATED	DISCHARGED TREATED WASTEWATER	RECYCLED WITHIN SERVICE AREA	RECYCLED OUTSIDE OF SERVICE AREA	INSTREAM FLOW PERMIT REQUIREMENT
Scotts Valley Water Reclamation Facility	Pacific Ocean in Joint Outfall with City of Santa Cruz	36° 56' 08" N; 122° 04' 08" W	Ocean outfall	Yes	Secondary, Disinfected - 23	845	557	0	0	0
Scotts Valley Water Reclamation Facility	Recycled Water Customers	SVWD Service Area	Land disposal	Yes	Tertiary	0	0	130	0	0
Scotts Valley Water Reclamation Facility	Recycled Water Customers	SLVWD Service Area	Land disposal	Yes	Tertiary	0	0	0	48	0
Scotts Valley Water Reclamation Facility	Pasatiempo Golf Course Tertiary Plant	20 Clubhouse Rd, Santa Cruz, CA 95060	Land disposal	Yes	Secondary, Disinfected - 23	0	0	0	110	0
					TOTAL:	**845**	**557**	**130**	**158**	**0**

Note: A small portion of the City of Scotts Valley is not in SVWD's service area. In addition, a portion of SLVWD wastewater is collected and treated at the Scotts Valley WRF. This table includes all wastewater treated within SVWD's service area.

Table 9-6. Recycled Water Beneficial Use within Service Area (AFY) (DWR 6-4R)

BENEFICIAL USE TYPE	POTENTIAL BENEFICIAL USES OF RECYCLED WATER	LEVEL OF TREATMENT	2020	2025	2030	2035	2040	2045
Landscape irrigation (ex: golf courses)	Local Parks, Schools, Residences, landscaped medians, and businesses	Tertiary	130	136	140	145	149	154

Table 9-7. DWR 6-5R 2015 Recycled Water Use Projection Compared to 2020 Actual (AFY)

BENEFICIAL USE TYPE	2015 PROJECTION FOR 2020	2020 ACTUAL USE
Landscape Irrigation (excludes golf courses)	210	130

9.2.5.4 Actions to Optimize Future Recycled Water Use

SVWD has been involved in coordinating with local water and wastewater agencies to explore the feasibility of using excess recycled water to supplement groundwater and surface water.

SVWD has completed evaluations of potential project alternatives for expanding the use recycled water, but implementation of such alternatives, at this time, is dependent on establishing partnerships in the region. Based on the evaluations done by SVWD, the most likely projects that provide higher return on investment are regional indirect potable reuse projects. Exploratory conversations with regional partners are taking place; however, detailed studies need to be completed before future projects can be implemented.

9.2.6 Desalinated Water Opportunities

SVWD has limited opportunities for the development of desalinated water, given its geographical location relative to the ocean and lack of a brackish groundwater resource. It has no current plans to pursue groundwater or seawater desalination. Therefore, these water supply options are not included in the supply summaries in this UWMP.

9.2.7 Water Exchanges and Transfers

An important element to enhancing the long-term reliability of the overall water supply to meet the needs of the region is the use of transfers and exchanges. A description of an existing intertie which allows for the transfer of water between SVWD and SLVWD is provided below and potential future opportunities for transfers is discussed in **Section 9.2.8**. An intertie connecting SLVWD's service area with SVWD's service area was completed in 2016. It was permitted as an emergency intertie and is not used for regular water transfers between the Districts.

The intertie has been used three times since it was brought online as shown below.

- Water to SLVWD
  - 11,338 gallons on June 22, 2016
- Water to SVWD
  - 1,770,249 gallons between October 28, 2018 and November 8, 2018.
  - 2,969,031 gallons between June 10, 2020 and June 23, 2020

Prior to the completion of this intertie, a smaller intertie had been used several times, each time for flow from SVWD to SLVWD.

9.2.8 Future Water Projects

SVWD and regional partners are currently developing a list of projects that are ongoing, planned, being studied, and conceptual for inclusion in the SMGWA GSP.

9.2.9 Climate Change Effects

Future water use may be affected by climate change.

"Projections of climate change in California indicate a further intensification of wet and dry extremes and shifting temperatures that can…affect both water use and supplies. Extreme and higher temperatures can lead to increases in water use.

Projections of more frequent, severe, and prolonged droughts could lead to not only less surface water available, but also exacerbating ongoing stressors in groundwater basins across the state" (California Department of Water Resources, March 2021).

Higher temperatures decrease the amount of precipitation available for groundwater recharge and from surface water sources while increasing water use, especially for outdoor use. Reductions in future supply due to impacts associated with climate change were considered as part of the projected groundwater supply discussed in **Chapter 8** and **Chapter 11**. Increases in future water use patterns due to climate change factors were considered as part of the conservative demand projection provided in **Chapter 4**.

Because of these changes to climate, the projected GSP groundwater budget estimates that future inflows into the groundwater basin will be less than historical inflows, but due to decreased pumping and water use efficiency efforts, the proportion of inflows to outflows should be similar to the current ratio of inflows/outflows.

9.3 Energy Intensity

On average, SVWD uses 4,794 kilowatt-hours (kwh) for every MG of water produced (4,794 kwh/MG). Energy usage includes potable and non-potable deliveries.

A summary of energy used to extract and divert, place into storage, convey, treat, and distribute SVWD's supplies for May 2017-April 2018 is provided in **Table 9-8Error! Reference source not found.**.

Table 9-8. DWR O-1B Recommended Energy Reporting – Total Utility Approach

Start Date for Reporting Period: 05/01/2017

End Date for Reporting Period: 04/30/2018

	URBAN WATER SUPPLIER OPERATIONAL CONTROL		
	SUM OF ALL WATER MANAGEMENT PRACTICES	NON-CONSEQUENTIAL HYDROPOWER	
	TOTAL UTILITY	HYDROPOWER	NET UTILITY
Total Volume of Water Entering Process (AF)	1,135	N/A	1,135
Energy Consumed (kWh)	1,772,807	N/A	1,772,807
ENERGY INTENSITY (KWH/VOL CONVERTED TO MG)	**4,794**	**N/A**	**4,794**

10

URBAN WATER MANAGEMENT PLAN

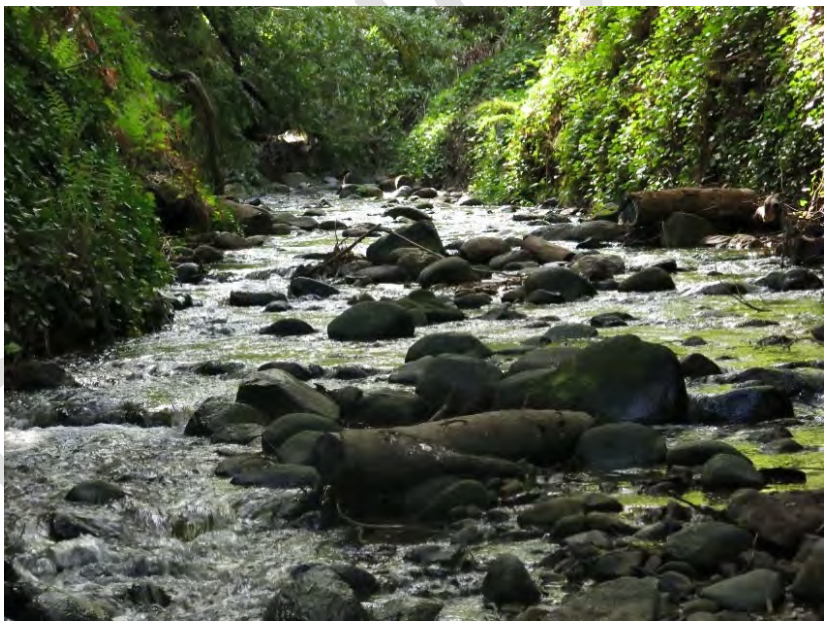
SLVWD Water Supply Characterization

This chapter describes and quantifies the current and projected SLVWD water supplies. Each water source is characterized with information needed to manage water resources, assess supply reliability, perform the Drought Risk Assessment, and prepare and implement the WSCP.

The following chapter provide an overview of SLVWD's current and projected water supplies through 2045. SLVWD uses a combination of groundwater and surface water through conjunctive use as described in more detail in the following chapter. SLVWD anticipates meeting customer demands through 2045.

IN THIS SECTION

- Water Supply Characterization
- Future Water Projects
- Climate Change Effects
- Energy Intensity



10.1 SLVWD Water Supply Overview

This section describes and quantifies the current and projected sources of water available to SLVWD for the 25-year period covered by the UWMP. **Table 10-1** and **Table 10-2** provide a summary of the existing and planned SLVWD water supply volumes from 2020 to 2045 in five-year increments.

Table 10-1. Summary of SLVWD Current and Projected Potable Water Supplies (AFY) (DWR Tables 6-8 and 6-9)

WATER SUPPLY	ADDITIONAL DETAIL	2020	2025	2030	2035	2040	2045
		SAN LORENZO VALLEY SYSTEM[1]					
Surface Water	Stream Diversions	417	972	987	1,001	1,016	1,031
Groundwater	Santa Margarita Groundwater Basin	1,258	920	920	920	920	920
		FELTON SYSTEM					
Surface Water	Stream Diversions	366	310	312	315	317	319
Groundwater[2]	Bennett Spring	8	8	8	8	8	8
		SLVWD Service Area					
TOTAL POTABLE WATER SUPPLY	**SURFACE & GROUNDWATER**	**2,049**	**2,210**	**2,227**	**2,243**	**2,260**	**2,277**

(1) Available supplies assume that SLVWD will target using the Baseline Pumping volume developed under groundwater model simulated baseline conditions for the GSP. The remainder of supply is assumed to come from stream diversions to meet demand. These values are estimates for potential supplies available and are subject to consideration of conditions and constraints discussed in detail in the WSCP.

(2) 2025-2045 Bennett Spring supply is based on the 5-year historical average of the Bennett Spring supply between 2016-2020.

Table 10-2. Summary of SLVWD Current and Projected Non-Potable Water Supplies (AFY) (DWR Tables 6-8 and 6-9)

WATER SUPPLY	ADDITIONAL DETAIL	2020	2025	2030	2035	2040	2045
SAN LORENZO VALLEY SYSTEM							
Recycled Water1	SVWD – Spring Lakes Mobile Home Park	48	48	48	48	48	48

1) Recycled Water projection based on the last 3 year average provided by SVWD

10.2 SLVWD UWMP Water Supply Characterization

SLVWD practices conjunctive use to provide a reliable water supply to their customers. Conjunctive use refers to the optimized, sustainable use of multiple sources of water throughout repeated climatic cycles. SLVWD relies on groundwater and surface water diversions to meet all customer needs. Production from stream diversions occurs whenever possible which allows groundwater to remain stored for use during dry periods. Recycled water distributed by SVWD to one multi-residential customer in SLVWD's service area helps offset potable water demands; however, recycled water does not provide a substantial water supply for SLVWD. Water sources used to supply SLVWD customers are described below.

10.2.1 Purchased or Imported Water

SLVWD does not purchase water from any wholesale water suppliers and has no current or future plans to acquire imported water supplies.

10.2.2 Groundwater

Groundwater from the SMGB provides a portion of the potable water for SLVWD customers. Information regarding the SMGB setting, water suppliers that extract groundwater from the SMGB, and estimated available supplies is provided in **Chapter 8**. This section focuses on SLVWDs' historical and projected groundwater supplies. **Table 10-3**Table 9-3 presents SLVWD historical and current total annual groundwater production from 2016 to 2020.

Table 10-3. Groundwater Volume Production by SLVWD (AFY) (DWR 6-1R)

GROUNDWATER TYPE	LOCATION OR BASIN NAME	2016	2017	2018	2019	2020
Alluvial Basin	San Lorenzo Valley System - Santa Margarita Groundwater Basin 3-027	647	821	1,100	654	1,258
Alluvial Basin	Felton System - Bennett Spring (GW)	7	9	8	6	8
TOTAL GROUNDWATER PUMPED	**SLVWD SERVICE AREA**	**654**	**830**	**1,109**	**660**	**1,266**

Groundwater production provided by SLVWD based on metered data. Production data for the Lompico Water System was not available until 2017 after the annexation.

SLVWD extraction wells operate regularly throughout the year, but especially in the dry season, beginning when stream diversions fall below the amount required to meet San Lorenzo Valley System water demand. As shown in **Table 8-2**, SLVWD has four active wells in the northern portion of the San Lorenzo Valley System, and three active wells in the southern portion of the San Lorenzo Valley System. In addition, the Felton System includes the Bennett Spring diversion which is a designated groundwater source with regard to required treatment. Bennett Spring is designated by the California Department of Drinking Water as a groundwater source, and thus does not require Water Treatment Plant filtration. The Bennett Spring diversion serves as the sole water supply for one of the systems six pressure zones. On average 8 AFY of the spring diversion is delivered as groundwater to SLVWD customers.

As noted in **Table 8-3**, 2025-2045 supplies assume that SLVWD will target using the Baseline Pumping volume developed under groundwater model simulated baseline conditions for the GSP. SLVWD will annually compare average pumping by aquifer over the last five-years to Baseline Pumping and may produce more or less than is currently estimated, which is 920 AFY. Due to the recent CZU Complex Fire, SLVWD anticipates that groundwater supplies may need to provide an additional 2% per year for the next 2-3 years compared to the annual average to account for impacts to surface water infrastructure from the fire. Additional details regarding the impact from the CZU Complex Fire to SLVWD surface water supplies is provided in **Section 10.2.3**.

10.2.3 Spring and Stream Diversions

SLVWD appropriative water rights are exercised through the active diversions shown in **Table 10-4**.

Table 10-4. SLVWD Active Diversions

SAN LORENZO VALLEY SYSTEM (NORTH)	POINTS OF DIVERSION	FELTON SYSTEM	POINTS OF DIVERSION
Peavine Creek	1	Fall Creek	1
Foreman Creek	1	Bennett Spring	1
Clear Creek	3	Bull Creek	2
Sweetwater Creek	1		

SLVWD diversion watersheds are shown in **Figure 8-3** and described in detail below. **Table 10-5** presents the historic spring diversion records for SLVWD and **Table 10-1** presents projected surface water supplies.

Table 10-5. Surface Water Diversions by SLVWD (AFY)

SLVWD SYSTEM	2016	2017	2018	2019	2020
San Lorenzo Valley System	894	1,031	727	1,010	417
Felton System	423	452	382	343	366
Total Surface Water Diversion	**1,317**	**1,483**	**1,109**	**1,353**	**783**

The diversion watersheds are located outside of the SMGB along the steep eastern slopes of Ben Lomond Mountain and are underlain by granitic and metamorphic rock. SLVWDs' diversion watersheds have a combined area of approximately 4,310 acres, or 7.1 square miles, equal to 6.3 percent of the San Lorenzo River watershed above the USGS Big Trees gauge near Felton. Diversions on Peavine and Foreman creeks supply the San Lorenzo Valley System and have a combined watershed area of 710 acres, or about 10 percent of the Boulder Creek watershed above its confluence with the San Lorenzo River. Diversions on Clear and Sweetwater creeks also supply the San Lorenzo Valley System and have a combined watershed area of 660 acres, or about 2 percent of the San Lorenzo River watershed above its confluence with Clear Creek.

Diversions on Fall and Bull creeks and Bennett Spring supply the Felton System. The Fall Creek diversion has a watershed area of approximately 2,770 acres (4.3 square miles), including the 225-acre watershed above the Bennett Spring diversion. The two Bull Creek diversions have a combined watershed area of 175 acres. Bennett Spring and the springs supplying the Bull Creek diversions may have contributing groundwater recharge areas that differ from their respective drainage areas. Together, the Felton System diversion watersheds comprise 4.3 percent of the San Lorenzo River watershed above the Big Trees gage. Surface diversions make up the entire supply for the Felton System, while a combination of groundwater and surface water supply the San Lorenzo Valley System.

San Lorenzo Valley System raw water diversions are conveyed by pipeline to the Lyon Water Treatment Plant (Lyon WTP). The Lyon WTP has a maximum operating capacity of about 155 AF/month (51 MG/month), equivalent to a continuous rate of 1,150 GPM. Peak production is limited by various constraints associated with stormflow, conveyance, and treatment (e.g., high-flow bypass, turbidity, aeration, pipeline capacity), as well as generally lower water demand during wet periods.

Raw water diversions from the Felton System are conveyed by pipeline to the Kirby Water Treatment Plant (Kirby WTP). the Kirby WTP was constructed and became operational in 1997. It controls the occurrence of water-borne pathogenic microorganisms through disinfection, filtration, and limitations on finished-water turbidity. It has a design and permitted capacity of 1 MG/day (93 AF/month) and a typical operational capacity of approximately 0.5 MG/day (47AF/month). Production is sometimes limited

during stormflow periods of elevated raw-water turbidity, during which the system relies on finished-water storage.

Additional details regarding the stream and spring diversions utilized by SLVWD are available in the 2015 UWMP.

In 2020, SLVWD lost a majority of its northern intake and raw waterline infrastructure to the CZU Complex Fire. Reconstruction of the approximately 7 miles of raw water line and 4 diversion intake structures are planned for reconstruction within the next 2-3 years. In the meantime, SLVWD is managing its remaining surface water diversions and groundwater well sites conjunctively. This involves moving water from SLVWD online systems to the damaged offline parts of the northern system. During the period of construction, SLVWD believes it will use 48% of groundwater well supply compared to its annual average of 46% groundwater & 54% surface water supply.

10.2.4 Stormwater

Stormwater is not intentionally diverted for beneficial reuse by SLVWD.

10.2.5 Wastewater and Recycled Water

The UWMP Act requires that the UWMP address the opportunities for development of recycled water, including the description of existing recycled water applications, quantities of wastewater currently being treated to recycled water standards, limitations on the use of available recycled water, an estimate of projected recycled water use, the feasibility of projected uses, and practices to encourage the use of recycled water.

SLVWD service areas primarily rely on on-site wastewater disposal (i.e., septic tanks and leach fields), which effectively recycles water within the watershed. Planning studies conducted in the 1980s determined that converting these areas to a sewer system would result in unacceptable environmental impacts. Because of these conditions, SLVWD is not considering the use of recycled water at this time for wastewater generated in the majority of the San Lorenzo Valley system service area or the Felton service area.

SLVWD owns, operates, and maintains a wastewater system in Boulder Creek's Bear Creek Estates, which serves approximately 56 homes. The system collects and treats domestic wastewater which is discharged to a subsurface 2.3 acre leach field. The Bear Creek Estates collection system is not included in the recycled water analysis because the wastewater is disposed on-site within the watershed.

Customers in the southern portion of the San Lorenzo Valley system service area have their wastewater treated by the City of Scotts Valley outside of SLVWD's service area at the Scotts Valley Water Reclamation Facility (WRF). Recycled water is used by SVWD to augment water supplies and to offset groundwater extraction for non-potable uses within their service area. In addition, the Spring Lakes Mobile Home Park (MHP), which is located within SLVWD's service area, is supplied with recycled water from SVWD to fill decorative ponds. The average demand for the Spring Lakes MHP over the last three years has been approximately 48 AFY. **Table 10-6** and **Table 10-7** present 2020 wastewater collection, treatment, and discharge information. In 2020 it is estimated that 128 AF of wastewater was collected and treated and approximately 48 AFY was tertiary treated and distributed within SLVWD's service area. It is assumed that the remaining treated wastewater from SLVWD's service area is discharged to the ocean outfall.

Projected recycled water demand is assumed to remain the same within SLVWD's service area with the Spring Lakes MHP being the only customer. SLVWD is not considering use of recycled water at additional locations within their service area at this time. Projected recycled water use is presented in **Table 10-2**. The 2015 UWMP projected 81 AFY of recycled water would be used in 2020 and the actual

amount of recycled water used in 2020 was approximately 48 AFY. As previously noted, 48 AFY is estimated based on the average demand for recycled water in SLVWD's service area at the Spring Lakes MHP over the last three years. Total demand is likely impacted by recycled water customers becoming more efficient like potable water customers and the difficulty to provide infrastructure to customers within SLVWD's service area.

Table 10-6. Wastewater Collected within UWMP Service Area in 2020 (DWR 6-2R)

WASTEWATER COLLECTION			RECIPIENT OF COLLECTED WASTEWATER			
NAME OF WASTEWATER COLLECTION AGENCY	WASTEWATER VOLUME METERED OR ESTIMATED	WASTEWATER VOLUME COLLECTED FROM UWMP SERVICE AREA IN 2020 (AFY)	NAME OF WASTEWATER AGENCY RECEIVING COLLECTED WASTEWATER	WASTEWATER TREATMENT PLANT NAME	WASTEWATER TREATMENT PLANT LOCATED WITHIN UWMP AREA	WWTP OPERATION CONTRACTED TO A THIRD PARTY
City of Scotts Valley	Estimated	128	City of Scotts Valley	Scotts Valley Water Reclamation Facility	No	No

Note - Wastewater volume generated in a portion of SLVWD's South System which is collected and treated at the Scotts Valley WRF. GIS boundary layers provided by SLVWD and the City were used to determine the area of the service area that lies within wastewater collection area. From the GIS data, it was determined that 15.2% of Scotts Valley WRF's wastewater is generated by SLVWD's service area. Scotts Valley WRF collected 845 AF of wastewater in 2020, of which 15.2 %, or 128 AF, is assumed to have come from SLVWD. The remaining SLVWD wastewater is treated onsite through septic systems and is discharged to the groundwater basin.

Table 10-7 Wastewater Treatment and Discharge within UWMP Service Area in 2020 (DWR 6-3R)

						2020 VOLUMES (AFY)				
WASTEWATER TREATMENT PLANT NAME	DISCHARGE LOCATION NAME OR IDENTIFIER	DISCHARGE LOCATION DESCRIPTION	METHOD OF DISPOSAL	PLANT TREATS WASTEWATER GENERATED OUTSIDE THE SERVICE AREA	TREATMENT LEVEL	WASTEWATER TREATED	DISCHARGED TREATED WASTEWATER	RECYCLED WITHIN SERVICE AREA	RECYCLED OUTSIDE OF SERVICE AREA	INSTREAM FLOW PERMIT REQUIREMENT
Scotts Valley Water Reclamation Facility	Pacific Ocean in Joint Outfall with City of Santa Cruz	36° 56' 08" N; 122° 04' 08" W	Ocean outfall	Yes	Secondary, Disinfected - 23	128	80	0	0	0
Scotts Valley Water Reclamation Facility	Recycled Water Customers	SLVWD Service Area	Land disposal	Yes	Tertiary	0	0	48	0	0
-					**TOTAL:**	**128**	**80**	**48**	**0**	**0**

Note: It is assumed that the portion of SLVWD wastewater collected and not distributed to the Spring Lakes Mobile Home Park is discharged to the ocean outfall. This table does not include wastewater collected and discharged in SVWD's service area.

10.2.6 Desalinated Water Opportunities

Development of desalinated water is not being considered for the current planning period, due to the availability of groundwater and surface water to meet the current and projected demand, and SLVWD's proximity (distance) to the ocean, which makes it cost prohibitive to consider desalination as a viable water supply alternative.

10.2.7 Water Exchanges and Transfers

An intertie connecting SLVWD's service area with SVWD's service area was completed in 2016. It was permitted as an emergency intertie and is not used for regular water transfers between the Districts.

The intertie has been used three times since it was brought online as shown below.

- Water to SLVWD
  - 11,338 gallons on June 22, 2016
- Water to SVWD
  - 1,770,249 gallons between October 28, 2018 and November 8, 2018.
  - 2,969,031 gallons between June 10, 2020 and June 23, 2020

Prior to the completion of this intertie, a smaller intertie had been used several times, each time for flow from SVWD to SLVWD.

10.2.8 Adequacy of SLVWD Water Supply

Stream diversions provide the primary water supply for SLVWD's service area during winter and early spring months of non-drought years. During dry-season months, elevated demand and limited divertible stream flows necessitate groundwater extraction to meet demands. The actual and potential supply provided by these sources depends on their conjunctive use within the constraints of the annual and long-term climatic cycle, existing and planned infrastructure, SLVWD water rights, and customer demands.

The conjunctive use of these sources has met annual production demands since 1984; however, declines in groundwater elevations were observed in the Pasatiempo wellfield (Lompico aquifer) resulting from too much groundwater being extracted by pumpers during the drought in the 1990's. The combined effects of drought, increased demand, modified water rights, and/or climate change could necessitate increased levels of conservation and/or further infrastructure improvements.

Although droughts may occur and for a longer duration and/or severity due to climate change, overall groundwater in storage in the SMGB is sufficient to provide adequate resources for SLVWD given the past, current, and anticipated future demand. The long-term adequacy of the supply may be bolstered by the reduction in groundwater pumping through improved water use efficiency and continued conjunctive use with surface water supplies. The very nature of groundwater reduces the short-term impact of drought years because of the stored availability of supply, but long-term impacts need to be managed by monitoring the condition of storage, water level, and well performance under these conditions.

10.2.9 Future Water Projects

Other sources of water potentially available to SLVWD include diversions from Loch Lomond reservoir and water transfers from neighboring water purveyors.

10.2.9.1 Loch Lomond Reservoir

In 1958 SLVWD sold 2,500 acres encompassing a portion of the Newell Creek watershed to the City of Santa Cruz (City) with the agreement that SLVWD would be entitled to purchase 12.5 percent of the annual safe yield from a reservoir planned by the City. The City created Loch Lomond Reservoir with the completion of Newell Creek Dam in 1960. The reservoir has a drainage area of 8.3 square miles and a reservoir capacity of approximately 9,000 AF. The City's appropriative right allows a maximum direct diversion of 3,200 AFY and a maximum use of 5,600 AFY.

SLVWD began receiving a portion of the reservoir yield after the dam was completed, although records are only available for 1976-77, when it received 353 AF (115 MG). Since implementation of the Surface Water Treatment Rule, SLVWD does not have the means to treat diversions from Loch Lomond. In 1996 the City and SLVWD reached a draft agreement that allows SLVWD to purchase up to 313 AFY (102 MGY) of raw Loch Lomond water or purchase the same amount of treated city water with the understanding that it would be interruptible during declared water-shortage emergencies. SLVWD has yet to exercise either allowance under this agreement.

SLVWD commissioned a study to evaluate the feasibility and cost of utilizing its allotment of Loch Lomond (SPH Associates Consulting Engineers, October 2010). The study found that the City's diversion pipeline from Loch Lomond could be accessed by the Felton Kirby WTP. However, because of high concentrations of total organic carbon in Loch Lomond raw water, SLVWDs' existing water treatment process would produce water with excessive concentrations of disinfectant by-products (e.g., trihalomethanes) exceeding drinking water standards. Thus, blending and a WTP upgrade would be necessary. The cost of a project to upgrade the Kirby WTP and interconnect the Felton, San Lorenzo Valley systems was estimated at approximately $6.4 million. This would allow SLVWD unrestricted use of its Loch Lomond entitlement during all seasons and water quality conditions.

10.2.9.2 SCCWD Treated Water

In lieu of a direct diversion from Loch Lomond, SLVWD has the option to purchase up to 313 AFY (102 MGY) of treated water produced by the SCCWDs' Graham Hill WTP, with the exception that the supply could be interrupted during declared water-shortage emergencies (Kocher, B./SCCWD, 1996). Such a shortage would likely occur as a result of two or more consecutive dry years (Santa Cruz City Water Department (SCCWD), March 2009).

The purchase of treated water from SCCWD would require conveyance lines and a booster pump from the Graham Hill WTP at an estimated cost of approximately $3 million to serve SLVWD's San Lorenzo Valley System, or $4.3 million to serve all SLVWD service areas (SPH Associates Consulting Engineers, 2010). None of these options is included in SLVWD's Capital Improvement Plan.

10.2.9.3 Additional Water Reliability Efforts

SLVWD is actively working to ensure water reliability during extended dry periods through the following efforts:

San Lorenzo Conjunctive Use and Baseflow Enhancement Plan

SLVWD is collaborating with the County Water Resources Division to develop a San Lorenzo Watershed Conjunctive Use and Baseflow Enhancement Plan (Plan) to improve water resource efficiency, thereby benefiting essential local fisheries, wildlife, and the community. The Plan will provide guidance for diverting excess winter surface flow in the San Lorenzo River Watershed to meet water supply needs, resting groundwater wells, and providing active, passive, and/or in-lieu groundwater recharge. During the dry season, the augmented groundwater will be used to meet demands and reduce stream diversions. SLVWD anticipates that conjunctive use of surface and groundwater will lead to increased stream baseflow during summer and other critical times benefitting fisheries, and will also contribute to increased storage, recovery, and sustainable management of the SMGB.

Felton Water System Infrastructure Improvement, Micro-Hydro Energy Efficiency Project, and streamflow Enhancement on Fall Creek

SLVWDs' Capital Improvement Plan has identified the Felton System as a priority for the next capital improvement project. The project will improve efficiencies in the Felton system by increasing the use of Bull and Bennett Creeks, increasing the bypass flows in Fall Creek, improving baseflow in the San Lorenzo River, and incorporating a micro-hydro energy plant adjacent to the surface water treatment plant in Felton. This project will have multiple benefits including decreasing SLVWDs' carbon footprint.

Zayante Creek Large Wood Project

SLVWD is collaborating with the Santa Cruz County Health Services Agency, Environmental Health Services, Water Resources Division, the City of Santa Cruz, State and Federal agencies, and the Resource Conservation District of Santa Cruz County to install large wood into the creek bed on SLVWD property in the Upper Zayante Watershed. In addition to the many benefits to riparian and instream fish habitat, this project will build up the streambed, slow the water in the creek and allow for more percolation into the groundwater aquifer adding to aquifer storage and improving baseflow in the San Lorenzo Watershed.

Santa Margarita Aquifer Injection or In-lieu Recharge Project

SLVWD is partnering with both the City of Santa Cruz Water Department and SVWD to evaluate options to actively recharge the SMGB. This could include utilizing stormwater runoff to actively inject water into the aquifer and/or to serve customers in groundwater areas to allow wells to rest and recover.

Chapter 4 of the SMGWA Draft GSP identifies a list of projects that are ongoing, planned, being studied and conceptual which are intended to strengthen local groundwater supplies.

10.2.10 Climate Change Effects

Future water uses and supplies may be affected by climate change.

> "Projections of climate change in California indicate a further intensification of wet and dry extremes and shifting temperatures that can…affect both water use and supplies. Extreme and higher temperatures can lead to increases in water use…Projections of more frequent, severe, and prolonged droughts could lead to not only less surface water available, but also exacerbating ongoing stressors in groundwater basins across the state" (California Department of Water Resources, March 2021).

Higher temperatures decrease the amount of precipitation available for groundwater recharge and from surface water sources while increasing water use, especially for outdoor use. Reductions in future supply due to impacts associated with climate change were considered as part of the projected groundwater supply discussed in **Chapter 8** and **Chapter 12**. Increases in future water use patterns due to climate change factors were considered as part of the conservative demand projection provided in **Chapter 5**.

Because of these changes to climate, the projected GSP groundwater budget estimates that future inflows into the groundwater basin will be less than historical inflows, but due to decreased pumping and water conservation efforts, the proportion of inflows to outflows should be similar to the current ratio of inflows/outflows.

10.3 Energy Intensity

SLVWD relies primarily on gravity fed distribution in its system. Energy uses include pump stations, treatment processes, well pumping, administration office facilities and SCADA control. On average, SLVWD uses 1569 kilowatt-hours (kwh) for every MG of water produced (1569 kwh/MG). A summary of energy used in 2020 is provided in **Table 10-8**. Due to the CZU Fires at the end of 2020, SLVWD had to rely on its wells to meet water demands, increasing its pumping and energy consumption from August 2020 to December 2020. Estimates used for self-generated renewable energy quantities. The volume of water and energy consumed are compiled from production data and PG&E billing spreadsheets.

Table 10-8. DWR O-1B Voluntary Energy Intensity - Total Utility Approach

Start Date for Reporting Period: 1/1/2020

End Date for Reporting Period: 12/30/2020

	URBAN WATER SUPPLIER OPERATIONAL CONTROL		
	SUM OF ALL WATER MANAGEMENT PROCESSES	NON-CONSEQUENTIAL HYDROPOWER	
	TOTAL UTILITY	HYDROPOWER	NET UTILITY
Volume of Water Entering Process (AF)	2,404	0	2,404
Energy Consumed (kWh)	1,228,641	0	1,228,641
ENERGY INTENSITY (KWH/VOL CONVERTED TO MG)	**1,569**	**0.0**	**1,569**

1. Information source is a combination of estimates and metered data.
2. Quantity of self-generated renewable energy: 136,408.92 kWh.

11

URBAN WATER MANAGEMENT PLAN

SVWD Water Service Reliability and DRA

This chapter considers SVWD's water supply reliability during normal, single dry, and multiple dry water years over the planning horizon. A Drought Risk Assessment of the next five years is also included

IN THIS SECTION

- Water Service Reliability Assessment
- Drought Risk Assessment

Water service reliability corresponds to an urban water supplier's ability to meet projected future customer demand under a variety of reasonably expected conditions. The supply reliability assessment discusses factors (i.e., climatic, environmental, water quality and legal) that could potentially limit the projected volume of water available from SVWD's current and future sources of supply through 2045.

Different climate conditions are considered and the quantitative impacts of the aforementioned factors on water supply and demand are discussed, as well as possible methods for addressing these issues. This chapter also includes the drought risk assessment (DRA), which provides a quick snapshot of the anticipated surplus or deficit if a drought were to occur in the next five years.

Evaluating the water service reliability is critical for water management as it can help identify potential problems before these happen. Water managers can then take proactive steps to mitigate shortages by encouraging water use efficiency, securing new water supplies and/or investing in infrastructure.

This chapter presents an evaluation of SVWD's water supply reliability under normal, dry, and multiple dry year conditions. The water service reliability assessment and DRA results indicate that no water shortages are anticipated within the next 25-years under normal, single dry water years, and multiple dry water years.

11.1 Water Service Reliability Assessment

SVWD's water service reliability assessment compares total projected water supply and demand over the next 25 years in five-year increments under normal, single dry water year, and five-year consecutive dry period. This section presents the reliability assessment for SVWD's service area.

11.1.1 Constraints on Water Sources

Climactic factors are the main constraint on SVWDs' groundwater supply. Precipitation is the only source of groundwater recharge in the SMGB. As described in **Chapter 9**, the projected GSP groundwater budget estimates that future inflows into the groundwater basin will be less than historical inflows, but due to decreased pumping and water use efficiency efforts, the proportion of inflows to outflows should be similar to the current ratio of inflows/outflows. **Table 11-1** shows the precipitation record results used to determine the normal, single dry, and multiple dry years based on the period of record of 1982- 2020 in order to assess SVWD's supply during varying climate conditions.

Additional potential constraints on the water supply include water quality and legal factors.

Water Quality

As noted in **Chapter 8**, groundwater in the SMGB is generally of good quality. SVWD regularly monitors the water quality of their supply and treats water before it is delivered to customers meeting or exceeding all drinking water standards. Annual Consumer Confidence Reports (CCRs) (water quality reports) are available on SVWD's website.

Legal Factors

The SMGB is not an adjudicated basin; however, SVWD works closely with regional partners through the SMGWA to ensure that groundwater sustainability criteria are met.

Table 11-1. SVWD Precipitation Record

			MULTIPLE-DRY WATER YEARS				
	NORMAL WATER YEAR	SINGLE DRY YEAR	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Year	2002	2014	1987	1988	1989	1990	1991
Inches of Rain	41.30	20.32	23.15	23.81	30.67	20.58	26.64

Annual groundwater reports prepared by SVWD indicate that changes in Lompico and Butano aquifer groundwater levels are not always as immediate as the aquifers are confined by overlying formations which causes groundwater responses to changes in precipitation and lag by several years. SVWD closely monitors groundwater levels and precipitation and works with customers to reduce demand in periods of low precipitation to preserve groundwater in storage. SVWD also coordinates closely with SLVWD and SMGWA to monitor and avoid undesirable results in the SMGB.

11.1.2 Year Type Characterization

DWR defines three year types that must be included in the water service reliability assessment. These include:

- **Average Year.** This condition represents a single year or averaged range of years that most closely represents the average water supply available. DWR uses the terms average and normal interchangeably when addressing the water year type.

- **Single Dry Year.** The single dry year is recommended to be the year that represents the lowest water supply available to the Supplier.
- **Five-Consecutive-Year Drought.** The driest five-year historical sequence for the supplier, which may be the lowest average water supply available for five years in a row.

Average year supply is assumed to equal Baseline Pumping developed under GSP groundwater model simulated conditions. Pumping groundwater in excess of recharge in a single year or multiple years may not show up immediately as a decline in groundwater level but has detrimental impacts over the long-term. Therefore, it is assumed that pumping to meet demand will vary annually; however, the groundwater supply will balance out over the long-term. Short-term supply constraints are discussed in detail in the Water Shortage Contingency Plan (WSCP). **Table 11-2** provides the basis for each water year type.

Table 11-2. DWR 7-1R Basis for Water Year Data (Reliability Assessment)

		AVAILABLE SUPPLY IF YEAR TYPE REPEATS	
YEAR TYPE	BASE YEAR	VOLUME AVAILABLE (AFY)[1]	PERCENT OF AVERAGE SUPPLY
Average Year	2002	1,300	100%
Single-Dry Year	2014	1,300	100%
Consecutive Dry Years 1st Year	1987	1,300	100%
Consecutive Dry Years 2nd Year	1988	1,300	100%
Consecutive Dry Years 3rd Year	1989	1,300	100%
Consecutive Dry Years 4th Year	1990	1,300	100%
Consecutive Dry Years 5th Year	1991	1,300	100%

(1) Supply is assumed to equal Baseline Pumping under GSP groundwater model simulated conditions. Pumping groundwater in excess of recharge in a single year or multiple years may not show up immediately as a decline in water level but has detrimental impacts over the long-term. Therefore, it is assumed supply may exceed the average supply for a given year or for a few years but will ultimately balance out to the long-term average annual supply available over the long-term. Short-term supply constraints are discussed in detail in the WSCP.

11.1.3 Water Service Reliability

Results of the water supply and demand analysis for normal, single dry, and five-year consecutive droughts are shown in the following tables. SVWD anticipates meeting demands under all water year scenarios, continues to evaluate options to diversify supply, encourages use of recycled water, and promotes water use efficiency measures.

As discussed in **Chapter 8** the assessment of groundwater conditions by SVWD and SLVWD includes comparing each Districts' average pumping by aquifer over the last five-years to Baseline Pumping under groundwater model simulated conditions. The Baseline Pumping for SVWD is estimated at 1,300 AFY, which is sufficient to meet demand as shown in **Table 11-3.**

Table 11-3. DWR 7-2R Normal Year Potable Water Supply and Demand Comparison (AFY)

	2025	2030	2035	2040	2045
Supply Totals From Table 6-9R[1]	1,300	1,300	1,300	1,300	1,300
Demand Totals From Table 4-3R	1,111	1,115	1,119	1,123	1,144
DIFFERENCE:	**189**	**185**	**181**	**177**	**156**

(1) Supply is assumed to equal Baseline Pumping under GSP groundwater model simulated conditions. Pumping groundwater in excess of recharge in a single year or multiple years may not show up immediately as a decline in water level but has detrimental impacts over the long-term.

Table 11-4. DWR 7-3R Single Dry Year Potable Water Supply and Demand Comparison (AFY)

	2025	2030	2035	2040	2045
Supply Totals[1]	1,300	1,300	1,300	1,300	1,300
Demand Totals[2]	1,123	1,127	1,131	1,136	1,156
DIFFERENCE:	**177**	**173**	**169**	**164**	**144**

(1) Supply is assumed to equal Baseline Pumping under GSP groundwater model simulated conditions. Pumping groundwater in excess of recharge in a single year or multiple years may not show up immediately as a decline in water level but has detrimental impacts over the long-term. Therefore, it is assumed supply may exceed the average supply for a given year or for a few years but will ultimately balance out to the long-term average annual supply available over the long-term. Short-term supply constraints are discussed in detail in the WSCP.

(2) Analysis of the dry year in 2014 indicates a demand increase in a single dry year of 1%.

Table 11-5. DWR 7-4R Multiple Dry Years Potable Water Supply and Demand Comparison (AFY)

		2025	2030	2035	2040	2045
First Year[1,2]	Supply Totals	1,300	1,300	1,300	1,300	1,300
	Demand Totals	1,111	1,115	1,119	1,123	1,144
-	**DIFFERENCE:**	**189**	**185**	**181**	**177**	**156**
Second Year[1,2]	Supply Totals	1,300	1,300	1,300	1,300	N/A
	Demand Totals	1,112	1,116	1,120	1,128	N/A
-	**DIFFERENCE:**	**188**	**184**	**180**	**172**	**N/A**
Third Year[1,2]	Supply Totals	1,300	1,300	1,300	1,300	N/A
	Demand Totals	1,113	1,117	1,121	1,132	N/A
-	**DIFFERENCE:**	**187**	**183**	**179**	**168**	**N/A**
Fourth Year[1,2]	Supply Totals	1,300	1,300	1,300	1,300	N/A
	Demand Totals	1,114	1,118	1,122	1,136	N/A
-	**DIFFERENCE:**	**186**	**182**	**178**	**164**	**N/A**
Fifth Year[1,2]	Supply Totals	1,300	1,300	1,300	1,300	N/A
	Demand Totals	1,114	1,119	1,123	1,140	N/A
-	**DIFFERENCE:**	**186**	**181**	**177**	**160**	**N/A**

(1) Supply is assumed to equal Baseline Pumping under GSP groundwater model simulated conditions. Pumping groundwater in excess of recharge in a single year or multiple years may not show up immediately as a decline in water level but has detrimental impacts over the long-term. Therefore, it is assumed supply may exceed the average supply for a given year or for a few years but will ultimately balance out to the long-term average annual supply available over the long-term. Short-term supply constraints are discussed in detail in the WSCP.

(2) Analysis of the five-year consecutive drought from 2012-2016 indicates 100% of normal demand in year 1, 103% in year 2, 101% in year 3, 83% in year 4, and 81% in year 5.

11.1.4 Descriptions of Management Tools and Options

As discussed previously, SVWD relies on groundwater from the SMGB to meet potable demands and continues to implement water use efficiency measures, recycled water use, and actively explores opportunities for regional projects and collaborative activities to increase supply resiliency. SVWD maximizes its local supply by implementing operational strategies and demand management measures that will keep the SMGB in balance. Details on SVWD's groundwater management efforts are provided in **Chapter 8**, the response plan for short- and long-term shortages is provided in **Chapter 13**, and conservation programs are provided in **Chapter 14**. SVWD is committed to ensuring safe and reliable water is provided to both current customers and future generations.

11.2 Drought Risk Assessment

New to 2020 UWMPs, CWC Section 10635 (b) now requires a drought risk assessment (DRA). The DRA provides a quick snapshot of the anticipated surplus or deficit if a five-consecutive year drought were to occur in the next five years. The DRA can be modified or updated outside of the UWMP five-year plan cycle, so a description of the data, methodology, and basis for shortage conditions must be included in this UWMP. The DRA evaluates each water supply's reliability and compares available water supplies and projected demands during a five-consecutive dry years scenario. This short-term

analysis can help water suppliers foresee undesired risks, such as upcoming shortages, and provide time to evaluate and implement the necessary response actions needed to mitigate shortages in a less impactful manner to the community and environment. If demands cannot be met by the expected available supply, shortage response actions from SVWD's WSCP may be implemented. Details on SVWD's WSCP are provided in **Chapter 13**.

11.2.1 Data, Methods, and Basis for Water Shortage Condition

The DRA builds on the water service reliability analysis, which incorporated assessment of historical consumption data by customer class, populated from billing records, and historical supply data by source from production reports. Based on this data, historical demand has never exceeded available supply. For this DRA analysis, normal year demand conditions and five-consecutive year drought supply conditions were considered for 2021-2025.

11.2.2 DRA Water Source Reliability

As described previously, SVWD's groundwater supply is assumed to equal Baseline Pumping under GSP groundwater model simulated conditions. SVWD, SLVWD and other local agencies are working with the SMGWA to make the SMGB sustainable by improving basin management, implementing recycled water use, developing supplemental supplies, and promoting continued conservation. To support SVWD's supply management and water use efficiency efforts, SVWD will monitor precipitation, groundwater conditions in relation to GSP efforts, well production capacity, and State standards for efficient water use. More details are provided in the WSCP in **Chapter 13** about how these factors are established, monitored, and used to make water resources management decisions. If certain criteria are met for these factors, shortage response actions from SVWD's WSCP may be activated.

As discussed in **Chapter 9**, an emergency intertie between SVWD and SLVWD is available to transfer water during emergencies. The intertie improves regional supply reliability by allowing SVWD and SLVWD access to each other's sources in an emergency.

11.2.3 Total Water Supply and Use Comparison

SVWD does not anticipate any supply shortages within the next five years as shown in **Table 11-6**.

Table 11-6. DWR 7-5 Five-Year Drought Risk Assessment Tables to Address Water Code Section 10635(b) (AFY)

2021	Gross Water Use	1,131
	Total Supplies[1]	1,300
	Surplus/Shortfall without WSCP Action	169
	PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	0
	Revised Surplus/Shortfall	169
	Resulting Percent Use Reduction from WSCP Action	0%
2022	Gross Water Use	1,126
	Total Supplies[1]	1,300
	Surplus/Shortfall without WSCP Action	174
	PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	0
	Revised Surplus/Shortfall	174
	Resulting Percent Use Reduction from WSCP Action	0%
2023	Gross Water Use	1,121
	Total Supplies[1]	1,300
	Surplus/Shortfall without WSCP Action	179
	PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	0
	Revised Surplus/Shortfall	179
	Resulting Percent Use Reduction from WSCP Action	0%
2024	Gross Water Use	1,116
	Total Supplies[1]	1,300
	Surplus/Shortfall without WSCP Action	184
	PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	0
	Revised Surplus/Shortfall	184
	Resulting Percent Use Reduction from WSCP Action	0%
2025	Gross Water Use	1,111
	Total Supplies[1]	1,300
	Surplus/Shortfall without WSCP Action	189
	PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	0
	Revised Surplus/Shortfall	189
	Resulting Percent Use Reduction from WSCP Action	0%

(1) Supply is assumed to equal Baseline Pumping under GSP groundwater model simulated conditions. Pumping groundwater in excess of recharge in a single year or multiple years may not show up immediately as a decline in water level but has detrimental impacts over the long-term. Therefore, it is assumed supply may exceed the average supply for a given year or for a few years but will ultimately balance out to the long-term average annual supply available over the long-term. Short-term supply constraints are discussed in detail in the WSCP.

12

URBAN WATER MANAGEMENT PLAN

SLVWD Water Service Reliability and DRA

This chapter considers SLVWD's water supply reliability during normal, single dry, and multiple dry water years over the planning horizon. A Drought Risk Assessment of the next five years is also included.

IN THIS SECTION

- Water Service Reliability Assessment
- Drought Risk Assessment

Water service reliability corresponds to an urban water supplier's ability to meet projected future customer demand under a variety of reasonably expected conditions. The supply reliability assessment discusses factors (i.e., climatic, environmental, water quality and legal) that could potentially limit the projected volume of water available from SLVWD's current and future sources of supply through 2045.

Different climate conditions are considered and the quantitative impacts of the aforementioned factors on water supply and demand are discussed, as well as possible methods for addressing these issues. This chapter also includes the drought risk assessment (DRA), which provides a quick snapshot of the anticipated surplus or deficit if a drought were to occur in the next five years.

Evaluating the water service reliability is critical for water management as it can help identify potential problems before these happen. Water managers can then take proactive steps to mitigate shortages by encouraging water use efficiency, securing new water supplies and/or investing in infrastructure.

This chapter presents an evaluation of SLVWD's water supply reliability under normal, dry, and multiple dry year conditions. The water service reliability assessment and DRA results indicate that no water shortages are anticipated within the next 25-years under normal, single dry water years, and multiple dry water years.

12.1 Water Service Reliability Assessment

SLVWD's water service reliability assessment compares total projected water supply and demands over the next 25 years in five-year increments under normal, single dry water year, and five-year consecutive dry period. This section presents the reliability assessment for SLVWD's service area.

12.1.1 Constraints on Water Sources

As detailed in **Chapter 8** and **Chapter 10**, SLVWD relies on surface and groundwater to meet customer demands. Climactic factors are the main constraint on SLVWDs' supplies, with precipitation being the only source for surface flows and groundwater recharge. SLVWD's water supply during normal, dry, and multiple dry year conditions is best defined in the context of the climatic cycle that drives SLVWD's conjunctive use of surface water and groundwater supplies. SLVWD closely monitors precipitation and groundwater conditions to inform management of their supply portfolio.

Additional potential constraints on the water supply include environmental, water quality, and legal factors.

Environmental Factors

In 2020 SLVWD lost a majority of its northern intake and raw waterline infrastructure to the CZU Complex Fire. Reconstruction of the approximately 7 miles of raw water line and 4 diversion intake structures are planned for reconstruction within the next 2-3 years. In the meantime, SLVWD is managing its remaining surface water diversions and groundwater well sites conjunctively. This involves moving water from SLVWD online systems to the damaged offline parts of the northern system. During the period of construction, SLVWD believes it will use 48% of groundwater well supply compared to its annual average of 46% groundwater & 54% surface water supply.

Water Quality

As noted in **Chapter 8**, groundwater in the SMGB is generally of good quality. Surface water supplies are also generally of good quality. SLVWD regularly monitors the water quality of their supplies and treats water before it is delivered to customers meeting or exceeding all drinking water standards. Annual Consumer Confidence Reports (CCRs) (water quality reports) are available on SLVWD's website.

Legal Factors

The SMGB is not an adjudicated basin; however, SLVWD works closely with regional partners through the SMGWA to ensure that groundwater sustainability criteria are met. Legal factors also impact SLVWD surface water supplies as SLVWD's northern diversion sites are all pre-1914 water rights and water obtained from Fall Creek has a limit of 1,059 AFY.

12.1.2 Year Type Characterization

DWR defines three year types that must be included in the water service reliability assessment. These include:

- **Average Year.** This condition represents a single year or averaged range of years that most closely represents the average water supply available. DWR uses the terms average and normal interchangeably when addressing the water year type.
- **Single Dry Year.** The single dry year is recommended to be the year that represents the lowest water supply available to the Supplier.
- **Five-Consecutive-Year Drought.** The driest five-year historical sequence for the supplier, which may be the lowest average water supply available for five years in a row.

The in-depth analysis in SLVWD's 2010 UWMP demonstrated that "rainfall is a suitable indicator for streamflow, diversions, and groundwater recharge" (Nicholas M. Johnson, Ph.D., R.G., C.Hg., August 2015). The 43-year design climatic cycle in the 2010 UWMP was based on WYs 1970-2012 and indicated the average for 1970-2012 as the average year, a single-dry year as 1977, and the multiple dry-year period as 1987-94. Updated rainfall for 2013-2020 was added to the 1970-2012 rainfall record and analyzed to determine that the normal, single dry, and multiple dry year periods analysis from the 2010 UWMP is still appropriate for characterizing supply reliability. **Table 12-1** provides the basis for each water year type.

Table 12-1. DWR 7-1R Basis for Water Year Data (Reliability Assessment)

	San Lorenzo Valley System Groundwater from SMGB			San Lorenzo Valley System Stream Diversions		Felton System Stream/Spring Diversions	
Year Type[1]	Base Year	Volume Available[2]	Percent of Average Supply	Volume Available	Percent of Average Supply	Volume Available	Percent of Average Supply
Average Year	1970-2020	920	100%	950	100%	450	100%
Single-Dry Year	1977	920	100%	400	42%	425	94%
Consecutive Dry Years 1st Year	1987-1994	920	100%	675	71%	435	97%
Consecutive Dry Years 2nd Year	1987-1994	920	100%	675	71%	435	97%
Consecutive Dry Years 3rd Year	1987-1994	920	100%	675	71%	435	97%
Consecutive Dry Years 4th Year	1987-1994	920	100%	675	71%	435	97%
Consecutive Dry Years 5th Year	1987-1994	920	100%	675	71%	435	97%

(1) Available volumes are from the 2010 UWMP (Nicholas M. Johnson, Ph.D., R.G., C.Hg., August 2015), which were determined based on application of a range of demands from 2,295-2,415 AFY to supplies modeled under the 1970-2012 design climactic cycle. These values are estimates for potential supplies available and are subject to consideration of conditions and constraints discussed in detail in the WSCP.

(2) SMGB supply is assumed to equal Baseline Pumping under GSP groundwater model simulated conditions. Pumping groundwater in excess of recharge in a single year or multiple years may not show up immediately as a decline in water level but has detrimental impacts over the long-term. Therefore, it is assumed supply may exceed the average supply for a given year or for a few years but will ultimately balance out to the long-term average annual supply available over the long-term. Short-term supply constraints are discussed in detail in the WSCP.

12.1.3 Water Service Reliability

Results of the water supply and demand analysis for normal, single dry, and five-year consecutive droughts are shown in the following tables. SLVWD expects to meet demands under all water year scenarios, continue to evaluate options to diversify supply, and promote continued water conservation to ensure reliability for the SMGB and stream diversions.

Projected supplies are sufficient to meet normal year demand as shown in **Table 12-2** and

Table 12-3 as well as total single dry year and total five year dry scenarios in **Table 12-5** and **Table 12-7**. However, supply from the SMGB in the San Lorenzo Valley System exceeds the 2010 UWMP's estimated available supplies (**Table 12-1**) in all single dry years (**Table 12-4**) and in five dry year scenarios for 2040 and 2045 (**Table 12-6**). It is anticipated that groundwater will be used in dry years in coordination with provisions of the GSP and WSCP.

Table 12-2. Normal Year Potable Water Supply and Demand Comparison by System & Source (AFY)

TYPE	ADDITIONAL DETAIL	2025	2030	2035	2040	2045
SAN LORENZO VALLEY SYSTEM						
Surface Water	Stream Diversions	972	1,001	1,001	1,016	1,031
Groundwater	Santa Margarita Groundwater Basin[1]	920	920	920	920	920
SAN LORENZO VALLEY SUPPLY SUBTOTAL		**1,892**	**1,892**	**1,921**	**1,936**	**1,951**
SAN LORENZO VALLEY DEMAND		**1,892**	**1,892**	**1,921**	**1,936**	**1,951**
SAN LORENZO VALLEY SURPLUS/DEFICIT		**0**	**0**	**0**	**0**	**0**
FELTON SYSTEM						
Surface Water	Stream Diversions	310	312	315	317	319
Groundwater	Bennett Spring	8	8	8	8	8
FELTON SUPPLY SUBTOTAL		**317**	**320**	**322**	**324**	**327**
FELTON DEMAND		**317**	**320**	**322**	**324**	**327**
FELTON SURPLUS/DEFICIT		**0**	**0**	**0**	**0**	**0**

(1) SMGB supply is assumed to equal Baseline Pumping under GSP groundwater model simulated conditions. Pumping groundwater in excess of recharge in a single year or multiple years may not show up immediately as a decline in water level but has detrimental impacts over the long-term. Therefore, it is assumed supply may exceed the average supply for a given year or for a few years but will ultimately balance out to the long-term average annual supply available over the long-term. Short-term supply constraints are discussed in detail in the WSCP.

Table 12-3. DWR 7-2R Normal Year Potable Water Supply and Demand Comparison (AFY)

	2025	2030	2035	2040	2045
Supply Totals From Table 6-9R	2,210	2,227	2,243	2,260	2,277
Demand Totals From Table 4-3R	2,210	2,227	2,243	2,260	2,277
DIFFERENCE:	**0**	**0**	**0**	**0**	**0**

Table 12-4. Single Dry Year Potable Water Supply and Demand Comparison by System & Source (AFY)

TYPE	ADDITIONAL DETAIL	2025	2030	2035	2040	2045
SAN LORENZO VALLEY SYSTEM						
Surface Water	Stream Diversions	972	1,001	1,001	1,016	1,031
Groundwater	Santa Margarita Groundwater Basin[1]	920	920	920	920	920
SAN LORENZO VALLEY SUPPLY SUBTOTAL		**1,892**	**1,892**	**1,921**	**1,936**	**1,951**
SAN LORENZO VALLEY DEMAND		**1,892**	**1,892**	**1,921**	**1,936**	**1,951**
SAN LORENZO VALLEY SURPLUS/DEFICIT		**0**	**0**	**0**	**0**	**0**
FELTON SYSTEM						
Surface Water	Stream Diversions	310	312	315	317	319
Groundwater	Bennett Spring	8	8	8	8	8
FELTON SUPPLY SUBTOTAL		**317**	**320**	**322**	**324**	**327**
FELTON DEMAND		**317**	**320**	**322**	**324**	**327**
FELTON SURPLUS/DEFICIT		**0**	**0**	**0**	**0**	**0**

(1) SMGB supply is assumed to equal Baseline Pumping under GSP groundwater model simulated conditions. Pumping groundwater in excess of recharge in a single year or multiple years may not show up immediately as a decline in water level but has detrimental impacts over the long-term. Therefore, it is assumed supply may exceed the average supply for a given year or for a few years but will ultimately balance out to the long-term average annual supply available over the long-term. Short-term supply constraints are discussed in detail in the WSCP.

Table 12-5. DWR 7-3R Single Dry Year Potable Water Supply and Demand Comparison (AFY)

	2025	2030	2035	2040	2045
Supply Totals From Table 6-9R	2,210	2,227	2,243	2,260	2,277
Demand Totals From Table 4-3R	2,210	2,227	2,243	2,260	2,277
DIFFERENCE:	**0**	**0**	**0**	**0**	**0**

Table 12-6. Multiple Dry Years Potable Water Supply and Demand Comparison by System & Source (AFY)

TYPE	ADDITIONAL DETAIL	2025	2030	2035	2040	2045
SAN LORENZO VALLEY SYSTEM						
Surface Water	Stream Diversions	972	1,001	1,001	1,016	1,031
Groundwater	Santa Margarita Groundwater Basin[1]	920	920	920	920	920
SAN LORENZO VALLEY SUPPLY SUBTOTAL		**1,892**	**1,892**	**1,921**	**1,936**	**1,951**
SAN LORENZO VALLEY DEMAND		**1,892**	**1,892**	**1,921**	**1,936**	**1,951**
SAN LORENZO VALLEY SURPLUS/DEFICIT		**0**	**0**	**0**	**0**	**0**
FELTON SYSTEM						
Surface Water	Stream Diversions	310	312	315	317	319
Groundwater	Bennett Spring	8	8	8	8	8
FELTON SUPPLY SUBTOTAL		**317**	**320**	**322**	**324**	**327**
FELTON DEMAND		**317**	**320**	**322**	**324**	**327**
FELTON SURPLUS/DEFICIT		**0**	**0**	**0**	**0**	**0**

(1) SMGB supply is assumed to equal Baseline Pumping under GSP groundwater model simulated conditions. Pumping groundwater in excess of recharge in a single year or multiple years may not show up immediately as a decline in water level but has detrimental impacts over the long-term. Therefore, it is assumed supply may exceed the average supply for a given year or for a few years but will ultimately balance out to the long-term average annual supply available over the long-term. Short-term supply constraints are discussed in detail in the WSCP.

Table 12-7. DWR 7-4R Multiple Dry Years Potable Water Supply and Demand Comparison (AFY)

		2025	2030	2035	2040	2045
First	Supply Totals	2,210	2,227	2,243	2,260	2,277
Year	Demand Totals	2,210	2,227	2,243	2,260	2,277
-	**DIFFERENCE:**	**0**	**0**	**0**	**0**	**0**
Second	Supply Totals	2,213	2,230	2,247	2,264	N/A
Year	Demand Totals	2,213	2,230	2,247	2,264	N/A
-	**DIFFERENCE:**	**0**	**0**	**0**	**0**	**N/A**
Third	Supply Totals	2,216	2,233	2,250	2,267	N/A
Year	Demand Totals	2,216	2,233	2,250	2,267	N/A
-	**DIFFERENCE:**	**0**	**0**	**0**	**0**	**N/A**
Fourth	Supply Totals	2,220	2,237	2,254	2,271	N/A
Year	Demand Totals	2,220	2,237	2,254	2,271	N/A
-	**DIFFERENCE:**	**0**	**0**	**0**	**0**	**N/A**
Fifth	Supply Totals	2,223	2,240	2,257	2,274	N/A
Year	Demand Totals	2,223	2,240	2,257	2,274	N/A
-	**DIFFERENCE:**	**0**	**0**	**0**	**0**	**N/A**

(1) SMGB supply is assumed to equal Baseline Pumping under GSP groundwater model simulated conditions. Pumping groundwater in excess of recharge in a single year or multiple years may not show up immediately as a decline in water level but has detrimental impacts over the long-term. Therefore, it is assumed supply may exceed the average supply for a given year or for a few years but will ultimately balance out to the long-term average annual supply available over the long-term. Short-term supply constraints are discussed in detail in the WSCP.

12.1.4 Descriptions of Management Tools and Options

As discussed previously, SLVWD relies on surface water and groundwater from the SMGB to meet demands and intends to continue to promote conservation, recycled water use, and continue to evaluate other opportunities to ensure reliability for SLVWD's supply resources. SLVWD will maximize its local supply by implementing operational strategies and shortage response actions that will keep water resources in balance. Details on SLVWD's groundwater management efforts are provided in **Chapter 8** and **Chapter 10**, the response plan for short-term shortages is provided in **Chapter 13**, and conservation programs to address long-term shortage are provided in **Chapter 15**. SLVWD is committed to ensuring safe and reliable water is provided to both current customers and future generations.

12.2 Drought Risk Assessment

New to 2020 UWMPs, CWC Section 10635 (b) now requires a DRA. The DRA provides a quick snapshot of the anticipated surplus or deficit if a five-consecutive year drought were to occur in the next five years. The DRA can be modified or updated outside of the UWMP five-year plan cycle, so a description of the data, methodology, and basis for shortage conditions must be included in this UWMP. The DRA evaluates each water supply's reliability and compares available water supplies and projected demands during a five-consecutive dry years scenario. This short-term analysis can help water suppliers foresee undesired risks, such as upcoming shortages, and provide time to evaluate and implement the necessary response actions needed to mitigate shortages in a less impactful manner to the community and environment. If demands cannot be met by the expected available supply, shortage

response actions from SLVWD's WSCP may be implemented. Details on SLVWD's WSCP are provided in **Chapter 13**.

12.2.1 Data, Methods, and Basis for Water Shortage Condition

The DRA builds on the water service reliability analysis from **Section 11.1,** which incorporated assessment of historical consumption data by customer class, populated from billing records, and historical supply data by source from production reports. Based on this data, historical demand has never exceeded available supply. For this DRA analysis, normal year demand conditions and five-consecutive year drought supply conditions were considered for 2021-2025.

12.2.2 DRA Water Source Reliability

As described previously, SLVWD conjunctively uses its surface water and groundwater sources. SVWD, SLVWD, and other local agencies are working with the SMGWA to make the SMGB sustainable by improving basin management, developing supplemental supplies, and promoting continued conservation. To support SLVWD's supply management and conservation efforts, SLVWD will monitor precipitation, groundwater conditions in relation to GSP efforts, well production capacity, and State standards for efficient water use. More details are provided in the WSCP in **Chapter 13** about how these factors are established, monitored, and used to make water resources management decisions. If certain criteria are met for these factors, shortage response actions from SLVWD's WSCP may be activated.

As discussed in **Chapter 10**, an emergency intertie between SVWD and SLVWD is available to transfer water during emergencies. The intertie improves regional supply reliability by allowing SVWD and SLVWD access to each other's sources in an emergency.

12.2.3 Total Water Supply and Use Comparison

SLVWD does not anticipate any supply shortages within the next five years as shown in **Table 12-8**. As discussed in **Chapter 10**, due to the recent CZU Complex Fire, SLVWD anticipates that groundwater supplies may need to provide an additional 2% per year for the next 2-3 years compared to the annual average to account for impacts to surface water infrastructure from the fire. Additional details regarding the impact from the CZU Complex Fire to SLVWD surface water supplies is provided in **Section 10.2.3**.

Table 12-8. DWR 7-5 Five-Year Drought Risk Assessment Tables to Address Water Code Section 10635(b) (AFY)

2021	Gross Water Use	1,650
	Total Supplies	1,650
	Surplus/Shortfall without WSCP Action	0
	PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	0
	Revised Surplus/Shortfall	0
	Resulting Percent Use Reduction from WSCP Action	0%
2022	Gross Water Use	1,687
	Total Supplies	1,687
	Surplus/Shortfall without WSCP Action	0
	PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)	
	WSCP (Supply Augmentation Benefit)	0

	WSCP (Use Reduction Savings Benefit)	0
	Revised Surplus/Shortfall	0
	Resulting Percent Use Reduction from WSCP Action	0%
2023	Gross Water Use	1,725
	Total Supplies	1,725
	Surplus/Shortfall without WSCP Action	0
	PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	0
	Revised Surplus/Shortfall	0
	Resulting Percent Use Reduction from WSCP Action	0%
2024	Gross Water Use	1,762
	Total Supplies	1,762
	Surplus/Shortfall without WSCP Action	0
	PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	0
	Revised Surplus/Shortfall	0
	Resulting Percent Use Reduction from WSCP Action	0%
2025	Gross Water Use	1,799
	Total Supplies	1,799
	Surplus/Shortfall without WSCP Action	0
	PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	0
	Revised Surplus/Shortfall	0
	Resulting Percent Use Reduction from WSCP Action	0%

URBAN WATER MANAGEMENT PLAN

13 Water Shortage Contingency Plan

This Water Shortage Contingency Plan (WSCP) is a detailed plan for how San Lorenzo Valley Water District (SLVWD) and Scotts Valley Water District (SVWD) will identify and respond to foreseeable and unforeseeable water shortages. A water shortage occurs when the water supply is reduced to a level that cannot support demand at any given time or when reduction in demand is required for various reasons.

SLVWD and SVWD are collectively referred to as the "Districts" in this WSCP. The WSCP is used to provide guidance to SLVWD's Board of Directors (SLVWD Board) and SVWD's Board of Directors (SVWD Board), staff, and the public by identifying anticipated water shortages and response actions to allow for efficient management of any water shortage with predictability and accountability.

IN THIS SECTION

The purpose of the WSCP is to conserve the available water supply and protect the integrity of the water supply, with particular regard for domestic water use, sanitation, and fire protection; and to protect and preserve public health, welfare, and safety. Preparation provides the tools to maintain reliable supplies and reduce the impacts of supply interruptions due to a range of conditions including extended drought, production capacity limitations, catastrophic supply interruptions, or other unforeseen shortages.

The WSCP describes the following:

Water Supply Reliability Analysis

Summarizes the water supply reliability analysis and identifies any key issues that may trigger a shortage condition.

Annual Water Supply and Demand Assessment Procedures

Describes the key data inputs, evaluation criteria, and methodology for assessing the system's reliability for the coming year and the steps to formally declare any water shortage levels and response actions.

Six Shortage Stages

Establishes water shortage levels to clearly identify and prepare for shortages.

Shortage Response Actions

Describes the response actions that may be implemented or considered for each stage to reduce gaps between supply and demand.

Communication Protocols

Describes communication protocols under each stage to ensure customers, the public, and local government agencies are informed of shortage conditions and requirements.

Compliance and Enforcement

Defines compliance and enforcement actions available to administer demand reductions.

Legal Authority

Lists the legal documents that grant the authority to declare a water shortage and implement and enforce response actions.

Financial Consequences of WSCP Implementation

Describes the anticipated financial impact of water shortage stages and identifies mitigation strategies to offset financial burdens.

Monitoring and Reporting

Summarizes the monitoring and reporting techniques to evaluate the effectiveness of shortage response actions and overall WSCP implementation. Results are used to determine if additional shortage response actions should be activated, if efforts are successful, and if response actions should be adjusted.

WSCP Refinement Procedures

Describes factors that may trigger updates to the WSCP and outlines how to complete an update.

Special Water Features Distinctions

Defines considerations and definitions for water use for decorative features versus pools and spas. Decorative features include ornamental fountains, ponds, and other aesthetic features.

Plan Adoption, Submittal, and Availability

Describes the process for the WSCP adoption, submittal, and availability after each revision.

This WSCP was prepared in conjunction with the SVWD & SLVWD 2020 Urban Water Management Plan (UWMP). This document is compliant with the California Water Code (CWC) Section 10632 and incorporated guidance from the State of California Department of Water Resources (DWR) UWMP Guidebook (California Department of Water Resources, 2021).

13.1 Water Supply Reliability Analysis

As part of the 2020 UWMP requirements, **Chapter 11** and **Chapter 12** include a supply reliability analysis for the following scenarios: normal year, single-dry year, and five-year consecutive dry years. The Districts expect to meet demands under all water year scenarios while protecting the SMGB.

Chapter 11 and **Chapter 12** also include required Drought Risk Assessments (DRA) to analyze supply reliability for 2021-2025. The DRA analyzes historical data to allow the Districts to view patterns and more reliably determine if there could be any water shortages within a given time frame. The DRA looks at historical consumption data by customer class, populated from billing records, and historical supply data by source from production reports. Next, future demand and supply estimates for the planning period are analyzed to determine if there are any gaps between supply and demand. As mentioned above, the Districts do not anticipate a supply shortage.

Since SVWD's only potable supply source is the SMGB and the SMGB is an important part of SLVWD's supply portfolio, the Districts are committed to water use efficiency and pursuing opportunities to enhance their supply portfolios and subsequent reliability as described in **Chapter 11** and **Chapter 12** of the UWMP.

13.2 Annual Water Supply and Demand Assessment

The Districts plan to perform Annual Water Supply and Demand Assessments (Annual Assessment) in April of each year to determine if there is a need to implement the WSCP, and if so, the level of water shortage. Key data inputs, evaluation criteria, and procedures for performing the Annual Assessments are described in this section. Starting in 2022, the Annual Assessments must be sent to DWR by July 1st of each year.

13.2.1 Key Data Inputs

The WSCP addresses several types of water supply shortages that could potentially impact the Districts and their customers:

- Long-term supply shortages due to prolonged drought, contamination, destruction of critical water supply facilities, etc.
- Short-term water supply shortages due to natural or man-made catastrophic emergencies or production capacity limitations.
- Supply shortages due to compliance with Sustainable Management Criteria for the Santa Margarita Groundwater Basin (SMGB) as defined in the SMGB Groundwater Sustainability Plan (GSP) and summarized in this WSCP.

Key data inputs and their sources for the Annual Assessments are summarized in **Table 13-1** and described in detail in **Section 13.2.2**.

Evaluation criteria that can be used to determine and declare severity of supply shortages may include any, or combinations, of the following:

- **Rainfall.** Reflects reduction to supply due to decreased groundwater recharge and surface water flows.
- **SMGB Sustainable Management Criteria.** Reflects status of groundwater conditions such as groundwater levels, groundwater quality, depletion of interconnected surface water, or reduction of groundwater in storage.

- **Production Capacity.** Reflects limited production and distribution capacity due to a variety of factors potentially including, but not limited to man-made or natural catastrophic events
- **State Mandates.** Reflects State orders and mandatory compliance with water use efficiency standards

Supply shortages affect all users of the SMGB and surrounding region, not just the Districts' customers. A water shortage emergency may be declared when it is demonstrated that groundwater conditions and/or surface water conditions threaten the ability to provide water for public health, safety, and welfare of the community. Furthermore, compliance with State mandates for water use efficiency can be declared during drought or in preparation for future droughts, such as in response to the Governor's drought declarations in the 2012-2016 drought with a subsequent Executive Order B-37-16 and related legislation for Making Conservation a California Way of Life.

Short-term and long-term supply shortages may be caused by constrained production capacity or natural or man-made catastrophic emergencies and include, but are not limited to, the following events: power outages, winter storms, wildfires, earthquakes, structural failures, contamination, and bomb threats. These types of emergencies may limit the Districts' immediate ability to provide adequate water service to meet the requirements for human consumption, sanitation, and fire protection. Impacts of such emergencies vary in duration; thus, shortage response actions and prohibitions may differ for short-term and long-term shortages.

Table 13-1. Key Data Inputs for the Annual Assessment.

KEY DATA INPUT	SOURCE
Rainfall	Monthly rainfall available. Rainfall sources for SLVWD include rain gauges located at the SLVWD Operations Building (Boulder Creek), Lewis Tank (Lompico), Riverside Grove (Northern Boulder Creek), and Felton (Kirby WTP). Rainfall data for SVWD are from a weather station at SVWD's El Pueblo Yard.
Production Shortfall	SLVWD's production data and input from Operations Manager, Water Availability Analysis and synthesized tables created by SLVWD's hydrologist. SVWD's production data and input from Operations Manager.
Undesirable Results Defined by Minimum Threshold Exceedances at RMPs per the SMGB GSP	Groundwater level in any RMP falls below the Minimum Threshold in two or more consecutive non-drought years. If a RMP groundwater level below its minimum threshold is caused by emergency operational issues or extended droughts, it is not considered an undesirable result.
Anticipated Demands	Staff annually review usage trends, estimate reductions savings based on current curtailment stage (if any) and historical demand, and solicit input from the Operations and Finance Managers.

RMP = Representative Monitoring Point.

13.2.2 Evaluation Criteria

Staff uses the key data inputs, evaluation criteria, and Annual Assessment procedures to evaluate supply reliability at the time of the Annual Assessment and into the upcoming summer and fall. Various trigger conditions, which summarize specific evaluation criteria for each shortage stage, that can be used to determine a water shortage stage are described in the following sections. Triggers are based on current conditions and the Districts evaluate these triggers and may modify as needed.

13.2.2.1 Rainfall

The SMGB aquifers and surface water sources are vulnerable to drought due to the reliance on rainfall for recharge and flows. Rainfall varies based on the hydrologic conditions of a given year. During the Annual Assessment, rainfall totals can be compared to the rainfall trigger levels identified in **Table 13-2**.

Table 13-2. Rainfall Trigger Levels.

STAGE	RAINFALL TRIGGER[1]
1	Cumulative rainfall over 2 years < 80% of average and/or Single year rainfall < 75% of average
2	Cumulative rainfall over 2 years < 70% of average and/or Single year rainfall < 60% of average
3	Cumulative rainfall over 3 years < 50% of average and/or Single year rainfall < 50% of average
4	Same or worse than Stage 3
5	Same or worse than Stage 3

The Districts' Boards may adjust stages up or down based on annual review and other WSCP shortage stage evaluation criteria.

[1] Single year rainfall < 50% of average is representative of water shortage of 50%.

13.2.2.2 Groundwater Conditions

The SMGWA's implementation of the SMGB GSP has the goal of avoiding undesirable groundwater conditions in the SMGB and achieving groundwater sustainability by January 2042. Reducing groundwater demand by implementing recycled water and water use efficiency programs has stabilized historic long-term declines in groundwater levels in the Scotts Valley area. To prevent continuing chronic lowering of groundwater levels, the GSP identifies groundwater level Minimum Thresholds associated with what types of exceedances of Minimum Thresholds cause Undesirable Results. Measurable Objectives reflecting the SMGWA's goals for groundwater level improvements are also included in the suite of sustainable management criteria.

It is important to note that the SMGWA has until January 2042 to reach its sustainability goal. Therefore, groundwater conditions that exceed the criteria of Undesirable Results are not formally considered Undesirable Results by DWR until after January 2042. It is expected that sustainable management criteria will be revised over the 20-year implementation period of the GSP as monitoring and further studies improve understanding of the SMGB. Future WSCPs will use the sustainable management criteria that apply at the time they are prepared. For purposes of the WSCP, the criteria to determine water shortage stages will rely on current chronic lowering of groundwater levels and depletion of interconnected surface water Minimum Threshold and Undesirable Results.

Groundwater conditions, as described below, may be considered in conjunction with other criteria to determine water shortage stages.

Minimum Thresholds and Undesirable Results from GSP

- Minimum Thresholds for Representative Monitoring Points (RMPs) are the average of the five lowest groundwater elevations historically measured at the RMPs.
- Santa Margarita aquifer groundwater levels are influenced by rainfall that directly recharges it. Although levels in drought years may fall below RMP Minimum Thresholds, the highly permeable aquifer rebounds levels quickly in above-average rainfall years.
- The deeper confined aquifers are more susceptible to prolonged low groundwater levels because of their limited surface exposure to recharge. This characteristic makes them sensitive to increased pumping in dry years and warrants limiting their pumping to close to the sustainable yield for that aquifer. Since groundwater levels in the Lompico aquifer are lowered, it is the target of recharge projects to improve groundwater levels and to increase water supply reliability by using the aquifer for water storage. When recharge projects of around 700 AFY are implemented in the Scotts Valley area, groundwater modeling has indicated that Lompico aquifer groundwater levels will increase at least 20 feet above current levels.

- Based on the characteristics described above, the SMGWA defines Undesirable Results occurring when groundwater levels fall below Minimum Thresholds in two or more consecutive non-drought years. If the lowered levels are caused by emergency operational issues or extended drought those levels are not considered Undesirable Results.

Groundwater Level Trends

- Groundwater level trends will be compiled and considered with the Districts' hydrogeologist(s) to determine if conditions trigger water shortage conditions based on the following:
  - Hydrographs of groundwater levels to determine trends for both extraction and monitoring wells, and
  - Comparison of groundwater levels against Minimum Thresholds for RMPs.

Five-Year District Pumping Average

- Drought and possible other water shortage conditions impact the purveyors that rely on the SMGB. Reduced recharge in times of extended droughts presents a concern for supply reliability. Since groundwater is shared by all pumpers in the SMGB, pumping within the sustainable yield is the collective responsibility of all SMGB pumpers. The GSP does not apportion the sustainable yield by purveyor as this is more like an adjudication of groundwater use, which is not the intent of the GSP. For purposes of the UWMP, the assessment of groundwater conditions by each of the Districts includes comparing each Districts' average pumping by aquifer over the last five-years to projected long-term average annual pumping (Baseline Pumping) under groundwater model simulated baseline conditions shown in **Table 13-3**.

Table 13-3. SLVWD and SVWD Baseline Pumping (AFY)

BASELINE PUMPING (AFY)	SANTA MARGARITA AQUIFER	LOMPICO AQUIFER	BUTANO AQUIFER	TOTAL
San Lorenzo Valley Water District	620	300	0	920
Scotts Valley Water District	0	950	350	1,300

Baseline Pumping is based on groundwater model simulations developed for the SMGB GSP (Santa Margarita Groundwater Agency, 2021).

During the Annual Assessment, the Districts may consider any of, or combinations of, the groundwater trigger levels identified in

Table 13-4.

Table 13-4. SMGB Groundwater Conditions Trigger Levels

STAGE	SLVWD TRIGGER	SVWD TRIGGER
1	• Only rainfall trigger applies	• Only rainfall trigger applies
2	• Groundwater level RMP Minimum Threshold levels are within: • 5 feet of Minimum Threshold for Santa Margarita Aquifer RMPs, or • 10 feet of Minimum Threshold for Monterey Formation or Lompico Aquifer RMPs • Last 5-year SLVWD extraction average exceeds SLVWD projected long-term average baseline pumping by 20% for Santa Margarita Aquifer or 20% for Lompico Aquifer	• Groundwater level RMP Minimum Threshold levels are within 10 feet of Minimum Threshold for Monterey Formation, Lompico or Butano Aquifer RMPs • Last 5-year SVWD extraction average exceeds SVWD projected long-term average baseline pumping by 20% for Lompico Aquifer or 20% for Butano Aquifer

STAGE	SLVWD TRIGGER	SVWD TRIGGER
3	• One RMP in any of the Santa Margarita Aquifer, Monterey Formation, and Lompico Aquifer has a Minimum Threshold exceedance • Overall groundwater level trend over 5 years is declining in 25% of RMPs • Last 5-year SLVWD extraction average exceeds SLVWD projected long-term average baseline pumping by 20% for Santa Margarita Aquifer or 20% for Lompico Aquifer	• One RMP in any of the Monterey Formation, Lompico Aquifer or Butano Aquifer has a Minimum Threshold exceedance • Overall groundwater level trend over 5 years is declining in 25% of RMPs • Last 5-year SVWD extraction average exceeds SVWD projected long-term average baseline pumping by 20% for Lompico Aquifer or 20% for Butano Aquifer
4	• Three RMP in any of the Santa Margarita Aquifer, Monterey Formation, and Lompico Aquifer have Minimum Threshold exceedances • Overall groundwater level trend over 5 years is declining in 50% of RMPs • Last 5-year SLVWD extraction average exceeds SLVWD projected long-term average baseline pumping by 30% for Santa Margarita Aquifer or 30% for Lompico Aquifer	• Three RMP in any of the Lompico, Monterey & Butano aquifers have Minimum Threshold exceedances • Overall groundwater level trend over 5 years is declining in 50% of RMPs • Last 5-year SVWD extraction average exceeds SVWD projected long-term average baseline pumping by 30% for Lompico Aquifer or 30% for Butano Aquifer
5	• Five RMP in any of the Santa Margarita Aquifer, Monterey Formation, and Lompico Aquifer have a Minimum Threshold exceedance • Overall groundwater level trend over 5 years is declining in 75% of RMPs • Last 5-year SLVWD extraction average exceeds SLVWD projected long-term average baseline pumping by 40% for Santa Margarita Aquifer or 40% for Lompico Aquifer	• Lompico, Monterey & Butano aquifers have up to 5 RMP exceedances • Santa Margarita aquifer has up to 5 RMP Minimum Threshold exceedances • Overall groundwater level trend over 5 years is declining in 75% of RMPs • Last 5-year SVWD extraction average exceeds SVWD projected long-term average baseline pumping by 40% for Lompico Aquifer or 40% for Butano Aquifer

The Districts' Boards may adjust stages up or down based on annual review and other WSCP shortage stage evaluation criteria.

13.2.2.3 Production Capacity

Infrastructure capabilities and overall production are analyzed to determine if a possible outage or deficiency may occur or continue in the coming year due to a variety of factors potentially including, but not limited to man-made or natural catastrophic events. Man-made event may include well maintenance, well replacement, evaluation of wells for possible contamination, and others. If the Districts determine there are limitations to production capacity, a shortage stage declaration and subsequent demand reductions may be required.

13.2.2.4 State Mandates

The Districts have historically been required by the State to reduce demand regardless of their supply reliability at the given time. As described previously, compliance with State mandates for water use efficiency can be declared during drought or in preparation for future droughts, such as in response to the Governor's drought declarations in the 2012-2016 drought with a subsequent Executive Order B-37-16 and related legislation for Making Conservation a California Way of Life. The Districts may consider State mandates and mandatory compliance with water use efficiency standards in determining water shortage stages.

13.2.3 Annual Assessment Procedures

Districts staff will perform the Annual Assessment in April of each year.

Steps to conduct the Annual Assessment are as follows:

- **The Annual Assessment Team consists of staff performing the following roles:**
  - Districts staff gather the key inputs, compile historical data, and analyze potential supply and demand gaps.
  - Staff provides insight on demand trends and future production capacity, respectively.
  - The Districts' hydrogeologist consultant(s) provides groundwater condition information.
  - Staff presents the information to the respective Boards and/or Board committees and receives their feedback.
- **Each spring evaluate rainfall for the first part of the water year plus the four prior water years.**
  - For SLVWD use SLVWD's various rainfall stations data.
  - For SVWD use SVWD's El Pueblo Yard rainfall data.
- **Obtain and review the SMGB Annual Report from the previous water year and consult with Districts' hydrogeologist(s) to determine if spring conditions trigger water shortage conditions:**
  - Hydrographs of groundwater levels to determine trends for both extraction and monitoring wells,
  - Compare groundwater levels against Minimum Thresholds for RMPs, and
  - Total well pumping data from both Districts aggregated by aquifer and District.
- **Determine the type of water shortage and corresponding stage.**
- **Develop a recommendation to present to the respective Boards.**
- **The Districts' Boards make a final determination on which water shortage stage to declare and implement.**
- **Develop and implement appropriate communication protocols and implement applicable response actions.**
- **The Annual Assessment starts in 2022 with the first Annual Assessment Report due to DWR by July 1, 2022.**

13.3 Water Shortage Levels

The Districts utilize five water shortage stages to identify and respond to water shortages. The Districts encourage water use efficiency efforts year-round, regardless of a shortage stage. The shortage levels for the Districts' WSCP stages are provided in **Table 13-5**

Table 13-5. DWR 8-1 Water Shortage Contingency Plan Levels

STAGE	SHORTAGE LEVEL
1	Up to 10%
2	10%-20%
3	20%-30%
4	30%-50%
5	Greater than 50%

The CWC outlines six standard water shortage levels that correspond to a gap in supply compared to normal year availability. The six standard water shortage levels correspond to progressively increasing estimated shortage conditions (up to 10-, 20-, 30-, 40-, 50-percent, and greater than 50-percent shortage compared to the normal reliability condition) and align with the shortage response actions that a water supplier would implement to meet the severity of the impending shortages.

The CWC allows suppliers with an existing water shortage contingency plan that uses different water shortage levels to comply with the six standard levels by developing and including a cross-reference relating its existing shortage categories to the six standard water shortage levels. The Districts are using a five-shortage stage approach for this WSCP. A cross reference to the six standard stages is shown in **Figure 13-1**.

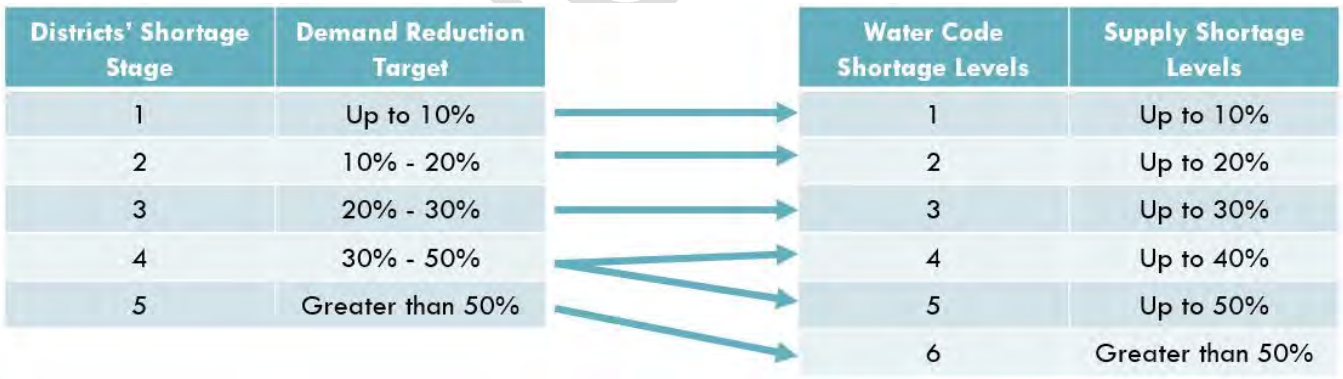


Figure 13-1. SVWD & SLVWD Shortage Stages Crosswalk to Six Standard Shortage Stages

13.4 Shortage Response Actions

There are long-term and short-term water supply shortages with significant overlap in regard to stages, mandatory prohibitions, and consumption reduction methods as described in the following sections. **Table 13-7** summarizes the possible actions identified by the Districts to implement during a water shortage, by stage. This table of actions is designed as a menu of options; the Districts are not

required to implement each action for each stage. Actions identified in earlier stages may also be used in later stages (e.g., actions identified in Stages 1-3 may be implemented in Stage 4 as well as other Stage 4 actions, etc.).

13.4.1 Demand Reduction

In accordance with the new UWMP requirements for the 2020 reporting cycle, the Districts have identified a variety of demand reduction actions (and their estimated water savings potential) that could be used (but are not required) to offset supply shortages as shown in **Table 13-6** and **Table 13-7**. These actions include, but are not limited to conservation and rebate programs, leak detection and repair, and the prohibitions of using potable water for certain applications such as no exterior washing of structures (except for health and safety reasons) or for turf irrigation. Although it is difficult to estimate the volume of savings for each action, the Districts expect to meet required reductions through a combination of response actions and outreach and communication efforts. The estimated water savings potential summarized in **Table 13-6** and **Table 13-7** represent a range from published industry references. As shown in **Table 13-6**, the Districts will implement various demand reduction actions in conjunction with outreach and communication efforts to the extent necessary to mitigate any impacts from a water shortage. **Table 13-7** summarizes the various actions and estimated maximum potential savings required to be submitted to DWR as part of the UWMP.

Per DWR's recommendations for the DRA and the WSCP, the normal year demand projections in **Chapter 4**, **Chapter 5**, **Chapter 11,** and **Chapter 12** reflect potential future demands that are not impacted by disruptive factors (e.g., groundwater emergencies, economic recessions, drought, etc.) that can be met with normal year supplies. While variable projected demands will be considered in the Annual Assessment, **Table 13-6** and **Table 13-7** conservatively assesses the Districts' ability to reduce from approximately the highest projected demand in the next five years for 2025.

Table 13-6. Estimated Savings by Shortage Stage

	SLVWD				SVWD			
STAGE	NORMAL SUPPLY, AFY	REQUIRED SAVINGS[1] AFY	ESTIMATED SAVINGS FROM QUANTIFIABLE ACTIONS[2], AFY	ESTIMATED SAVINGS FROM UNQUANTIFIABLE ACTIONS[3], AFY	NORMAL SUPPLY, AFY	REQUIRED SAVINGS[1] AFY	ESTIMATED SAVINGS FROM QUANTIFIABLE ACTIONS[2], AFY	ESTIMATED SAVINGS FROM UNQUANTIFIABLE ACTIONS[3], AFY
1	2,210	221	206	-	1,111	111	43	68
2	2,210	442	216	226	1,111	222	60	162
3	2,210	663	334	329	1,111	333	160	173
4 & up	2,210	1105	334	771	1,111	556	160	395

[1] Required savings may be met through a combination of quantifiable and unquantifiable actions. SLVWD and SVWD will only implement measures to the extent necessary to mitigate a water shortage, although estimates may indicate a greater savings is obtainable. It is anticipated that some of the required savings will be met through quantifiable shortage response actions and the remaining amount savings will be met through other actions, including communication and outreach efforts.

[2] Quantifiable savings are estimated based on various published sources and are provided as a guide. The degree of implementation of actions can vary in each stage and can result in a wide range of savings. For a list of all SLVWD and SVWD specific shortage response actions and their potential savings, refer to Table 13-7.

[3] The remaining savings not achieved by quantifiable actions are anticipated to be achieved through unquantifiable communication and outreach efforts.

Table 13-7. DWR 8-2 Demand Reduction Actions

SHORTAGE LEVEL	DWR DEMAND REDUCTION ACTION CATEGORY[1]	RESPONSE ACTION	ESTIMATED SHORTAGE GP REDUCTION BASED ON ACTION, AFY		ADDITIONAL EXPLANATION OR REFERENCE	PENALTY, CHARGE, OR OTHER ENFORCEMENT
			SLVWD	SVWD		
All	Other water feature or swimming pool restriction	All decorative water features must re-circulate water or users must secure a waiver from the supplier.				
All	Other	Washing or hosing down vehicles is prohibited except by use of a hand-held container, hose with an automatic shut off device, or at a commercial car wash.				
All	Other - Prohibit use of portable water for washing hard surfaces	Washing hard or paved surfaces is prohibited except to alleviate safety or sanitary hazards using a hand-held container, hose with an automatic shut off device, or a low-volume high pressure cleaning machine that recycles used water				
All	Landscape - Restrict or prohibit runoff from landscape irrigation	Watering vegetated areas in a manner that causes excessive water flow or runoff onto an adjoining sidewalk, driveway, street, alley, gutter, or ditch is prohibited				
All	Landscape - Other landscape restriction or prohibition	Irrigating ornamental turf on public street medians is prohibited				
All	Landscape - Other landscape restriction or prohibition	No landscape watering shall occur within 48 hours after measurable precipitation.				
Stage 1 and up	Other - Require automatic shutoff hoses	Use a shutoff nozzle on hoses	1.22 AF	0.709 AF	Maryland Department of the Environment; Water Conservation and Washing Vehicles (Maryland Department of the Environment, n.d.)	
Stage 1 and up	CII - Lodging establishment must offer opt out of linen service	Lodging establishments must offer opt out of linen service				
Stage 1 and up	CII - Other CII restriction or prohibition	Display by restaurants and hotels of water conservation signs				
Stage 1 and up	Other	Unauthorized use of hydrants is prohibited. Authorization for use must be obtained from water supplier				
Stage 1 and up	Other - Prohibit use of potable water for construction and dust control	If recycled water is available, require recycled water use for construction water use and dust control. If recycled water is not available, consult with water supplier on ways to reduce water use and/or use bulk water	N/A			
Stage 1 and up	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Fix leaks or faulty sprinklers promptly/within the amount of time determined by the water supplier	204.5 AF (50% of Water Loss due to Leaks)	42 AF (50% of Water Loss due to Leaks)	2019 AWWA Report	
Stage 1 and up	Increase water waste patrols	Increase water waste education, investigation, and enforcement				
Stage 2 and up	CII - Restaurants may only serve water upon request	Restaurants may only serve water upon request	7.4 AF	0.58 AF	Southwest Florida Water Management; (Southwest Florida Water Management District, n.d.)	
Stage 2 and up	Pools and Spas - Require covers for pools and spas	Require covers for pools and spas	0.38 AF (90% of water loss due to evaporation from uncovered pools)	0.27 AF (90% of water loss due to evaporation from uncovered pools)	Arlington, Virginia, Water & Utilities (Arlington, Virginia Water & Utilities, n.d.)	
Stage 2 and up	Landscape - Limit landscape irrigation to specific times	Watering or irrigation with a device that is not continuously attended to is limited to fifteen (15) minutes per day per valve. Low flow drip type systems, water efficient stream rotor systems, and sensor/weather-controlled systems are exempt	0.84 AF (10% of Irrigation demand)	5.28 AF (10% of Irrigation demand)	Texas Living Waters,(Texas Living Waters Project, 2018); Resources Magazine, (Texas Living Waters Project, n.d.)	

SHORTAGE LEVEL	DWR DEMAND REDUCTION ACTION CATEGORY[1]	RESPONSE ACTION	ESTIMATED SHORTAGE GP REDUCTION BASED ON ACTION, AFY		ADDITIONAL EXPLANATION OR REFERENCE	PENALTY, CHARGE, OR OTHER ENFORCEMENT
			SLVWD	SVWD		
Stage 2 and up	Landscape - Limit landscape irrigation to specific days	Irrigation for turf watering using potable water shall be limited to a specified number of days per week determined by the supplier depending on the shortage severity. Plant containers, trees, shrubs, and vegetable gardens may be watered additional days using only drip irrigation or hand watering as determined by the supplier depending on the shortage severity	1.8 AF (20% of Landscape Irrigation Consumption)	11.1 AF (20% of Landscape Irrigation Consumption)	CalWep WSCP Toolkit 2021; City of Sacramento and City of Clovis (California Water Efficiency Partnership, 2021)	
Stage 2 and up	Implement or Modify Drought Rate Structure or Surcharge	Drought Rates and Surcharges may be utilized by supplier				Yes
Stage 3 and up	Other water feature or swimming pool restriction	Existing pools shall not be emptied and refilled using potable water unless required for public health and safety purposes	0.0017 AF	0.001 AF	CalWep WSCP Toolkit 2021; City of Sacramento and City of Clovis (California Water Efficiency Partnership, 2021)	
Stage 3 and up	Landscape - Other landscape restriction or prohibition	With the exception of landscapes watered with non-potable water, limit the installation of new landscaping to drought tolerant trees, shrubs, and groundcover. Prohibit installation of new turf or hydroseed. Customers may apply for a waiver to irrigate during an establishment period for the installation of new turf or hydroseed	7.07 AF (80% of Landscape Irrigation Consumption)	44.4 AF (80% of Landscape Irrigation Consumption)	Model Water Efficient Landscape Ordinance (California Department of Water)	
Stage 3 and up	CII - Commercial kitchens required to use pre-rinse spray valves	Food preparation establishments must use water efficient kitchen spray valves	110.5 AF (25% of Commercial Demand)	56 AF (25% of Commercial Demand)	EPA, Saving Water in Restaurants (Environmental Protection Agency, WaterSence, 2012); EPA, Restaurants Install Water-Efficient Commercial Kitchen Equipment (Environmental Protection Agency, WaterSense, 2014)	
Stage 4 and up	Other	The supplier may set or adjust water allocations in all categories to meet the available water supply				

1 The actions identified in this table represent allowable entries by DWR in submittal Table DWR 8-2 for the UWMP.

13.4.2 Supply Augmentation

SVWD relies only on groundwater and SLVWD relies on a combination of surface water and groundwater as their source of potable water supply. The Districts plan to address water shortages through extensive communication and outreach efforts and demand reduction actions.

13.4.3 Emergency Response Plan

The Districts plan to coordinate responses to catastrophic water shortages and develop plans in response to the specific cause of the event. To inform these decisions, SVWD utilizes the City of Scotts Valley Emergency Operation Plan, which is compliant with the State's policies on Emergency Response and Planning, the Standardized Emergency Management System Operational Area response, National Incident Management System, and defines the primary and support roles of City personnel and departments in post incident damage assessment and After Action reporting requirements. SLVWD also has a San Lorenzo Valley Water District Water System Emergency Response Plan, which informs decision making in the event of a catastrophic water shortage. These plans address the Districts' response to extraordinary emergency situations associated with natural disasters, human-caused emergencies, technological, and catastrophic events, which cause widespread damage, loss, or destruction. The plans provide operational concepts relating to the various emergency situations, identifies components of the Emergency Management Organization, and describe the overall responsibilities of the organization for protecting life and property, and assuring the overall well-being of the population. The plans also identify the sources of outside support that might be provided. The plans detail the Districts' response, personnel, and assistance, which will be provided during a disaster and emergency.

13.4.4 Seismic Risk Assessment and Mitigation Plan

Disasters, such as earthquakes, can and will occur without notice. Given the Districts' proximity to potentially active faults, the Districts recognize the necessity to have active Mitigation Plans. Seismic risks and mitigation plans are published in Local Hazard Mitigation Plans (LHMP). The County of Santa Cruz LHMP (County LHMP) identifies seismic risks and mitigation actions that the Districts could implement to alleviate seismic risks and increase reliability (UWMP **Appendix H**). Actions include upgrades of water infrastructure, emergency and critical structures and continued preparedness coordination with other local agencies (County of Santa Cruz, 2015).

In addition, SVWD and SLVWD are each in the process of completing their Risk and Resiliency Assessment (RRA) and Emergency Response Plan (ERP) in accordance with America's Water Infrastructure Act and J-100 standards. The RRA and ERP analyze all SVWD and SLVWD critical facilities for a seismic event and address mitigation strategies.

13.4.5 Shortage Response Action Effectiveness

Under normal water supply conditions, water production data is recorded daily. From this information, month to month and year to year statistics are calculated. This data allows the Districts to determine the effectiveness of the implemented actions. If reduction goals are not being met, the Districts can make the necessary decisions for corrective action to be taken. Since the Districts have daily production records available during a drought or other water emergency, more frequent reporting could be provided. In addition, SVWD has implemented Advanced Metering Infrastructure (AMI) and SLVWD is in the process of converting to AMI, which provides the Districts additional data and opportunities to effectively monitor and coordinate with customers in near real-time.

During water shortage conditions, savings are measured in comparison to what is considered to be normal year demand (i.e., current customer base with approximately average rainfall), or in reference to a specific base year as may be dictated by Statewide requirements. Estimates of the effectiveness for actions has been included in **Table 13-6**. It is assumed that a given required shortage addressed in each level can be met by quantifiable measures and the remainder of shortage can be addressed by unquantifiable measures. It is expected that response actions effectiveness is also a result of successful communication and outreach efforts.

13.5 Communication Protocols

This section is in accordance with CWC Section 10632(a)(5) and describes the communication protocols and procedures to inform customers, the public, and state and local officials of any current or predicted water shortages. When a shortage level is enacted or changed, a notice is published in the local the newspaper and on SVWD and SLVWD websites. Based on the severity of the shortage condition, the Districts may also advertise on the local radio, publish special publications, or send mail notifications to all its customers. In the case of an emergency, SVWD also assigns a Public Information Officer who is responsible for monitoring and controlling the release of information about the event and also serves as a point of contact for news media and other appropriate agencies and organizations. This WSCP relies on existing SVWD and SLVWD communication plans to provide guidance for efficient communication of declaration of a shortage level, inform restrictions, and provide updates during a water shortage emergency. The Districts prioritize effective communication, especially in times of a water shortage emergency. The Districts routinely communicate to customers about details on when a stage is announced. Communication actions include bill inserts, electronic blasts, newsletters, website and social media postings, customer portal notifications, and other additional methods. The Districts continue to provide reminders about shortage levels and encourage water use efficiency at all times.

13.6 Compliance and Enforcement

This section is in accordance with CWC Section 10632(a)(6) and describes the compliance and enforcement provisions.

SVWD has established a Water Waste Policy P500-15-1 (Policy) which outlines the following consequences for violations:

- **Initial Notification:** Verbal or written explanation of the violation will be communicated to the customer, along with required remediation, and the requirement to respond by the next business day.
- **Second Notification:** If no response has been received by the next business day, SVWD shall issue a Second Notification in writing.
- **Final Notification:** If a) no response to the Second Notification has been received, b) satisfactory arrangements have not been made for correction or c) timely verification of correction has not occurred, the customer's potable water service may be disconnected and/or a fine of $100 (or other amount set by State regulations) may be charged for each calendar day in which the violation occurs. All fines must be paid prior to re-connection of service.

SLVWD enforces Ordinance Number 106 (Ordinance) commencing with Stage 1. The Ordinance outlines the following consequences for violations:

- **First Offense:** Written notice of violation and opportunity to correct violation.
- **Second Offense:** A second violation within the preceding twelve calendar months is punishable by a fine not to exceed one hundred dollars.
- **Third Offense:** A third violation within the preceding twelve calendar months is punishable by a fine not to exceed two hundred fifty dollars.
- **Fourth Offense:** A fourth violation within the preceding twelve calendar months is punishable by a fine not to exceed five hundred dollars. In addition to any fines, the District Manager may order a water flow restrictor device be installed.

Discontinuing Service. In addition to any fines and the installation of a water flow restrictor, the District Manager may disconnect a customer's water service for willful violations of mandatory restrictions and regulations in the Ordinance. Upon disconnection of water service, a written notice shall be served upon the customer which shall state the time, place, and general description of the prohibited or restricted activity and the method by which reconnection can be made.

SVWD Policy and SLVWD Ordinance provide the Districts with the power to perform all acts necessary to ensure water resources are put to beneficial use and that waste or unreasonable use of water is prevented.

13.7 Legal Authorities

Each of the Districts' Boards have the legal authority to declare a water shortage stage, associated curtailment target, and set emergency water rates. As noted above, SVWD Water Waste Policy P500-15-1, Think Twice Program and SLVWD Ordinance Number 106 establish the rules and regulations for efficient water use and minimizing water waste. In addition, the WSCP was developed in conjunction with the Districts' UWMP. Resolutions adopting the WSCP, and resolutions enacting selected components of the WSCP, further provide the Districts with the authority to implement water efficiency efforts.

13.8 Financial Consequences of WSCP

Significantly reduced demands in response to water shortage conditions often trigger revenue shortfalls. To mitigate the financial impact , SVWD may implement add-on drought rates during a Stage 2 or Stage 3 water shortage, as provided in **Table 13-8**.

Table 13-8. SVWD Add-On Bi-Monthly Drought Rates

RESIDENTIAL TIERED RATES (PER 1,000 GAL)	STAGE 2	STAGE 3
Tier 1 - 0 – 6,000	$0.00	$0.00
Tier 2 – 6,001 to 12,000	$5.72	$9.19
Tier 3 – 12,001 to 16,000	$5.72	$9.19
Over 16,000	$5.72	$9.19

https://www.svwd.org/rates-fees

SLVWD may implement Revenue Stabilization Rates if revenue from water consumption sales is below the percentages indicated in **Table 13-9**.

Table 13-9 SLVWD Revenue Stabilization Rates

PERCENTAGE	FISCAL YEAR 2020-21 RATE
10%	$13.27
15%	$13.87
20%	$14.47

Revenue stabilization rates would be implemented if current revenue from water consumption sales is below the percentages indicated. (https://www.slvwd.com/sites/g/files/vyhlif1176/f/uploads/2017_2022_water_rate_increase_schedule.pdf)

SLVWD also may also assess excessive water use penalties that shall be assessed where the customer, during any given billing cycle, uses more than the customer's water allotment per SLVWD's water rationing regulations issued commencing with Stage 3.

Excess use penalties shall be in addition to ordinary water consumption charges, as follows:

- One percent to ten percent over customer rationing allotment: twenty-five dollars/CCF.
- More than ten percent over customer rationing allotment: fifty dollars/CCF.

In addition to any excess use penalties, the District Manager may order a water flow restrictor device be installed and/or may disconnect a customer's water service for willful violations of the water rationing regulations in the Ordinance. Upon disconnection of water service, a written notice shall be served upon the customer which shall state the time, place, and general description of the prohibited or restricted activity and the method by which reconnection can be made.

The Districts could also use reserves to minimize the need for additional rate increases while also implementing expense reduction measures in an attempt to match the revenue gap. A full analysis of the water rates based on the financial conditions at the time water reduction would occur and would be presented to the respective Districts' Boards for their approval.

13.9 Monitoring and Reporting

This section is in accordance with CWC Section 10632(a)(9) and describes the reporting requirements and monitoring procedures to implement the WSCP and track and evaluate the response actions effectives.

The Districts intend to monitor their supply and project demand on an annual basis in April of each year and, if triggers identified in **Table 13-2** and/or **Table 13-4** are met, then the Districts determine if they enact components of the WSCP. Monitoring demands is essential to ensure the WSCP response actions are adequately meeting reductions and decreasing the supply/demand gap. This helps to analyze the effectiveness of the WSCP or identify the need to activate additional response actions.

The water savings from implementation of the WSCP are determined based on monthly consumption data which will be compared to the consumption data from prior months, the same period of the prior year, and/ or the allocation. At first, the cumulative consumption for the various sectors (e.g., residential, commercial, etc.) will be evaluated for reaching the target demand reduction level. Then if needed, individual accounts will be monitored. Weather and other possible influences may be accounted for in the evaluation.

13.10 WSCP Refinement Procedures

The WSCP is best prepared and implemented as an adaptive management plan. The Districts use results obtained from the monitoring and reporting program to evaluate any needs for revisions. The WSCP is used to provide guidance to both Boards, staff, and the public by identifying response actions to allow for efficient management of any water shortage with predictability and accountability.

To maintain a useful and efficient standard of practice in water shortage conditions, the requirements, criteria, and response actions need to be continually evaluated and improved upon to ensure that its shortage risk tolerance is adequate, and the shortage response actions are effective and up to date based on lessons learned from implementing the WSCP. Potential changes to the WSCP that would warrant an update include, but are not limited to, any changes to shortage level triggers, changes to the shortage level structure, and/or changes to the response actions. Any prospective changes to the WSCP would need to be presented at a public hearing, staff would obtain any comments and adopt the updated WSCP. The steps to formally amend the WSCP are discussed below.

Potential refinements will be documented and integrated in the next WSCP update. If new response actions are identified by staff or public, these could be advertised as voluntary actions until these are formally adopted as mandatory.

13.11 Special Water Feature Distinction

The CWC Section 10623 (b) now requires that suppliers analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code. Non-pool or non-spa water features may use or be able to use recycled water, whereas pools and spas must use potable water for health and safety considerations, so limitations to pools and spas may require different considerations compared to non-pool or non-spa water features.

13.12 Plan Adoption, Submittal, and Availability

The WSCP is a standalone document that can be updated as needed. **Table 13-9** describes the general steps to adopt and submit an updated or amended WSCP.

This 2020 WSCP was presented for adoption to the SLVWD Board at the June 17, 2021 Board meeting and the SVWD Board on the June 10, 2021 meeting. Notifications were sent to the City of Scotts Valley, County of Santa Cruz, water agencies, and members of the public 60 days prior to the public board meetings. To comply with the notice to the public, the Districts published notices in the local newspaper once a week for two successive weeks. Copies of the 60-day notices and public hearing newspaper notices are provided in UWMP **Appendix B**. The WSCP was also made available for public review in advance of the public hearing.

The WSCP was formally adopted on date to be determined by the SLVWD Board through Resolution TBD, included in UWMP **Appendix C**, and on date to be determined by the SVWD Board through Resolution TBD, included in UWMP **Appendix C**. Commencing within 30 days of adoption, the Districts will have a copy of the UWMP and WSCP available for public review at the Districts' offices (see addresses below) during normal business hours.

The documents will also be posted on each of the Districts' website as noted below.

Scotts Valley Water District
2 Civic Center Drive
Scotts Valley, CA 95066
www.svwd.org

San Lorenzo Valley Water District
13060 CA-9
Boulder Creek, CA 95006
www.slvwd.com

The WSCP was submitted to DWR by July 1, 2021 (within 30 days of adoption) using the DWR WUE Data Portal. The documents were also submitted to the California State Library, to the City of Scotts Valley, and County of Santa Cruz within 30 days of adoption. Table 13-10 provides the processes and steps to adopt, submit, and implement the WSCP.

Table 13-10. Steps to Adopt, Submit, and Implement the WSCP

STEP	TASK	DESCRIPTION	TIMEFRAME
1	Notice to cities and counties	Notify cities and counties within the service area that the WSCP is being updated. It is recommended that the notice includes: • Time and place of public hearing. • Location of the draft Plan, latest revision schedule, and contact information of the Plan preparer.	At least 60 days before public hearing. * If desired, advance notices can be issued without providing time and place of public hearing.
2	Publish Plan	Publish the draft WSCP in advance of public hearing meeting (www.svwd.org and www.slvwd.org)	At least 2 weeks before public hearing.
3	Notice to the public	Publish two notifications of the public hearing in a local newspaper notice at least once a week for two consecutive weeks, with at least 5 days between publications. This notice must include: • Time and place of hearing. • Location of the draft WSCP.	At least 2 weeks before public hearing. * Include a copy of public notices in plan.
4	Public hearing and optional adoption	Host at least one public hearing before adopting the WSCP to: • Allow for community input. • Consider the economic impacts for complying with the Plan.	Public hearing date * Adoption can be combined as long as public hearing is on the agenda before adoption
5	Adoption	Before submitting the WSCP to DWR, the governing body must formally adopt it. An adoption resolution must be included, as an Appendix or as a web address indicating where the adoption resolution can be found online.	At public hearing or at a later meeting. *The WSCP can be adopted as prepared or as modified after the hearing.
6	Plan submittal	Submit the adopted or amended WSCP via the WUE Data Portal within 30 days of adoption or by July 1, if updated with the UWMP five-year cycle.	Within 30 days of adoption or by July 1st, whichever comes first.

STEP	TASK	DESCRIPTION	TIMEFRAME
7	Plan availability	Submit a CD or hardcopy of the adopted WSCP to the California State Library within 30 days of adoption. California State Library Government Publications Section Attention: Coordinator, Urban Water Management Plans P.O. Box 942837 Sacramento, CA 94237-0001 Provide a copy (hardcopy or electronic) of the adopted WSCP to any cities and counties within the service area. Make the WSCP available to the public by posting the Plan on website or making a hardcopy available for public review during normal business hours.	Within 30 days after adoption
8	Other - Notification to Public Utilities Commission	For water suppliers regulated by the California Public Utilities Commission submit UWMP and WSCP as part of the general rate case filing.	

URBAN WATER MANAGEMENT PLAN

14 SVWD Demand Management Measures

The Demand Management Measures (DMM) chapter provides a comprehensive description of the water conservation programs that SVWD has implemented for the past five years, is currently implementing, and plans to implement to reduce future demand.

IN THIS SECTION

- Water Waste Prevention
- Metering and Rates
- Public Outreach
- Water Losses
- Water Conservation Efforts

The Demand Management Measures (DMM) chapter provides a comprehensive description of the water use efficiency activities that SVWD has implemented for the past five years, is currently implementing, and plans to implement to be good stewards of the local shared resource and to meet water use reduction targets. The CWC section addressing DMMs was significantly modified in 2014, to simplify, clarify, and update the DMM reporting requirements. The legislative changes enacted streamlined the Retail Supplier requirements to six general requirements plus an "other" category.

The required measures are summarized in **Table 14-1**. SVWD recognizes that using water efficiently and minimizing water waste is an integral component of an effective water management strategy and is committed to providing education, tools, and incentives to help its customers understand and manage their water use. Water demand has already shown significant decline in SVWD's service area in recent years, which can be attributed to ongoing water use efficiency activities, expansion of recycled water distribution network, deployment of advance metering infrastructure and efforts to reduce water waste.

Table 14-1. Demand Management Measures

	MEASURE
1	Water waste prevention ordinances
2	Metering
3	Conservation pricing
4	Public education and outreach
5	Programs to assess and manage distribution system real loss
6	Water conservation program coordination and staffing
7	Other demand management measures

14.1 Existing Demand Management Measures for Retail

Demand management is an integral part of sustainably managing water resources in California. Implementing water use DMMs that help lower demands can improve the water service reliability and help meet state and regional water conservation goals. Consistent with the requirements of the CWC for retail water suppliers, this section describes the required DMMs that have been implemented by SLVWD in the past five years and will continue to be implemented into the future. SVWD water demand in 2020 was 96 GPCD which far exceeded the 2020 SB X7-7 target of 154 GPCD. This section details SVWD efforts to promote efficient use of water and minimize water waste.

14.1.1 Water Waste Prevention Ordinances

According to the 2020 Guidebook, a water waste ordinance explicitly states the waste of water is to be prohibited. The ordinance may prohibit specific actions that waste water, such as excessive runoff from landscape irrigation, or use of a hose outdoors without a shut off nozzle. A water waste prevention ordinance is in place at all times and is not dependent on a water shortage for implementation.

Executive Order B-37-16 “Making Water Conservation a California Way of Life” directed State agencies to update temporary emergency water restrictions and transition to permanent, long-term improvements in water use by taking actions and included using water more wisely and eliminating water waste. SVWD actively pursues incidents of water waste by investigating, recommending corrective action, providing follow-up documentation of resolution, and administering penalties. Fines and water service disconnection can be enforced per the Water Waste Policy (P500-15-1) if excessive and unabated leaks and/or water waste occur.

SVWD water waste regulations were first established in 2012 and have evolved over time. Most recently the Water Waste Policy (May 2015) was updated and approved by the Board in June 2020. The policy also incorporates State mandates.

SVWD has also updated its Water Shortage Contingency Plan as previously described. The plan is designed to facilitate implementation of water shortage response measures.

14.1.2 Metering

All potable water use in SVWD’s service area is metered and customers are billed by volume of usage on a bi-monthly basis. An increasing block rate structure has been in place for several decades but has

undergone periodic reviews and changes as appropriate. Recycled water is also metered and billed by volume of usage on a monthly basis, at rates that correspond to the cost of service.

SVWD's billing system keeps record of the following meter data: size, type, year installed, customer class served. An abnormal meter read automatically creates a work order for meter testing and repair or replacement when necessary. An abnormal read would include exceptionally high or low reads, zero reads, or non-reads.

In 2017, the SVWD Board of Directors approved a project to replace all meters installed before 2012 and deploy Advanced Metering Infrastructure (AMI) meter-reading technology for all SVWD meters. AMI is an integrated system of intelligent meters (i-Meters) as well as communication network and data management system that enables more frequent and up-to-date access to customers water use. Previously, customer water use information was collected once every two months by SVWD staff, making it challenging to track and understand water use patterns, notice leaks in a timely manner and motivate customers to manage their water consumption.

SVWD customers with i-Meters can access their data on the WaterSmart customer engagement portal. The WaterSmart platform helps customers monitor water usage to be more water efficient and save money on water bills. Customers can:

- View usage history and set alerts for unusual usage and high bills
- Compare their consumption to similar households
- Explore water and money-saving actions
- Sign up to receive personalized tips on how to save water
- Access billing statements
- Apply for SVWD rebates

As of May 2021, SVWD has completed the i-Meter installation in the whole system and WaterSmart is available to all customers.

14.1.3 Conservation Pricing

According to the 2020 Guidebook, a conservation pricing structure is always in place and is not dependent on a water shortage for implementation. In addition, rates cannot be seen as penalties for excessive water use. Conservation pricing is designed to discourage wasteful water habits and encourage conservation.

SVWD utilizes a four-tier rate structure for the single family and multifamily residential customer categories which make up approximately 72% of the customer base. Rates based on volume of use support more efficient use of water. SVWD deploys a uniform rate structure for the remaining customer classes. Water consumption is measured in "units" where 1 unit equals 1,000 gallons of water. All customers are charged fixed amount basic service charge based on the meter size. Residential potable water bi-monthly rates and recycled water monthly rates effective as of December 13, 2020, are shown in **Table 14-2** and **Table 14-3**.

Table 14-2. SVWD Potable Water Bi-Monthly Rates

WATER METER SIZE	BASIC SERVICE CHARGE (PER METER)
5/8"	$85.90
5/8" Rate Assistance (Residential)	$60.14
5/8" Fire Service (Residential/Commercial)	$23.38
3/4" (Multi-Residential, incl Fire Service)	$109.27
3/4"	$135.16
1"	$145.39
1.5"	$341.68
2"	$463.93
3"	$827.11
4"	$1,446.19
6"	$3,089.28
RESIDENTIAL TIERED RATES (PER 1,000 GAL)	**MONTHLY CONSUMPTION CHARGE (PER 1,000 GAL)**
Tier 1 - 0 – 6,000	$7.03
Tier 2 – 6,001 to 12,000	$12.20
Tier 3 – 12,001 to 16,000	$19.56
Over 16,000	$23.64

https://www.svwd.org/rates-fees

Table 14-3. SVWD Recycled Water Monthly Rates

WATER METER SIZE	BASIC SERVICE CHARGE (PER METER)
5/8"	$45.88
3/4"	$72.18
1"	$77.64
1.5"	$182.46
2"	$247.74
3"	$441.67
4"	$772.25
6"	$1,649.63
WATER UNITS (PER 1,000 GAL)	**MONTHLY CONSUMPTION CHARGE (PER 1,000 GAL)**
Landscape Recycled	$13.64

https://www.svwd.org/rates-fees

Bulk water permits are issued for the purchase of both potable and recycled water. Recycled bulk water may only be used for construction and irrigation purposes and is also made available for use outside of SVWD service area boundaries.

In addition to regular rates, during a Stage 2 or Stage 3 drought, SVWD has add-on drought rates as provided in **Table 14-4**.

Table 14-4. SVWD Add-On Bi-Monthly Drought Rates

RESIDENTIAL TIERED RATES (PER 1,000 GAL)	STAGE 2	STAGE 3
Tier 1 - 0 – 6,000	$0.00	$0.00
Tier 2 – 6,001 to 12,000	$5.72	$9.19
Tier 3 – 12,001 to 16,000	$5.72	$9.19
Over 16,000	$5.72	$9.19

https://www.svwd.org/rates-fees

14.1.4 Public Education and Outreach

SVWD developed the Think Twice Water Use Efficiency program which outlines the activities that support SVWD's long-term sustainable water supply planning efforts. The program establishes a multi-pronged approach that increases awareness about indoor and outdoor water use efficiencies, promotes water efficient behaviors, and continuously reduces water waste. A key Think Twice program component is education and outreach.

SVWD actively promotes public awareness and education of SVWD water supply sources, the San Lorenzo River watershed, and the public's role in conserving water and protecting shared resources. SVWD has conducted a variety of public education activities over the years. Several activities aimed to motivate customers to respond to a drought situation, while others were more general in scope. Activities that SVWD has undertaken are provided below.

14.1.4.1 Website, eNewsletter and Email Notifications

SVWD's website (https://www.svwd.org/) provides water-use efficiency tips, informs customers when the drought contingency plan is in effect, posts restrictions or prohibitions for outdoor water use, provides rebate and landscape waterwise assistance and provides contacts for other resources that support efficient water use. SVWD also coordinates its outreach with other websites and media platforms, such as the Scotts Valley Chamber of Commerce, My Scotts Valley, the Santa Cruz County Water Conservation Coalition, and Facebook.

Staff also utilizes an email distribution application (Mail Chimp) that allows email notifications to be sent out to interested customers and stakeholders. Notifications such as SVWD e-Newsletter, Board Meetings, Events/Workshops, Media/Press, Santa Margarita Groundwater Basin Advisory Committee, and Recycle Fill Station News, all include water use efficiency and conservation-related news.

14.1.4.2 Print Advertising

SVWD prints bi-weekly advertisements in the Press Banner newspaper and monthly advertisements in Scotts Valley Times, conducting outreach, informing the community about SVWD activities, and promoting water use efficiency.

14.1.4.3 Bill Messages and Inserts

Frequently, the bill inserts are designed featuring water efficiency measures and tools that are available to customers.

14.1.4.4 Signage

Fleet signage, bumper stickers, lawn signs and SVWD office signs have also been used to educate customers about drought mandates, the Monterey Bay Friendly Landscape Certification and Recycled Water Programs, and the SVWD low-water demonstration garden.

14.1.4.5 Staff Presentations & Community Engagement:

Presentations to the general public and professional organizations regarding water supply and water use efficiency include:

- Informational tours of the SVWD Water-Smart Demonstration Garden
- Scotts Valley City Council regarding Retrofit Upon Resale
- California Landscape Contractors Association
- Resource Conservation District & the Coastal Watershed Council
- Monterey Bay Master Gardeners
- Watsonville Regional Water Quality Conference
- Local HOAs: Country Terrace, Granite Creek Estates, Scotts Valley and Monte Valle Mobile Home Parks.

Additional activities and events that SVWD has participated in to promote and educate the public about water conservation include:

- Sponsoring the Scotts Valley Garden Faire
- Promoting and sponsoring the Monterey Bay Green Gardner Program
- Coordinating the Scotts Valley Green Business Certification program
- Conducting greywater installation trainings

14.1.4.6 Cooperative Agency Program

SVWD participates in the Water Conservation Coalition of Santa Cruz County, consisting of Santa Cruz County Water Resources, Ecology Action, Soquel Creek Water District, Pajaro Valley Water Management Agency, the Cities of Watsonville and Santa Cruz Water Departments, Central Water District and SLVWD. This committee contributes funds for community awareness campaigns to better inform the public about conservation methods and practices.

14.1.4.7 School Education Programs

SVWD has water conservation promotional materials for grades K-8. Additionally, a booklet was created by the Water Conservation Coalition of Santa Cruz County that promotes water awareness, specifically in the local region. This booklet is appropriate for middle school grades and is available upon teacher request or during visits to classrooms.

SVWD has provided educational talks for Scotts Valley High School freshmen biology classes each spring. These talks last for two days and have been done collaboratively with either the Green Schools Program or the Coastal Watershed Council staff. SVWD staff cover the water cycle, local water sources and challenges, and conservation and water use efficiency, whereas other agency staff discuss water quality and pollution prevention.

14.1.5 Programs to Assess and Manage Distribution System Real Loss

SVWD estimates the amount of water losses on a bi-monthly basis. Water loss volume was calculated to be in the range of 7 percent to 15 percent for water years 2017-2020. SVWD uses AWWA water audit software and conducts required audits to help monitor and reduce water loss. The AWWA water

audits are described in the Water Use Characterization section of this UWMP, and audit documents are provided in **Appendix D**.

SVWD has undertaken significant efforts that aimed to reduce the amount of water loss. These included conducting a system-wide water audit, performing a leak detection, and running the AWWA M36 software. In 2016, SVWD staff began using AWWA M36 software to calculate an updated Water Audit Data Validity Score. Priority areas that were identified for attention included meter data from own sources, estimation of variable production cost and customer metering inaccuracies. SVWD efforts in reducing water loss in the past have been effective and will be continued. SVWD has had improved water loss audit scores each year since 2016.

Full system leak detection was completed in 2015. The leak detection consultant, M.E. Simpson, report indicated some minor distribution leaks that were repaired immediately. A significant percentage of SVWD losses are potentially the result of meters that are under reporting deliveries. As discussed in **Section 14.1.2**, in response SVWD initiated a meter change out program to implement an AMI system for the service area.

In addition, SVWD has operated a leak detection program for customers since 1996. Customers who submit proof of repair are eligible for a 75% credit of the difference of the tiered portion of their bill, as compared to the year prior. Leak adjustments are granted once every five years on a case-by-case basis and must be made in a timely manner.

14.1.6 Water Conservation Program Coordination and Staffing Support

SVWD has a full time Water Use Efficiency (WUE) Coordinator. The WUE Coordinator develops and implements various water use efficiency programs and activities; performs residential, commercial and landscape water audits; assists with SVWD recycled water program; coordinates and organizes public education and outreach programs; writes articles for media, website, and newsletter; provides data analysis; assist customer service staff as needed; and performs other related duties.

14.1.7 Other Demand Management Measures

SVWD administers several other demand management programs that benefit both residential and commercial customers.

14.1.7.1 Rebate Programs

SVWD has developed a rebate program that is offered to potable water customers in good standing who meet specific guidelines. 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, the customers are advised to contact SVWD for specific eligibility requirements. SVWD carried out 133 rebates with approximate water savings of 923,000 per year in WY 2020 and 103 rebates resulting in estimated water savings of 950,000 per year in WY 2019.

Lawn or Impervious Hardscape (including Pools) Replacement

Rebate of $1.00 per square foot is offered for the replacement of existing lawn or impervious hardscape (i.e., 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. SVWD also considers low water turf blends or low water groundcover if paired with subsurface or rotary small-stream spray irrigation. One hardscape replacement and 31 lawn replacement rebates were provided in the 2020 water year.

Spray Irrigation Replacement

Rebate of $0.50 per square foot is offered for the 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 capped. In the 2020 water year, SVWD provided 17 rebates.

Spray Rotator Nozzle Replacement

Rebate of $10 per device is offered for the replacement of existing high-volume overhead sprayers with small stream rotary/rotator nozzles. The existing spray head body must be the same manufacturer as the new rotator nozzle and the zone cannot mix high and low volume nozzles. In the 2020 water year, SVWD provided 1 rebate.

Greywater Irrigation

Rebate of up to $150 per fixture is offered for showers, bathtubs, and washing machines if installed to current California Universal Plumbing Code standards

Rainwater Cistern

Rebate of $0.25 per gallon of cistern for up to $750 per account is offered for cisterns capturing rainwater. These 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

Rebate of $75 is offered per downspout for up to 4 devices per account. Overflow must be directed to an on-site landscape feature such as rain garden, swale, dry well, dry creek bed, infiltration basin, etc. in order to qualify for the rebate. In the 2020 water year, 1 rebate was provided

Pressure Regulator

Rebate of $50 per pressure regulator for up to 2 devices per account every five (5) years is offered. 48 rebates were provided in the 2020 water year.

Toilets and Urinals

SVWD offers several rebates for replacing toilets. All rebates are for replacing a toilet that flushes 1.6 gallons per flush (gpf) or higher with a more efficient toilet. The rebate options are as follows: $125 for replacing a higher than 1.6 gpf with a lower than 1.28 gpf, $100 for replacing a higher than 1.6 gpf with a 1.28 gpf, $50 for replacing a 1.6 gpf with a lower than 1.28 gpf, and $25 for replacing a 1.6 gpf with a 1.28 gpf. All new toilets must be EPA WaterSense Certified. Additionally, SVWD offers a $75 rebate for replacing any urinal requiring water with a waterless urinal. In the 2020 water year, 36 rebates were provided.

14.1.7.2 Additional Water Conservation Efforts

SVWD first introduced its Water-Wise House Call program in the spring of 2008. Between May 1, 2020 and October 31, 2020 SVWD conducted 97 house calls/leak checks. SVWD Water-Wise House Call program is available upon customer request or in response to identified high use. House Calls include toilet testing, pressure, and meter checks, testing of aerator flow and distribution of free replacement aerators for sinks and showers and water budgeting upon request.

SVWD also makes specific efforts to work with high water users by providing education and consultation, using a water waste violation notice as the last resort. This activity is quite time consuming, involving “layers of players”- from property managers, facility managers, landscapers, and owners. Efficient use of water is rarely a goal/incentive for large agencies or corporations as there is no

accountability for it. There is also a lack of education about how to find or repair leaks and irrigate efficiently.

In July of 2007, SVWD began offering low-flow aerators (.5 and 1.0 gpm) and (1.5 gpm) showerheads free of charge to SVWD customers. These are also distributed during Water Wise House (or Business) Calls.

Water Use Efficiency for New Residential Development

The City of Scotts Valley Planning and Building Department enforces the CA Green Building Code for new and retrofit construction. New landscape construction in California is also subject to the Model Water Efficient Landscape Ordinance and all agencies are required to enforce it even if they do not formally adopt it. SVWD only provides a fixture review for meter sizing, it does not review indoor fixture flow rates or irrigation plans.

SVWD does offer reduced connection and impact fees for new high density residential units that are outfitted with water efficient plumbing fixtures and use not potable water for irrigation.

14.1.7.3 Recycled Water

SVWD's primary goal for large landscape customers is utilization of recycled water.

The largest irrigators in SVWD's service area are the Enterprise Technology Center, Scotts Valley High School and City parks – all of which have been converted to recycled water. New development is also utilizing recycled water as access to mains are possible.

The primary incentive for customers to consider recycled water for their landscape needs is the lower connection fees and monthly charges. In addition, recycled water use site permits mandate periodic checks and assurances that no water is running offsite.

14.1.7.4 Commercial, Industrial, and Institutional (CII) Accounts

SVWD has had a CII customer category for almost 25 years. CII customers are eligible for the most rebates, similarly to the residential customers. SVWD conducts Water Wise Business Calls and water audits through the Monterey Bay Area Green Business Program.

14.1.8 Reporting Implementation

A water use efficiency report is produced and presented to the SVWD Board on a biannual basis. The report highlights ongoing activities such as regional planning and collaboration, professional development, working with high water users, and the WaterSmart program. In addition, the report provides performance statistics for leak adjustments, house calls/leak checks, waste violations/consultations, pre-rebate inspections, post rebate inspections, customer contacts and the number of rebates processed along with the total cost. Where possible, SVWD provides an estimate of expected water savings and anticipates being able to track savings as the AMI and WaterSmart are fully deployed

14.1.9 Implementation Efforts to Achieve Water Use Targets

The following water use efficiency activities have and are planned to continue to maintain demand reductions:

- Financial incentives such as rebates and free fixtures
- Social media postings that appeal to community norms
- Water Waste Policy and any drought mandates
- Water Wise House (Business) Calls, and leak alert investigations
- AMI and WaterSmart customer engagement portal
- Community education and outreach
- Tiered rate structure

14.2 Water Use Objectives (Future Requirements)

SVWD customers are efficient and have reduced their per capita water use to less than the State target. SVWD continues to promote efficient water use and will consider any additional measures that support the desired outcomes.

URBAN WATER MANAGEMENT PLAN

15 SLVWD Demand Management Measures

The Demand Management Measures (DMM) chapter provides a comprehensive description of the water conservation programs that SLVWD has implemented for the past five years, is currently implementing, and plans to implement to reduce future demand.

The Demand Management Measures (DMM) chapter provides a comprehensive description of the water conservation programs that SLVWD has implemented for the past five years, is currently implementing, and plans to implement in order to meet water use reduction targets. The CWC section addressing DMMs was significantly modified in 2014, to simplify, clarify, and update the DMM reporting requirements. The legislative changes enacted streamlined the Retail Supplier requirements to six general requirements plus an "other" category.

IN THIS SECTION

The required measures are summarized in **Table 15-1**. SLVWD actively promotes public awareness and education of the SLVWD water supply sources, the San Lorenzo River watershed, and the public's role in conserving water and protecting shared resources. SLVWD is committed to implementing cost effective programs that will increase water efficiency throughout the service area.

Table 15-1 Demand Management Measures

	MEASURE
1	Water waste prevention ordinances
2	Metering
3	Conservation pricing
4	Public education and outreach
5	Programs to assess and manage distribution system real loss
6	Water conservation program coordination and staffing
7	Other demand management measures

15.1 Existing Demand Management Measures for Retail

Demand management is an integral part of sustainably managing water resources in California. Implementing water use DMMs that help lower demands can improve the water service reliability and help meet state and regional water conservation goals. Consistent with the requirements of the CWC for retail water suppliers, this section describes the required DMMs that have been implemented by SLVWD in the past five years and will continue to be implemented into the future.

15.1.1 Water Waste Prevention Ordinances

According to the 2020 Guidebook, a water waste ordinance explicitly states the waste of water is to be prohibited. The ordinance may prohibit specific actions that waste water, such as excessive runoff from landscape irrigation, or use of a hose outdoors without a shut off nozzle. A water waste prevention ordinance is in place at all times and is not dependent on a water shortage for implementation.

Executive Order B-37-16 “Making Water Conservation a California Way of Life” directed State agencies to update temporary emergency water restrictions and transition to permanent, long-term improvements in water use by taking actions and included using water more wisely and eliminating water waste. SLVWD is dedicated to water conservation and informs customers of prohibitions on water waste and other water-use restrictions by making announcements in water bill inserts, annual water quality reports mailed to customers, the SLVWD website, and in press releases to local newspapers. SLVWD’s Ordinance 106 “Restating and Amending Regulations Responding to Water Shortage Emergency” lists the prohibited uses of water supplied by SLVWD and defines water waste. These prohibitions are in effect during declared water shortage emergencies, and violations are punishable by fines levied on customer water utility bills.

15.1.2 Metering

All SLVWD service connections are currently metered, and water meters are required for all new connections. Meters are read approximately every 30 days and the majority of the meters are read by the SLVWD meter reader. SLVWD provides information about customer meters on their website to help educate the public. Information presented includes: the meter location, how to read a meter and how to detect a leak. SLVWD is in the process of changing out customer meters and replacing with AMI. This technology helps customers monitor water usage and identify leaks when they occur. As of Spring 2021, SLVWD has updated 20% of the meters in its service area.

15.1.3 Conservation Pricing

According to the 2020 Guidebook, a conservation pricing structure is always in place and is not dependent on a water shortage for implementation. In addition, rates cannot be seen as penalties for excessive water use. Conservation pricing is designed to discourage wasteful water habits and encourage conservation. Rates based on volume of use encourage water conservation by customers. SLVWD water rates are available for customer review on the SLVWD website (https://www.slvwd.com/customer-service/pages/rates-fees).

SLVWD switched from a bi-monthly to a monthly billing cycle in May 2014 to help customers more closely track their water usage and conservation efforts. The redesigned monthly bills include information about each connection's daily usage compared to average daily usage the previous year.

Water consumption is measured in "units," where 1 unit equals 100 cubic feet (CCF) or 748 gallons of water. The monthly water rate schedule for fiscal year 202-21 is shown in **Table 15-2**.

Table 15-2 Monthly Rates and Charges – Fiscal Year 2020-21

WATER BASIC RATES (METER SIZE)	MONTHLY BASE CHARGE (PER METER)
5/8", 3/4"	$33.66
1"	$50.45
1.5"	$92.43
2"	$142.80
3"	$277.12
4"	$428.23
Bulk Water (1.5")	$92.43
WATER RATES	**MONTHLY CONSUMPTION CHARGE (PER UNIT)**
Flat Rate per CCF	$12.06

https://www.slvwd.com/customer-service/pages/rates-fees

15.1.4 Public Education and Outreach

SLVWD actively promotes public awareness and education of the SLVWD water supply sources, the San Lorenzo River watershed, and the public's role in conserving water and protecting shared resources. The SLVWD website, (https://www.slvwd.com/conservation/pages/drought-information), provides seasonal water-use efficiency tips, informs customers when the drought contingency plan is in effect, posts restrictions or prohibitions for outdoor water use, and provides contacts for other partner organizations supporting water conservation. One of these organizations is the Water Conservation Coalition of Santa Cruz County, whose goal is to provide the community with effective tools to help make water conservation easy and fun. As a member of the Water Conservation Coalition of Santa Cruz County, SLVWD provides customers with access to the Water Saving Tips website www.watersavingtips.org to provide water saving tips, information on County-wide rebate programs, and educational materials (e.g., drought-tolerant plants suitable for local conditions). The Water Conservation Coalition of Santa Cruz County also works collaboratively to produce press releases, newspaper ads, radio ads, and informational booths at local events.

SLVWD disseminates public information regarding water conservation via the following methods and media:

- The SLVWD website, https://www.slvwd.com/conservation/pages/drought-information.
- Water utility bill inserts, and other direct mailings as needed.
- Customer bills that show the amount of water used in gallons per month and average gallons per day, compared to the amount used for the same period the prior year, and cumulative rainfall for the current water year.
- Paid advertising in local newspapers (e.g., Press Banner, Santa Cruz Sentinel)
- Weather information, including SLVWD rainfall records, posted on-line (https://www.slvwd.com/about-us/pages/local-weather-rainfall) and via links from local, state, and national websites.
- Hosting a booth at local events to distribute water conservation devices, informational materials, and expert in-person advice.
- Monthly newsletter
- Social Media – The SLVWD Facebook and Nextdoor page are updated regularly (2-3 times per week) with water conservation information.

15.1.5 Programs to Assess and Manage Distribution System Real Loss

SLVWD quantifies non-revenue water (NRW, or "losses") on a monthly basis by comparing produced and delivered water and prepares quarterly water loss and water audit status reports. SLVWD uses AWWA Water Audit Software and conducts required audits to help monitor and reduce water loss. The AWWA water audits are described in the Water Use Characterization section of this UWMP and SLVWD audit documents are provided in **Appendix E**. To reduce NRW, SLVWD replaces faulty water meters and locates and repairs leaks throughout its entire system. SLVWD has historically conducted meter replacement programs every 15 to 20 years. In addition, SLVWD is in the process of aggressively reducing distribution system loss by replacing leaking redwood tanks and mainlines and conducting contract leak detection. SLVWD performs system wide contract leak detection every three years and is now moving to annual leak detection in older areas of the distribution system (approximately 1/3 of the distribution system) that is prone to leakage.

SLVWD consults a number of resources and methods for estimating system water losses consistent with best practices advocated by the American Water Works Association (AWWA) and the International Water Association, including the Water Audit and Leak Detection Guidebook (California Department of Water Resources (DWR) and American Water Works Association (AWWA), June 1992) and Water Loss Control (Thorton, J., Sturm, R., Kunkel, G. , 2008).

SLVWD notifies customers to report leaks and informs customers on how to read their meter and how to test for leaks. In the case of a leak on the customer's side of the meter, SLVWD provides opportunity and incentive for customers to review their bills and promptly repair leaks through leak adjustment requests. SLVWD reviews leak adjustment requests for evidence of leak repairs and applies a credit to the water usage portion of a customer's bill. When customers experience a sudden spike in water use compared to previous years, staff will reach out and help customers identify the reason for the spike and assist in reducing water consumption. An emergency on-call service is available to report leaks outside normal business hours.

15.1.6 Water Conservation Program Coordination and Staffing Support

SLVWD's Environmental Planner organizes, coordinates, and supervises the water conservation programs and activities and reports directly to the District Manager, as shown on the SLVWD organization chart (https://www.slvwd.com/sites/g/files/vyhlif1176/f/uploads/external_slvwd_organization_chart_2019.pdf).

15.1.7 Other Demand Management Measures

SLVWD is committed to implementing cost effective programs that will increase water efficiency throughout the service area. Though not required, SLVWD has implemented the following DMMs during the past five years and will continue implementation into the future to increase the overall water efficiency of SLVWD customers. The following is a brief description of each program.

15.1.7.1 Schools and Public Education

The Water Conservation Coalition of Santa Cruz County has developed an activity book about the water resources of Santa Cruz County. The educational material is targeted to middle schools and covers basic concepts of the hydrologic cycle, specific sources of water available to communities within Santa Cruz County, measuring and reducing personal indoor water use, and how the County is planning to help address future water needs under a growing population and potentially decreasing water supplies. SLVWD is a member of the State's Water Education–Water Awareness Committee (WEWAC) whose mission is to promote the efficient use of water. SLVWD provides a link to the WEWAC website (www.usewaterwisely.com), which presents a water saving topic each month. WEWAC members staff booths at local resource and educational fairs to promote water awareness.

SLVWDs' website also links to the Water Tech Advice simple guide to indoor and outdoor water conservation website and Water Smart Gardening in Santa Cruz County website to provide customers with additional water conservation resources.

In addition, SLVWD, in partnership with other County groups regularly places informational material in local newspapers.

15.1.7.2 Residential Programs

The majority of SLVWD customer accounts are residential; therefore, SLVWD targets indoor and outdoor water savings programs toward these customers. Residential water conservation is promoted by disseminating technical information on methods to reduce indoor and outdoor water use and by offering credits on customer bills for installation and/or replacement of appliances and lawns with approved water saving appliances and plantings.

The average annual program cost is about $5,000.

15.1.7.2.1 Residential Water Survey Assistance

SLVWD provides technical instruction to help customers manage their water use and performs on-site residential surveys. The SLVWD website provides a menu of customer services that include instruction and assistance on how to locate and read a water meter, how to conduct a leak test, and assistance in finding a leak once one is suspected. The SLVWD website provides a checklist of suggested water saving tips for inside the home and outdoors and provides a contact phone number for customer questions. Water saving tips include how to: water landscaping more efficiently; check nozzles and connectors for leaks; install aerators in sink faucets; install low-flow showerheads; and limit the amount of time that water runs during showers and washing. Water audits can also be scheduled by contacting SLVWD by phone.

15.1.7.2.2 Residential Plumbing Retrofit

SLVWD began to provide free low-flow shower heads, faucet-aerators, leak detection tablets, and hose nozzles to residential customers in 2014. These retrofit opportunities are low cost, and easy to self-install. The SLVWD website provides tips for saving water indoors, including these simple plumbing retrofits.

SLVWD spends approximate $3,000 annually to provide water saving devices.

15.1.7.2.3 Residential Credit Programs

SLVWD offers credits on customer bills for the purchase and installation of high efficiency washing machines, greywater irrigation system credit and weather-based irrigation controllers. These programs were initiated in 2003 and offered customers credits ranging from $75 to $750 per installation for replacing appliances with low-water-use alternatives.

As of 2020, SLVWD had processed a total of 2,306 customer credits for high efficiency toilets, washing machines, greywater irrigation systems, weather-based irrigation controllers, and turf replacement.

15.2 Reporting Implementation

SLVWD tracks the number of retrofits and the associated costs as part of its rebate program. **Table 15-3** provides a summary of SLVWDs' rebate program between fiscal year 2015 and 2020.

Table 15-3. Summary of SLVWD Rebate Program by Fiscal Year

	FY 2015-16		FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
REBATE TYPE	NO.	AMOUNT	NO.	AMOUNT	NO.	AMOUNT	NO.	AMOUNT	NO.	AMOUNT
Drip	14	$4,729								
Greywater Irrigation	1	$83			1	$150			1	$150
Clothes Washers	27	$2,700	27	$2,778	9	$900	12	$1,200	1	$100
Recirculation System	7	$700								
Lawn	42	$24,975								
Toilet 1.6	5	$525	3	$225	7	$802	3	$375	4	$300
Toilet 3.5	77	$19,441	28	$5,411	28	$7,405	15	$3,079	13	$2,113
Weather Based Sensor	3	$200								
Irrigation Controller	3	$308	2	$369	1	$125	1	$99	1	$125
TOTALS	**179**	**$53,661**	**60**	**$8,784Q**	**46**	**$9,382**	**31**	**$4,753**	**20**	**$2,788**

15.2.1 Implementation Efforts to Achieve Water Use Targets

For decades, SLVWD has valued and promoted conservation and will continue to do so. As a result, SLVWD water use is below target objectives set by the State of California. Despite meeting the targets, SLVWD will continue to implement existing conservation programs and explore additional programs to avoid substantial increases in demands.

15.3 Water Use Objectives (Future Requirements)

SLVWD customers are efficient and have reduced their GPCD consumption to less than the State target. SLVWD continues to promote conservation and will evaluate additional measures if and when future requirements are established.

URBAN WATER MANAGEMENT PLAN

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AGENDA REPORT

Scotts Valley Water District

Date: 06/10/21

To: Board of Directors

Item: Business 6.1

Subject: **Rate Study and Proposed Rate Increases**

Reason: Supports Strategic Goal No 3 Financial Stewardship

SUMMARY

Recommendation: Receive information, discuss and provide direction.

Fiscal Impact: No definite impact from the work completed so far. The final proposed rate schedule will have an impact on District's operating revenue.

Previous Related Action: On 12/12/16 the Board held a public hearing and adopted Resolution No 10-16 establishing a new rate structure, setting rates for potable and recycled water beginning on 12/13/16 through 12/13/20, setting fees for new connections effective 12/13/16 and establishing add-on drought rates.

On 12/12/16 the Board approved the Rate Implementation Program.

On 11/09/17 and 11/08/18 the Board evaluated the need for rate increases for the upcoming year and decided to implement the rates as established by Resolution No 10-16.

On 11/14/19 the Board evaluated the need for rate increases for the upcoming year and adopted Resolution 07-19 reducing previously adopted rates and setting water rates and fees effective 12/13/19.

On 11/12/20 the Board evaluated the need for rate increases for the upcoming year and adopted Resolution 07-20 reducing previously adopted rates and setting water rates and fees effective 12/13/20.

On 03/17/21 the Finance and Personnel Committee received a presentation from Raftelis Financial Consultants and provided input to certain aspects of the financial model and rate study.

On 04/08/21 the Board received an update on the work completed: analysis of required revenue and development of financial plan.

On 05/26/21 the staff presented the Finance and Personnel Committee an update on the rate design.

BACKGROUND

The District's Strategic Goal No. 3 comprises a management objective of designing and manag-

ing balanced and fair revenue sources that are sufficient for meeting operating and capital needs while providing for adequate reserves.

The District recognizes the challenges as it strives to provide essential services to the community, fully fund the costs of providing and sustaining good service and keep rates and fees fair and affordable. In October 2020, Raftelis Financial Consultants (RFC) was hired to conduct a Water and Recycled Water Rate Study. The study comprises the following tasks:

- Develop a financial plan to determine the District's potable and recycled water revenue requirements
- Conduct potable and recycled water cost of service analyses
- Develop potable and recycled water rate models that demonstrate a clear nexus between District's costs and customer rates
- Create an administrative report that explains the proportionality of the rates to meet the requirements of Proposition 218 (Prop 218).

The legal framework for setting water rates in California is prescribed by Prop 218. Passed by ballot initiative in 1996, Prop 218 was established to protect taxpayers by limiting the methods by which local governments can exact revenue from them without their consent.

District rates include a fixed basic service charge and volumetric water sales charge. The basic service charge is based on the customer's meter size. The volumetric charge for residential customers is a tiered rate structure in which tier thresholds are established based on specific criteria. The volumetric charge for commercial and landscape customers is a uniform rate.

DISCUSSION

The first portion of the study was completed and findings presented to the Board in April. Board was asked to review and provide their input for the financial plan scenarios.

The next phase of the work has been focused on the cost of service and rate development. The cost of service analysis determines the costs of operating and maintaining the water system, including repair, replacement and upgrades of capital assets, debt service requirements, and maintaining the target level of reserve funding. Prop 218 requires that the cost of serving different customer categories is matched with the rate charged to those categories.

Attached presentation includes information on the rate development process, including the cost of service analysis and highlights specific rate design changes for consideration.

Submitted,

Piret Harmon
General Manager

Enclosed: Water Rates Workshop Slides

Scotts Valley
Water District

Multi-Year Water Rate Study

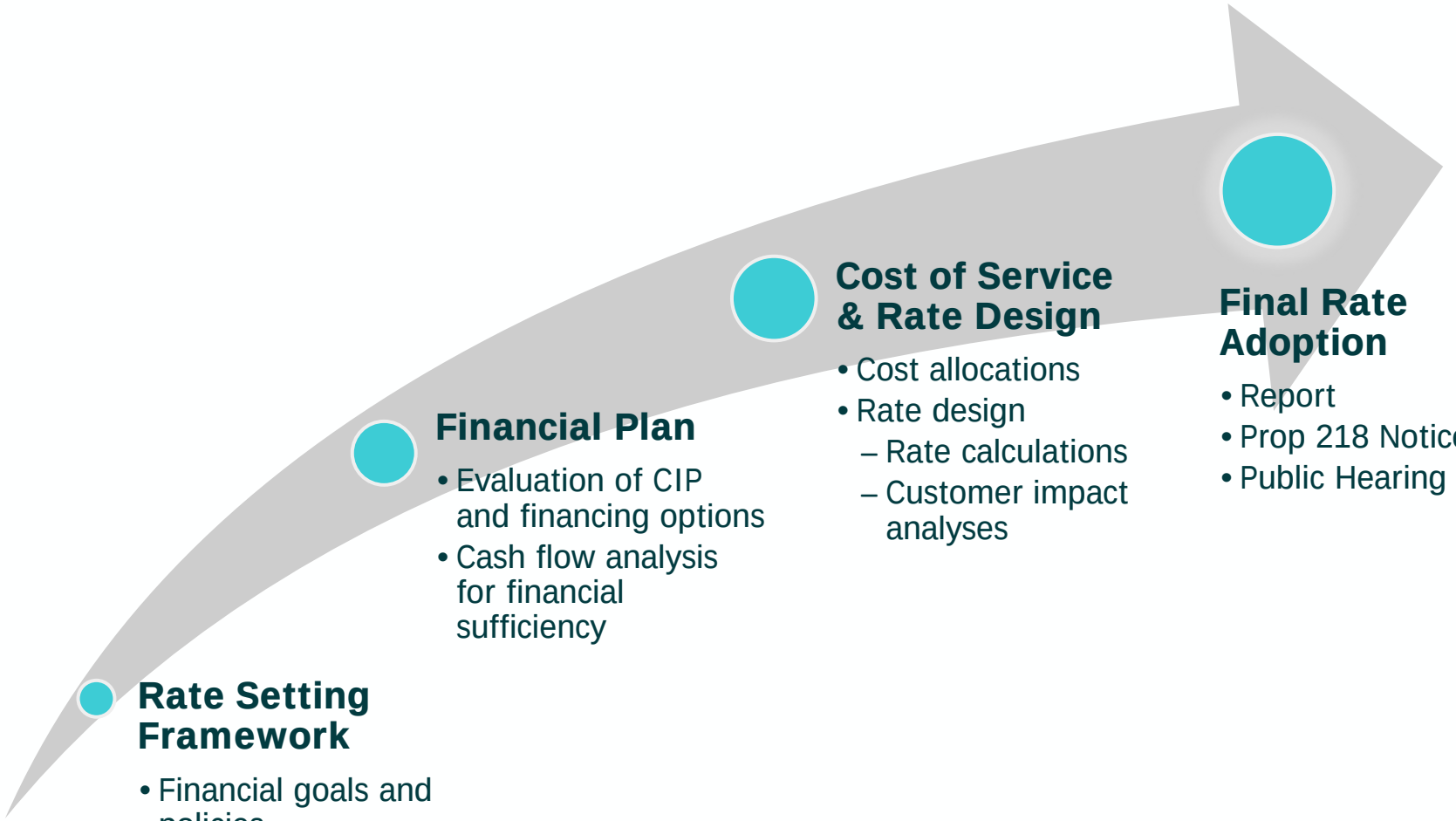
Rate Workshop - June 10, 2021

RAFTELIS

Agenda

- Rate Study Process
- Project Objectives
- Financial Plan Assumptions
- Financial Plan Scenarios
- Cost of Service Overview
- Rate Design Discussion
- Discussion and Next Steps

Rate Study Process



Project Objectives

- Develop a 5-year financial plan to identify annual rate revenue needs through FY 2026 for the Potable Water Fund & Recycled Water Fund
- Conduct a Cost of Service analysis
- Develop a proposed schedule of potable and recycled water rates for FY 2022 – FY 2026
- Document results in a study report to serve as an administrative record
- Assist District staff with the Prop 218 public hearing process

Financial Plan Assumptions

Financial Plan Assumptions

- Raftelis worked with staff to develop the following assumptions:
  - Account growth:
    - Financial plan assumes that 50% of projected growth will occur
  - Water demand:
    - Water demand dropped in FYE 2021 due to COVID and other factors
    - Financial Plan assumes rebound in FYE 2022 water demand to pre-COVID levels
    - All subsequent increases in water demand assumed to be due to account growth only
  - New debt:
    - $6 million in FYE 2022 (assumed 3% interest rate over 20 years)

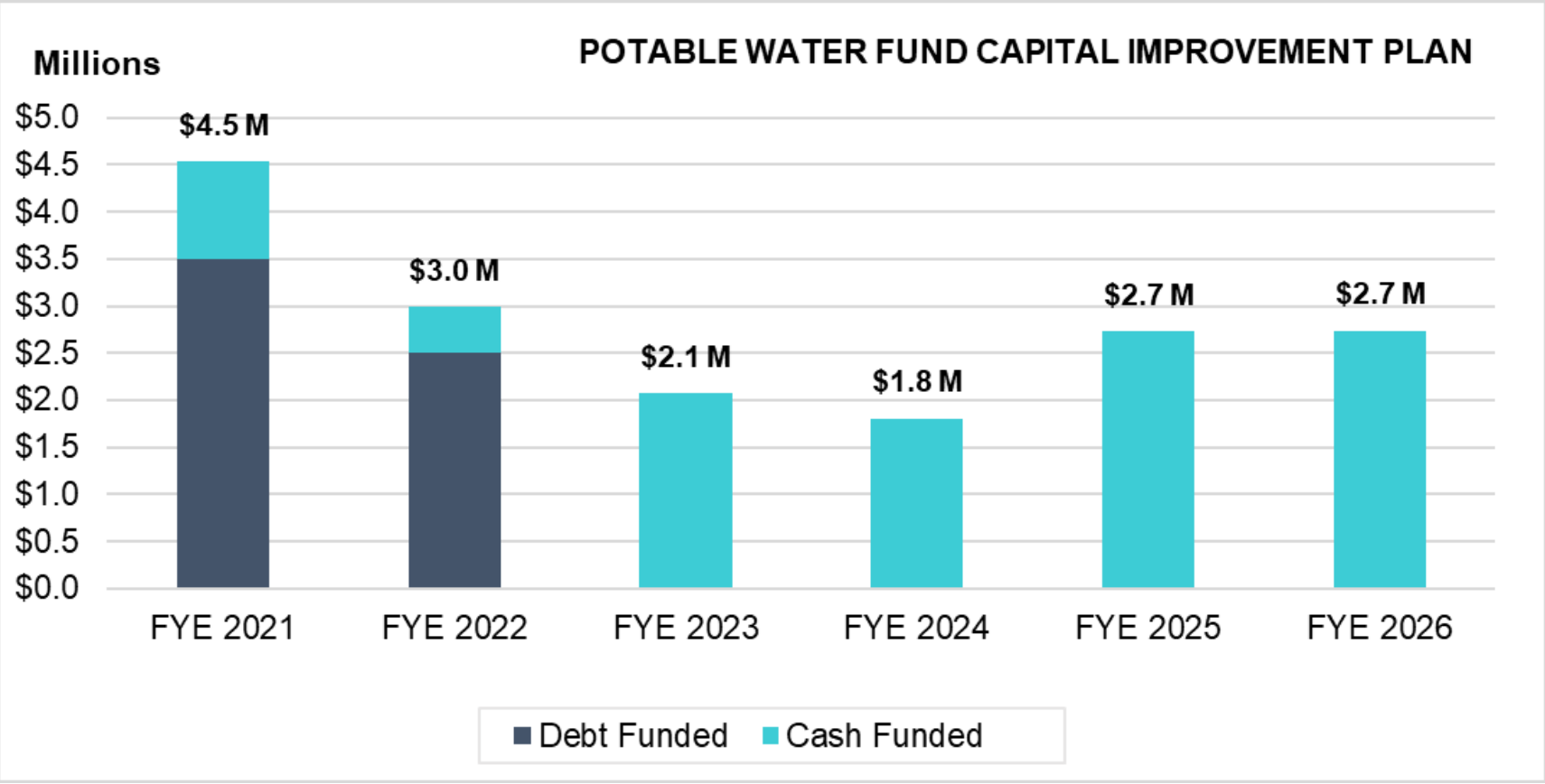
Growth Assumptions

- Financial plan assumes 50% of projected growth will occur

Description	FYE 2022	FYE 2023	FYE 2024	FYE 2025	FYE 2026
New Metered Connections					
Projected growth	43	50	47	30	42
50% of projected growth	22	25	24	15	21
Capacity Fee Revenue					
Projected growth	$1,035,126	$1,632,901	$1,376,572	$959,409	$745,666
50% of projected growth	$517,563	$816,451	$688,286	$479,705	$372,833
Total Water Demand (AF)					
Projected growth	1,191	1,207	1,224	1,186	1,201
50% of projected growth	1,186	1,194	1,203	1,159	1,166

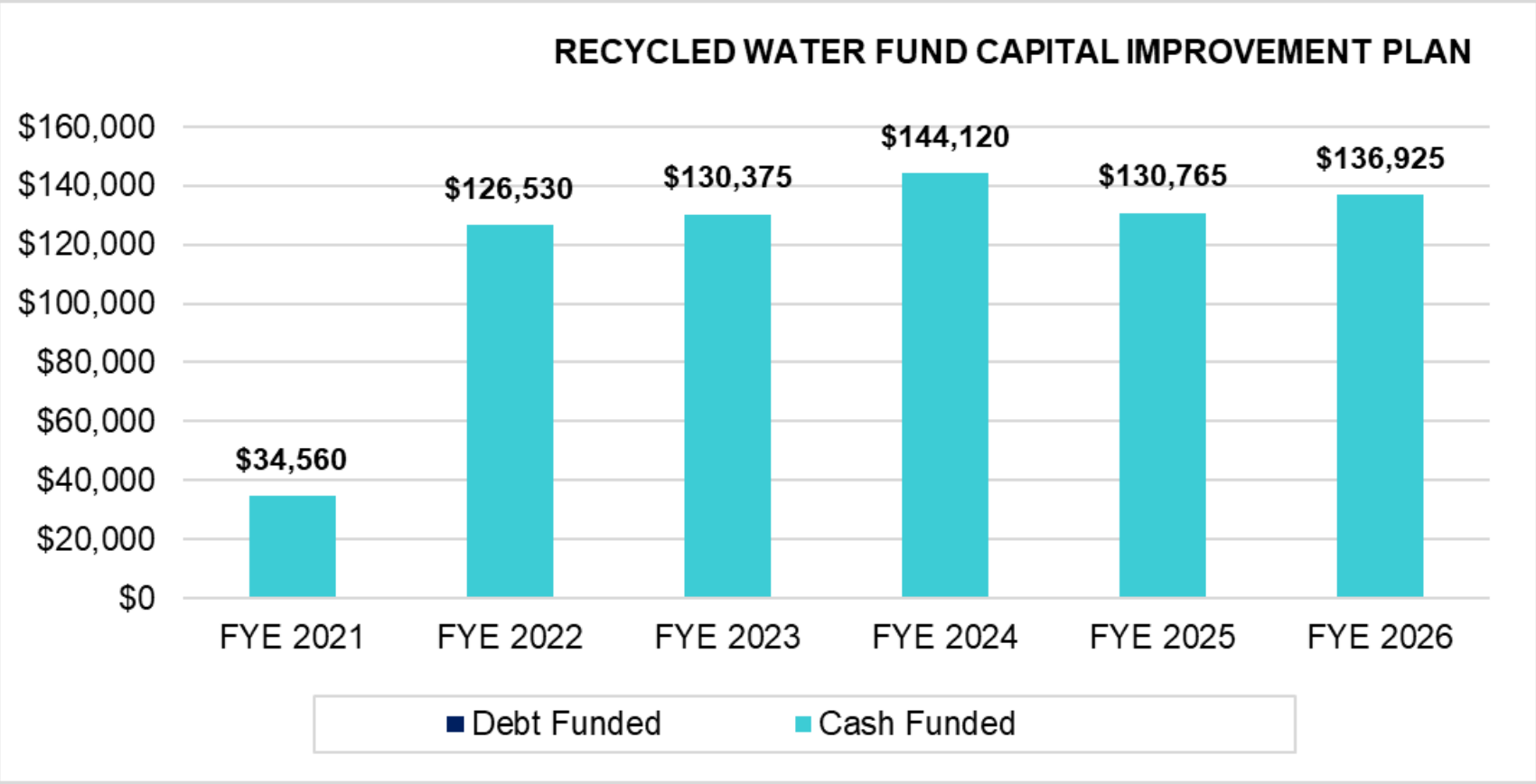
Financial Plan:
Potable Water Fund Capital Expenditures

- $1 million added annually beginning in FYE 2025 to account for liability associated with future supplemental supply CIP



Financial Plan: Recycled Water Fund Capital Expenditures

- $125K added annually beginning in FYE 2022 to account for liability associated with District's future share of City wastewater treatment plant CIP



Financial Policies

- Required debt coverage ratio: 1.20
- Existing reserve policy:

Reserve	Target Amount
Operating Reserve	90 days of O&M
Rate Stabilization Reserve	20% of annual variable rate revenue
Capital Emergency Reserve	2.5% of capital asset net book value
Capital R&R Reserve	100% of annual depreciation expense
Debt Service Reserve	100% of annual debt service

Policy Goals / Relationship of Recycled Water Fund to Potable Water Fund

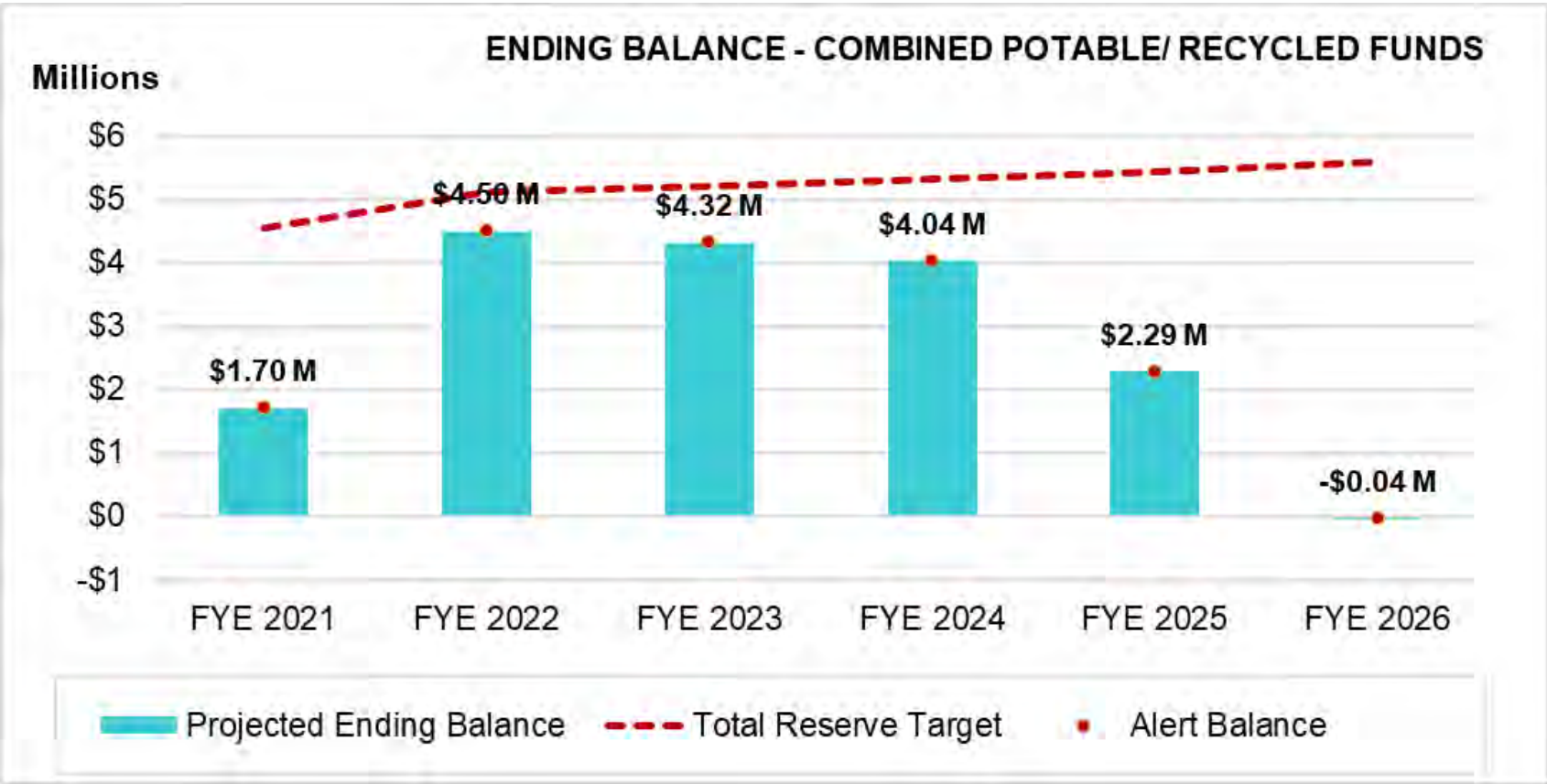
- Policy Goal #1: The recycled water volumetric rate should be no more than 80% of the landscape potable volumetric rate
- Policy Goal #2: Recycled revenue should at least cover the O&M costs in the Recycled Water Fund

- Given these polices and the financial condition of the Recycled Water Fund, Raftelis recommends that the recycled debt service and recycled CIP be paid for by potable water customers
  - Potable water customers benefit from the expansion and maintenance of the recycled system
  - Recycled water frees up potable water and provides drought insurance for all customers

Financial Plan Scenarios

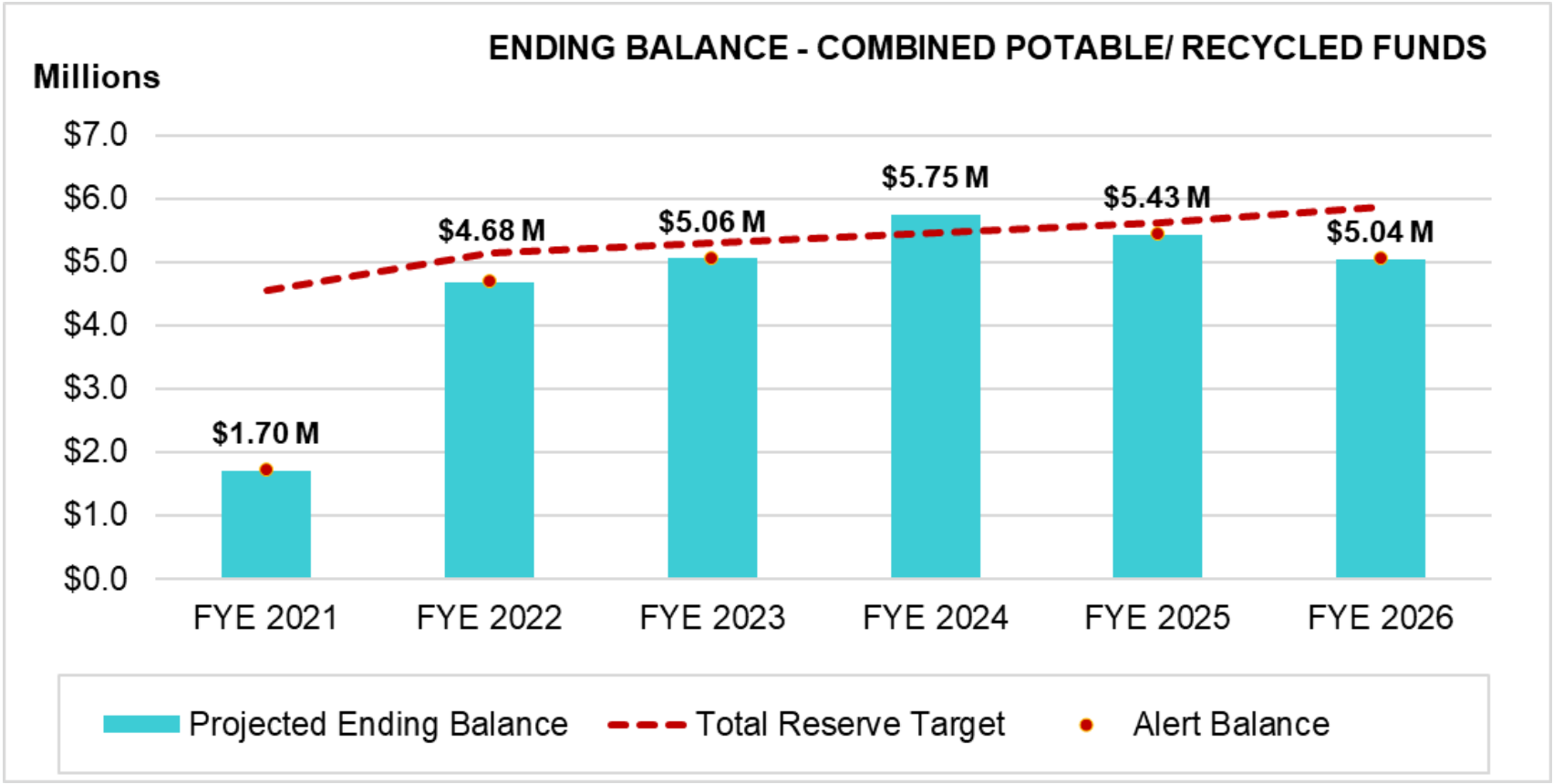
Status Quo Financial Plan: No Rate Increases

- No revenue adjustments (i.e., rate increases)
- Reserves depleted by FYE 2026



Proposed Financial Plan

- Potable Revenue Adjustments:
  - FY 2022: 5%
  - FY 2023: 5%
  - FY 2024: 5%
  - FY 2025: 5%
  - FY 2026: 5%
- Recycled Revenue Adjustments:
  - FY 2022: 5%
  - FY 2023: 5%
  - FY 2024: 10%
  - FY 2025: 10%
  - FY 2026: 10%



Cost of Service Overview

Key Legislation in California Affecting Water Rates

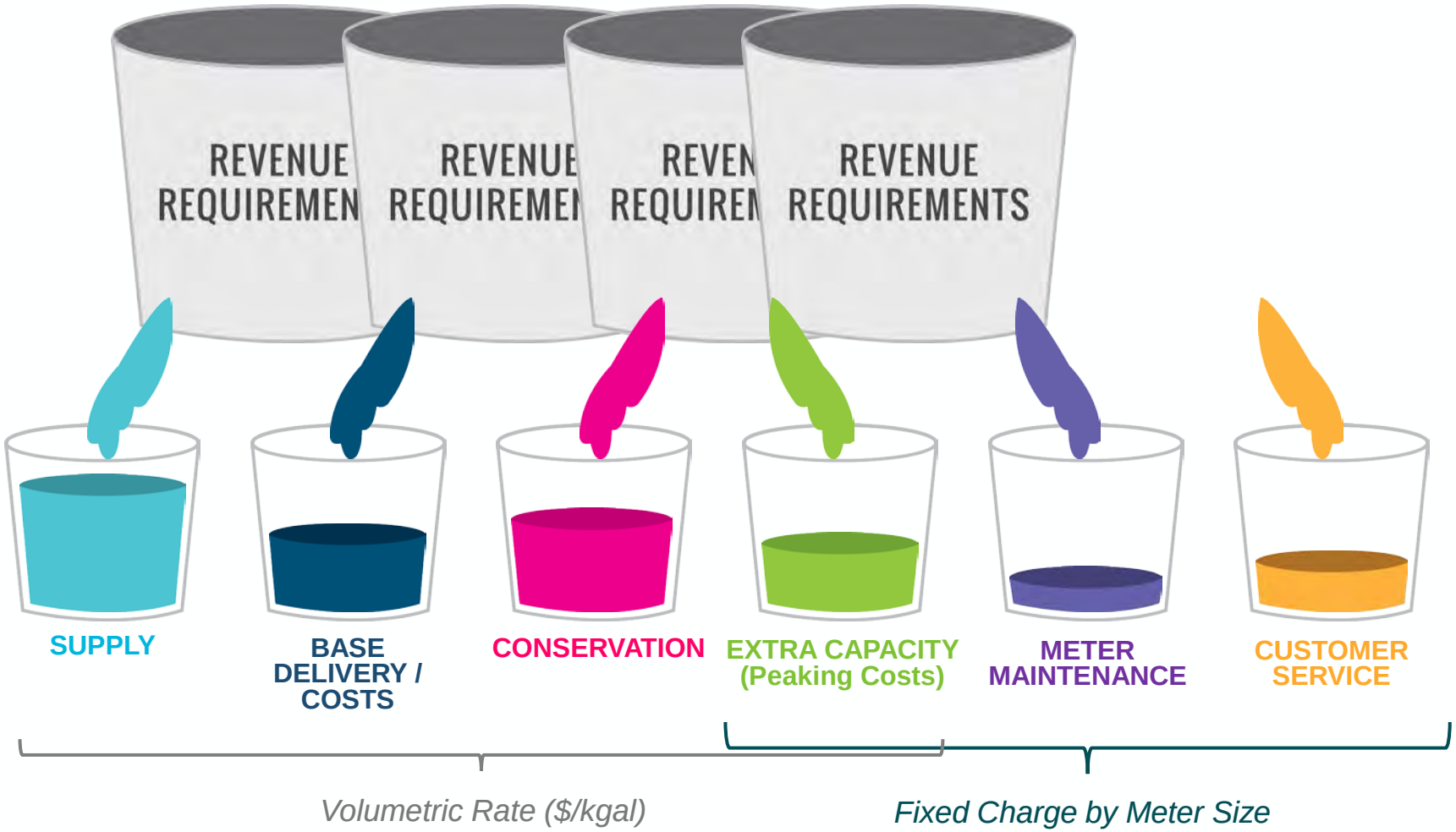
- **Cost of Service Requirements**
  - Proposition 218 (Article XIIIC and XIIID of California Constitution)
    - San Juan Capistrano ruling:
      - There must be a nexus between cost of providing service and rates charged to customers
      - This nexus needs to be clearly shown in the administrative record (i.e. study report)

What is Cost of Service?

- Different types of customers generate different costs because their patterns of use or characteristics are different
- Cost of service allows the matching of rates charged with the costs of serving each group
- Each group will “pay its own way” – no subsidies

Cost of Service

Allocation to Cost Components



Distribute Costs to Customer Classes

SUPPLY
Use

DELIVERY COSTS
Use: Same for All Classes

CONSERVATION
Distributed to High Vol Users

EXTRA CAPACITY (PEAKING)
Peaking Factors or Meter Cap Ratios

METER MAINTENANCE
Meter Size

CUSTOMER SERVICE
# of Cust Bills

Distribute Costs to Each Class

CUSTOMER CLASSES
Cost to Serve Each Class
(Single Family, Multi-family, Commercial etc.)

Rate Design
Commodity Rate Derivation

To calculate commodity rates, we combine the unit ($/kgal) costs of water supply, water delivery, peaking/capacity costs and conservation costs

SUPPLY
Water supply rate ($ /kgal)

DELIVERY
Delivery rate ($ /kgal)

EXTRA CAPACITY (Peaking Costs)
Peaking rate ($ /kgal)

CONSERVATION
Conservation program rate ($ /kgal)

TOTAL VOLUMETRIC RATE FOR EACH TIER
($ /kgal)

Rate Design Discussion

Rate Design Goals

- Maintain existing revenue split of 35% fixed / 65% variable to provide revenue stability
- Ensure that recycled landscape rate is at least 20% lower than potable landscape rate
- Same fixed charges for potable and recycled
- Revise tier allotments based on updated information

Rate Design: Key Changes Since Last Study

- Updated residential tier allotments
- In prior rate study, property tax was applied to offset residential rates only
  - Raftelis recommends that property tax be applied equally to all customer classes
- Conservation costs applied to outdoor water use only (landscape potable, residential tiers 3 & 4)

Current Residential Tier Allotments

Tier	Single Family Bi-monthly Tiers (gallons)	Multi-Family Bi-monthly Tiers (gallons)	Rationale
Tier 1	0 to 6,000	0 to 6,000	Efficient indoor use (average household size at 32 gpcd)
Tier 2	6,001 to 12,000	6,001 to 6,400	Efficient outdoor use (based on water budget for landscape area of 1,800 sq. ft. for single family & 100 sq. ft. for multi-family)
Tier 3	12,001 to 16,000	6,401 to 16,000	Based on each dwelling unit's fair share of the District's maximum safe yield for groundwater basin (1,506 AFY)
Tier 4	Over 16,000	Over 16,000	

Proposed Changes to Residential Tier Allotments

- Raftelis recommends no changes to Tier 1 and 2
- Due to account growth in the last five years, Tier 3 needs to be adjusted to reflect the amount of water available per account (as the total safe yield amount has not changed)
  - Raftelis recommends that Tier 3 maximum be reduced from 16,000 to 14,000 gallons to account

Proposed Changes to Residential Tier Allotments

- All proposed changes identified in red below:

Tier	Current Bi-monthly Tiers (gallons)	Proposed Bi-monthly Tiers (gallons)
Single Family		
Tier 1	0 to 6,000	0 to 6,000
Tier 2	6,001 to 12,000	6,001 to 12,000
Tier 3	12,001 to **16,000**	12,001 to **14,000**
Tier 4	Over **16,000**	Over **14,000**
Multi-Family		
Tier 1	0 to 6,000	0 to 6,000
Tier 2	6,001 to 6,400	6,001 to 6,400
Tier 3	6,401 to **16,000**	6,401 to **14,000**
Tier 4	Over **16,000**	Over **14,000**

Water Use by Tier: Current vs. Proposed

Tier	Current Tiers (kgal)	Proposed Tiers (kgal)
SFR		
Tier 1	104,448	104,448
Tier 2	54,433	54,433
Tier 3	17,289	9,807
Tier 4	32,949	40,432
Total	**209,120**	**209,120**
MFR		
Tier 1	16,927	16,927
Tier 2	658	658
Tier 3	3,378	3,283
Tier 4	131	227
Total	**21,094**	**21,094**

Rate Design: Basic Meter Charges

- Basic Meter Charge is composed of:
  - Customer Service
  - Meter Maintenance
  - Meter Capacity
  - Private Fire (if applicable)

- Cost of Service changes from prior study:
  - More cost is allocated to meter capacity, which reflects the CIP needs of the community

Bi-monthly Potable Fixed Charge Calculation (No Revenue Adjustment)

Basic Meter Charge Calculation (FY 2021)	Customer	Meter Maintenance/ Replace	Meter Capacity	Private Fire Protection	COS Bi-Monthly Charge
5/8"	$9.51	$10.11	$64.32	$0.00	**$83.94**
5/8" Fire Service (Residential/Commercial	$0.00	$0.00	$0.00	$22.19	**$22.19**
3/4" (Multi-Residential, incl Fire Service)	$9.51	$10.11	$64.32	$22.19	**$106.14**
3/4"	$9.51	$11.35	$96.48	$0.00	**$117.34**
1"	$9.51	$14.08	$160.80	$0.00	**$184.39**
1 1/2"	$9.51	$36.00	$321.61	$0.00	**$367.12**
2"	$9.51	$66.84	$514.57	$0.00	**$590.92**
3"	$9.51	$91.35	$1,125.63	$0.00	**$1,226.48**
4"	$9.51	$133.02	$2,026.13	$0.00	**$2,168.66**
6"	$9.51	$133.02	$4,180.90	$0.00	**$4,323.43**

Note: $1.7 million in Meter Capacity costs could be alternatively collected on the property tax roll as a “Capital Charge” rather than as part of the Basic Meter Charges

Bi-monthly Potable Fixed Charge (No Revenue Adjustment)

Basic Meter Charge Calculation (FY 2021)	Number of Meters (FY 2021)	COS Bi-Monthly Charge	Current Bi-Monthly Charge	Difference ($)	Difference (%)
5/8"	3,549	**$83.94**	$85.90	($1.96)	-2.3%
5/8" Fire Service (Residential/Commercial	461	**$22.19**	$23.38	($1.19)	-5.1%
3/4" (Multi-Residential, incl Fire Service)	27	**$106.14**	$109.27	($3.13)	-2.9%
3/4"	60	**$117.34**	$135.16	($17.82)	-13.2%
1"	117	**$184.39**	$145.39	$39.00	26.8%
1 1/2"	44	**$367.12**	$341.68	$25.44	7.4%
2"	32	**$590.92**	$463.93	$126.99	27.4%
3"	3	**$1,226.48**	$827.11	$399.37	48.3%
4"	1	**$2,168.66**	$1,446.19	$722.47	50.0%
6"	0	**$4,323.43**	$3,089.28	$1,234.15	39.9%

Rate Design: Volumetric Rates

- Commodity Rate is composed of:
  - Water Supply
  - Base Delivery
  - Peaking
  - Conservation
  - Revenue offset (Property Tax)

- Cost of Service changes from prior study:
  - Property tax allocated to all customers
  - Conservation program allocated to outdoor water use only

Policy Discussion on Revenue Offset Allocations

- Once we have allocated the property tax to each customer class, how should we allocate this between Residential tiers?
  - Option 1: Property tax offset on all Residential tiers
  - Option 2: Property tax offset on Residential Tiers 1 & 2 only

Potable Water Volumetric Rates Calculation (No Revenue Adjustment)

- Option 1: Property tax offset on all Residential tiers

Volumetric Rate Calculations (FY 2021)	Water Supply ($/kgal)	Base Delivery ($/kgal)	Peaking ($/kgal)	Conservation ($/kgal)	Revenue Offset ($/kgal)	COS Rate ($/kgal)
Residential Tier 1	$5.095	$6.627	$1.154	$0.000	($4.482)	**$8.39**
Residential Tier 2	$5.095	$6.627	$2.544	$0.000	($1.494)	**$12.77**
Residential Tier 3	$5.095	$6.627	$3.971	$7.085	($1.494)	**$21.28**
Residential Tier 4	$5.095	$6.627	$8.609	$7.085	($1.494)	**$25.92**
Commercial, Industrial, Institutional (CII)	$5.095	$6.627	$4.175	$0.000	($3.071)	**$12.83**
Landscape Potable	$5.095	$6.627	$5.385	$7.085	($3.071)	**$21.12**

- Option 2: Property tax offset on Residential Tiers 1 & 2 only

Volumetric Rate Calculations (FY 2021)	Water Supply ($/kgal)	Base Delivery ($/kgal)	Peaking ($/kgal)	Conservation ($/kgal)	Revenue Offset ($/kgal)	COS Rate ($/kgal)
Residential Tier 1	$5.095	$6.627	$1.154	$0.000	($5.055)	**$7.82**
Residential Tier 2	$5.095	$6.627	$2.544	$0.000	($1.685)	**$12.58**
Residential Tier 3	$5.095	$6.627	$3.971	$7.085	$0.000	**$22.78**
Residential Tier 4	$5.095	$6.627	$8.609	$7.085	$0.000	**$27.42**
Commercial, Industrial, Institutional (CII)	$5.095	$6.627	$4.175	$0.000	($3.071)	**$12.83**
Landscape Potable	$5.095	$6.627	$5.385	$7.085	($3.071)	**$21.12**

Potable Water Volumetric Rates (No Revenue Adjustment)

- Option 1: Property tax offset on all Residential tiers

Volumetric Rate Calculations (FY 2021)	Annual Water Use (kgal)	COS Rate ($/kgal)	Current Rate ($/kgal)	Difference ($)	Difference (%)
Residential Tier 1	118,408	**$8.39**	$7.03	$1.36	19.4%
Residential Tier 2	53,730	**$12.77**	$12.20	$0.57	4.7%
Residential Tier 3	12,803	**$21.28**	$19.56	$1.72	8.8%
Residential Tier 4	39,474	**$25.92**	$23.64	$2.28	9.7%
Commercial, Industrial, Institutional (CII)	74,773	**$12.83**	$16.36	($3.53)	-21.6%
Landscape Potable	18,368	**$21.12**	$20.46	$0.66	3.2%

- Option 2: Property tax offset on Residential Tiers 1 & 2 only

Volumetric Rate Calculations (FY 2021)	Annual Water Use (kgal)	COS Rate ($/kgal)	Current Rate ($/kgal)	Difference ($)	Difference (%)
Residential Tier 1	118,408	**$7.82**	$7.03	$0.79	11.2%
Residential Tier 2	53,730	**$12.58**	$12.20	$0.38	3.1%
Residential Tier 3	12,803	**$22.78**	$19.56	$3.22	16.5%
Residential Tier 4	39,474	**$27.42**	$23.64	$3.78	16.0%
Commercial, Industrial, Institutional (CII)	74,773	**$12.83**	$16.36	($3.53)	-21.6%
Landscape Potable	18,368	**$21.12**	$20.46	$0.66	3.2%

Recycled Rate Discussion

- Recycled customers will have the same Basic Meter Charge as potable
- Comparison of Landscape Recycled and Landscape Potable Rates:

Potable Water Volumetric Rates ($/kgal)	Current	Proposed FY 2022	Proposed FY 2023	Proposed FY 2024	Proposed FY 2025	Proposed FY 2026
Landscape Recycled Rate (%/kgal)	$13.64	$14.04	$14.74	$16.35	$18.13	$20.10
Landscape Potable Rate ($/kgal)	$20.46	$22.18	$23.29	$24.46	$25.69	$26.98
Difference ($)	($6.82)	($8.14)	($8.55)	($8.11)	($7.56)	($6.88)
Difference (%)	-33%	-37%	-37%	-33%	-29%	-26%

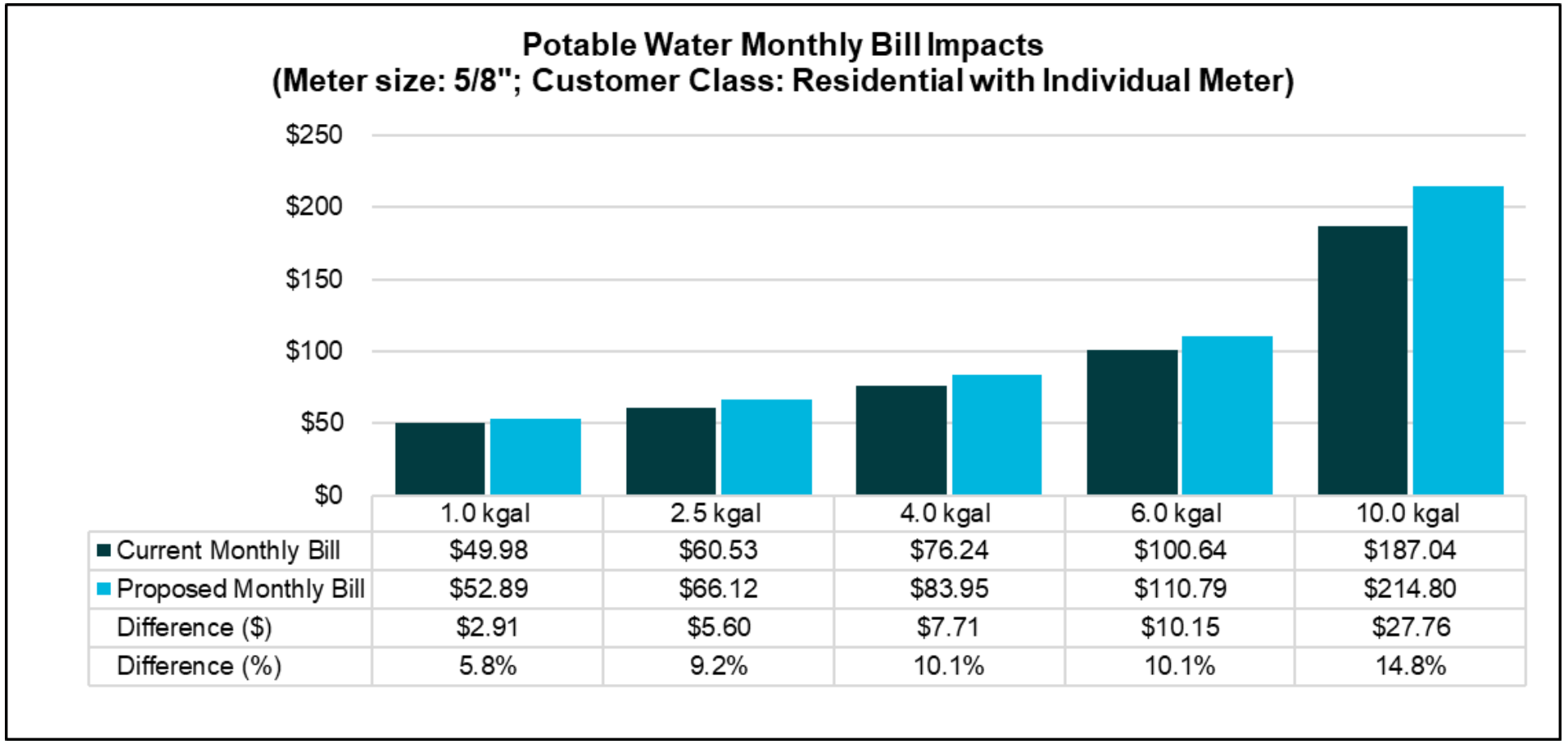
Proposed Rates: Option 1
(Property tax offset on all Residential tiers)

Fixed Basic Meter Charges (Bi-monthly)	Current	Proposed FY 2022	Proposed FY 2023	Proposed FY 2024	Proposed FY 2025	Proposed FY 2026
5/8"	$85.90	$88.14	$92.55	$97.18	$102.04	$107.15
5/8" Fire Service (Residential/Commercial)	$23.38	$23.31	$24.48	$25.71	$27.00	$28.35
3/4" (Multi-Residential, incl Fire Service)	$109.27	$111.45	$117.03	$122.89	$129.04	$135.50
3/4"	$135.16	$123.21	$129.38	$135.85	$142.65	$149.79
1"	$145.39	$193.62	$203.31	$213.48	$224.16	$235.37
1 1/2"	$341.68	$385.48	$404.76	$425.00	$446.25	$468.57
2"	$463.93	$620.47	$651.50	$684.08	$718.29	$754.21
3"	$827.11	$1,287.81	$1,352.21	$1,419.83	$1,490.83	$1,565.38
4"	$1,446.19	$2,277.09	$2,390.95	$2,510.50	$2,636.03	$2,767.84
6"	$3,089.28	$4,539.60	$4,766.58	$5,004.91	$5,255.16	$5,517.92
Water Volumetric Rates ($/kgal)	**Current**	**Proposed FY 2022**	**Proposed FY 2023**	**Proposed FY 2024**	**Proposed FY 2025**	**Proposed FY 2026**
Residential Units with Individual Meters						
Residential Tier 1	$7.03	$8.82	$9.27	$9.74	$10.23	$10.75
Residential Tier 2	$12.20	$13.42	$14.10	$14.81	$15.56	$16.34
Residential Tier 3	$19.56	$22.35	$23.47	$24.65	$25.89	$27.19
Residential Tier 4	$23.64	$27.22	$28.59	$30.02	$31.53	$33.11
Commercial, Industrial, Institutional (CII)	$16.36	$13.47	$14.15	$14.86	$15.61	$16.40
Landscape Potable	$20.46	$22.18	$23.29	$24.46	$25.69	$26.98
Landscape Recycled	$13.64	$14.04	$14.74	$16.35	$18.13	$20.10

Proposed Rates: Option 2
(Property tax offset on Residential Tiers 1 & 2 only)

Fixed Basic Meter Charges (Bi-monthly)	Current	Proposed FY 2022	Proposed FY 2023	Proposed FY 2024	Proposed FY 2025	Proposed FY 2026
5/8"	$85.90	$88.14	$92.55	$97.18	$102.04	$107.15
5/8" Fire Service (Residential/Commercial)	$23.38	$23.31	$24.48	$25.71	$27.00	$28.35
3/4" (Multi-Residential, incl Fire Service)	$109.27	$111.45	$117.03	$122.89	$129.04	$135.50
3/4"	$135.16	$123.21	$129.38	$135.85	$142.65	$149.79
1"	$145.39	$193.62	$203.31	$213.48	$224.16	$235.37
1 1/2"	$341.68	$385.48	$404.76	$425.00	$446.25	$468.57
2"	$463.93	$620.47	$651.50	$684.08	$718.29	$754.21
3"	$827.11	$1,287.81	$1,352.21	$1,419.83	$1,490.83	$1,565.38
4"	$1,446.19	$2,277.09	$2,390.95	$2,510.50	$2,636.03	$2,767.84
6"	$3,089.28	$4,539.60	$4,766.58	$5,004.91	$5,255.16	$5,517.92
Water Volumetric Rates ($/kgal)	**Current**	**Proposed FY 2022**	**Proposed FY 2023**	**Proposed FY 2024**	**Proposed FY 2025**	**Proposed FY 2026**
Residential Units with Individual Meters						
Residential Tier 1	$7.03	$8.22	$8.64	$9.08	$9.54	$10.02
Residential Tier 2	$12.20	$13.21	$13.88	$14.58	$15.31	$16.08
Residential Tier 3	$19.56	$23.92	$25.12	$26.38	$27.70	$29.09
Residential Tier 4	$23.64	$28.79	$30.23	$31.75	$33.34	$35.01
Commercial, Industrial, Institutional (CII)	$16.36	$13.47	$14.15	$14.86	$15.61	$16.40
Landscape Potable	$20.46	$22.18	$23.29	$24.46	$25.69	$26.98
Landscape Recycled	$13.64	$14.04	$14.74	$16.35	$18.13	$20.10

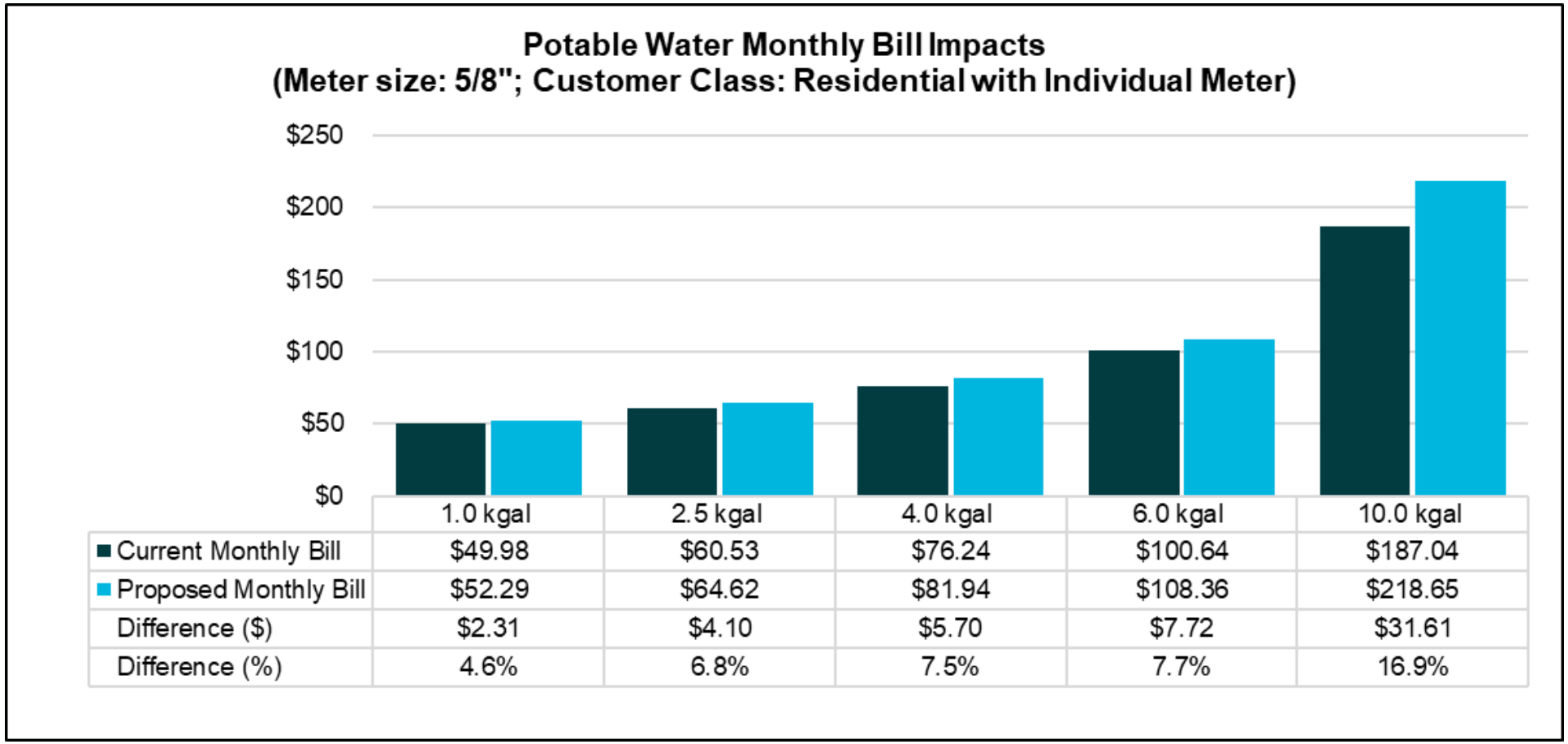
FYE 2022 Residential Monthly Bill Impacts: Option 1 (Property tax offset on all Residential tiers)



	1.0 kgal	2.5 kgal	4.0 kgal	6.0 kgal	10.0 kgal
Current Monthly Bill	$49.98	$60.53	$76.24	$100.64	$187.04
Proposed Monthly Bill	$52.89	$66.12	$83.95	$110.79	$214.80
Difference ($)	$2.91	$5.60	$7.71	$10.15	$27.76
Difference (%)	5.8%	9.2%	10.1%	10.1%	14.8%

*Various monthly water use represents 10th, 25th, 50th, 75th, and 90th percentiles (based on FYE 2020 residential water use)

FYE 2022 Residential Monthly Bill Impacts: Option 2 (Property tax offset on Residential Tiers 1 & 2 only)



	1.0 kgal	2.5 kgal	4.0 kgal	6.0 kgal	10.0 kgal
Current Monthly Bill	$49.98	$60.53	$76.24	$100.64	$187.04
Proposed Monthly Bill	$52.29	$64.62	$81.94	$108.36	$218.65
Difference ($)	$2.31	$4.10	$5.70	$7.72	$31.61
Difference (%)	4.6%	6.8%	7.5%	7.7%	16.9%

*Various monthly water use represents 10th, 25th, 50th, 75th, and 90th percentiles (based on FYE 2020 residential water use)

Discussion & Next Steps

Next Steps

- Receive direction from the Board on the proposed rates
- Develop the Administrative Record
- Board receive the Administrative Record on Aug. 12, 2021
- Issue the Prop 218 Notice by Aug. 30, 2021
- Conduct Public Hearing on Oct 14, 2021

RAFTELIS

MSRB REGISTERED MUNICIPAL ADVISOR

Raftelis is a Registered Municipal Advisor within the meaning as defined in Section 15B (e) of the Securities Exchange Act of 1934 and the rules and regulations promulgated thereunder (Municipal Advisor Rule).

However, except in circumstances where Raftelis expressly agrees otherwise in writing, Raftelis is not acting as a Municipal Advisor, and the opinions or views contained herein are not intended to be, and do not constitute “advice” within the meaning of the Municipal Advisor Rule.

AGENDA REPORT

Scotts Valley Water District

Date: 06/10/21

To: Board of Directors

Item: Business 6.2

Subject: **FY 2022 Proposed Budget**

Reason: Complies with Administrative Code and supports District Strategic Goal No. 3 Financial Stewardship by managing the District's financial resources in a responsible manner.

SUMMARY

Recommendation: Approve the Fiscal Year 2022 (FY 2022) Budget, including the FY 2022 Work Plan.

Fiscal Impact: The FY 2022 Budget amounts to $10,171,156 in expenditures, including $6,016,123 in Operating Expenses, $1,142,564 in Debt Service, and $2,030,000 in New Projects, $962,469 in Project Carryover, and $20,000 in Purchase Order Carryover. The FY 2022 Budget anticipates a contribution to fund balance of $3,081,949.

Previous Related Action: On 05/13/21 the Board received a summary of the FY 2022 Budget.

On 04/28/21, the Finance and Personnel Committee reviewed the draft FY 2022 Budget summary.

On 03/22/21, the Water Resources and Engineering Committee reviewed and commented on the proposed Projects Budget.

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 2022 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. The Debt Service Budget provides funds for the 2016 JP Morgan Chase refunding loan. The Debt Service Budget also anticipates that an additional new financing

agreement will be entered in FY 2022. The Projects Budget includes maintenance projects and capital projects. Additionally, existing projects and service agreements committed but not anticipated to be completed by June 30, 2021, are recommended to be carried over into FY 2022.

The FY 2021 ending Fund Balance is estimated to be $2,341,713. The FY 2022 ending Fund Balance is budgeted to be $5,423,662.

As demonstrated in the Target Reserves section of the Transmittal Letter, the calculated target reserve level for FY 2022 is $4,858,358.

A greater level of detail is provided in the enclosed budget transmittal letter.

Submitted,

Piret Harmon
General Manager

Enclosed: Budget Transmittal Letter
FY 2022 Operating Budget
FY 2022 Projects Budget
FY 2022 Work Plan

SCOTTS VALLEY
WATER DISTRICT

June 10, 2021

Board of Directors
Scotts Valley Water District

Re: FY 2022 Budget Transmittal Letter

The FY 2022 Budget was developed to implement the FY 2022 Work Plan in support of the District strategic goals:

- Water Resource Management: SVWD meets the water supply needs of its customers by developing new, sustainable sources and maximizing the use of existing sources.
- Infrastructure Integrity: SVWD provides continuous investment in its infrastructure and process improvements to ensure the efficiency of its operations.
- Financial Stewardship: SVWD manages its financial resources in a manner that ensures the reliability of its operations and provides the greatest value to its customers.
- Community Engagement: SVWD proactively creates opportunities for strategic alliances and mutually beneficial relationships with its customers and partners.
- Organizational Vitality: SVWD recruits and retains the highest quality employees and board members by offering a work environment in which they can thrive and succeed.

The Work Plan in its entirety is attached for reference.

The total FY 2022 Budget amounts to $10,171,156 in expenditures, including $6,016,123 in Operating Expenses, $1,142,564 in Debt Service, $2,030,000 in New Projects, $962,469 in Project Carryover, and $20,000 in Purchase Order Carryover as described in the FY 2022 Budget Summary below.

In the March and April 2021 meetings, the Finance and Personnel Committee reviewed Budget Assumptions and the preliminary Proposed Operating Budget. During its March meeting, the Water Resource and Engineering Committee reviewed and commented on the Proposed Projects Budget. In May, the Board of Directors reviewed the Proposed Projects Budget and the Proposed Operating Budget.

The District last completed the Comprehensive Rate and Fee Study in December 2016 and implemented the new rate plan in February 2017. In December 2020, the Board approved the rate increase for the final year of the 2016 adopted Rate Schedule. As of June 2021, the District is in the process of completing a new Rate Study project. The rate changes reflected in this FY 2022 Budget and projected for December 2021 are presented below:

Potable Water

Effective Date	Change in Basic Meter Charge	Change in Tiered Rate
December 13, 2020	10%	10%
December 13, 2021	5% (TBD)	5% (TBD)

Recycled Water

Effective Date	Change in Basic Meter Charge	Change in Tiered Rate
December 13, 2020	37.5%	2.02%
December 13, 2021	5% (TBD)	5% (TBD)

To comply with the 2014 Sustainable Groundwater Management Act, the District along with the County of Santa Cruz and San Lorenzo Valley Water District formed the Santa Margarita Groundwater Agency (SMGWA), which operations are initially funded by the three member agencies. The FY 2022 Expense Budget includes funding of $100,000, or $190,490 less than the prior year budget, for SMGWA.

The Debt Service budget in the FY 2022 Budget consists of two debt issuances. The 2016 Installment Purchase Agreement debt service budget is pursuant to the payment schedule in the agreement. The District anticipates that new debt will be issued in FY 2022**.** Estimates for the new debt issuance are based on $6.1 million being financed over 20 years at an interest rate of 3 percent. With these assumptions, the debt service payments in FY 2022 will increase approximately $499,403 to $1,142,564. The Debt Service Coverage Ratio (DSCR) for the FY 2022 Budget is 2.8, exceeding the required 1.2 ratio. The ratio lowers to 2.4 if all development revenues from new service connections projected for FY 2022 were delayed to future years.

The FY 2022 Operating Expense Budget decreases 0.3%, or $18,144 from the prior year budget. There are two reasons for the decrease. The reduced contribution to SMGWA is one major factor for the decrease. The second reason is that the FY 2021 budget included funding for several budget enhancements for activities that were operating in nature but do not occur annually.

The budget for Salaries & Benefits in FY 2022 reflects a 1.72% Cost-of-Living Adjustment (COLA) increase for all non-exempt positions. Contributions to CalPERS for each of the Districts three pension plans also increased in FY 2022. Further, the minimum required payment on the District's Unfunded Accrued Liability increased 19% from $148,000 to $176,000. Overall, Salaries & Benefits are budgeted to increase by 3% in FY 2022.

Services & Supplies and Debt Service combined are budgeted to decrease 4% in FY 2022.

FY 2022 BUDGET SUMMARY

	Potable Water Fund 01	Recycled Water Fund 02	District Total Funds 01 and 02
REVENUE			
Operating Revenue			
Water Sales	4,535,210	501,700	5,036,910
Water Services	2,448,975	66,900	2,515,875
New Connections	528,322	19,083	547,405
Subtotal	7,512,506	587,683	8,100,189
Non-Operating Revenue			
Property Taxes	1,071,830	-	1,071,830
Notes Receivable (principal)	-	15,000	15,000
Other	61,510	4,575	66,085
Subtotal	1,133,341	19,575	1,152,916
TOTAL REVENUE	**8,645,847**	**607,258**	**9,253,105**
EXPENSES			
Operating Expenses			
Administration	1,138,026	110,336	1,248,362
Finance/Customer Service/WUE	939,620	93,948	1,033,568
Operations	2,915,271	390,008	3,305,279
Engineering	260,153	28,906	289,058
Board	125,870	13,986	139,855
Subtotal	5,378,939	637,184	6,016,123
Debt Service (principal & interest)	854,519	288,045	1,142,564
Projects	2,030,000	-	2,030,000
TOTAL EXPENSES	8,263,458	925,229	9,188,687
FY 2021 Projects Carryover	962,469	-	962,469
FY 2021 Purchase Orders Carryover	20,000	-	20,000
TOTAL BUDGET W/CARRYOVER	**9,245,927**	**925,229**	**10,171,156**

REVENUE

The FY 2022 Budget comprises a total revenue of $9,253,105 with $8,645,847 in the Potable Water (01) Fund and $607,258 in the Recycled Water (02) Fund.

Water Sales revenue includes consumption-based sales of potable water, recycled water, and bulk water. The FY 2022 Water Sales revenue budget assumes consumption will be equal to the recent three-year average, and a rate increase of 5% in December 2021.

Water Service revenue is based on monthly or bimonthly basic service charges and the number of existing meters for both potable and recycled water. For new connections added to the system in FY 2021, Water Service revenue is anticipated in FY 2022 and is included in the budget.

New Connections revenue is based on the development projects which are underway in the Service Area and anticipated to be completed in FY 2022. New Connections revenue has proven to be volatile and difficult to predict. The FY 2022 Budget is based on the most likely scenario projected at this time.

Non-Operating Revenue includes property taxes, notes receivable, interest, dividends, sale of surplus items, etc. Property tax revenue for FY 2022 is budgeted at 2.0% more than the FY 2021 estimated actual, based on revenue growth estimates from the County. Interest and dividends are budgeted based on current interest rates.

EXPENSES

The FY 2022 Operating Budget totals $6,016,123 including $5,378,939 in the Potable Water (01) Fund and $637,184 in the Recycled Water (02) Fund. The FY 2022 Operating Budget is comprised of $3,142,079 in Salaries and Benefits and $2,874,043 in Services, Supplies and Production Costs, as detailed below.

Salaries and Benefits

Salaries and Benefits	FY 2021 Approved Budget	FY 2022 Proposed Budget	Change	%
Administration	641,272	702,412	61,140	10%
Finance	563,967	590,975	27,008	5%
Operations	1,619,059	1,612,579	-6,480	0%
Engineering	105,710	112,058	6,348	6%
Board	120,077	124,055	3,978	3%
Total	**3,050,085**	**3,142,079**	**91,994**	**3%**

The FY 2022 Salaries and Benefits budget provides for an increase of $91,994, or 3%, over the FY 2021 budget. The Salaries budget includes scheduled step increases for eligible hourly employees and compensation adjustments for exempt employees. The budget also includes a COLA of 1.72%, as mentioned above, based upon the calendar year 2020 CPI-U average for hourly employees. Directors Fees for the board include compensation for Directors and Associate Directors to attend board and committee meetings as well as time spent at conferences, training events and other functions. The Benefits budget includes an average increase of 3.3% in medical premium rates; an increase of $39,310 or 22%, for the unfunded pension liability related to prior service by employees and moderate increases in other benefits.

The number of positions remains unchanged at 18, including the 0.5 full-time equivalent (FTE) Administrative Office Assistant position which supports the Santa Margarita Groundwater Agency (SMGWA). The costs of this position are included within the Administration Division salary and benefit line item budgets. The cost of this position is offset with a revenue item budget (within the revenue budget) because fifty percent of the position is funded by SMGWA. A summary of budgeted full-time equivalent (FTE) positions follows:

Positions

Position	FTE in FY 2021	FTE in FY 2022
General Manager	1	1
Operations Manager	1	1
Assistant to the General Manager	1	1
Finance & Customer Service Manager	1	1
Engineering Technician	1	1
Operations Supervisor	1	1
Water Use Efficiency Coordinator	1	1
Lead Water Facilities Operator	2	2
Water Facilities Operator III	2	2
Water Facilities Operator II	2	2
Utility Service Representative, Field	1	1
Electrician/Instrumentation Technician	1	1
Accounting Specialist	1	1
Administrative Office Assistant	0.5	0.5
Administrative Office Assistant - SMGWA	0.5	0.5
Utility Service Representative, Office	1	1
Total Positions	**18**	**18**

Services, Supplies and Production Costs

Description	FY 2021 Approved Budget	FY 2022 Proposed Budget	Change	%
Services	1,098,941	1,017,806	-81,135	-7%
Supplies	40,000	58,900	18,900	47%
General Production	97,000	114,100	17,100	18%
Source of Supply	460,490	260,000	-200,490	-44%
Pumping	513,400	526,500	13,100	3%
Water Treatment	430,000	518,100	88,100	20%
Transmission & Distribution	131,200	142,600	11,400	9%
Customer Accounts	207,113	229,937	22,824	11%
Other	6,039	6,100	61	1%
Total	**2,984,183**	**2,874,043**	**-110,140**	**-4%**

As shown on the prior page, total FY 2022 Services, Supplies and Production costs are budgeted at $2,874,043, a decrease of 4% from FY 2021. Services costs decreased 7% to $1,017,806 from $1,098,941 in FY 2021. The FY 2021 Budget included various one-time Budget Enhancements for Professional Services in the Administration, Finance/Customer Service and Engineering Divisions that are not included in the FY 2022 Budget. These initiatives totaled $280,620. Excluding these Budget Enhancements, the FY 2021 Services, Supplies and Production costs would instead have totaled $2,703,563, and the FY 2022 Budget would be an increase of $170,480, or 6% more than the amount budgeted in FY 2021.

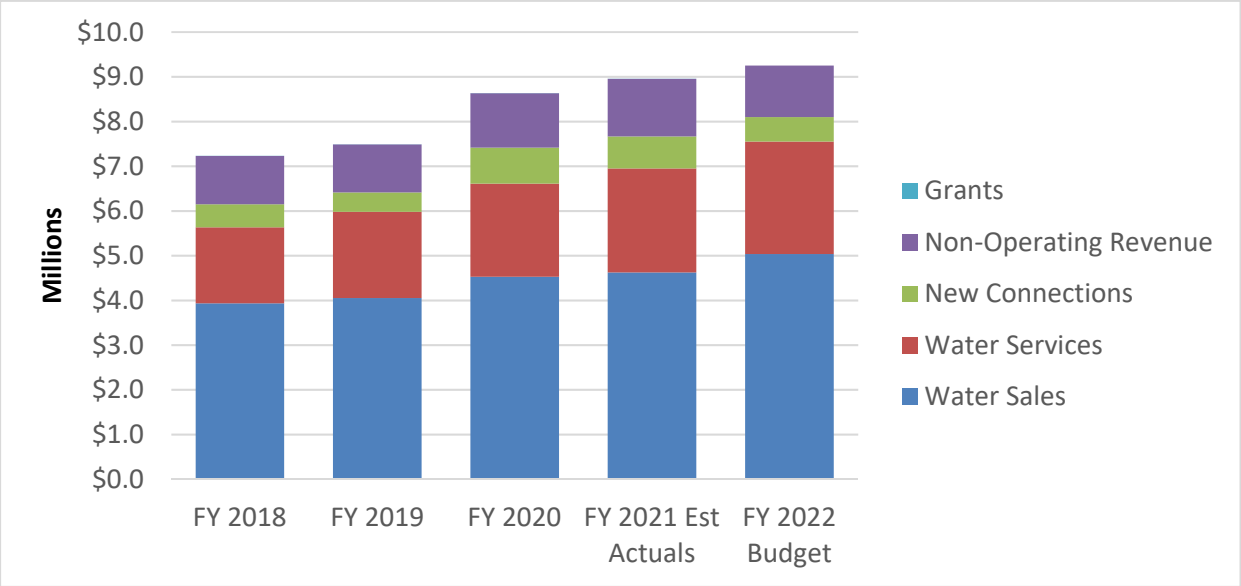
FY 2022 Purchase Order Carryover

One purchase order with an estimated balance of $20,000 was encumbered in FY 2021, but not expected to be completed by year-end. The balance will be rolled into the FY 2022 Operating Budget to continue the work and is reflected in the budget as an FY 2021 Purchase Order Carryover in FY 2022.

FIVE-YEAR TREND/COMPARISON:

Revenue:

The following chart provides a five-year trend of District revenues, excluding Notes Receivable:



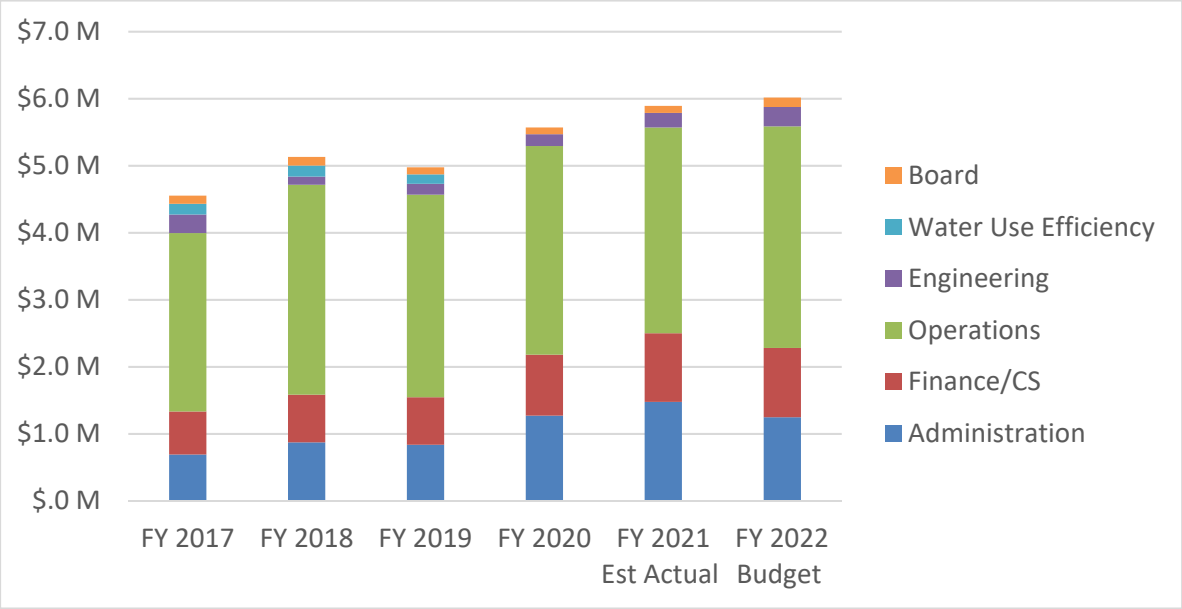
Revenue has increased steadily since FY 2018, the first full fiscal year impacted by the December 2016 Rate Schedule. Water sales and water services revenue has increased in proportion to the rate increases over the period.

FY 2021 Estimated Actuals reflect continued revenue growth. The growth is larger than what was originally estimated in the FY 2021 Budget. A 3% rate increase was anticipated in the FY 2021 Budget. The Board implemented a 10% rate increase in December 2020. Water Sales consumption and revenue in FY 2021 was impacted by COVID-19. Declining consumption in the Commercial, Industrial, Institution (CII) segment was anticipated and did occur. Conversely, residential consumption increased significantly. Revenue from New Connections and Non-Operating (property tax) has increased.

The projected FY 2022 Water Sales revenue assumes that overall consumption will mirror the 3-year average. Total revenue is anticipated to increase slightly in FY 2022. The District projects that CII consumption will recover from FY 2021 but remain below the long-term average. The FY 2022 Budget also anticipates that residential consumption increases will decrease to the longer-term average.

Expenses:

The following chart provides a five-year trend of District expenses by Division.



The figures above exclude Debt Service. In FY 2020 the Water Use Efficiency division budget was shifted to the Finance / CS division to align with the changed organizational structure.

DEBT SERVICE

The FY 2022 Debt Service budget totals $1,142,564, including $854,519 in the Potable Water (01) Fund and $288,045 in the Recycled Water (02) Fund. The Debt Service is comprised of two debt issuances: the 2016 JP Morgan Loan and a new debt issuance in 2021 that is anticipated to close early in Fiscal Year 2022.

	PW (01) Fund	RW (02) Fund	Total
2016 JP Morgan Loan			
Interest	$42,313	$27,419	$69,732
Principal	$402,206	$260,626	$662,832
Total	$444,519	$288,045	$732,564
2021 New Financing			
Interest	$105,000	$0	$105,000
Principal	$305,000	$0	$305,000
Total	$410,000	$0	$410,000
TOTAL DEBT SERVICE			
Interest	$147,313	$27,419	$174,732
Principal	$707,206	$260,626	$967,832
Total	$854,519	$288,045	$1,142,564

DEBT SERVICE COVERAGE RATIO (DSCR)

The 2016 Refunding Loan requires that the District prescribe, revise and collect such charges for providing water, which, after allowances for contingencies and errors, produce sufficient income in each fiscal year to provide net revenues equal to at least 1.20 times the sum of 1) 2016 Loan installment payments becoming due and payable in such fiscal year and 2) all debt service and any related payments required with respect to any additional parity debt for such fiscal year. Parity debt consists of any additional debt obligations incurred by the District and secured by a debt on District revenues equally and ratably with the 2016 Loan payments. No parity debt currently exists.

The FY 2022 Budget presents a debt coverage ratio of 4.4, which is well above the minimum requirement of 1.20. New Connections revenue including Meter Fees, Capacity Fees, Will Serve Fees, and Development Project Review Fees are budgeted for a total of $0.8 million and included in the calculation. In the worst case, if all New Connections revenues were delayed and thus not included in this calculation, the DSCR would be adjusted to 3.1.

PROJECTS

The FY 2022 Projects budget totals $2,030,000. The funding for all of the projects is budgeted in the Potable Water Fund. Additionally, projects that are in progress in FY 2021 are projected to have a total unspent balance of $962,469 by FY 2021 year-end, and this amount will be carried forward into FY 2022, so that those projects may be completed. Combining the FY 2022 Project budget of $2,030,000 with the carryover budget of $962,469, the Proposed FY 2022 Projects budget will have a total of $2,992,469. Highlighted projects are listed below:

Summary of the FY 2022 Projects Budget:

The most significant FY 2022 projects are described further below:

$1,500,000 Well 3B Replacement

Construct a new well with a stainless-steel casing to replace the existing well 3B. The new well will pump water to the Orchard Run Water Treatment Plant for filtration and disinfection before distribution and will produce approximately 400 gallons per minute (gpm).

$200,000 Main Replacement Program:

Replace and upgrade 1,100 feet of main in two locations.

$100,000 El Pueblo Water Treatment Plant Improvements:

Replace the manual filter control system that was installed in the 1980's with a programmable automated control system that is linked with the SCADA system.

$100,000 Hacienda Pump Station Improvements:

Replace pump shed structure that is in poor condition. Mitigate noise and make structural upgrades to provide better protection for the pumps and motors in the pump station and reduce noise emissions.

BUDGETARY CONTROL

Through approval of the budget, the board appropriates the resources necessary to maintain District service levels and achieve specified objectives. The District prepares a detailed line item operating budget, which represents an estimate based on operations at the time the budget is prepared. Throughout the fiscal year management applies best business practices to improve operational efficiencies. As a result, actual expenses may differ from the budget.

The level of budgetary control is set at the major expense category by division. Each Division Manager is responsible for his/her division budget. The General Manager is responsible for the District budget with authority to move appropriations between divisions. Budgetary control for projects is set at the total Projects budget amount approved for the year, including carryover project funding. Spending on a project not listed in the budget would require the board's review and approval through an agenda report.

FUND BALANCE

Fund Balance is defined as funds readily available for new expenses and/or commitments. It is based on working capital, calculated as current assets (excluding Notes Receivable, shown separately below) minus current liabilities (excluding Debt Service, shown separately below).

FY 2021 Estimated Actual	Potable Fund	Recycled Fund	District Total
Audited Fund Balance 6/30/2020	4,132,280	269,953	4,402,233
Revenue	8,226,810	560,993	8,787,803
Notes Receivable	-	169,412	169,412
Operating Expense	(5,242,977)	(568,819)	(5,811,796)
Debt Service	(393,436)	(254,943)	(648,379)
Project Costs	(4,522,183)	(35,377)	(4,557,560)
Increase / (Decrease) of Fund Balance	(1,931,785)	(128,734)	(2,060,520)
Transfer from 01 Fund to 02 Fund	141,219	(141,219)	-
Projected Fund Balance 6/30/2021	**2,341,713**	**-**	**2,341,713**

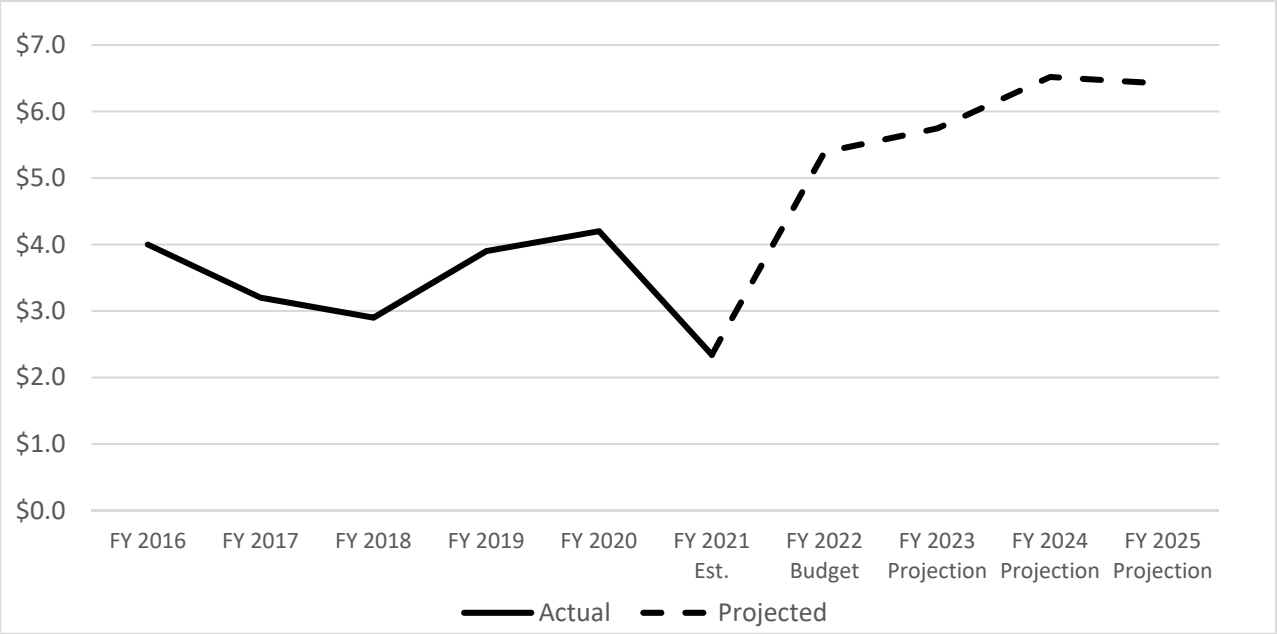
The total Fund Balance is projected to decrease $2.1 million by the end of FY 2021, from $4.4 million to $2.3 million. This decrease is due to the District fully spending the budget for projects in FY 2021. The Estimated Actual for projects in FY 2021 is $4.55 million. It was anticipated that $2.6 million will be required in FY 2022 as carryover project funding.

FY 2022 Budget	Potable Fund	Recycled Fund	District Total
Projected Fund Balance 6/30/2021	2,341,713	-	2,341,713
Revenue	8,645,847	592,258	9,238,105
Financing - New Debt Issuance	6,000,000	-	6,000,000
Notes Receivable	-	15,000	15,000
Operating Expense	(5,378,939)	(637,184)	(6,016,123)
Debt Service	(854,519)	(288,045)	(1,142,564)
Payment on Accrued Pension Liability	(2,000,000)	-	(2,000,000)
Project Costs	(2,030,000)	-	(2,030,000)
Increase / (Decrease) of Fund Balance	4,382,389	(317,971)	4,064,418
FY 2021 Purchase Orders Carryover	(20,000)	-	(20,000)
FY 2021 Projects Carryover	(962,469)	-	(962,469)
Transfer from 01 Fund to 02 Fund	(317,971)	317,971	-
Projected Fund Balance 6/30/2022	**5,423,662**	**-**	**5,423,662**

The FY 2022 Budget anticipates a $3.1 million contribution to Fund Balance from $2.3 million on 6/30/2021 to $5.4 million on 6/30/2022. The FY 2022 budget includes financing resources of $6

million, additional debt service for the estimated annual payment on the new debt issuance, and a $2 million contribution to pay down the District's unfunded pension liability.

Fund Balance (in millions of $)



After four consecutive years of declining fund balance from FY 2015 through FY 2018, the FY 2019 Fund Balance reversed the trend with fund balance increasing. Fund balance increased further in FY 2020. As discussed above and shown in the Fund Balance chart above, the FY 2021 Estimated Actuals result in a draw on fund balance. However, as the District continues to see revenue grow, the District anticipates that fund balance will increase in future years to the target reserve level.

Estimating future year fund balances requires making numerous assumptions. One of the most significant assumptions is how the District will fund the Capital Improvement Program. The Fund Balance chart above reflects the 2021 New Financing that is anticipated to close in early Fiscal Year 2022. A second major factor is the projected revenue from new connections. The District takes a conservative approach to projecting the timing of when revenue from new connections will be received.

ALLOCATION OF EXPENSES BETWEEN POTABLE FUND AND RECYCLED FUND

In general, recycled water revenue receipts, portions of debt service for the 2016 Refunding Loan, water meters for recycled accounts, repairs and maintenance of the recycled water plant and 10% of the general and administrative expenses are budgeted in the Recycled Water Fund. As the budget needs to be balanced by fund, a $317,971 loan from the Potable Water Fund to the Recycled Water Fund is required to make the Recycled Water Fund whole for FY 2022. It should be noted that all District fund balance reserves are allocated to the Potable Fund and none is currently allocated to the Recycled Fund.

TARGET RESERVE

The target reserves are established by the formula stated in District Policy P200-17-2. For FY 2022, the calculated target reserve amount is approximately $4.86 million, as summarized below. The projected Reserve Balance, based upon fund balance at June 30, 2022, is $5.39 million, or $0.5 million greater than the Target Reserve.

District Reserve Components:

Operating Reserve		**FY 2022**
FY 2022 Operating Expense Budget	6,016,123	
Reserve Level: 90 days (25%)	25%	1,504,031
Rate Stabilization Reserve		
FY 2022 Water Sales Revenue Budget	5,036,910	
20% of volumetric water sales revenue	20%	1,007,382
Emergency Reserve		
Net Asset Value @ 6/30/2020	21,785,200	
2.5% of Net Asset Valuation	2.50%	544,630
Capital Reserve		
FY 2020 Depreciation	1,069,751	
1 year of Depreciation	100%	1,069,751
Debt Service Reserve		
FY 2022 Debt Service*	732,564	
100% of Debt Service	100%	732,564
Target Reserve:		4,858,358

* Contracted debt service only. Excludes anticipated 2021 financing estimate.

In summary, the FY 2022 Budget reflects a Revenue budget of cautious optimism, an Operating Expense budget that maintains the Districts high service levels, and a detailed Projects budget. Looking ahead, the District plans to complete the 2021 new debt issuance and complete the rate study in FY 2022. The FY 2022 Budget ensures that high service levels are maintained, essential projects are completed, with the District remaining on the path toward sustaining the target reserve level.

Respectfully submitted,

Piret Harmon
General Manager

Scotts Valley Water District
FY 2022 Proposed Budget: Revenue

Account Number	Account Description	FY 2021 Budget	FY 2021 Estimated Actual	FY 2022 Budget
Fund (01)	**POTABLE WATER**			
R10	Operating Revenue - Water Sales			
01-000-41101	Residential Consumption - Single-Family	2,292,073	2,484,307	2,594,087
01-000-41102	Residential Consumption - Multi-Family	169,499	194,110	200,886
01-000-41103	CII Consumption	964,099	1,077,948	1,343,116
01-000-41105	Irrigation Consumption	332,394	355,136	374,031
01-000-41200	Other Bulk Water	25,745	21,815	23,090
	R10 Operating Revenue-Water Sales Total:	**3,783,810**	**4,133,317**	**4,535,210**
R20	Operating Revenue - Water Services			
01-000-41300	Other Late Penalty	25,800	15,215	9,000
01-000-42100	Standby Basic Meter Charge	2,074,649	2,180,116	2,370,833
01-000-42121	Standby FP Basic Meter Charge	57,725	60,526	62,342
01-000-43300	Other Operating Revenue	10,500	8,550	6,800
	R20 Operating Revenue - Water Services Total:	**2,168,674**	**2,264,406**	**2,448,975**
R25	Operating Revenue - New Connections			
01-000-42101	Other Meter Fee	12,891	8,600	12,500
01-000-42102	Other Capacity Buy-in Fee	761,528	701,391	508,022
01-000-42120	Other FP Meter Fee	4,691	675	800
01-000-43100	Other Will Serve	1,000	875	1,000
01-000-43200	Other Dev Proj Review	6,000	5,166	6,000
	R25 Operating Revene - New Connections Total:	**786,110**	**716,707**	**528,322**
R30	Non-Operating Revenue			
01-000-46000	Property Taxes	1,077,212	1,050,814	1,071,830
01-000-47110	Interest & Dividend	21	10	10
01-000-47120	Interest - LAIF	52,500	21,721	21,700
01-000-47520	Misc. Non-Operating Revenue	45,658	39,834	39,800
	R30 Non-Operating Revenue Total:	**1,175,391**	**1,112,379**	**1,133,341**
Fund (01) Potable Water Revenue Total:		**7,913,985**	**8,226,810**	**8,645,847**

Scotts Valley Water District
FY 2022 Proposed Budget: Revenue

Account Number	Account Description	FY 2021 Budget	FY 2021 Estimated Actual	FY 2022 Budget
Fund (02)	**RECYCLED WATER**			
R10	Operating Revenue - Water Sales			
02-000-41105	Irrigation Consumption	482,653	477,839	501,700
02-000-41200	Other Bulk Water	-	12,882	-
	R10 Operating Revenue - Water Sales Total:	**482,653**	**490,721**	**501,700**
R20	Operating Revenue - Water Services			
02-000-42100	Standby Basic Meter Charge	65,345	63,692	66,900
02-000-43300	Other Oper Revenue	-	75	-
	R20 Operating Revenue - Water Services Total:	**65,345**	**63,767**	**66,900**
R25	Operating Revenue - New Connections			
02-000-42101	Other Meter Fee	825	-	19,083
02-000-42102	Other Capacity Fee	31,301	-	-
	R25 Operating Revenue - New Connections Total:	**32,126**	**-**	**19,083**
R30	Non-Operating Revenue			
02-000-47110	Interest and Dividend	8,573	6,505	4,575
02-000-47560	Notes Receivable Payments	169,412	169,412	15,000
	R30 Non-Operating Revenue Total:	**177,985**	**175,917**	**19,575**
Fund (02) Recycled Water Revenue Total:		**758,109**	**730,405**	**607,258**
Fund (01) and Fund (02) Revenue Total:		**8,672,094**	**8,957,215**	**9,253,105**
Total Revenues excluding Notes Receivable		8,502,682	8,787,803	9,238,105

Scotts Valley Water District
Potable Water Fund (01)
FY 2022 Proposed Budget: Expense

Account Number	Account Description	FY 2021 Budget	FY 2021 Estimated Actual	FY 2022 Budget
Fund (01)	**POTABLE WATER**			
Dept (100)	**Administration**			
E01	**Salaries & Benefits**			
01-100-51110	Regular Pay	343,228	343,526	357,966
01-100-51111	Temporary Pay	11,000	7,678	11,440
01-100-51114	Overtime Pay	-	38	-
01-100-51116	Bonus Pay	-	3,815	3,815
01-100-51132	Special Vacation Pay	7,500	12,500	6,300
01-100-51150	Vehicle & Phone Allowance	3,840	3,855	3,840
01-100-51161	Medicare	5,371	5,279	5,689
01-100-51202	Retirement - Tier 2	29,500	29,517	30,184
01-100-51203	Retirement - Tier 3	4,782	4,793	5,013
01-100-51204	Unfunded Pension Liability	175,808	170,887	215,118
01-100-51206	Retirement - Survivor Benefit	73	73	73
01-100-51210	Medical Insurance	29,450	29,200	30,143
01-100-51212	Dental Insurance	2,461	2,337	2,501
01-100-51213	Vision Insurance	668	668	679
01-100-51214	Life & AD&D Insurance	1,209	1,149	1,113
01-100-51215	457 & HSA Contributions	12,800	12,433	15,000
01-100-51216	Employee Assistance Program	97	89	86
01-100-51220	Other Post-Employment Benefits	6,222	-	6,202
01-100-51240	Workers' Compensation	2,014	6,107	2,000
01-100-51250	Tuition Reimbursement	5,250	348	5,250
01-100-51700	Allocation to RW Fd-S&B	(64,127)	(63,429)	(70,241)
	E01 Salaries & Benefits Totals:	**577,145**	**570,864**	**632,171**
E03	**Services**			
01-100-52110	Contractual Services	21,800	20,000	22,500
01-100-52120	Landscape Maint	5,000	7,000	7,000
01-100-52210	Professional Services	207,000	200,000	120,000
01-100-52230	IT Services	70,000	70,000	70,000
01-100-52231	Website Maint	5,500	2,000	9,500
01-100-52250	Legal Counsel	36,000	36,000	42,000
01-100-52280	Election Services	14,000	125	-
01-100-52310	Sewer Service	500	500	500
01-100-52320	Solid Waste Service	625	625	650
01-100-52330	Electricity & Gas	11,500	11,500	12,000
01-100-52340	Telephone & Internet	9,600	9,600	11,400
01-100-52410	Software Licensing & Maint	1,000	1,000	2,800
01-100-52420	Equipment Rental & Maint	4,900	4,700	4,600
01-100-52510	Travel & Meetings	12,000	2,000	6,000
01-100-52520	Training	4,000	2,500	5,000
01-100-52530	Dues & Memberships	24,060	25,000	26,500
01-100-52540	Employee Recognition	6,000	5,000	6,000
01-100-52570	Printing Services	2,400	2,000	2,000

Account Number	Account Description	FY 2021 Budget	FY 2021 Estimated Actual	FY 2022 Budget
01-100-52620	Legal Advertising	200	-	200
01-100-52630	Advertising & Promotion	13,000	8,000	14,000
01-100-52660	Recruitment	500	1,000	1,000
01-100-52700	Safety Services	2,000	149	1,000
01-100-52725	HR Processing Fees	2,170	2,100	2,200
01-100-52800	Regulatory Oversight & Comp	100	68	100
01-100-52810	General Building Maint	17,000	20,000	18,000
01-100-52980	Allocation to RW Fd-Services	(47,087)	(43,087)	(38,495)
	E03 Services Totals:	**423,769**	**387,780**	**346,455**
E05	**Supplies**			
01-100-53100	Office Supplies	4,200	2,500	4,000
01-100-53110	Building Maint Supplies	2,000	-	-
01-100-53400	Books & Subscriptions	1,000	200	500
01-100-53500	Safety Supplies	1,000	1,000	1,500
01-100-53700	Special Division Supplies	5,000	5,000	5,000
01-100-53910	Office Equipment	2,000	500	2,000
01-100-53920	Furniture & Furnishings	2,000	3,500	3,000
01-100-53980	Allocation to RW Fd-Supplies	(1,720)	(1,270)	(1,600)
	E05 Supplies Totals:	**15,480**	**11,430**	**14,400**
E10	**Source of Supply**			
01-100-52211	Professional Services - SMGWA	290,490	368,940	100,000
01-100-52212	Professional Services - SS	30,000	30,000	30,000
01-100-52290	In-kind Service for SMGWA	10,000	-	10,000
	E10 Source of Supply Totals:	**330,490**	**398,940**	**140,000**
E70	**Other**			
01-100-52950	Contingency for Litigation	5,000	-	5,000
	E70 Other Totals:	**5,000**	**-**	**5,000**
	Dept 100 Sub Totals:	**1,351,884**	**1,369,014**	**1,138,026**

Account Number	Account Description	FY 2021 Budget	FY 2021 Estimated Actual	FY 2022 Budget
Dept (200)	**Finance/Customer Service**			
E01	**Salaries & Benefits**			
01-200-51110	Regular Pay	382,639	375,664	408,942
01-200-51111	Temporary Pay	5,000	2,000	5,000
01-200-51114	Overtime Pay	1,000	185	1,000
01-200-51132	Special Vacation Pay	-	5,900	3,000
01-200-51150	Vehicle & Phone Allowance	960	964	960
01-200-51161	Medicare	5,667	5,617	6,061
01-200-51202	Retirement - Tier 2	23,020	23,784	24,204
01-200-51203	Retirement - Tier 3	12,608	12,899	13,272
01-200-51206	Retirement - Survivor Benefit	97	67	97
01-200-51210	Medical Insurance	76,229	75,015	76,668
01-200-51212	Dental Insurance	3,243	3,243	3,297
01-200-51213	Vision Insurance	891	891	906
01-200-51214	Life & AD&D Insurance	1,488	1,486	1,511
01-200-51215	457 & HSA Contributions	8,800	8,648	8,800
01-200-51216	Employee Assistance Program	130	119	114
01-200-51220	Other Post-Employment Benefits	39,668	35,605	35,044
01-200-51240	Workers' Compensation	2,527	2,031	2,100
01-200-51700	Allocation to RW Fd-S&B	(56,397)	(55,412)	(59,098)
	E01 Salaries & Benefits Totals:	**507,570**	**498,706**	**531,878**
E03	**Services**			
01-200-52210	Professional Services	88,170	54,450	80,100
01-200-52240	Audit Services	15,000	15,000	15,000
01-200-52260	Financial/Regulatory Reporting	1,250	1,510	1,550
01-200-52300	Auto & Liability Insurance	48,790	47,958	50,400
01-200-52400	Property Insurance	15,450	17,532	18,400
01-200-52410	Software Licensing & Maint	13,403	8,839	9,281
01-200-52510	Travel & Meetings	3,900	-	5,250
01-200-52520	Training	1,500	1,000	3,180
01-200-52550	Printing & Mailing Services	50	-	500
01-200-52630	Advertising & Promotion	2,500	-	2,500
01-200-52720	Payroll Processing Fees	8,300	7,773	7,700
01-200-52740	Bank Service Fees	4,600	6,500	6,800
01-200-52760	Health Benefits Admin Fees	500	478	496
01-200-52980	Allocation to RW Fd-Services	(21,016)	(16,723)	(20,756)
01-200-54015	Property Tax Admin Fees	6,750	6,192	6,400
	E03 Services Totals:	**189,147**	**150,509**	**186,801**
E05	**Supplies**			
01-200-53200	Postage	3,000	3,000	3,000
01-200-53290	Promotional Give-Aways	1,000	-	1,000
01-200-53980	Allocation to RW Fd-Supplies	(400)	(300)	(400)
	E05 Supplies Totals:	**3,600**	**2,700**	**3,600**
E35	**Customer Accounts**			
01-200-52415	Software Licensing & Portal	35,031	45,528	47,377
01-200-52555	Printing & Mailing - CA	20,493	12,253	12,620
01-200-52560	Collection Agency Fees	1,146	1,234	1,160
01-200-52650	AMI Data Subscription	30,951	45,457	48,000
01-200-52710	Payment Processing Fees	58,757	58,475	60,000

Account Number	Account Description	FY 2021 Budget	FY 2021 Estimated Actual	FY 2022 Budget
01-200-53250	Rebates - Pressure Regulators	3,000	2,000	3,000
01-200-53260	Rebates- Turf/Drip Replacement	40,000	39,064	40,000
01-200-53270	Rebates- Outdoor Efficiency	1,000	877	1,000
01-200-53280	Rebates- Indoor Efficiencies	5,000	2,498	5,000
01-200-53700	Special Division Supplies	3,000	1,182	3,000
01-200-54980	Allocation to RW Fd-Cust Accts	(15,438)	(12,549)	(12,916)
01-200-59400	Bad Debt	8,000	8,000	8,000
	E35 Customer Accounts Totals:	**190,940**	**204,020**	**216,241**
E70	**Other**			
01-200-54010	Property Taxes	1,038	1,029	1,100
	E70 Other Totals:	**1,038**	**1,029**	**1,100**
E80	**Debt Service**			
01-200-54740	Interest Expense-2016 JPMorgan	46,034	49,200	42,313
01-200-54740	Interest Expense- New Issuance	-	-	105,000
	E80 Debt Service Totals:	**46,034**	**49,200**	**147,313**
	Dept 200 Sub Totals:	**938,329**	**906,164**	**1,086,933**

Account Number	Account Description	FY 2021 Budget	FY 2021 Estimated Actual	FY 2022 Budget
Dept (300)	**Operations**			
E01	**Salaries & Benefits**			
01-300-51110	Regular Pay	1,054,771	940,553	1,040,532
01-300-51114	Overtime Pay	82,300	86,036	82,300
01-300-51132	Special Vacation Pay	13,300	21,700	10,900
01-300-51150	Vehicle & Phone Allowance	6,240	5,990	6,240
01-300-51161	Medicare	15,621	14,542	15,536
01-300-51201	Retirement - Tier 1	29,282	19,087	29,246
01-300-51202	Retirement - Tier 2	59,299	52,237	55,743
01-300-51203	Retirement - Tier 3	22,494	18,742	40,305
01-300-51206	Retirement - Survivor Benefit	266	154	242
01-300-51210	Medical Insurance	190,672	177,219	196,781
01-300-51211	Medical Cash-in-lieu	3,000	3,000	3,000
01-300-51212	Dental Insurance	11,288	10,002	11,063
01-300-51213	Vision Insurance	2,450	2,116	2,264
01-300-51214	Life & AD&D Insurance	3,095	2,641	2,655
01-300-51215	457 & HSA Contributions	24,100	20,810	20,800
01-300-51216	Employee Assistance Program	356	282	286
01-300-51220	Other Post-Employment Benefits	68,703	69,159	68,486
01-300-51240	Workers' Compensation	31,822	23,797	26,200
01-300-51700	Allocation to RW Fd-S&B	(161,906)	(146,807)	(161,258)
	E01 Salaries & Benefits Totals:	**1,457,153**	**1,321,262**	**1,451,321**
E03	**Services**			
01-300-52120	Landscape Maint	15,000	20,260	20,500
01-300-52210	Professional Services	10,000	3,000	10,000
01-300-52310	Sewer Service	600	600	500
01-300-52320	Solid Waste Service	3,100	10,000	3,100
01-300-52340	Telephone & Internet	11,400	16,200	16,200
01-300-52420	Equipment Rental & Maint	24,000	26,380	24,000
01-300-52500	Uniform Laundering Services	5,300	4,555	5,300
01-300-52510	Travel & Meetings	7,000	-	7,000
01-300-52520	Training	10,000	1,523	4,600
01-300-52550	Printing & Mailing Services	800	800	800
01-300-52700	Safety Services	1,500	1,000	1,500
01-300-52810	General Building Maint	4,560	5,196	5,200
01-300-52830	Landfill Fees	5,000	6,439	5,200
01-300-52910	Vehicle Maint	22,000	20,000	22,000
01-300-52930	Facility Site Maint	60,000	61,000	83,000
01-300-52980	Allocation to RW Fd-Services	(20,526)	(20,195)	(23,390)
01-300-55130	GIS Maint	25,000	25,000	25,000
	E03 Services Totals:	**184,734**	**181,757**	**210,510**
E05	**Supplies**			
01-300-53100	Office Supplies	1,500	2,000	2,200
01-300-53400	Books & Subscriptions	500	566	500
01-300-53500	Safety Clothing & Equipment	14,500	12,446	13,300
01-300-53600	Vehicle Fuel	500	16,850	18,600
01-300-53910	Office Equipment	-	1,878	2,100
01-300-53920	Furniture & Furnishings	-	1,050	800
01-300-53980	Allocation to RW Fd-Supplies	(1,700)	(3,479)	(3,750)
	E05 Supplies Totals:	**15,300**	**31,311**	**33,750**

Account Number	Account Description	FY 2021 Budget	FY 2021 Estimated Actual	FY 2022 Budget
E07	**General Production Costs**			
01-300-52800	Regulatory Oversight & Comp	29,000	34,700	35,000
01-300-53300	Small Tools & Equipment	16,000	13,614	15,300
01-300-53700	Special Division Supplies	8,000	4,883	7,400
01-300-55980	Allocation to RW Fd-Gen Prod	(8,900)	(10,021)	(10,610)
01-300-56500	SCADA Maint	36,000	47,010	48,400
	E07 General Production Totals:	**80,100**	**90,186**	**95,490**
E10	**Source of Supply**			
01-300-55230	Well Maint	130,000	130,000	120,000
	E10 Source of Supply Totals:	**130,000**	**130,000**	**120,000**
E15	**Pumping**			
01-300-56310	Pumps & Boosters	50,000	50,000	50,000
01-300-56330	Pumps - Electricity & Gas	411,900	461,127	475,000
	E15 Pumping Totals:	**461,900**	**511,127**	**525,000**
E20	**Water Treatment**			
01-300-52315	Wastewater Disposal	60,000	80,000	135,000
01-300-55110	Chemical Supplies	85,000	51,972	66,400
01-300-55120	Laboratory Services	35,000	17,301	28,700
01-300-55210	Treatment Plant Maint	120,000	75,380	120,000
	E20 Water Treatment Totals:	**300,000**	**224,653**	**350,100**
E25	**Transmission & Distribution**			
01-300-52410	Software Licensing & Maint	6,200	4,460	6,300
01-300-55240	Tank & Reservoir Maint	24,000	35,546	24,000
01-300-56100	Main Maint & Repair	50,000	10,063	50,000
01-300-56200	Service Lateral Maint & Repair	14,000	17,446	15,300
01-300-56400	Fire Hydrant Maint	8,500	9,351	8,500
01-300-56600	Meter Maint	15,000	59,553	25,000
	E25 Transmission & Distribution Totals:	**117,700**	**136,420**	**129,100**
E70	**Other**			
01-300-54050	Capacity Buy-back	-	99,685	-
	E70 Other Totals:	**-**	**99,685**	**-**
	Dept 300 Sub Totals:	**2,746,887**	**2,726,400**	**2,915,271**

Account Number	Account Description	FY 2021 Budget	FY 2021 Estimated Actual	FY 2022 Budget
Dept (400)	**Engineering**			
E01	**Salaries & Benefits**			
01-400-51110	Regular Pay	84,975	83,141	90,794
01-400-51114	Overtime Pay	2,500	53	2,500
01-400-51150	Vehicle & Phone Allowance	480	482	480
01-400-51161	Medicare	1,319	1,271	1,403
01-400-51202	Retirement - Tier 2	8,909	8,779	9,388
01-400-51206	Retirement - Survivor Benefit	24	17	24
01-400-51211	Medical Cash-in-lieu	3,000	3,000	3,000
01-400-51212	Dental Insurance	1,273	413	1,294
01-400-51213	Vision Insurance	223	223	226
01-400-51214	Life & AD&D Insurance	109	115	120
01-400-51215	457 & HSA Contributions	2,200	2,125	2,200
01-400-51216	Employee Assistance Program	32	30	29
01-400-51240	Workers' Compensation	666	536	600
01-400-51700	Allocation to RW Fd-S&B	(10,571)	(10,019)	(11,206)
	E01 Salaries & Benefits Totals:	**95,139**	**90,167**	**100,853**
E03	**Services**			
01-400-52210	Outside Prof Services	20,000	3,000	20,000
01-400-52215	Prof. Svcs (3rd-Party Funded)	(10,000)	-	(10,000)
01-400-52220	Engineering Services	170,000	100,000	160,000
01-400-52410	Software Licensing & Maint	7,500	11,000	4,000
01-400-52510	Travel & Meetings	1,400	700	1,400
01-400-52520	Training	1,000	600	1,000
01-400-52980	Allocation to RW Fd-Services	(18,990)	(11,530)	(17,640)
	E03 Services Totals:	**170,910**	**103,770**	**158,760**
E05	**Supplies**			
01-400-53700	Special Division Supplies	1,000	1,000	600
01-400-53980	Allocation to RW Fd-Supplies	(100)	(100)	(60)
	E05 Supplies Totals:	**900**	**900**	**540**
	Dept 400 Sub Totals:	**266,949**	**194,837**	**260,153**

Account Number	Account Description	FY 2021 Budget	FY 2021 Estimated Actual	FY 2022 Budget
Dept (900)	**Board of Directors**			
E01	**Salaries & Benefits**			
01-900-51120	Director Fees	38,240	29,748	38,240
01-900-51161	Medicare	554	626	554
01-900-51162	Social Security	2,371	2,654	2,371
01-900-51212	Dental Insurance	3,734	4,045	5,798
01-900-51213	Vision Insurance	891	965	1,585
01-900-51214	Life & AD&D Insurance	290	312	303
01-900-51220	Other Post-Employment Benefits	21,305	18,594	20,908
01-900-51240	Workers' Compensation	227	185	2,003
01-900-51260	Medical Premiums	52,465	39,273	52,293
01-900-51700	Allocation to RW Fd-S&B	(12,008)	(9,640)	(12,406)
	E01 Salaries & Benefits Totals:	**108,069**	**86,762**	**111,650**
E03	**Services**			
01-900-52410	Software Licensing & Maint	200	200	200
01-900-52510	Travel & Meetings	15,600	6,800	7,800
01-900-52520	Training	7,000	3,000	7,000
01-900-52980	Allocation to RW Fd-Services	(2,280)	(1,000)	(1,500)
	E03 Services Totals:	**20,520**	**9,000**	**13,500**
E05	**Supplies**			
01-900-53100	Office Supplies	200	-	200
01-900-53910	Office Equipment	600	-	600
01-900-53980	Allocation to RW Fd-Supplies	(80)	-	(80)
	E05 Supplies Totals:	**720**	**-**	**720**
	Dept 900 Sub Totals:	**129,309**	**95,762**	**125,870**
	Expense Totals:	**5,433,358**	**5,292,177**	**5,526,252**

Scotts Valley Water District
Recycled Water Fund (02)
FY 2022 Proposed Budget: Expense

Account Number	Account Description	FY 2021 Budget	FY 2021 Estimated Actual	FY 2022 Budget
Fund (02)	**RECYCLED WATER**			
Dept (100)	**Administration**			
E01	**Salaries & Benefits**			
02-100-51700	Allocation from Fund (01) to Fund (02)	64,127	63,429	70,241
	E01 Salaries & Benefits Totals:	**64,127**	**63,429**	**70,241**
E03	**Services**			
02-100-52980	Allocation from Fund (01) to Fund (02)	47,049	43,087	38,495
	E03 Services Totals:	**47,049**	**43,087**	**38,495**
E05	**Supplies**			
02-100-53980	Allocation from Fund (01) to Fund (02)	1,720	1,270	1,600
	E05 Supplies Totals:	**1,720**	**1,270**	**1,600**
	Dept 100 Sub Totals:	**112,896**	**107,786**	**110,336**
Dept (200)	**Finance/Customer Service**			
E01	**Salaries & Benefits**			
02-200-51700	Allocation from Fund (01) to Fund (02)	56,397	55,412	59,098
	E01 Salaries & Benefits Totals:	**56,397**	**55,412**	**59,098**
E03	**Services**			
02-200-52980	Allocation from Fund (01) to Fund (02)	21,016	16,723	20,756
	E03 Services Totals:	**21,016**	**16,723**	**20,756**
E05	**Supplies**			
02-200-53980	Allocation from Fund (01) to Fund (02)	400	300	400
	E05 Supplies Totals:	**400**	**300**	**400**
E35	**Customer Accounts**			
02-200-52650	AMI Data Subscription	735	758	780
02-200-54980	Allocation from Fund (01) to Fund (02)	15,438	12,549	12,916
	E35 Customer Accounts Totals:	**16,173**	**13,307**	**13,695**
E80	**Debt Service**			
02-200-54740	Interest Expense - 2016 JPMorgan	29,829	31,881	27,419
	E80 Debt Service Totals:	**29,829**	**31,881**	**27,419**
	Dept 200 Sub Totals:	**123,815**	**117,624**	**121,367**

Account Number	Account Description	FY 2021 Budget	FY 2021 Estimated Actual	FY 2022 Budget
Dept (300)	**Operations**			
E01	**Salaries & Benefits**			
02-300-51700	Allocation from Fund (01) to Fund (02)	161,906	146,807	161,258
	E01 Salaries & Benefits Totals:	**161,906**	**146,807**	**161,258**
E03	**Services**			
02-300-52980	Allocation from Fund (01) to Fund (02)	20,526	20,195	23,390
	E03 Services Totals:	**20,526**	**20,195**	**23,390**
E05	**Supplies**			
02-300-53980	Allocation from Fund (01) to Fund (02)	1,700	3,479	3,750
	E05 Supplies Totals:	**1,700**	**3,479**	**3,750**
E07	**General Production Costs**			
02-300-53700	Special Division Supplies	8,000	-	8,000
02-300-55980	Allocation from Fund (01) to Fund (02)	8,900	10,021	10,610
	E07 General Production Totals:	**16,900**	**10,021**	**18,610**
E15	**Pumping**			
02-300-56310	Pumps and Boosters	50,000	-	-
02-300-56330	Pumps - Electricity and Power	1,500	1,500	1,500
	E15 Pumping Totals:	**51,500**	**1,500**	**1,500**
E20	**Water Treatment**			
02-300-55210	Treatment Plant Maintenance	130,000	160,000	168,000
	E20 Water Treatment Totals:	**130,000**	**160,000**	**168,000**
E25	**Transmission & Distribution**			
02-300-55240	Tank and Reservoir Maintenance	1,000	-	1,000
02-300-56100	Main Maintenance and Repairs	7,500	-	7,500
02-300-56200	Service Lateral Maint & Repair	3,000	-	3,000
02-300-56600	Meter Maintenance	1,000	1,000	1,000
02-300-56800	Recycled Water Monitoring	1,000	-	1,000
	E25 Transmission & Distribution Totals:	**13,500**	**1,000**	**13,500**
	Dept 300 Sub Totals:	**396,032**	**343,002**	**390,008**

Account Number	Account Description	FY 2021 Budget	FY 2021 Estimated Actual	FY 2022 Budget
Dept (400)	**Engineering**			
E01	**Salaries & Benefits**			
02-400-51700	Allocation from Fund (01) to Fund (02)	10,571	10,019	11,206
	E01 Salaries & Benefits Totals:	**10,571**	**10,019**	**11,206**
E03	**Services**			
02-400-52980	Allocation to RW Fd-Services	18,990	11,530	17,640
	E03 Services Totals:	**18,990**	**11,530**	**17,640**
E05	**Supplies**			
02-400-53980	Allocation to RW Fd-Supplies	100	100	60
	E05 Supplies Totals:	**100**	**100**	**60**
	Dept 400 Sub Totals:	**29,661**	**21,649**	**28,906**
Dept (900)	**Board of Directors**			
E01	**Salaries & Benefits**			
02-900-51700	Allocation from Fund (01) to Fund (02)	12,008	9,640	12,406
	E01 Salaries & Benefits Totals:	**12,008**	**9,640**	**12,406**
E03	**Services**			
02-900-52980	Allocation from Fund (01) to Fund (02)	2,280	1,000	1,500
	E03 Services Totals:	**2,280**	**1,000**	**1,500**
E05	**Supplies**			
02-900-53980	Allocation from Fund (01) to Fund (02)	80	-	80
	E05 Supplies Totals:	**80**	**-**	**80**
	Dept 900 Sub Totals:	**14,368**	**10,640**	**13,986**
	Expense Totals:	**676,772**	**600,700**	**664,603**

Scotts Valley Water District					
FY 2022 Proposed Budget: Project Costs					
Capital Improvement and Maintenance Projects					
Category	**Project Name**	**Project Description**	**FY 2021 Carryover**	**FY 2022 Request**	**FY 2022 Budget**
Transmission Mains	Main Replacement Program - Potable	Replace and upgrade potable water mains based on leak history, service life, and size	$ 665,379	**$ 200,000**	$ 865,379
Treatment Plants	El Pueblo Water Treatment Plant Improvements	Replace manual 1980's filter control system with programable automated control system linked with SCADA.	-	**100,000**	100,000
	Treatment Facility for New Production Well	New Lompico Formation Production Well and Treatment Plant.	81,140	**-**	81,140
Storage 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 storage and redundancy.	154,528		154,528
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
Wells	Well 3B Replacement	Construct new well with a stainless steel casing to replace existing well 3B. The new well will pump water to the Orchard Run Water Treatment plant for filtration and disinfection before distribution and will produce approximately 400 gallons per minute (gpm).	-	**1,500,000**	1,500,000
Meters	Automated Metering Infrastructure (AMI)	Install AMI transmitters on all meters over 3-4 year period.		**5,000**	5,000
	Meter Replacement Program	Replace all meters installed before 2012 at the rate of 800-1000 meters per year. Subsequently conduct a regular meter replacement program.	-	**20,000**	20,000
Fleet	Vehicle Replacement Program	Replace aging fleet: one vehicle per year on average, starting FY 2019.	-	**55,000**	55,000
	Specialized Operations Equipment	Replace heavy equipment and specialized vehicles on as-needed basis.	61,422	**50,000**	111,422
	Total Projects		**962,469**	**2,030,000**	2,992,469
	Less Other Funding		-	-	(2,500,000)
	Net Projects		962,469	2,030,000	492,469

SCOTTS VALLEY WATER DISTRICT STRATEGIC WORK PLAN FY 2022		
STRATEGIC GOALS MANAGEMENT OBJECTIVES	**FY 2022 TASKS**	**P/O ***
1. Water Resource Management: SVWD meets the water supply needs of its customers by developing new, sustainable sources and maximizing the use of existing sources.		
1.1 Pursue the potential of wastewater for beneficial uses	Work with City staff in evaluating the condition of the Tertiary Treatment Plant and determining the necessary and optimum improvements	O
	Work with regional partners in developing a strategic direction for maximizing wastewater utilization in the region	O
	Assist the City with finding a mutually advantageous solution for wastewater operations	O
1.2 Identify and implement conjunctive use projects in the region	Be responsive to in-lieu project evaluation proposals from SCWD and SLVWD	O
1.3 Optimize the efficient use of water	Improve on 2019 Validated Water Loss Audit score of 60	O
	Develop metrics for measuring effectiveness of WaterSmart Portal for reducing inefficient use and water waste	O
	Use the outcome of the system pressure analysis to identify and prioritize projects that improve pressure throughout the distribution system	O
	Conduct leak detection audit for distribution system	O
	Coordinate with DWR & SWRCB to develop District-specific water efficiency objectives; identify and validate data sources that will be used to generate required reports for indoor vs. outdoor consumption	O
	Include and implement creative elements in Think Twice WUE Program to achieve appropriate demand reduction targets per Water Shortage Contingency Plan	O
2. Infrastructure Integrity: SVWD provides continuous investment in its infrastructure and process improvements to ensure the efficiency of its operations.		
2.1 Maintain all assets within their useful life threshold	Replace 1,500 ft of potable main in 6 locations	P
	Continue work on Bethany Tank rehabilitation by completing inspection, determining necessary improvements, and commensing design	P
	Complete upgrades at El Pueblo Water Treatment Plant: installation and programming of plant control panel	P
	Replace Well 3B: design, permitting and construction	P
	Complete Hacienda PS upgrade: installation all necessary equipment: pumps, controls, generator	P
	Determine and prioritize repair needs for HQ building	O
2.2 Utilize technology and innovative solutions for improving operational efficiencies	Conduct an assessment and develop a master plan for SCADA improvements	O
	Participate in and support the activities to implement the regional data management system (DMS) hosted by County	O
	Coordinate the migration to new District website platform, optimize the value of its features and components	O
	Improve the process of conducting the RW site supervisor training, consider and evaluate third party solutions	O

SCOTTS VALLEY WATER DISTRICT STRATEGIC WORK PLAN FY 2022		
STRATEGIC GOALS MANAGEMENT OBJECTIVES	**FY 2022 TASKS**	**P/O ***
2.3 Optimize the redundancy and effectiveness of the system and facilities	Develop a road map for new production well construction: site selection, scope and schedule	P
	Conduct an assessment of the meter reading/utility billing process, develop a implementation plan	O
	Placeholder: conduct feasibility study for potential consolidation of SVWD and SLVWD, develop a plan for moving forward based on the study recommendations (pending on the SLVWD board decision)	O
3. Financial Stewardship: SVWD manages its financial resources in a manner that ensures the reliability of its operations and provides the greates value to its customers.		
3.1 Provide seamless customer experience	Convert majority of the customer facing forms to web format, assess the process and effectiveness of the storing the information	O
	Achieve 40% registration target on WaterSmart platform	O
	Achieve 20% customer profile update target on WaterSmart platform	O
3.2 Exploit integrated data management for maximum efficiency and transparency	Continue exploring and evaluating innovative and more user friendly utility billing and payment platform solutions	O
	Update the pertinent Utility Billing, Accounts Payable and Payroll procedure documents as determined by the review and assessment from FY 2021	O
	Evaluate production data collection and storing system and propose recommendations for improvement (internal process or outside solutions)	O
3.3 Design and manage balanced and fair revenue sources that are sufficient for meeting operating and capital needs while providing for adequate reserves	Conduct open and transparent Prop 218 process. Adopt a rate schedule supported by the Rate Study conducted in FY 2021.	O
	Implement transition of capital charge/basic service charge to property tax bill if deemed to be appropriate by Rate Study	O
	Arrange and close on financing for capital projects by issuing debt on terms that align with District objectives (reserves target and debt service coverage requirements)	O
4. Community Engagement: SVWD proactively creates opportunities for strategic alliances and mutually beneficial relationships with its customers and partners.		
4.1 Use creative approaches and technology for engaging the community	Participate in SV Art Wine Beer Festival with the goal for District to be approachable community member	O
	Organize a series of Water System Field Trips for public	O
	Hold WaterSmart training sessions at various community locations	O
	Design, produce and install interpretive signage at public-facing facilities	O
4.2 Increase youth involvement and education on water matters	Evaluate the Junior Associate Board Member Program and make necessary adjustments	O
	Partner with Scotts Valley High School in implementing their Career Exploration Program if determined to reconvene the activities	O
	Based on lesson learned from SMGWA Youth Outreach Program, consider piloting a SVWD youth involvement project	O
4.3 Identify, develop and strengthen strategic alliances, both private and public	Continue providing leadership and active participation in Santa Margarita Groundwater Agency (SMGWA) in working towards a development of the Groundwater Sustainability Plan by January 2022	O

SCOTTS VALLEY WATER DISTRICT STRATEGIC WORK PLAN FY 2022		
STRATEGIC GOALS MANAGEMENT OBJECTIVES	**FY 2022 TASKS**	**P/O ***
5. Organizational Vitality: SVWD recruits and retains the highest quality employees and board members by offering a work environment in which they can thrive and succeed.		
5.1 Provide meaningful and feasible career growth tools and opportunities	Include various staff members in community educational events such as system tours, instructional learning sessions	O
	Offer project based opportunities for staff to acquire broadbase knowledge of different disciplines	O
5.2 Cultivate productive work conditions and positive workforce culture	Complete and submit to EPA the updated Emergency Response Plan	O
	Complete 100% of the training requirements for each employee	O
	Continue to carry out the records management action plan with a goal of 75% completion	O
	Assess and upgrade tools necessary for digital communication, learning and meeting	O
5.3 Support continuous training and knowledge transfer	Maximize the benefits of Target Safety Solutions online training	O
	Utilize virtual education and meeting opportunities for all employees	O
	Explore creative opportunities to expand Board of Directors networking	O
* P/O - Project or Operations Budget		

Board Compliance Tracker

Updated 04/12/21

	OATH OF OFFICE	BEST PRACTICES	AB1234: ETHICS		AB1661: HARASSMENT	
DIRECTOR	Current	Current	Current	Due	Current	Due
EKWALL	12/13/18	12/14/18	02/18/21	02/18/23	03/11/20	03/11/22
LEISHMAN	12/13/18	07/20/17	03/11/20	03/11/22	03/11/20	03/11/22
PERRI	12/08/20	09/25/13	02/16/21	02/16/23	04/21/20	04/21/22
REBER	12/08/20	09/25/13	02/21/21	02/21/23	04/07/21	04/07/23
STILES	12/13/18	07/24/19	02/17/21	02/17/23	03/25/20	03/25/22
ASSOCIATE DIRECTORS	**APPOINTED**					
DOWNING	12/13/20	02/05/20	06/03/20	06/03/22	04/21/20	04/21/22
FINCH	12/13/20	01/15/20	02/07/20	02/07/22	02/19/20	02/19/22
COMMUNITY MEMBERS	**APPOINTED**					
CALLAHAN	12/13/20	05/15/20	05/08/20	05/08/22	05/18/20	05/18/22
KROTCOV	12/13/20	01/17/20	05/09/20	05/09/22	02/19/20	02/19/22
OFFICERS						
SECRETARY - HARMON		08/20/19	01/31/20	01/31/22	04/08/20	04/08/22

Oath of Office

When appointed or elected, Directors are sworn in and complete an Oath of Office, as provided by California law. The original is retained by County Elections and the District retains a copy.

Best Practices

When appointed or elected to office, Directors make a commitment to uphold the public trust and represent the best interests of our customers.

AB 1234: Public Officials Ethics Training

Public officials who receive compensation, salary, stipends, or expense reimbursements must complete a public official's ethics laws and principles training relevant to public service within 6 months of taking office and repeated every 2 years. Certificates are retained by District for 5 years.

AB 1661: Local Government Sexual Harassment Preventions Training and Education

California Law requires local officials who receive any type of compensation, salary, or stipends to complete sexual harassment prevention training and education within 6 months of taking office and repeated every 2 years. Certificates are retained by District for five years.

Board Regulations Review Schedule
(Updated 06/01/21)

Type	Title	Approved by	Approved / Adopted	Reviewed / Revised	Frequency of Review Required	Next Review Date
Code	Administrative Code	Ordinance 167-18	05/13/17	11/08/18	3 years	11/01/21
Code	Conflict of Interest Code and Local Agency Biennial Notice	Resolution 06-18	08/09/18	08/09/18	2 years	07/01/22
Handbook	Employee Handbook	Motion	06/20/19	02/13/20	5 years	06/01/23
Policy P100-11-1	Environmental Sustainability	Resolution 05-18	06/07/18	06/07/18	5 years	06/01/23
Policy P100-13-1	Travel on District Business	Resolution 14-13	11/14/13	06/20/19	5 years	06/01/23
Policy P100-16-1	Emergency Management	Resolution 02-16	02/11/16	NA	5 years	02/01/21
Policy P100-17-1	Driving on District Business	Resolution 08-17	05/04/17	06/20/19	5 years	06/01/23
Policy P100-17-2	Drug and Alochol Free Workplace	Resolution 09-17	05/04/17	06/20/19	5 years	06/01/23
Policy P100-17-4	Technology Resources	Resolution 03-19	06/20/19	06/20/19	5 years	06/01/23
Policy P100-17-4	Harassment, Discrimination and Retaliation Prevention	Resolution 02-19	06/20/19	06/20/19	5 years	06/01/23
Policy P200-14-1	Investments	Resolution 01-20	02/13/20	02/13/20	3 years	02/01/23
Policy P200-17-1	Qualifying Medical Needs Rate	Resolution 02-17	01/12/17	NA	5 years	01/01/22
Policy P200-17-2	Cash Reserves	Resolution 13-17	06/08/17	02/13/20	Annual	02/01/21
Policy P200-19-1	Delinquent Accounts	Resolution 08-19	11/14/19	NA	2 years	11/01/21
Policy P200-21-1	Debt Management	Resolution 04-21	05/13/21	NA	5 years	05/01/26
Policy P300-17-1	Cross-Connection Control and Backflow Prevention	Resolution 03-17	01/12/17	NA	5 years	01/01/22
Policy P500-15-1	Water Waste	Resolution 05-20	05/14/15	06/11/20	5 years	07/01/23
Policy P500-15-2	Water Management Strategies for Demand Reduction	Resolution 02-20	03/12/20	03/12/20	1 year	07/01/21
Practices	Board Best Practices	Motion	06/20/19	06/20/19	5 years	01/01/24
Pilot Program	Community Members on Board Committees	Motion	09/12/19	11/12/20	1 year	12/31/21
Program	Injury and Illness Prevention Program	Motion	06/07/18	NA	5 Years	06/01/23
Program	Identity Theft Prevention	Motion	04/08/09	NA	TBD	06/01/21
Pilot Program	Junior Associate Board Members	Motion	09/12/19	NA	1 year	12/31/21
Program	Leak Adjustment	Motion	02/12/16	07/09/20	1 year	07/01/21
Program	Rate Assistance	Motion	06/20/19	NA	2 years	01/01/22
Program	Rebates	Motion	05/14/15	05/14/20	1 Year	05/01/22
Program	Think Twice	Motion	05/14/20	05/14/20	Annual	05/01/22
Standards	Standard Specifications	Resolution 08-11	04/14/11	11/14/19	3 years	06/01/21

STAFF REPORT - Finance

Scotts Valley Water District

Date: 06/10/21

To: Board of Directors

From: General Manager

Item: Staff Reports 7.3

Subject: **Financial Reports 07/01/20 through 4/30/21**

Summary

Fiscal Year-to-Date (YTD) preliminary figures reflect the period of 07/01/20 through 4/30/21. YTD revenues total $6.7M and expenses total $6.9M.

Revenue

April is the tenth month of the fiscal year and the second month of the March-April potable water billing period. Preliminary YTD potable water sales revenue is $3.3M, water services revenue is $1.8M, new connections revenue is $591K, and property tax revenue is $543K. Total YTD revenue in the potable water fund is $6.3M, equal to 79% of the budget and 3% higher than the same period last year.

YTD recycled water sales revenue is $395K, water services revenue is $52K, and no revenue from new connections for the period. Total YTD revenue of $450K in the recycled water fund equals 59% of the budget, which is 1% higher than for the same period of last fiscal year.

Expenses

Preliminary combined operating expenses YTD are below budget, with expenses of $4.5M representing 74% of the budget. Project expenditures total $1.9M and the debt service principal payment of $567K was made.

Fund Balance

Cash reserves at the end of April were approximately $4.0M with another $1.4M booked in Accounts Receivable.

Enclosed

Budget Status Balance 07/01/20 – 4/30/21
Budget Status Revenue 07/01/20 – 4/30/21
Budget Status Expense 07/01/20 – 4/30/21
Projects Expense 07/01/20 – 4/30/21
Balance Sheet 4/30/21
Check Register 4/01/21 – 4/30/21

Budget Status - Balance

Period: 07/01/20 - 04/30/21

FY Remain: 17%

	FY 2020 YTD Actual	FY 2021 YTD Actual	FY 2021 vs. FY 2020	YOY % change	FY 2021 Budget	FY 2021 Remaining Balance	%
Period: 07/01/20 - 04/30/21 (10 months)							
Potable Water - Fund 01							
Water Sales & Services (R10, R20)	$ 4,958,071	$ 5,076,711	$ 118,640	2%	$ 5,952,484	$ 875,773	15%
New Connections (R25)	$ 478,110	$ 602,500	$ 124,391	26%	$ 786,110	$ 183,610	23%
Other Revenue (R30, R40)	$ 701,318	$ 627,990	$ (73,328)	-10%	$ 1,175,391	$ 547,401	47%
Potable Water Total	**$ 6,137,499**	**$ 6,307,202**	**$ 169,703**	**3%**	**$ 7,913,985**	**$ 1,606,783**	**20%**
Recycled Water - Fund 02							
Water Sales & Services (R10, R20)	$ 425,060	$ 447,242	$ 22,182	5%	$ 547,998	$ 100,756	18%
New Connections (R25)	$ 19,473	$ -	$ (19,473)	-100%	$ 32,126	$ 32,126	100%
Other Revenue (R30, R40)	$ 3,143	$ 2,778	$ (366)	-12%	$ 177,985	$ 175,207	98%
Recycled Water Total	**$ 447,676**	**$ 450,020**	**$ 2,343**	**1%**	**$ 758,109**	**$ 308,089**	**41%**
TOTAL REVENUE	**$ 6,585,175**	**$ 6,757,221**	**$ 172,046**	**3%**	**$ 8,672,094**	**$ 1,914,873**	**22%**
Expenses - Fund 01 and Fund 02 Combined							
Salaries & Benefits (E01)	$ 2,362,965	$ 2,331,968	$ (30,997)	-1%	$ 3,050,085	$ 718,117	24%
Services & Supplies (E03-E80)	$ 1,967,067	$ 2,171,517	$ 204,450	10%	$ 3,074,046	$ 902,529	29%
Project Expenses	$ 786,457	$ 1,869,348	$ 1,082,891	138%	$ 4,573,007	$ 2,703,659	59%
Debt Service - Principal	$ 460,030	$ 567,298	$ 107,268	23%	$ 567,298	$ -	0%
TOTAL EXPENSES *	**$ 5,576,519**	**$ 6,940,131**	**$ 1,363,612**	**24%**	**$ 11,264,436**	**$ 4,324,305**	**38%**
NET REVENUE	**$ 1,008,656**	**$ (182,910)**	**$ (1,191,566)**		**$ (2,592,342)**	**$ (2,409,432)**	
Period: 07/01/20 - 04/30/21 (10 months)							
Total Revenue	**$ 6,585,175**	**$ 6,757,221**	**$ 172,046**	**3%**	**$ 8,672,094**	**$ 1,914,873**	**22%**
Total Expenses *	**$ 5,576,519**	**$ 6,940,131**	**$ 1,363,612**	**24%**	**$ 11,264,436**	**$ 4,324,305**	**38%**
Net Revenue	**$ 1,008,656**	**$ (182,910)**	**$ (1,191,566)**		**$ (2,592,342)**		
Period: 07/01/20 - 03/31/21 (9 months)							
Total Revenue	**$ 5,997,475**	**$ 6,053,006**	**$ 55,530**	**1%**	**$ 8,672,094**	**$ 2,619,088**	**30%**
Total Expenses *	**$ 5,038,640**	**$ 6,403,892**	**$ 1,365,252**	**27%**	**$ 11,264,436**	**$ 4,860,544**	**43%**
Net Revenue	**$ 958,836**	**$ (350,886)**	**$ (1,309,722)**		**$ (2,592,342)**		

* Expense totals do not include depreciation expense

Budget Status - Revenue

Period: 07/01/20 - 04/30/21 **FY Remain: 17%**

		FY 2020 YTD Actual	FY 2021 YTD Actual	FY 2021 vs. FY 2020	YOY % change	FY 2021 Budget	FY 2021 Remaining Balance	%
Fund 01	**Potable Water**							
							Assumed $330K negative adjustment due to COVID	
R10	Operating Revenue - Water Sales							
01-000-41101	Residential Consumption - SF	$ 1,815,416	$ 1,943,336	$ 127,920	7%	$ 2,292,073	$ 348,737	15%
01-000-41102	Residential Consumption - MF	$ 144,244	$ 157,715	$ 13,472	9%	$ 169,499	$ 11,784	7%
01-000-41103	CII Consumption	$ 897,359	$ 818,334	$ (79,025)	-9%	$ 964,099	$ 145,765	15%
01-000-41106	CII Consumption - Other	$ 111,112	$ 62,063	$ (49,048)	-44%	$ -	$ (62,063)	
01-000-41105	Irrigation Consumption	$ 268,650	$ 269,580	$ 930	0%	$ 332,394	$ 62,814	19%
01-000-41200	Other - Bulk Water	$ 20,958	$ 15,563	$ (5,394)	-26%	$ 25,745	$ 10,182	40%
	R10 Sub Totals:	$ 3,257,739	$ 3,266,593	$ 8,854	0%	$ 3,783,810	$ 517,217	14%
R20	Operating Revenue - Water Services							
01-000-41300	Other - Late Penalty	$ 15,980	$ 12,022	$ (3,958)	-25%	$ 25,800	$ 13,778	53%
01-000-42100	Standby Basic Meter Charge	$ 1,628,647	$ 1,739,468	$ 110,821	7%	$ 2,074,649	$ 335,181	16%
01-000-42121	Standby FP Basic Meter Charge	$ 47,380	$ 51,453	$ 4,073	9%	$ 57,725	$ 6,272	11%
01-000-43300	Other Operating Revenue	$ 8,325	$ 7,175	$ (1,150)	-14%	$ 10,500	$ 3,325	32%
	R20 Sub Totals:	$ 1,700,332	$ 1,810,118	$ 109,786	6%	$ 2,168,674	$ 358,556	17%
R25	Operating Revenue - New Connections							
01-000-42101	Other Meter Fee	$ 6,452	$ 7,621	$ 1,169	18%	$ 12,891	$ 5,270	41%
01-000-42102	Other Capacity Fee	$ 462,740	$ 591,491	$ 128,751	28%	$ 761,528	$ 170,037	22%
01-000-42120	Other FP Meter Fee	$ 3,564	$ 472	$ (3,092)	-87%	$ 4,691	$ 4,219	90%
01-000-43100	Other Will Serve	$ 1,000	$ 750	$ (250)	-25%	$ 1,000	$ 250	25%
01-000-43200	Other Dev Proj Review	$ 4,354	$ 2,166	$ (2,187)	-50%	$ 6,000	$ 3,834	64%
	R25 Sub Totals:	$ 478,110	$ 602,500	$ 124,391	26%	$ 786,110	$ 183,610	23%
R30	Non-Operating Revenue - Other							
01-000-46000	Property Taxes	$ 535,305	$ 543,322	$ 8,017	1%	$ 1,077,212	$ 533,890	50%
01-000-47110	Interest & Dividend	$ 21	$ 9	$ (12)	-57%	$ 21	$ 12	57%
01-000-47120	Interest - LAIF	$ 31,865	$ 14,236	$ (17,629)	-55%	$ 52,500	$ 38,264	73%
01-000-47520	Misc. Non-Operating Revenue	$ 124,988	$ 29,290	$ (95,698)	-77%	$ 45,658	$ 16,368	36%
01-000-47550	Third-Party Reimbursements	$ 9,139	$ 30,623	$ 21,484	235%	$ -	$ (30,623)	
	R30 Sub Totals:	$ 701,318	$ 617,480	$ (105,322)	-12%	$ 1,175,391	$ 588,534	50%
R40	Non-Operating Revenue - Grants							
01-000-45260	Local Grant - ACWA JPIA	$ -	$ 10,510	$ 10,510		$ -	$ (10,510)	
	R40 Sub Totals:	$ -	$ 10,510	$ 10,510		$ -	$ (10,510)	
	Fund 01 Revenue:	**$ 6,137,499**	**$ 6,307,202**	**$ 148,219**	**3%**	**$ 7,913,985**	**$ 1,637,406**	**21%**
	Fund 01 Rev Excl Grants & Cap Contributions	$ 6,137,499	$ 6,296,692	$ 137,709	3%	$ 7,913,985	$ 1,647,916	21%

Budget Status - Revenue

Period: 07/01/20 - 04/30/21 **FY Remain: 17%**

		FY 2020 YTD Actual	FY 2021 YTD Actual	FY 2021 vs. FY 2020	YOY % change	FY 2021 Budget	FY 2021 Remaining Balance	%
Fund 02	**Recycled Water**							
R10	Operating Revenue - Water Sales							
02-000-41105	Irrigation Consumption	$ 386,162	$ 376,957	$ (9,206)	-2%	$ 482,653	$ 105,696	22%
02-000-41200	Other - Bulk Water	$ 3,839	$ 18,621	$ 14,782	385%	$ -	$ (18,621)	
	R10 Sub Totals:	$ 390,002	$ 395,578	$ 5,576	1%	$ 482,653	$ 87,075	18%
R20	Operating Revenue - Water Services							
02-000-42100	Standby Basic Meter Charge	$ 35,009	$ 51,564	$ 16,556	47%	$ 65,345	$ 13,781	21%
02-000-43300	Other Operating Revenue	$ 50	$ 100	$ 50	100%	$ -	$ (100)	
	R20 Sub Totals:	$ 35,059	$ 51,664	$ 16,606	47%	$ 65,345	$ 13,681	21%
R25	Operating Revenue - New Connections							
02-000-42101	Other Meter Fee	$ 535	$ -	$ (535)	0%	$ 825	$ 825	100%
02-000-42102	Other Capacity Fee	$ 18,938	$ -	$ (18,938)	-100%	$ 31,301	$ 31,301	100%
	R25 Sub Totals:	$ 19,473	$ -	$ (19,473)	-100%	$ 32,126	$ 32,126	100%
R30	Non-Operating Revenue - Other							
02-000-47110	Interest & Dividend	$ 3,143	$ 2,358	$ (786)	-25%	$ 8,573	$ 6,215	72%
02-000-47520	Other Non-Operating Revenue	$ -	$ 420	$ 420		$ -	$ (420)	
02-000-47560	Reduction of RW Entitlement	$ -	$ -	$ -		$ 169,412	$ 169,412	100%
	R30 Sub Totals:	$ 3,143	$ 2,778	$ (366)	-12%	$ 177,985	$ 175,207	98%
	Fund 02 Revenue:	**$ 447,676**	**$ 450,020**	**$ 2,343**	**1%**	**$ 758,109**	**$ 308,089**	**41%**
	Fund 02 Rev Excl Grants & Cap Contributions	$ 447,676	$ 450,020	$ 2,343	**1%**	$ 758,109	$ 308,089	41%
Revenue Totals:		**$ 6,585,175**	**$ 6,757,221**	**$ 150,562**	**3%**	**$ 8,672,094**	**$ 1,945,496**	**22%**
Revenue Total Excl Grants & Cap Contributions		$ 6,585,175	$ 6,746,711	$ 140,052	2%	$ 8,672,094	$ 1,956,006	23%

Budget Status - Expense

Period: 07/01/20 - 04/30/21 **FY Remain: 17%**

Fund 01 and Fund 02 Combined

Dept		FY 2020 YTD Actual	FY 2021 YTD Actual	FY 2021 vs. FY 2020	YOY % change	FY 2021 Budget	FY 2021 Remaining Balance	%
Dept	**Administration**							
E01	Salaries & Benefits	$ 503,442	$ 495,438	$ (8,004)	-2%	$ 641,272	$ 145,834	23%
E03	General & Admin - Services	$ 237,144	$ 257,587	$ 20,443	9%	$ 470,819	$ 213,232	45%
E05	General & Admin - Supplies	$ 15,908	$ 6,826	$ (9,082)	-57%	$ 17,200	$ 10,374	60%
E10	Source of Supply	$ 296,472	$ 369,061	$ 72,589	24%	$ 330,490	$ (38,571)	-12%
E70	Other	$ 500	$ -	$ (500)	-100%	$ 5,000	$ 5,000	100%
	Dept 100 Sub Totals:	**$ 1,053,467**	**$ 1,128,913**	**$ 75,446**	**7%**	**$ 1,464,781**	**$ 335,868**	**23%**
Dept	**Finance/Customer Service**							
E01	Salaries & Benefits	$ 444,096	$ 465,352	$ 21,257	5%	$ 563,967	$ 98,615	17%
E03	General & Admin - Services	$ 101,973	$ 133,996	$ 32,023	31%	$ 210,163	$ 76,167	36%
E05	General & Admin - Supplies	$ 200	$ -	$ (200)	-100%	$ 4,000	$ 4,000	100%
E35	Customer Accounts	$ 142,629	$ 171,353	$ 28,725	20%	$ 207,113	$ 35,760	17%
E70	Other	$ 1,174	$ 1,029	$ (145)	-12%	$ 1,038	$ 9	1%
E80	Debt Service - Interest	$ 64,672	$ 37,902	$ (26,770)	-41%	$ 75,863	$ 37,961	50%
	Dept 200 Sub Totals:	**$ 754,744**	**$ 809,633**	**$ 54,890**	**7%**	**$ 1,062,144**	**$ 252,511**	**24%**
Dept	**Operations**							
E01	Salaries & Benefits	$ 1,252,503	$ 1,204,014	$ (48,489)	-4%	$ 1,619,059	$ 415,045	26%
E03	General & Admin - Services	$ 150,171	$ 137,700	$ (12,471)	-8%	$ 205,260	$ 67,560	33%
E05	General & Admin - Supplies	$ 24,966	$ 29,602	$ 4,636	19%	$ 17,000	$ (12,602)	-74%
E07	General Production	$ 96,955	$ 88,699	$ (8,256)	-9%	$ 97,000	$ 8,301	9%
E10	Source of Supply	$ 113,240	$ 59,587	$ (53,653)	-47%	$ 130,000	$ 70,413	54%
E15	Pumping	$ 351,685	$ 342,128	$ (9,557)	-3%	$ 513,400	$ 171,272	33%
E20	Water Treatment	$ 207,983	$ 291,014	$ 83,031	40%	$ 430,000	$ 138,986	32%
E25	Transmission & Distribution	$ 69,696	$ 103,709	$ 34,013	49%	$ 131,200	$ 27,491	21%
E70	Other	$ 21,619	$ 99,685	$ 78,066	361%	$ -	$ (99,685)	
	Dept 300 Sub Totals:	**$ 2,288,818**	**$ 2,356,139**	**$ 67,321**	**3%**	**$ 3,142,919**	**$ 786,780**	**25%**
Dept	**Engineering**							
E01	Salaries & Benefits	$ 73,990	$ 80,714	$ 6,724	9%	$ 105,710	$ 24,996	24%
E03	General & Admin - Services	$ 63,075	$ 40,979	$ (22,096)	-35%	$ 189,900	$ 148,921	78%
E05	General & Admin - Supplies	$ -	$ 307	$ 307		$ 1,000	$ 693	69%
	Dept 400 Sub Totals:	**$ 137,064**	**$ 122,000**	**$ (15,065)**	**-11%**	**$ 296,610**	**$ 174,610**	**59%**
Dept	**Board of Directors**							
E01	Salaries & Benefits	$ 88,935	$ 86,450	$ (2,485)	-3%	$ 120,077	$ 33,627	28%
E03	General & Admin - Services	$ 7,005	$ 350	$ (6,655)	-95%	$ 22,800	$ 22,450	98%
E05	General & Admin - Supplies	$ -	$ -	$ -		$ 800	$ 800	100%
	Dept 900 Sub Totals:	**$ 95,940**	**$ 86,800**	**$ (9,140)**	**-10%**	**$ 143,677**	**$ 56,877**	**40%**

Capacity Buy-Back
(1x 1" and 1 x 5/8")

Budget Status - Expense

Period: 07/01/20 - 04/30/21 **FY Remain: 17%**

		FY 2020 YTD Actual	FY 2021 YTD Actual	FY 2021 vs. FY 2020	YOY % change	FY 2021 Budget	FY 2021 Remaining Balance	%
Summary								
E01	Salaries & Benefits	$ 2,362,965	$ 2,331,968	$ (30,997)	-1%	$ 3,050,085	$ 718,117	24%
E03	General & Admin - Services	$ 559,368	$ 570,612	$ 11,244	2%	$ 1,098,942	$ 528,330	48%
E05	General & Admin - Supplies	$ 41,074	$ 36,735	$ (4,339)	-11%	$ 40,000	$ 3,265	8%
E07	General Production	$ 96,955	$ 88,699	$ (8,256)	-9%	$ 97,000	$ 8,301	9%
E10	Source of Supply	$ 409,712	$ 428,648	$ 18,937	5%	$ 460,490	$ 31,842	7%
E15	Pumping	$ 351,685	$ 342,128	$ (9,557)	-3%	$ 513,400	$ 171,272	33%
E20	Water Treatment	$ 207,983	$ 291,014	$ 83,031	40%	$ 430,000	$ 138,986	32%
E25	Transmission & Distribution	$ 69,696	$ 103,709	$ 34,013	49%	$ 131,200	$ 27,491	21%
E35	Customer Accounts	$ 142,629	$ 171,353	$ 28,725	20%	$ 208,151	$ 35,768	17%
E70	Other	$ 23,293	$ 100,714	$ 77,421	332%	$ 5,000	$ (99,685)	-1994%
E80	Debt Service - Interest	$ 64,672	$ 37,902	$ (26,770)	-41%	$ 75,863	$ 37,961	50%
	Purchase Order Carryover					$ 14,000		
District Expense Total:		**$ 4,330,032**	**$ 4,503,485**	**$ 173,453**	**4%**	**$ 6,124,131**	**$ 1,601,646**	**26%**
Fund 01 and 02 Combined								
E01	Salaries & Benefits	$ 2,362,965	$ 2,331,968	$ (30,997)	-1%	$ 3,050,085	$ 718,117	**24%**
E03-E80	Services & Supplies	$ 1,967,067	$ 2,171,517	$ 204,450	10%	$ 3,060,046	$ 888,529	**29%**
	Purchase Order Carryover					$ 14,000		
District Expense Total:		**$ 4,330,032**	**$ 4,503,485**	**$ 173,453**	**4%**	**$ 6,124,131**	**$ 1,606,646**	**26%**

Projects - Expense

Period: 07/01/20 - 04/30/21 **FY Remain: 17%**

		FY 2021 YTD Actual	FY 2021 Budget *	FY 2021 Remaining Balance	%
Fund 01 and Fund 02 Combined					
Project	**Description**				
C15016	Utility Billing Software Improvements	$ -	$ 26,841	$ 26,841	100%
C15021	Purified Recycled Water Recharge	$ 9,159	$ 421,021	$ 411,863	98%
C16023	Orchard Run WTP Water Quality Improvements	$ 1,080,841	$ 2,113,507	$ 1,032,666	49%
C16024	Bethany Tank Rehabilitation	$ 104,770	$ 244,528	$ 139,758	57%
M17011	Meters with AMI	$ 43,001	$ 75,000	$ 31,999	43%
C17011	AMI Technology for Meters	$ 43,953	$ 170,053	$ 126,100	74%
C17018	Specialized Operations Vehicle	$ 154,181	$ 215,603	$ 61,422	28%
C18033	Polo Ranch Pump Station Improvements	$ 119,252	$ 75,000	$ (44,252)	-59%
C18035	Sequoia Tank Rehabilitation	$ 20,170	$ -	$ (20,170)	
C19020	El Pueblo WTP Improvements	$ 55,979	$ 56,050	$ 71	0%
C19030	Hacienda Pump Station Improvements	$ 163,253	$ 57,728	$ (105,525)	-183%
C19070	Vehicle Replacement Program	$ 45,387	$ 73,157	$ 27,770	38%
C20010	Main Replacement Program - PW	$ 18,322	$ 675,379	$ 657,057	97%
C20020	Treatment Facility for New Formation Well	$ -	$ 126,140	$ 126,140	100%
C20040	Administrative Building Improvements	$ 11,081	$ 30,000	$ 18,919	63%
TBD	Well 10 WTP Water Quality Improvements	$ -	$ 113,000	$ 113,000	100%
TBD	Lompico Formation Production Well (Well 9)	$ -	$ 100,000	$ 100,000	100%
Projects Expense Totals:		**$ 1,869,348**	**$ 4,573,007**	**$ 2,703,659**	**59%**

* Budget amounts include carryover funds from the prior year

Balance Sheet

SCOTTS VALLEY WATER DISTRICT

Fund 01 and Fund 02 Combined

	4/30/20	4/30/21
Assets		
Cash	$3,776,402	$3,993,890
Accrued Interest	$2,552	$4,565
A/R Customer-Water	$1,259,625	$1,392,431
A/R - Other	$206,521	$202,601
Interfund Loan Receivable	$888,040	$888,040
Inventory	$232,601	$271,380
Prepaid Expense	$27,521	$70,323
Note Receivable	$229,412	$70,000
JPA Investment	$332,010	$387,112
Land & Right-of-ways	$650,697	$650,697
Construction-in-progress	$1,214,369	$2,408,173
Water Rights / Intangible Assets	$5,267,833	$5,267,833
Plant & Equipment	$38,053,522	$39,131,437
Depreciation/Amortization	($22,757,538)	($23,827,288)
Deferred Pension Outflows	$680,989	$694,399
Unfunded OPEB Liability	$153,549	$142,970
	$30,218,105	**$31,748,562**
Liabilities		
A/P & Accrued Expenses	$21,228	$132,704
Accrued Salaries & Wages	$0	$0
Accrued Interest Payable	$23,590	$0
Customer Deposits	$55,210	$55,210
Interfund Loans	$888,040	$888,040
LT Liabilities Due in 1 Yr	$30,508	$40,998
Unearned Revenue	$62,539	$61,735
Long-term Liabilities	$9,589,006	$8,773,238
Deferred Pension Inflows	$212,281	$215,460
	$10,882,402	**$10,167,384**
Fund Balance		
Investment in Capital Assets	$16,974,413	$17,684,486
Unrestricted Net Position	$116,146	$1,642,955
	$17,090,559	**$19,327,441**
Total Liabilities and Fund Balance:	$27,972,961	$29,494,825
Total Retained Earnings:	$2,245,144	$2,253,737
Total Fund Balance and Retained Earnings:	$19,335,703	$21,581,178
Total Liabilities, Fund Balance, and Retained Earnings:	**$30,218,105**	**$31,748,562**

Scotts Valley Water District
AP Check Register
April 2021

Vendor Name	Check Date	Check No.	Check Amount	Description
ACWA/JPIA	4/15/2021	29768	$ 38,486.97	EE & Retiree Benefits - May 2021
ACWA/JPIA	4/29/2021	29813	$ 6,247.10	WC Insurance - Qtr ending 3/31/2021
AFLAC	4/29/2021	29814	$ 222.72	EE Self-Funded Supplemental Benefits - Apr 2021
AFLAC	4/1/2021	29727	$ 222.72	EE Self-Funded Supplemental Benefits - Mar 2021
AFSCME COUNCIL 57	4/29/2021	29815	$ 759.08	Union Dues - Apr 2021
ALLQUIP UNIVERSAL	4/29/2021	29816	$ 152.03	Vehicle Maint - Hydrovac Fittings
AMERICAN TRUCK & TRAILER BODY INC	4/1/2021	29728	$ 8,480.23	Vehicle Maint - Vac Trailer Service & Repair
APPLIED INDUSTRIAL TECHNOLOGIES - CA LLC	4/29/2021	29817	$ 204.33	Main Maint - PRV Speed Controls
APPLIED INDUSTRIAL TECHNOLOGIES - CA LLC	4/29/2021	29817	$ 1,328.17	WTP Maint - Filter Panel Solenoids
AUTOMATIONDIRECT.COM INC	4/29/2021	29818	$ 636.00	Polo Ranch PS Upgrades - Panel Enclosure & Components
BAC JOE	4/1/2021	29730	$ 50.00	Customer Rebate - Pressure Regulator
BADGER METER	4/1/2021	29731	$ 63.19	Monthly Cell Charge for RW Meter Reads - Mar 2021
BADGER METER	4/1/2021	29731	$ 3,954.27	Monthly Cell Charge for PW Meter Reads - Mar 2021
BADGER METER	4/1/2021	29731	$ 1,995.32	Meter Purchases - Qty: 1
BATTERIES PLUS BULBS #314	4/1/2021	29732	$ 281.97	Vehicle Maint - Battery Replacements - Truck #13
BAYSIDE EQUIPMENT COMPANY	4/15/2021	29769	$ 2,393.00	Generator Rental - Well 11B - Mar 2021
BAYSIDE EQUIPMENT COMPANY	4/15/2021	29769	$ 1,694.36	Generator Rentals - Hacienda & Bethany PS - Mar 2021
BENTON WILLIAM	4/15/2021	29770	$ 32.57	UB Refund Check 011804-000
BIEDERMAN ANNE	4/1/2021	29733	$ 50.00	Customer Rebate - Pressure Regulator
BRENNTAG PACIFIC INC	4/29/2021	29819	$ 5,990.13	Water Treatment Chemicals
CCP INDUSTRIES INC	4/29/2021	29820	$ 335.05	Absorbal
CITY OF SCOTTS VALLEY	4/29/2021	29822	$ 360.00	Bacti Samples - Mar 2021
CITY OF SCOTTS VALLEY	4/29/2021	29821	$ 92.98	Bi-Monthly Sewer Service - 2 Civic Ctr
CITY OF SCOTTS VALLEY	4/29/2021	29821	$ 915.20	Bi-Monthly Treatment Disposal - Orchard Run WTP
CITY OF SCOTTS VALLEY	4/29/2021	29821	$ 15,272.49	Bi-Monthly Treatment Disposal - El Pueblo WTP (Nov - Mar)
CIVIL CONSULTANTS GROUP INC	4/1/2021	29735	$ 1,760.00	Hacienda PS Improvements - Pressure Study for Pump Sizing
CIVIL CONSULTANTS GROUP INC	4/15/2021	29771	$ 3,600.00	PW Main Improvements Task 5: Topo Surveying / Planning
CIVIL CONSULTANTS GROUP INC	4/15/2021	29771	$ 1,840.00	Hacienda PS Improvements - Pump Analysis
CIVIL CONSULTANTS GROUP INC	4/15/2021	29771	$ 515.00	General Engineering Services - Mar 2021
CONTRACTOR COMPLIANCE & MONITORING	4/29/2021	29823	$ 2,254.80	Orchard Run WTP Improvements - Labor Compliance Monitoring
COUNTY OF SANTA CRUZ	4/15/2021	29772	$ 2,535.64	Landfill Waste - Mar 2021
COUNTY OF SANTA CRUZ	4/29/2021	29824	$ 718.00	Health Permit - 2 Silverwood
CREAMER TODD	4/15/2021	29773	$ 2,000.00	Refund Deposit - PW Bulk Meter
DASSELS PETROLEUM	4/15/2021	29774	$ 1,562.68	Vehicle Fuel - Mar 2021
DUNCAN AUTO TECH	4/1/2021	29736	$ 69.46	Vehicle Maint - Oil Change - Truck #23
DZAACK DANIEL	4/15/2021	29775	$ 162.00	Customer Rebate - Low Volume Irrigation
DZAACK DANIEL	4/15/2021	29775	$ 1,023.75	Customer Rebate - Special Lawn Replacement
EUROFINS EATON ANALYTICAL	4/29/2021	29825	$ 1,230.00	Lab Testing for Water Quality
EXCEEDIO	4/1/2021	29737	$ 2,028.00	Monthly Managed Services: SCADA - Apr & May 2021
EXCEEDIO	4/1/2021	29737	$ 10,437.00	Monthly Managed Services: HaaS/SaaS/ITaaS - Apr & May 2021
GRAINGER	4/1/2021	29738	$ 39.28	WTP Maint - Gaskets
GRANITE CONSTRUCTION CO	4/15/2021	29776	$ 169.86	Main Maint - Aggregatebase
GRANITE ROCK COMPANY	4/15/2021	29777	$ 148.27	Main Maint - Utility Trench Sand
GREEN WASTE RECOVERY INC	4/15/2021	29778	$ 136.68	Quarterly Trash Service - 2 Civic Ctr
GREEN WASTE RECOVERY INC	4/15/2021	29778	$ 257.36	Trash Service - El Pueblo - Mar 2021
HAIGHT ROBERT	4/1/2021	29739	$ 1,196.04	Retiree Medical - Mar & Apr 2021
HENDRICKS JANET	4/1/2021	29740	$ 50.00	Customer Rebate - Pressure Regulator
HILDEBRAND STEVEN	4/15/2021	29780	$ 75.00	Customer Rebate - Downspout Redirect
HOLTZMAN DAVID	4/15/2021	29781	$ 4,725.00	Customer Rebate - Special Lawn Replacement
HOPKINS TECHNICAL PRODUCTS INC	4/1/2021	29741	$ 808.29	WTP Maint - Chlorine Pump Repair
HUDSON CONSTRUCTION	4/1/2021	29742	$ 2,000.00	Refund Deposit - RW Bulk Meter
ICON CLOUD SOLUTIONS LLC	4/15/2021	29782	$ 343.22	Phone Service - Apr 2021
ICON CLOUD SOLUTIONS LLC	4/15/2021	29782	$ 121.21	Phone Service - OPS - Apr 2021
ICONIX WATERWORKS (US) INC	4/1/2021	29743	$ 20.47	Service Line Maint - Stock
ICONIX WATERWORKS (US) INC	4/1/2021	29743	$ 540.09	WTP Maint - Bag Filter Hardware
INDEPENDENT ELECTRIC SUPPLY	4/29/2021	29827	$ 2,023.07	Polo Ranch PS Upgrades - Meter Main
INDEPENDENT ELECTRIC SUPPLY	4/1/2021	29744	$ 1,328.05	Well Maint - Electrical Plug @ Well 11B
INDEPENDENT ELECTRIC SUPPLY	4/29/2021	29827	$ 528.41	Polo Ranch PS Upgrades - Electrical Hardware
INFOSEND	4/29/2021	29828	$ 184.45	UB Past Due Printing & Mailing - Mar 2021
IN-SITU INC	4/1/2021	29745	$ 307.11	ENG Supplies - Monitoring Well Data Collection Equipment
JACKSON LANDSCAPE	4/15/2021	29783	$ 292.50	Landscape Maint - 2 Civic Ctr - Mar 2021
JOHNSON BEVERLY	4/1/2021	29746	$ 100.00	Customer Rebate - Pressure Regulators
KASSIS JANETTE	4/1/2021	29747	$ 667.60	Retiree Medical - Mar & Apr 2021
LAFOLLETTE TERRI	4/15/2021	29785	$ 267.00	Customer Rebate - Toilets
LAURIDSEN JENS OLE	4/15/2021	29786	$ 99.71	Customer Rebate - Smart Irrigation Controller
LAW OFFICE OF ROBERT E BOSSO	4/15/2021	29787	$ 3,000.00	Legal Counsel Services - Mar 2021
LIANG KING	4/1/2021	29748	$ 50.00	Customer Rebate - Pressure Regulator
MACKAY ROBERT	4/15/2021	29788	$ 906.50	Customer Rebate - Special Lawn Replacement
MACKAY ROBERT	4/15/2021	29788	$ 74.00	Customer Rebate - Low Volume Irrigation

Scotts Valley Water District
AP Check Register
April 2021

Vendor Name	Check Date	Check No.	Check Amount	Description
MARASCO MARY	4/1/2021	29749	$ 7.11	UB Refund Check 007786-000
MBH PAINTING	4/15/2021	29789	$ 490.00	Tank Maint - Graffiti Removal
MILLER MAXFIELD INC	4/15/2021	29790	$ 5,456.25	Communication / Public Outreach Services - Mar 2021
MISSION UNIFORM SERVICE	4/15/2021	29791	$ 508.22	Uniform Laundering & Rental Service - Mar 2021
MONTEVALLE OF SCOTTS VALLEY	4/29/2021	29829	$ 2,000.00	Refund Deposit - PW Bulk Meter
MONTGOMERY & ASSOCIATES INC	4/1/2021	29750	$ 2,747.50	2020 Annual GW Report - Feb 2021
NAPA AUTO PARTS	4/29/2021	29830	$ 31.27	Vehicle Maint - Brake Lights - Truck #13
NAPA AUTO PARTS	4/29/2021	29830	$ 88.49	Vehicle Maint - Cleaning Supplies & Lift Supports
NATIONWIDE RETIREMENT SOLUTIONS	4/15/2021	29792	$ 2,958.86	IRS 457 Plan - Payroll Date 4/9/2021
NATIONWIDE RETIREMENT SOLUTIONS	4/1/2021	29751	$ 2,958.86	IRS 457 Plan - Payroll Date 3/26/2021
NATIONWIDE RETIREMENT SOLUTIONS	4/29/2021	29831	$ 2,958.86	IRS 457 Plan - Payroll Date 4/23/2021
NORTON PATRICIA	4/15/2021	29793	$ 67.44	Retiree Dental - Mar & Apr 2021
NORTON PATRICIA	4/15/2021	29793	$ 912.38	Retiree Medical - Mar & Apr 2021
NORTON PATRICIA	4/15/2021	29793	$ 37.12	Retiree Vision - Mar & Apr 2021
OLIVE SPRINGS QUARRY	4/15/2021	29794	$ 102.23	Service Line Maint - Asphalt
PACIFIC GAS & ELECTRIC	4/29/2021	29832	$ 45,942.41	Electricity - PW - Feb & Mar 2021
PACIFIC GAS & ELECTRIC	4/29/2021	29832	$ 3,196.65	Electricity - 2 Civic Ctr - Feb & Mar 2021
PACIFIC GAS & ELECTRIC	4/29/2021	29832	$ 192.11	Electricity - RW - Feb & Mar 2021
PACIFIC GAS & ELECTRIC	4/15/2021	29795	$ 68.99	Electricity - Skypark - Mar 2021
PACIFIC GAS & ELECTRIC	4/15/2021	29795	$ 399.59	Electricity - Santas Village Rd - Mar 2021
PALACE BUSINESS SOLUTIONS	4/29/2021	29833	$ 83.67	Office Supplies - Pens & Binder Clips
PERRI CHRISTOPHER	4/1/2021	29754	$ 850.36	Director Medical - Mar 2021
PERRI CHRISTOPHER	4/15/2021	29796	$ 850.36	Director Medical - Apr 2021
PIED PIPER EXTERMINATORS	4/15/2021	29797	$ 260.00	Pest Control @ Pump Buildings - Mar 2021
PRESS BANNER	4/15/2021	29798	$ 321.30	SV Banner Ad - Flushing 3/26
PRESS BANNER	4/15/2021	29798	$ 573.30	SV Banner Ad - Flushing 4/2
PSOMAS	4/15/2021	29799	$ 38,834.63	ORWTP Improvements - Construction Mgmt & Inspection - Feb 2021
RAFTELIS FINANCIAL CONSULTANTS INC	4/15/2021	29800	$ 13,151.25	Water Rate Study - Financial Plan & Rate Development & COS Analysis
RAIN FOR RENT	4/29/2021	29834	$ 3,395.49	Orchard Run WTP Improvements - Tank Rentals, Removal, Labor & Hauling
REBER DANIEL	4/1/2021	29756	$ 2,739.42	Director Medical - Mar & Apr 2021
RED WING BUSINESS ADVANTAGE ACCOUNT	4/15/2021	29802	$ 176.43	Work Boots - Rivera
RUDRARAJU PANDU	4/15/2021	29803	$ 1,450.80	Customer Rebate - Special Lawn Replacement
RUDRARAJU PANDU	4/15/2021	29803	$ 227.95	Customer Rebate - Low Volume Irrigation
SAFEGUARD BUSINESS SYSTEMS	4/29/2021	29835	$ 439.94	FIN Supplies - AP Checks - Qty: 1500
SANTA MARGARITA GROUNDWATER AGENCY	4/15/2021	29804	$ 78,000.00	SVWD Contribution to SMGWA - Add'l FY2021 Amount
SCARBOROUGH LUMBER & BUILDING SUPPLY	4/1/2021	29757	$ 188.03	Meter Maint - Pressure Reducing Valves
SCARBOROUGH LUMBER & BUILDING SUPPLY	4/1/2021	29757	$ 101.94	WTP Maint - Bag Filter Hardware
SCARBOROUGH LUMBER & BUILDING SUPPLY	4/1/2021	29757	$ 218.02	OPS Supplies - Tarps PVC Cement Gloves Lumber
SCARBOROUGH LUMBER & BUILDING SUPPLY	4/1/2021	29757	$ 32.28	Well Maint - Fuses
SCARBOROUGH LUMBER & BUILDING SUPPLY	4/1/2021	29757	$ 82.13	Polo Ranch PS Upgrades - Misc Hardware
SCARBOROUGH LUMBER & BUILDING SUPPLY	4/1/2021	29757	$ 244.56	Small Tools - Ladder & Drill Bits
SCOTTS VALLEY SPRINKLER	4/1/2021	29758	$ 25.18	Main Maint - Sandbags for Flushing
SCOTTS VALLEY SPRINKLER	4/1/2021	29758	$ 10.96	WUE Supplies - Marking Flags for Rebates
SCOTTS VALLEY SPRINKLER	4/1/2021	29758	$ 27.42	WTP Maint - Chlorine Pump Line Repair
SCOTTS VALLEY SPRINKLER	4/29/2021	29836	$ 46.06	Meter Maint - Check Valves
SCOTTS VALLEY SPRINKLER	4/29/2021	29836	$ 40.06	Small Tools - Hand Pump
SCOTTS VALLEY SPRINKLER	4/29/2021	29836	$ 114.82	WTP Maint - Adapters & Fittings
SNELL STEVE	4/15/2021	29805	$ 134.46	UB Refund Check 007092-000
SOIL CONTROL LAB	4/1/2021	29759	$ 75.00	Water Quality Testing
SPRINGBROOK HOLDING COMPANY LLC	4/15/2021	29806	$ 2,070.00	CC Payment Transaction Fees - Mar 2021
STEVENSON LANDSCAPING	4/29/2021	29837	$ 1,100.00	Landscaping @ Misc Locations - Mar & Apr 2021
STILES RUTH	4/15/2021	29807	$ 3,170.52	Director Medical - Jan - Apr 2021
SWRCB-DWOCP	4/29/2021	29839	$ 90.00	T3 Cert Renewal - Ritchie
SWRCB-DWOCP	4/29/2021	29838	$ 90.00	D3 Cert Renewal - Scott
SYCAL ENGINEERING INC	4/15/2021	29808	$ 5,548.68	Engineering Services for SCADA - Mar 2021
SYCAL ENGINEERING INC	4/15/2021	29808	$ 10,103.27	Polo Ranch PS Upgrades - Panel Upgrades
TOTAL COMPENSATION SYSTEMS INC	4/1/2021	29762	$ 675.00	GASB 75 Roll-Forward Valuation Services
U.S. BANK EQUIPMENT FINANCE	4/15/2021	29809	$ 400.94	Copier Lease - Apr 2021
UNITED SITE SERVICES	4/15/2021	29810	$ 234.77	Portable Toilet Rental - 229 Mt Hermon - Apr 2021
UNITED SITE SERVICES	4/15/2021	29810	$ 233.23	Portable Toilet Rental - Orchard Run WTP - Apr 2021
UNITED SITE SERVICES	4/29/2021	29841	$ 243.68	Bethany 2nd Tank Addition - Temp Fence Rental
UNIVERSAL BUILDING SERVICES	4/29/2021	29842	$ 1,777.00	Carpet Cleaning / Window Washing - 2 Civic Ctr - Apr 2021
UNIVERSAL BUILDING SERVICES	4/15/2021	29811	$ 403.00	Janitorial Service - El Pueblo - Mar 2021
UNIVERSAL BUILDING SERVICES	4/15/2021	29811	$ 497.00	Janitorial Service - 2 Civic Ctr - Mar 2021
UNIVERSAL BUILDING SERVICES	4/15/2021	29811	$ 169.00	Bathroom Supplies - OPS
UNIVERSAL BUILDING SERVICES	4/15/2021	29811	$ 142.03	Bathroom Supplies - 2 Civic Ctr
USABLUEBOOK	4/1/2021	29764	$ 101.20	Small Tools - Service Box Combo Keys
USABLUEBOOK	4/1/2021	29764	$ 2,190.70	Water Sampling Supplies - Chlorine Reagent Sets & Sampling Supplies
USABLUEBOOK	4/1/2021	29764	$ 96.24	Safety Supplies - Helmet & Rain Gear

Scotts Valley Water District
AP Check Register
April 2021

Vendor Name	Check Date	Check No.	Check Amount	Description
USABLUEBOOK	4/29/2021	29843	$ 1,229.83	WTP Maint - Test Kit Standards
VALERO FLEET	4/1/2021	29765	$ 186.92	Vehicle Fuel - Mar & Apr 2021
WATER EDUCATION FOUNDATION	4/1/2021	29766	$ 287.50	Annual Water Education Foundation Membership
WATER SYSTEMS CONSULTING INC	4/1/2021	29767	$ 14,327.50	Urban Water Mgmt Plan - Projections, Kickoff / Prelim Work, Contingency Plan
WATERSYSTEMS CLEANING	4/29/2021	29845	$ 5,769.00	WTP Maint - Clean & Replace Air Scrubber Media
WHITLOW CONCRETE	4/29/2021	29846	$ 1,800.00	WTP Maint - Filtration System Pedestal
WILLIAM A THAYER CONSTRUCTION INC	4/15/2021	29812	$ 28,145.68	Hacienda PS Improvements - Construction Progress Pymt #2
			$ 437,318.23	

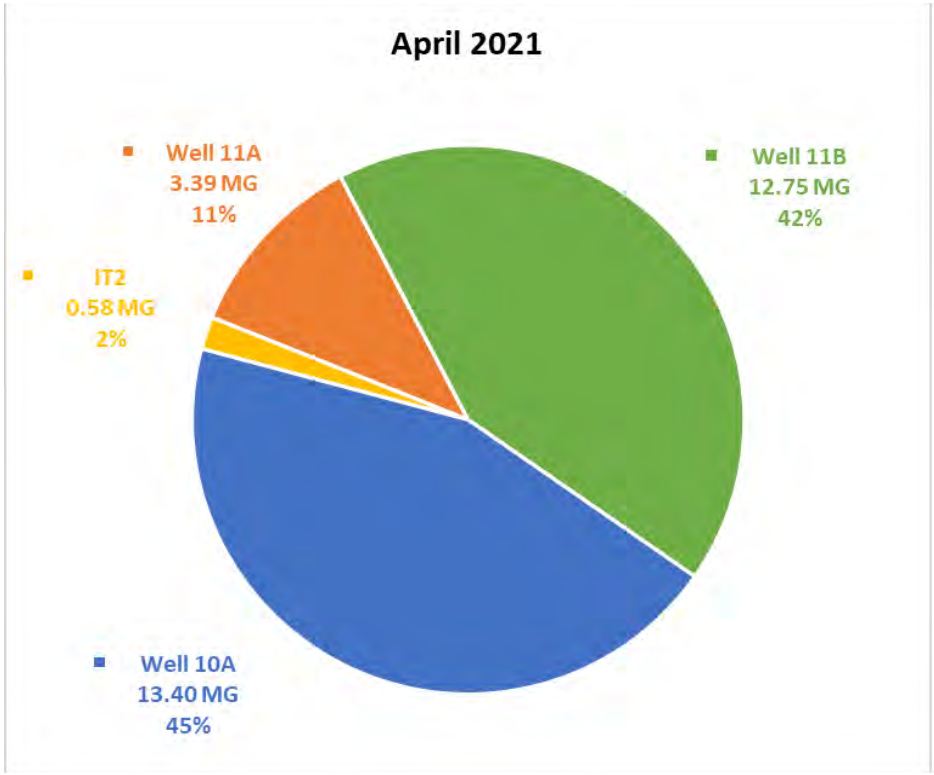
Wire / ACH Payments
April 2021

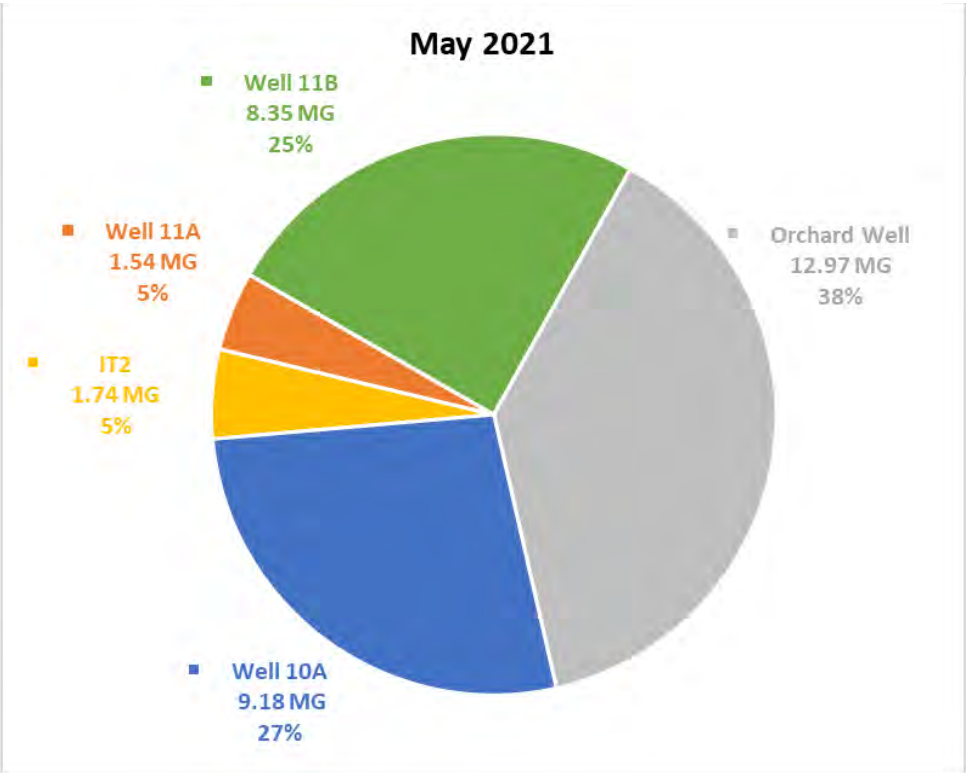
Vendor Name	Trans Date	Check No.	Trans Amount	Description
ADP	4/9/2021	n/a	$ 182.90	ADP Workforce Now HR Fees - Mar 2021
ADP	4/9/2021	n/a	$ 185.30	ADP Time & Attendance Fees - Mar 2021
ADP	4/9/2021	n/a	$ 391.43	ADP PW10, PW12 Fees - Mar 2021
BlueFin	4/2/2021	n/a	$ 7,097.88	Bluefin CC Processing Fees - Mar 2021
BlueFin	4/2/2021	n/a	$ 86.79	Bluefin Civic PayPad Fees - Mar 2021
CalPERS	4/9/2021	n/a	$ 11,553.82	CalPERS Retirement - PW14 Ended 4/5/2021
CalPERS	4/22/2021	n/a	$ 11,553.82	CalPERS Retirement - PW16 Ended 4/19/2021
Wells Fargo CC	4/19/2021	n/a	$ 8,720.06	WFB CC Payment - Apr 2021
			$ 39,772.00	

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

Well Production



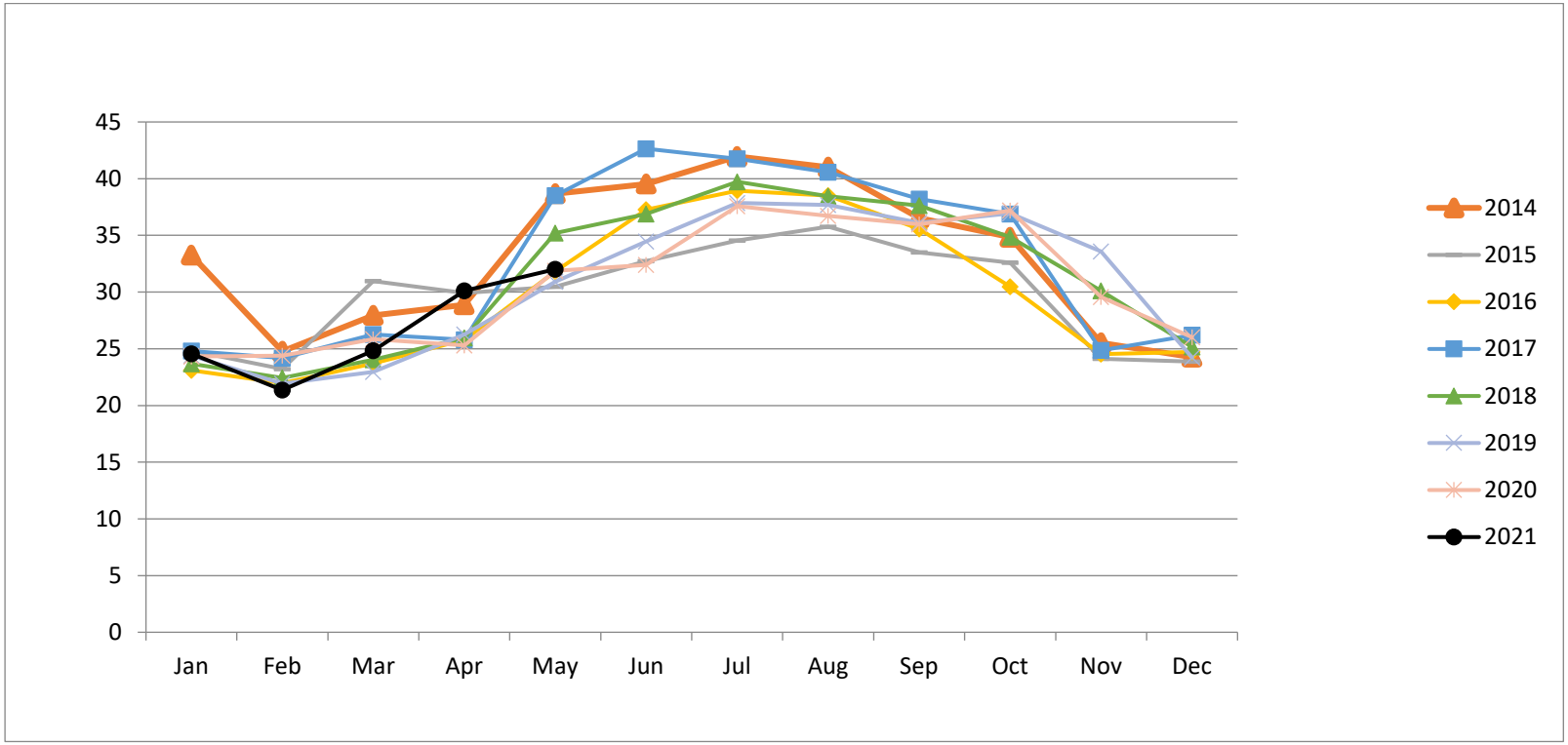


Total Production (Million Gallons)

April 2021	30.12 MG	21.31 % increase from March
May 2021	33.78 MG	12.14 % increase from April

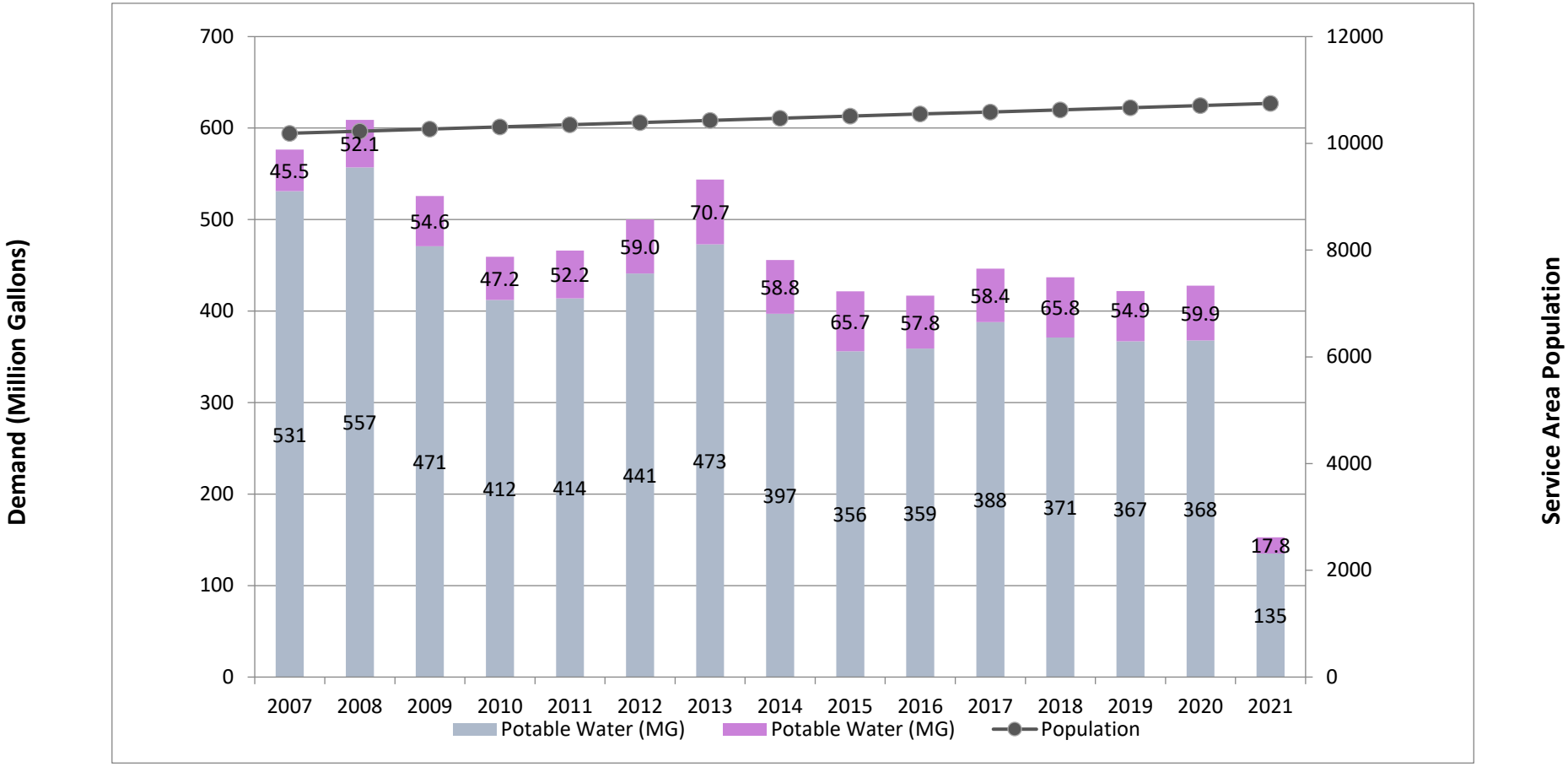
Production is Water Pumped +/- Water used for Well Maintenance Activities

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

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Average
Jan.	23,129,510	31,165,560	27,764,580	33,252,872	24,822,615	23,085,736	24,789,618	23,674,051	24,378,894	24,319,853	24,231,996	25,983,820
Feb.	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	24,323,667	21,387,258	23,865,470
March	26,079,310	29,752,014	31,559,240	27,946,154	30,953,420	23,910,892	25,837,232	24,042,754	22,954,225	25,855,924	24,995,557	26,901,462
April	30,993,238	29,234,622	35,621,370	28,875,831	29,909,260	28,400,861	25,477,561	25,992,670	26,027,391	25,297,107	29,671,141	28,583,694
May	40,456,736	43,581,989	49,525,756	38,675,936	30,478,823	31,995,591	38,043,826	33,751,004	30,912,986	31,885,131	32,014,767	36,585,605
June	38,237,371	46,553,850	47,432,970	39,525,236	32,726,825	36,842,416	42,310,983	36,786,677	34,451,155	32,393,746		39,509,589
July	46,417,190	48,634,940	49,192,762	41,957,386	34,544,613	38,892,200	41,757,891	39,648,922	37,857,926	38,411,455		42,449,132
Aug.	45,665,550	48,939,190	50,820,800	41,020,790	35,765,167	38,541,952	39,982,246	38,720,060	37,666,598	36,637,898		42,129,897
Sept.	43,700,350	42,936,210	45,489,360	36,533,116	33,498,030	35,653,167	38,190,535	35,202,216	36,106,611	35,968,389		39,096,275
Oct.	34,771,130	37,982,466	42,248,672	34,840,142	32,589,534	30,517,556	36,888,905	34,746,760	36,940,853	37,193,525		36,055,391
Nov.	28,853,908	28,714,236	34,868,300	25,524,197	24,110,286	24,388,656	24,864,436	30,389,575	33,566,905	29,565,349		27,586,433
Dec.	30,451,180	26,428,050	32,013,140	24,261,522	23,866,862	24,379,124	26,194,926	25,160,789	24,225,007	26,013,773		25,341,544
Total	413,759,753	440,736,967	472,661,082	397,193,044	356,483,075	358,577,047	387,828,472	370,543,233	367,011,756	367,865,818	132,300,719	394,962,796

Potable Water added through Intertie Two

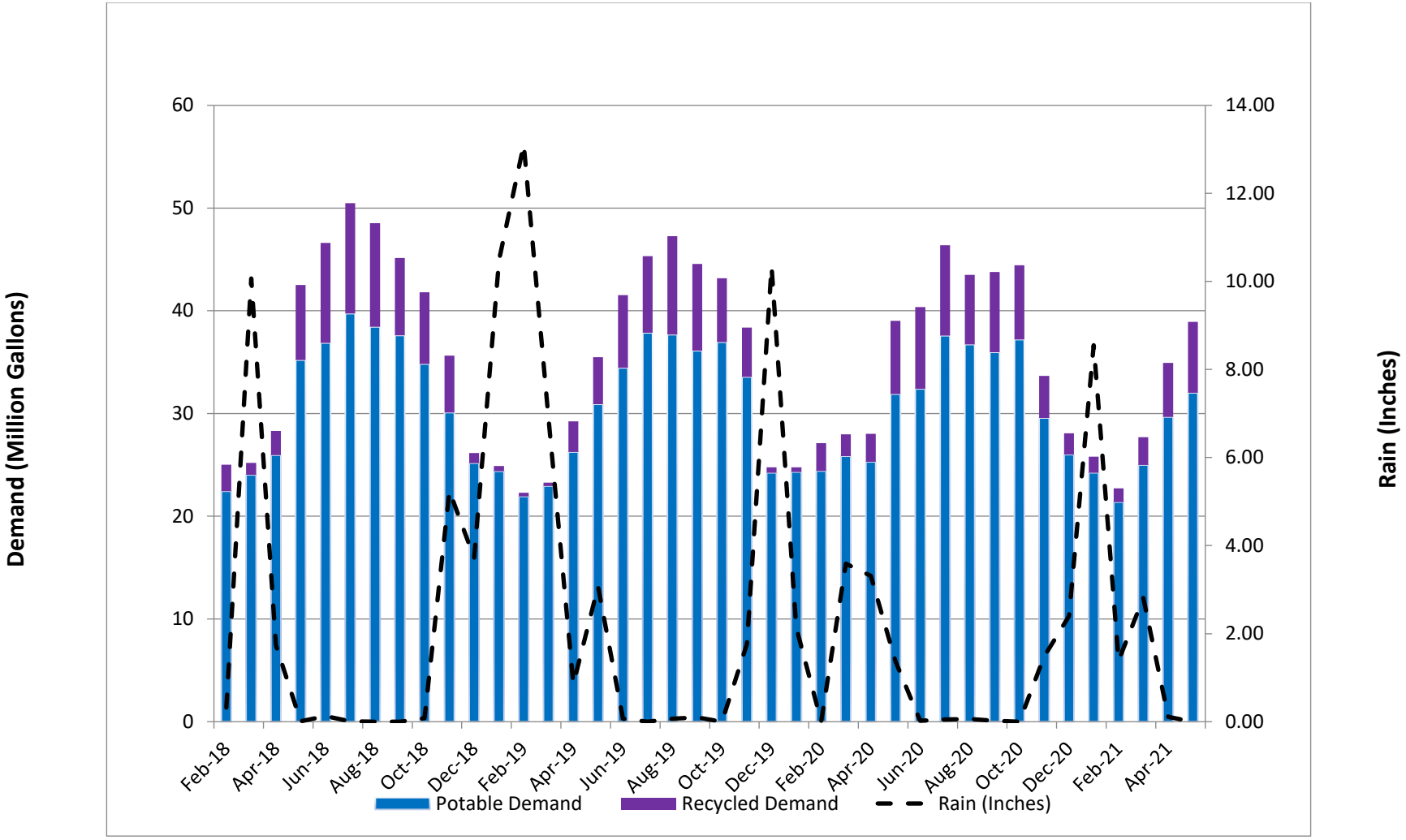
Month	*Gallons*
February	971,002
April	583,501
May	1,740,798
Total	3,295,301

Recycled

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Average
Jan.	496,000	2,139,000	620,000	3,019,613	635,420	862,984	156,267	838,172	493,100	450,147	1,560,234	944,411
Feb.	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	1,331,033	1,453,732
March	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	2,709,295	1,447,258
April	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	5,249,782	2,995,143
May	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	7,142,605	6,914,742	7,071,575
June	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	7,971,453		8,509,400
July	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	8,810,329		9,512,693
Aug.	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	6,760,659		9,253,991
Sept.	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	7,814,358		7,995,573
Oct.	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	7,236,784		5,893,319
Nov.	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	4,087,453		2,718,688
Dec.	2,201,000	341,000	2,453,395	236,228	1,119,017	529,158	1,670,966	994,336	544,650	2,075,116		1,142,533
Total	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	59,910,655	17,765,085	58,597,571

Demand is Production +/- the Change in Storage

Potable and Recycled Water Demand vs. Rainfall



Demand is Production +/- the Change in Storage

Rainfall

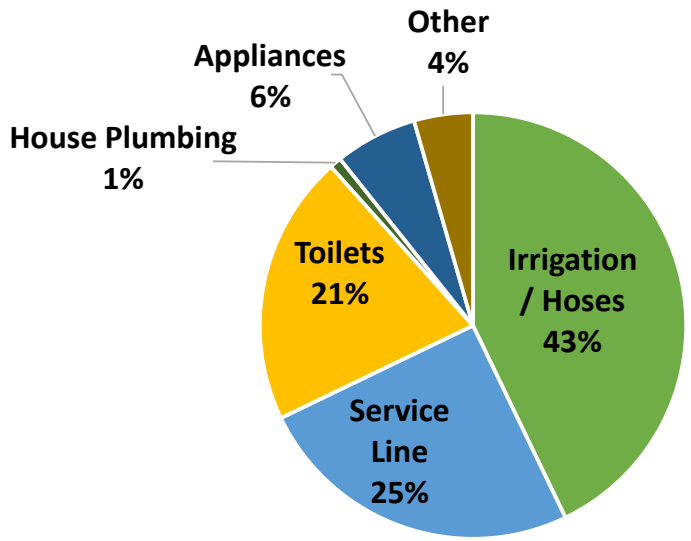
El Pueblo Weather Station

WATER YEAR		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	*TOTAL*	*% of Avg.*
	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	1.37	0.02	0.05	0.06	0.02	20.90	50%
	2020-21	0.00	1.48	2.40	8.55	1.39	2.81	0.11	0.00	-	-	-	-	16.74	40.82%
Cumulative 2020-2021		**0.00**	**1.48**	**3.88**	**12.43**	**13.82**	**16.63**	**16.74**	**16.74**	**-**	**-**	**-**	**-**		
Monthly Average 1981-2020		*1.87*	*4.74*	*7.84*	*8.28*	*7.91*	*6.41*	*2.44*	*0.97*	*0.24*	*0.01*	*0.04*	*0.26*	*41.63*	
Cumulative Ave 1981-2020		*1.87*	*6.62*	*14.46*	*22.74*	*30.65*	*37.06*	*39.50*	*40.47*	*40.71*	*40.72*	*40.76*	*41.02*	*41.02*	

Leak Adjustment Program Report
FY 2021

	RES Requests	CII Requests	Approved	Denied	Appeals	Reason Denied	Total Adjust Credit	Total Excess Use (gallons)
JUL	8	0	8	0	0		$1,806	148,425
AUG	9	0	8	1	0	Consumption did not exceed PY	$4,338	301,542
SEPT	9	0	7	2	0	< 5 yrs (1), prior billing period (1)	$1,996	129,498
OCT	16	0	12	4	0	< 5 yrs (2), cons. < PY (2)	$4,457	304,641
NOV	18	2	20	0	0		$6,210	494,504
DEC	14	0	13	1	0	< 5 yrs (1)	$3,307	278,601
JAN	8	0	8	0	0		$2,644	181,979
FEB	14	2	14	2	0		$3,802	270,930
MAR	5	0	4	1	0	consumption < PY	$1,444	94,257
APR	7	0	4	3	0	cons<PY(1), waste(1), past due(1)	$878	82,892
MAY								
JUN								
Total	**108**	**4**	**98**	**14**	**0**		**$30,881**	**2,287,269**
Prior Year	108	10	107	11	4		$42,805	3,020,142

Sources of Leaks



San Lorenzo Valley WATER DISTRICT

May 24, 2021

Piret Harmon
General Manager
Scotts Valley Water District
2 Civic Center Drive
Scotts Valley, CA 95066

Dear Piret,

This letter is to inform you that the Board of Directors of the San Lorenzo Valley Water District has unanimously agreed not to move forward with a feasibility study for consolidation with the Scotts Valley Water District. I believe the Board feels that the San Lorenzo Valley Water District is facing too many pressing issues to take on this project.

I thank you for your efforts in meeting with me to prepare a summary of the pros and cons, along with a rudimentary budget analysis, to support the Board's request for more information. We work well together and I hope to continue to collaborate on future projects.

Best Regards,

Rick Rogers
District Manager
San Lorenzo Valley Water District

13060 Highway 9 • Boulder Creek, CA 95006-9119
Office 831.338.2153 Fax 831.338.7986
www.slvwd.com

Memorandum

TO: Board of Directors

FROM: District Manager

SUBJECT: Exploration of Possible Consolidation of SLVWD with Scotts Valley Water District

DATE: May 20, 2021

RECOMMENDATION:

It is recommended that the Board of Directors review this memo and direct the Administration Committee to develop a draft Request for Proposal for a Feasibility Study for consolidation of the San Lorenzo Valley Water District (SLV) and the Scotts Valley Water District (SV) for Board consideration and approval by August 2021.

BACKGROUND:

At the February 4, 2021, SLV Board of Directors meeting the District Manager and District Counsel presented an agenda item to the Board regarding the possibility of consolidating with Scotts Valley Water District. The staff report suggested there may be substantial benefits if the two agencies could be consolidated.

At the March 4, 2021, Board meeting staff outlined a recommendation to take the initial steps needed to explore whether or not to initiate a consolidation between the SLV and SV Water Districts. It was not a recommendation to approve a consolidation, only to initiate a public process to start engaging with the public and gathering the information needed to make a decision.

By motion of the Board the SLV District Manager was directed to meet with the SV District Manager and to prepare a brief summary of pros and cons, to include a rudimentary budget analysis. The report was to be presented to the Board at the first meeting in May 2021.

Developing benefits and risks (pro & cons) was not easy and a much higher level analysis is required for reaching conclusions. At this time more benefits than risks were identified.

District Overview LAFCO

The Scotts Valley Water District was formed in 1961 and operates under the County Water District Law (Sections 30000 et seq. of the California Water Code) for the purpose of developing and providing water for domestic use, fire protection, commercial/industrial use, and recreation in the Scotts Valley area. At present, SV Water District provides water service to approximately 4,330 connections covering most

of the City of Scotts Valley and the unincorporated community's north of Scotts Valley. The SV Water District also distributes recycled water from the Tertiary Treatment Plant owned and operated by the City of Scotts Valley. As of June 30, 2020, residential customers represent approximately 80% of the SV Water District's customer base and consume approximately 67% of the potable water produced annually by the District. The SV Water District currently has a total of six production wells with a maximum capacity of 1,400 gallons per minute (LAFCO Service and Sphere of Influence Review 05/2021).

Small public water systems are often less resilient to natural disasters, such as drought and fire, have more difficulty adjusting to regulatory changes, and may struggle to fund infrastructure maintenance and replacement due to poor economies of scale and lack of staff. As a result, the State Water Resources Control Board (State Water Board) supports water partnerships whenever feasible. Water partnerships can take many forms, including: local resource sharing, physical consolidation, managerial consolidation, and full regionalization.

According to the State Water Board, these partnership activities help systems enhance Technical, Managerial and Financial (TMF) Capacity Resources as follows;

Technical capacity improvements can include increasing access to higher quality/quantity source water; sharing, upgrading, or building new infrastructure; developing more efficient treatment technologies; and opening access to a certified operator and additional expertise.

Managerial capacity improvements can include increasing expertise in water system planning/operations and enhancing systems' financial, accounting, and asset management practices.

Financial capacity improvements can include reducing costs, achieving greater economies of scale through shared services, and increasing a system's access to funds through new partnerships. In addition, systems that consider consolidation or restructuring may receive preferential treatment in loan or grant programs (e.g., higher priority for state-funded, low-interest DWSRF loans).

Many small water systems don't have the human resources, whether it's the board or staff, to meet the challenge of owning and operating complex water treatment and distribution systems. Pooling resources and streamlining operations and decision-making can enhance efficiency.

Consolidating water services is one of many potential approaches that enables utilities to meet today's needs and tomorrow's demands. Pooling resources and streamlining operations and decision-making can enhance efficiency. Economies of Scale and Operating Efficiencies in rural and urban settings, consolidation often results in greater economies of scale. In other words, water, wastewater, and storm water services involve dozens of separate business functions that can benefit from being spread over larger groups of customers.

Increased Access to Capital at a Lower Cost. Water is a capital-intensive enterprise. There are high costs associated with investing in and maintaining the vast infrastructure that water utilities operate. Costs are climbing with the need to upgrade, retrofit, and make systems more resilient. Several case studies show that consolidated utilities can access capital from investors at a lower cost. When utilities consolidate, they pool resources to serve larger customer bases. As a result, consolidated systems may receive better terms and interest rates on bonds and commercial loans from private capital markets to fund capital improvements. Consolidation may also qualify systems for subsidized public funding options not available to smaller systems.

The results of a national AWWA study found that the nation must invest an additional $250 billion to replace aging drinking water infrastructure over the next 30 years, at a cost of as much as $6,900 per household.

Benefits

Potential Benefits of a SLV/SV Water Consolidation

1) Eliminating redundancy of top executive positions (GM, OM, Board Clerk)

   Currently both SLVWD and SVWD maintain administrative offices and duplicated staff, General Manager, Board of Directors Secretary, accounting and customer service staff. The consolidation would reduce duplication of services, resulting in reduction in staff.

2) Eliminating redundancy in support services: Legal Counsel, Auditor, Public Outreach, Web Hosting, etc. (both agencies maintain Websites)

3) Eliminating redundancy in professional services and contractual agreements: LAFCO, IRWM, engineering consulting, hydrogeological consulting, SCADA technical services, etc.

4) Reducing duplication of regulatory reporting

   Both agencies produce many regulatory monthly, quarterly, and yearly reports. Each of these reports are time consuming. Consolidation would reduce duplication of these services.

5) Reducing duplication of memberships and subscriptions

6) Better utilization of assets
   - Facilities
   - Heavy equipment, specialized tools
   - Essential equipment is duplicated, and sits for extended periods of time until needed. Both districts require emergency response equipment to be used after hours such as backhoes, vacuum truck, and dump trucks

- Technology solutions, software
- Duplication in water quality analysis tracking software, billing software, maintenance management software, and training software.

7) Improved and streamlined in-house activities
    - Information technology
    - Engineering
    - Consolidated engineering department would allow more in-house engineering, lowering the use of consultants.
    - Laboratory testing
    - District has our own laboratory for bacteriological, SVWD does not, reduction in time providing 24/7 analysis, resulting in faster turnaround time allows water service to be restored sooner putting customers back in water sooner.
    - Public outreach and education
    - 7-day work week, currently both districts operate on a standard 5-day work week and have on-call staff for system operations on weekends. 7-day workweek would provide a reduction in overtime.

8) Gaining stronger negotiating power and better pricing from larger quantities. The prices smaller systems pay for chemicals and services are often much higher than the price paid by their larger counterparts. Essential chemicals, such as chorine, are available in much lower unit costs when bought in bulk.

9) Staffing costs also benefit from economies of scale. Salaries for highly-trained managers have increased in tandem with the regulations and environmental challenges those managers are entrusted to handle. A skilled utility professional serving 500 customers may be equally able to serve a community with 5,000 customers. In this case, spreading the cost of a professional manager over more customers can reduce costs. Improving cross training opportunities and better customer service coverage. Cross-training simply aims to build the skills of everyone in the district so everyone better understands exactly what it takes to run the district. The idea is to empower employees to provide support from within the District is imperative as part of the emergency response plan.
    - Greater return on investment
    - Employees are better able to collaborate
    - Increase employee motivation
    - Increase workforce sustainability
    - Increase efficiency, better emergency response
    - Makes the District more agile

10) Attracting highly qualified workforce by offering more diverse activities and deeper career paths.

11) Increasing internal promotional and lateral movement opportunities.

12) Enhanced educational opportunities and unified messaging to customers and communities.

13) Improved management of resources: infrastructure, assets, knowledge, and supply.

All of this is expected to result in increased efficiencies, reduced operating expenses, lower rate economies of scale and operating efficiencies. Some of these potential benefits can be quantified, and we have attempted to do so (see attached). Other potential benefits are more qualitative.

Risks

SMGWA

The Santa Margarita Groundwater Basin (SMGB) is a primary source of water supply for Scotts Valley, San Lorenzo Valley, and Santa Cruz. It covers over 30 square miles in the Santa Cruz Mountains foothill forming a triangular area that extends from Scotts Valley to the east, Boulder Creek to the northwest and Felton to the southwest.

The major water purveyors that directly rely on the supply from SMGB are Scotts Valley Water District (SVWD), San Lorenzo Valley Water District (SLVWD), and Mount Hermon Association (MHA). SMGB is also the sole supply source for 13 small water systems and over 1,100 private well users. In addition, the City of Santa Cruz derives a major portion of its supply from San Lorenzo River watershed that overlaps the basin.

The decline of groundwater levels in many parts of the basin occurred during 1985-2004 representing a loss in groundwater storage in SMGB by an estimated 28,000 acre-feet resulting in diminished local water supply and reduced sustaining base flows to local streams that support fishery habitats (SVWD Website).

Currently three Member Agencies and grants fund the SMGWA. Contributions from the member agencies ending June 30, 2020, totaled $485,426. Each member agency is invoiced a percentage of the projected budget for the fiscal year based on the following schedule:

- Scotts Valley Water District 60%
- San Lorenzo Valley water 30%
- County of Santa Cruz 10%

Under this schedule a consolidated District would be responsible for 90% of total contributions for the Groundwater Agency. Future costs are unknown at this time until the Groundwater Sustainability Plan is implemented.

Recycled Water System

The City of Scotts Valley operates the Water Reclamation Facility (WRF) which includes a Tertiary Treatment Plant (TTP). The TTP is used to treat secondary effluent to a tertiary level using chemical coagulation and flocculation, filtration, denitrification, and ultraviolet (UV) disinfection. The effluent meets the California State Water Resources Control Board (SWRCB) Division of Drinking Water Title 22 recycled water standards for disinfected tertiary recycled water. While the City is responsible for producing recycled water, the SV Water District is responsible for the distribution of the recycled water to irrigation customers in the City of Scotts Valley. The SV Water District owns, operates and maintains a storage tank, a recycled water pump station, a pressure reducing station and nearly 6 miles of recycled water distribution mains (LAFCO Service and Sphere of Influence Review 05/2021).

SVWD uses recycled water to reduce potable water demand. The recycled water system is for irrigation of parks, schools, and other landscaping needs. Recycled water use averages 58-66 million gallons of water a year. For years, rates were artificially low and in nearly 25 years of operation, rates were increased only 4 times. As a result of recovering fees below the true cost of operating the utility, the City deferred maintenance and equipment replacement. The long deferral of investment has led to a backlog of capital investment and those needs are now significant and critical. The wastewater plant cannot safely and continuously operate without a substantial level of investment in the next five years. It is unknown what the impacts there will be in providing recycled water as a result of a substantial level of investment especially if there is a consolidation.

Consolidation Process Facilitating

Although difficult to quantify public response and the process involved in consolidation, the time commitment should not be overlooked. I want to be clear, public outreach and community involvement is not considered a risk and is imperative and extremely necessary. The time it takes away from other District objectives such as reopening from COVID, recovery from the CZU Fire, District capital improvement, infrastructure, and drought needs are of great concern and should be discussed. Consolidation has already generated major discussion on social media, many print media/opinion columns, and increased attendance at Board meetings.

This process has many public steps before the Board would consider formal action to start the process to consolidate. As part of the recommendation in this memo staff is recommending that the Board of Directors authorize staff to work with the Admin Committee preparing a request for proposal to conduct a feasibility study. This process is estimated to take 12-months. During the 12 month process the Admin Committee would develop a public process including recommending a public evaluation committee.

The purpose of the committee is to develop an evaluation of practices, policies, procedures, rates, financial situation, and other factors that would be important to policy makers as they consider the benefits and risks of consolidation.

Financial Analysis

Staff has prepared a high level SLV/SV District Consolidation expense analysis. Annual savings of a consolidated District is estimated between $1,036,000 to $1,396,000 dollars. One-time consolidation costs are estimated to be $390,000 to $750,000 (see attached).

There are still many questions that need to be addressed that would be answered by doing a full feasibility study. Staff's brief summary of benefits & risks and rudimentary budget warrant a full feasibility study. Staff is recommending that the two districts prepare a draft Request for Proposal for a Feasibility Study to be reviewed by the Administration Committee and costs are to be shared between the two districts with SLV being the lead agency. In addition to the feasibility study the Administration Committee will be responsible to provide a schedule to the full Board to facilitate the study and outreach to the community.

To get a more in-depth, deep dive of Benefits & Risks a feasibility study is necessary. Staff is recommending that the Administration Committee take the lead on developing a request for proposal and prepare a timeline for reviewing.

Additional Information

Scotts Valley Water District- LAFCO Service and Sphere of Influence Review

https://www.santacruzlafco.org/wp-content/uploads/2021/05/SVWD-Service-and-Sphere-Review-Adopted-Version.pdf

San Lorenzo Valley Water District - LAFCO Service and Sphere of Influence Review

https://www.santacruzlafco.org/wp-content/uploads/2020/11/SLVWD-Service-and-Sphere-Review-Adopted-Version.pdf

Santa Margarita Groundwater Agency - https://smgwa.org/

HIGH LEVEL SLV/SV DISTRICT CONSOLIDATION EXPENSE ANALYSIS

ANTICIPATED ANNUAL SAVINGS

DESCRIPTION	LOW EST.	HIGH EST.	NOTES
District Manager Position	$ 300,000	$ 300,000	Includes 50% OH mark-up
Est. 2-3 other potential headcount	$ 450,000	$ 570,000	Includes 50% OH mark-up
Outsourced Engineering Services	$ 50,000	$ 120,000	Reduction in outsourced services
Building Maint.	$ -	$ 100,000	Unknown the exact potential savings. Maint., insurance, utilities etc.
Board Health Insurance	$ 55,000	$ 55,000	SVWD Board receives medical, not likely to continue
IT services	$ 40,000	$ 40,000	Assumes SLV staff + more consultant work, but less than SVWD outsourced
Legal Counsel	$ 36,000	$ 36,000	Assumes SVWD costs would be absorbed
ERP Software	$ 30,000	$ 30,000	Will require only one system
Public Outreach	$ -	$ 30,000	Assumes some savings potential
Board Pay	$ 10,000	$ 25,000	Assumes only 5 Board members overall, possible increase in committee pay
Rebate Program	$ -	$ 25,000	Assumes some savings potential
Insurance	$ 25,000	$ 25,000	Assumes 25% savings having one
Memberships/Travel	$ 25,000	$ 25,000	Likely won't have CSDA and ACWA, less Board travel
Audit	$ 15,000	$ 15,000	Overall size is not changing much, one audit should cost about the same
TOTAL POTENTIAL ANNUAL SAVINGS	**$ 1,036,000**	**$ 1,396,000**	

ANTICIPATED CYCLICAL SAVINGS

DESCRIPTION	LOW EST.	HIGH EST.	NOTES
UWMP	$ 40,000	$ 60,000	Occurs every 5 years
COS/Rate Study	$ 60,000	$ 100,000	Typically every 5 years
TOTAL POTENTIAL CYCLICAL SAVINGS	**$ 100,000**	**$ 160,000**	

ANTICIPATED ONE-TIME CONSOLIDATION EXPENSES

DESCRIPTION	LOW EST.	HIGH EST.	NOTES
Connecting Water Supply	$ 300,000	$ 500,000	Est. to connect pipelines, SCADA needs etc.
Consolidation Feasibility Study	$ 50,000	$ 100,000	Initial study to analyze and guide the process
LAFCO Maps	$ 40,000	$ 75,000	Lompico was ~$20K, exact charge for SV area unknown
Rebranding	$ -	$ 50,000	Consider a new inclusive agency to cover the full service area.
Rate Study	$ -	$ 25,000	Assumes both agencies would need one, increase for initial joint study
New Master Building	$ -	$ -	SLVWD is in need of a new site regardless, increased size for SVWD should be absorbed by the sale of its current building.
TOTAL ONE-TIME EXPENSES	**$ 390,000**	**$ 750,000**	

May 18, 2021

The Honorable Lorena Gonzalez
Chair, Assembly Committee on Appropriations
State Capitol Room 2114
Sacramento, CA 95814

RE: AB 377 (R. Rivas) – Water Quality: Impaired Waters – OPPOSE

Dear Chair Gonzalez,

The undersigned coalition of organizations is writing to respectfully oppose AB 377, which would overhaul the existing National Pollutant Discharge Elimination System (NPDES) permitting process in California by removing Regional Water Quality Control Board (Regional Board) discretion to make decisions based on local conditions.

Permitting decisions are long and complex; they undergo a public process with input from a broad array of stakeholders and final decisions are issued by the Regional Boards based on local conditions. As written, this bill would circumvent the regulatory authority and flexibility of the Regional Boards by rewriting existing permitting policies without regard to existing policies and considerations, local conditions, most existing agreements, and other priorities of the state. These decisions should be local and allowed the appropriate flexibility to address specific conditions.

This bill is flawed in its assumption that the existing permitting process is so broken that it needs to be changed from the top down. Local discretionary authority for permitting of discharge permits is central to the structure of State and Regional Board oversight under the Porter-Cologne Water Quality Control Act.

This bill would interrupt existing plans and progress by prohibiting the extension of any existing compliance schedules. Projects that are already planned and underway that would increase local water resilience will no longer be able to move forward under existing permits, and must seek new approvals. This will not only be a financial cost to those agencies that will seek to obtain new compliance schedules, it will unduly substantially increase the workload of the State and Regional Water Boards; it will also delay important projects that will benefit local regions and the state as a whole.

Finally, the State and Regional Water Boards would be required to charge the maximum penalty for all types of discharges, even those that are currently allowed. Under existing practice, it is common for the maximum penalty to be the starting point in negotiations to work toward a positive outcome for both the permit holder and water quality considerations. This bill will cost local agencies across the state billions of dollars in unnecessary and exorbitant penalties and fines.

For these reasons, this coalition has serious concerns about this bill and respectfully requests your "No" vote when it is heard in the Assembly Committee on Appropriations.

Sincerely,

Julia Bishop Hall
Senior Legislative Advocate
Association of California Water Agencies

Anthony Goff
General Manager
Calleguas Municipal Water District

David Ansolabehere
General Manager
Cawelo Water District

Krista Bernasconi
Mayor
City of Roseville

John N. Duckett, Jr.
City Manager
City of Shasta Lake

Katie Evans
Director of Communications and Conservation
Coachella Valley Water District

Gene Kilgore
General Manager
Corcoran Irrigation Company

John Bosler
General Manager/CEO
Cucamonga Valley Water District

Joe Mouawad, P.E.
General Manager
Eastern Municipal Water District

Hannah Davidson
Water Resources Specialist
Hidden Valley Lake Community Services District

Donald M. Zbeda
General Manager
Indian Wells Valley Water District

Tony Firenzi
Director of Strategic Affairs
Placer County Water Agency

Paul Helliker
General Manager
San Juan Water District

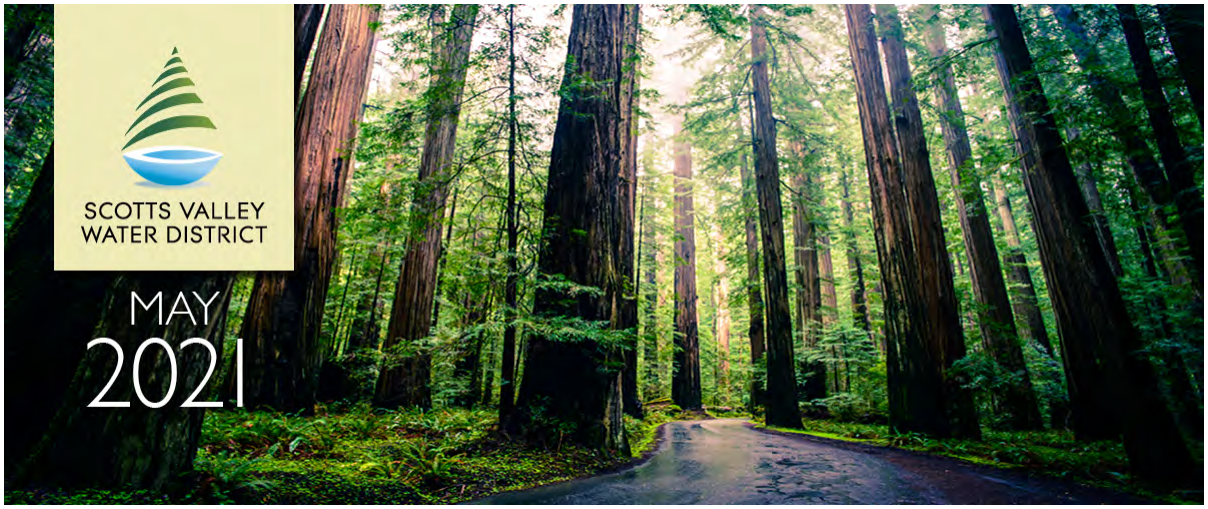
Federico Barajas
Executive Director
San Luis & Delta-Mendota Water Authority

Daniel R. Ferons
General Manager
Santa Margarita Water District

Piret Harmon
General Manager
Scotts Valley Water District

Charley Wilson
Executive Director & CEO
Southern California Water Coalition

Brett Hodgkiss
General Manager
Vista Irrigation District



Drought triggers new programs and activities for District customers

This year is critically dry and saving water is essential. The District has declared a Stage 2 Water Shortage and is offering customers rebates and other incentives to use water efficiently this summer.

To support customer efforts to be efficient with water, the District's Board of Directors declared May as Water Awareness Month. Thoughtful use of the water is essential to the District's groundwater resources, especially as warmer weather and the irrigation season arrives.

"Scotts Valley, along with most of the state, is experiencing serious drought conditions," SVWD Manager Piret Harmon said. "We are asking customers to make smart choices when it comes to water use — for this year and for the future."

Rainfall totals in the Scotts Valley area this year are less than half of normal, and last year also was a dry year. SVWD gets nearly all of its water from underground aquifers that are recharged by rainfall, so years of low rainfall have impacts on water use and future water levels in the aquifers.

As part of the State 2 Water Shortage, customers are asked to water outdoors not more than two times a week. Customers should limit their watering schedules to any two days per week that work for their household.

To help customers manage landscape needs, the Recycled Water Fill Station will reopen one day per week beginning in June, offering recycled water for irrigation purposes to District customers and City of Scotts Valley residents. Members of the

SVWD Board of Directors will volunteer to staff this Recycled Water Fill Station this summer. A schedule will be posted soon.

The District is also offering rebates that save customers money while reducing water use. Turf replacement, which has a rebate of $1 per square foot, is a great way to lower outdoor water use. The District also is now requiring outdoor pools be covered when not in use. A new rebate is being offered to reimburse 50% of the cost of a pool cover, which saves both water and energy.

Commercial customers also are being asked to reduce their water consumption. Restaurants are encouraged to only serve water upon request and it's recommended that hotels give guests an option to not launder bed sheets every day.

Plant of the Month: Fringe Flower

Do you prefer to water just once or twice a week? Fringe Flower might be the right plant for you — it is easy to maintain and you can enjoy the burgundy or pink blossoms throughout the year!

Photo credit: little_garden_joy

Project update: Orchard Run upgrades progressing

Exciting news! The majority of the planned upgrades to the Orchard Run Water Treatment Plant are complete and the facility is back online. Water produced at this facility

was distributed to customers for the
first time earlier this month. The upgrades took 6 months. The nearly $3.5 million project was funded by District water rates, including the basic service charge paid bimonthly by all customers.

SMGWA News: Board reviews Project and Management Actions

Santa Margarita Groundwater Agency's April board meeting was held Thursday, April 22, and was conducted via all-remote, web- and phone-based access due to the coronavirus prevention guidelines. The Board is working to develop the state-mandated Groundwater Sustainability Plan (GSP), aiming to complete a draft for review at the July 29, 2021, board meeting. Technical Consultant Georgina King from Montgomery & Associates presented an update on the statuses of the various sections of the GSP, which is due to the Department of Water Resources in early 2022.

King presented revised approaches for determining measurable objectives and undesirable results for three of the four aquifers within the basin (Lompico, Monterey and Butano). Board members had previously shown a preference for ensuring sufficient operational flexibility in case of an emergency and/or potential drought conditions. Following a discussion that modified the methodologies, the board directed staff to proceed with the updated criteria as presented.

The board also received a presentation on potential Projects and Management Actions (PMAs) for the GSP, including high-level benefits analysis, preliminary planning costs and scenarios for implementation and incorporating the information into the GSP. PMAs demonstrate that the Agency has identified multiple ways the basin could reach sustainability and considered initial costs for those projects. Following a discussion of the proposed projects and management actions — ranging from water-use efficiency programs to groundwater replenishment projects — the board concluded that the presented information was sufficient and there is no reason for holding a separate workshop about PMAs.

Financial reports for the period January – March 2021 were included in the agenda packet for board review.

The next SMGWA Board of Directors meeting will be held Thursday, May 27, at 5:30 p.m. More information.

Share

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Our mailing address is:
Scotts Valley Water District
2 Civic Center Dr.
Scotts Valley, Ca 95066

Take the Water Saving Challenge and win!

Customers can enter for a chance to win prizes — including water bill credit — by lowering their water use this summer! Take part in the Water Saving Challenge starting June 1. The four-month program encourages District customers to aim for a 15% (or more) water reduction from the same period the prior year.

- Monthly raffle prize: either a $100 water bill credit or a choice of a gift certificate from a Scotts Valley business
- Grand prize: either a $500 water bill credit or a choice of a gift certificate from a Scotts Valley business

Scotts Valley receives all its water supply from underground aquifers that are recharged by rainfall. The area has received just 40% of normal rainfall this year and the region is in a drought. Because we can not predict if next year will also be dry, we must prepare now and slow our water use to preserve our water supply.

Log into WaterSmart to participate

6 tips to reduce your water use

Follow these steps to track your water use on WaterSmart:

- Monitor your water use throughout the summer months: June, July, August, September
- Check to see if you are on track to achieve 15% reduction from the same period last year
- Have you had an i-Meter for at least a year? Track monthly GPD (gallons per day) for each month by accessing the "Track / Your Seasonal Use" feature
- Did you get an i-Meter within the last year? Track bi-monthly GPD for the 2-month meter read cycle by using the "Track / Comparing Your Use Last 24 Months" feature

1. Water outdoors 2 days a week or less
2. Pick up free water-saving devices at the District office
3. Cover your pool to reduce evaporation — new rebate available!
4. Reimagine your yard by changing landscaping to water-efficient options
5. Replace high-water-use fixtures with more efficient models and receive a rebate
6. Utilize free recycled water for irrigation — the Recycled Water Fill Station will reopen for the summer

Submit the raffle entry by 7th of the following month

- July, August, September, October for customers on i-Meters at least for a year
- July, September for customers on i-Meters for less than a year

Complete this form to submit your monthly entries. (Pro tip: bookmark it now!) Questions? Email us!

All District potable water account holders, who have had water service at least for a year and achieve at least 15% reduction in water use in comparison with the same period prior year, are eligible to enter the Water Saving Challenge. To be eligible for the grand prize, the customers have to achieve 15% savings and submit entries in all four months or two bi-monthly cycles.

Test your groundwater knowledge — play now!

Challenge yourself with any — or all — of these local groundwater quizzes. Santa Margarita Groundwater Agency, which is working to sustainably manage groundwater in Scotts Valley and the San Lorenzo Valley, put out these five-question quizzes and is offering raffle prizes

for those who can answer all the questions. Can you complete them all?

- Quiz 1
- Quiz 2
- Quiz 3
- Quiz 4
- Quiz 5

Recycled Water Fill Station to reopen in June

To help customers manage landscape needs, the Recycled Water Fill Station will reopen one day per week beginning in June, offering recycled water for irrigation purposes to District customers and City of Scotts Valley residents.

Members of the SVWD Board of Directors will volunteer to staff this Recycled Water Fill Station this summer. A schedule will be posted soon.

KSBW 8 ACTION NEWS

Scotts Valley water district declares a stage 2 water shortage

05/20/21 SCOTTS VALLEY, Calif. — The Scotts Valley Water District is joining other Central Coast water providers asking ratepayers to conserve water use during this severe drought. They're even offering to pay customers to cut back.

John Yost is already doing his part to conserve water. He decided to replace his lawn because he doesn't like to mow his lawn. Gophers were tearing it up-and he was using a lot of water to keep it green.

The water district is offering its customers a $1 a square foot rebate for installing turf.

"We haven't seen a bill since we put this in to see how much we're saving but when we do, we expect to see some significant reduction in the amount of water use," Yost said.

Swimming pool covers are also being required when the pool is not in use. The district will reimburse 50% of the cost for a pool cover because it saves both water and energy.

Scotts Valley received 17 inches of rainfall this year. The average is 41%.All its water supply comes from underground aquifers that are recharged by rain.

"People are already efficient users, they will do less, people in a higher tier will do hopefully more but on average we would like to achieve 15% system-wide," said Piret Harmon, Scotts Valley Water District general manager.

Customers are being asked to water outdoor only twice a week.

Restaurants serve water on request.

Hotels give guests the option to not launder sheets every day.

The recycled water fill station will also reopen one day a week in June, offering customers recycle water for irrigation purposes up to 280 gallons and it will be staffed by board members.

"We looked at the cost of maintaining it versus what we were able to do that didn't exactly pencil out and it is such a great thing that we do want it to be available," said Danny Reber, board member with the Scotts Valley Water District.

The Scotts Valley Water District wants you to know that these conservation incentives go into effect on June 1.

Santa Cruz Sentinel

District offers new rebates and programs amidst stage 2 water shortage

The district is bringing back its recycled water fill station.

By **HANNAH HAGEMANN** | Santa Cruz Sentinel

PUBLISHED: May 21, 2021 at 4:22 p.m. | UPDATED: May 21, 2021 at 4:23 p.m.

SCOTTS VALLEY — Scotts Valley Water District customers are being asked to reduce their overall water usage by 15% in the face of a second consecutive year of drought.

SVWD pumps nearly all of its water from groundwater reserves that are recharged by rainfall, so years of low rainfall have impacts on water use and future water levels in the aquifers.

To help residents do so, the district is offering new incentives, and bringing back their recycled water fill station.

"I think people are concerned saying 'I'm already very efficient, you're asking me to cut another 15%,' we're not," SVWD Manager Piret Harmon said. "We're using the 15% across the board, but it's an ask, do it if you can, do more if you can."

The district pulls all its water from local groundwater basins...

While a lack of rainfall affects the water supplier less than those that are dependent on surface flows, impacts could show in the future, Harmon said.

The region received 17 inches this wet season, which is just 40% of the annual average rainfall to be expected, according to Harmon.

"We have a little more cushion, so two years of drought, it doesn't make us as worried, it's more like what is the next year, or next five years going to be like," Harmon said.

"So we have to be concerned, we have to be prepared, but it's more of a long-term strategy and response, therefore we have to ask all our customers to help us," Harmon said.

The main impact of the stage 2 shortage will be to gardening enthusiasts. Scotts Valley Water District ratepayers are being asked to limit watering to two days a week, before 10 a.m. or after 5 p.m.

Commercial customers are also being asked to reduce their water consumption by 15% — in particular restaurants should only serve water to customers if it is requested.

Programs to save water

Scotts Valley Water District is offering various rebates and incentives to assist in cutting back on water use.

As part of this year's shortage, the district is requiring those that own pool install a pool cover. To assist with the cost of buying one, the water supplier will provide 50% of the cost of the cover.

To view other rebates, visit svwd.org/rebates.

"The easiest is to do something not behavior-based, but to change out your toilet, or lawn, and that will automatically give you savings in gallons," Harmon said.

The water supplier is also bringing back its recycled water fill station beginning in June.

The program allows Scotts Valley Water District ratepayers to fill up large containers to use for gardening and landscaping.

"It takes a lot of manpower for us to administer and coordinate it, and we didn't get enough users [previously] so we shut it down. But this year our board asked again and said 'what about that fill station,'" Harmon said

Scotts Valley Water District Board members will voluntarily staff the station at least one day a week starting next month.

Harmon encourages residents to also monitor for leaks using WaterSmart, which records hourly water usage data. To learn about WaterSmart, visit svwd.org/i-meters.

A Santa Cruz County drought conditions update: How are water restrictions affecting you?

Mallory Pickett, Lookout Santa Cruz 5/20/21

With the Scotts Valley Water District declaring a Stage 2 water shortage Wednesday, four of Santa Cruz County's seven water districts are now under some form of water restrictions as drought conditions worsen across California.

"This isn't just the drought, this is climate change," said Sierra Ryan, the county's interim water resources manager. "This is the new way things are going to be."

Indeed, Ryan said, "Most agencies are in the same situation they were in last year, in terms of their drought restrictions. Really, not much changes [in Santa Cruz County] year to year in terms of our situation."

That's because all the county's water agencies, with the exception of the city of Santa Cruz, rely on groundwater basins.

It takes time for rain to percolate through the ground, so these underground aquifers fill and empty gradually, over longer time periods than above-ground reservoirs. The need for conservation doesn't depend as much on a particular wet or dry year, more on long-term trends of how much water is coming out versus going in.

Unfortunately, the basins have been overdrafted for years, and as we enter the second dry year in a row, conservation is more important than ever.

"Water use efficiency should be your way of life," Ryan said, especially as climate change intensifies pressure on water resources. This is the second period of drought in Santa Cruz within the past decade. California was officially in a drought for much of the 2010s, with one stretch lasting from Dec. 27, 2011, to March 5, 2019.

Fortunately, Santa Cruzans have already made big changes to their water use.

"We have some of the most efficient water use in the state," Ryan said. "We're in a much better position than we were going into the last drought, just because people are so much more efficient with our water that our storage levels are higher."

Santa Cruz is relatively unique among California counties in that it relies entirely on local water sources; San Francisco, for example, gets the majority of its water pumped in from the Hetch Hetchy Reservoir, which collects snowmelt from the Sierra Nevada.

If you want to know exactly where your water comes from, and what kind of restrictions you might or might not be under, this map (courtesy of the Water Conservation Coalition of Santa Cruz County) will

identify the district that serves your home. Lookout has collected information on what restrictions are in place for each district and how they affect you.

Has your district enacted water restrictions this year?

City of Santa Cruz Water Department

Restrictions: Yes, Stage 1 water shortage warning.
What it means for you: According to the district website, each customer will receive a "monthly allotment of water, which will be reflected on their water bill." This allotment will be 5 ccf (centum cubic feet, or 100 cubic feet of water) for most single-family households, and according to the district, the current average monthly water use for a single-family residential account in the district is 6 ccf. No penalties are enforced for exceeding allotments under a Stage 1 water shortage warning.
To report water waste: 831-420-LEAK (5325) or conservation@cityofsantacruz.com.

Scotts Valley Water District

Restrictions: Yes, Stage 2 water shortage.
What it means for you: According to the district website, customers are "asked to water outdoors not more than two times a week." The district will also make a recycled-water fill station available to customers for irrigation one day per week beginning in June; a schedule will be available at www.svwd.org. Additionally, outdoor pools must covered when not in use, and commercial customers such as restaurants and hotels are asked to reduce their consumption.
To report water waste: Leave an anonymous tip, with details, here.

Soquel Creek Water District

Restrictions: Yes. Soquel Creek Water District has been in Stage 3 since 2014 because of the district's long-term issues with groundwater supply and seawater intrusion. The Pure Water Soquel Project, which will purify wastewater from the city of Santa Cruz to drinking water standards and use that to refill the groundwater basin, is now underway.
What it means for you: According to the district website, most households should try to use 50 gallons per person per day. Car washing must be done in an efficient manner, which means either using a recycled-water carwash (preferred) or "a waterless spray, a bucket and hose with an automatic shutoff nozzle, and/or a pressure washer. All methods should minimize water running off of the property." Washing the exterior of buildings is not allowed unless it's for sanitation purposes or to prepare for painting.
To report water waste: 831-475-8500 or savewater@soquelcreekwater.org (include details such as the time and location)

Santa Cruz Sentinel

Possibility of merger between San Lorenzo Valley Water District and Scotts Valley Water grinds to a halt

SLV Water District cites commitment to fire recovery projects

By **HANNAH HAGEMANN** |Santa Cruz Sentinel
May 25, 2021

FELTON — San Lorenzo Valley Water District board members declined to take the next step in a consolidation process with the Scotts Valley Water District, bringing the possibility of a merger between the two water suppliers to a halt.

1The SLVWD voted during its 05/21/21 Board meeting not to move forward in an exploratory process to consider consolidating with the SVWD.

After a Scotts Valley Water District board meeting in February, during which members voted to move forward with a first-step exploring a consolidation, the ball was in the San Lorenzo Valley Water District board's court.

"Right now with COVID, the CZU fire, people are really not looking to take on another huge endeavor," said Rick Rogers, water district manager for San Lorenzo Valley.

"We've got $20 million dollars worth of damage, our major supply line destroyed," Rogers said. "The board felt that we need to focus our attention on recovery from the fire."

To move forward in the process, San Lorenzo's Board would have needed to authorize a feasibility study. That research would have laid out financial benefits, or drawbacks, as well as flushed out questions on water demand, conservation and associated service changes.

The Local Agency Formation Commission merger process could have taken several years. It hinges upon a protest period, during which residents can voice opposition to consolidation.

Rogers, and Piret Harmon, manager of the Scotts Valley Water District, originally brought the idea of consolidating back to their respective boards, citing commonalities in the districts' operations. That included the fact the two water suppliers both utilize the Santa Margarita Groundwater Basin.

"It's a little disappointing for me personally, I would have wanted something to study, to look at the plus and minuses to see if it would be best for customers or not," Harmon said of the decision to not move forward.

But residents, in particular those in the San Lorenzo Valley area, voiced hesitation, and fierce opinions on what the merger would mean for their respective communities.

A change.org petition set up in February by SLV residents urging the water districts to not merge has garnered nearly 1,600 signatures.

“I have to say as a resident of Felton and a rate payer, I think this issue should be dropped. It doesn’t seem to me to be the time to do this,” Lawrence Ford said during San Lorenzo Valley’s board meeting.

Another resident brought up the issue of keeping SLV water locally sourced.

“To start with I fundamentally believe in local control of our water,” Rick Moran said. “This is not local control of our Valley’s water and this is why I don’t support a merger, or a feasibility study.”

Rogers echoed Moran during a phone interview with the Sentinel.

“We are very protective of our water supply, and rightfully so,” Rogers said. “The San Lorenzo Valley has pristine water quality, all of our water is produced in our watershed, and there are concerns on the Santa Margarita Groundwater Basin.”

Those concerns were paramount in the decision to not move forward with consolidation, according to Rogers.

Scotts Valley Water District, San Lorenzo Valley Water District and Santa Cruz County are responsible to bring the groundwater basin into sustainability by 2042. Due to a history of over pumping the aquifer, more water is being taken out of the basin, than replenished.

Scotts Valley’s sole source of water is the groundwater basin, where San Lorenzo Valley also gets water from surface sources, such as the San Lorenzo River and other local streams and creeks.

“If we were to be consolidated, we’d be looking at 90% of cost sharing to correct those problems down in that basin, to establish sustainability,” Rogers said.

Whereas now, San Lorenzo Valley Water district is responsible for 30% of the cost to make the basin sustainable.

With the extent and finances of projects necessary to bring that basin back into sustainability currently unknown, Rogers said that uncertainty piqued concern.

“Until we go through the sustainability process for the Santa Margarita Groundwater Basin, they [board members] weren’t ready to move ahead, it was kind of as simple as that,” he said.

When asked if the possibility of merging could be revisited, Rogers made clear that is not on the horizon.

“It’s not on my project list right now and I don’t see it coming back in the near future,” Rogers said.