



# SCOTTS VALLEY WATER DISTRICT

## **AGENDA PACKET**

### **REGULAR BOARD MEETING**

**03/11/21 at 6:00 p.m.**

This meeting is conducted in a remote access format in compliance with Executive Order N-29-20 and public participation is encouraged.

Join the meeting remotely through the meeting link or by phone:

Meeting Link: <https://zoom.us/j/97967675510>

Phone: 669 900 9128 Webinar ID: 979 6767 5510

The public has opportunities to make comments throughout the meeting: 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**  
**03/11/21 at 6:00 p.m.**  
**Agenda**

BOARD OF DIRECTORS  
PRESIDENT Bill Ekwall  
VICE PRESIDENT Ruth Stiles  
Wade Leishman  
Chris Perri  
Danny Reber

ASSOCIATE DIRECTORS  
Noelle Downing  
Annie Finch

GENERAL MANAGER  
Piret Harmon

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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. Presentation (none)

## 3. Administrative

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

### 3.1. [Approval of Minutes](#)

02/11/21 Regular Board Meeting

### 3.2. [Committee and other Agency Meeting Reports](#)

Engineering and Water Resources Committee 02/22/21

Executive & Public Affairs Committee 02/22/21

Finance & Personnel Committee 02/24/21

Interagency Committee 03/04/21 oral

Joint City–District Committee 02/22/21 oral

Santa Margarita Groundwater Agency (SMGWA) Board 02/25/21

**4. Consent (none)**

*Items are routine in nature, may be approved by one motion, each item includes an agenda report.*

**5. Public Hearings (none)**

**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. Water Supply Outlook 2021**

Recommendation: Receive information.

**6.2. Exploration of Possible Consolidation of Scotts Valley Water District and San Lorenzo Valley Water District**

Recommendation: Receive an update and provide input on the next steps including but not limited to establishing a committee to focus on this matter and selecting a consultant to conduct a study on potential consolidation of SVWD and SLVWD.

**6.3. Federal Tax Law Reimbursement Resolution**

Recommendation: Adopt Resolution No. 02-21 declaring the District's intent to incur tax-exempt obligations to reimburse expenditures for the acquisition, construction and improvements of certain facilities of the District's infrastructure.

**6.4. ACWA JPIA 2021 Executive Committee Election**

Recommendation: Adopt Resolution No. 03-21 concurring in nomination of Melody A. McDonald to the Executive Committee of the ACWA JPIA.

**7. Staff Reports**

**7.1. Legal**

District Counsel - oral

**7.2. Administrative**

General Manager - oral

**7.3. Finance**

Financial Reports 07/01/20 through 01/31/21

**7.4. Operations**

Operations Report - oral

Production, Demand and Rainfall Data through 02/28/21

Leak Adjustment Program Report 07/01/20 through 01/31/21

**8. Directors Reports**

Travel and Meetings  
ACWA and ACWA/JPIA Updates  
Other

**9. Written Correspondence**

Santa Cruz County Water Resources Management Status Report for 2020

**10. Community Relations**

Water 101: With Big Changes afoot countywide, everything you need to know about what's coming out of your tap, Santa Cruz Lookout, 02/28/21  
Does More Housing Mean more Water Demand in County, Santa Cruz Local 02/25/21  
Leap of faith: North County water district toe line of merger talks, Press Banner 02/18/21  
Up the Orchard Run, SVWD Rebuilds Largest Treatment Plant, Press Banner 02/05/21  
February Newsletter, Special Edition  
February Newsletter

**11. Closed Session (none)**

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

**13. Future Items**

Water Supply Outlook 2021  
Initial Projects List and Priorities FY 2022  
Groundwater Report WY 2020  
2020 Urban Water Management Plan  
AWIA Risk and Resilience Assessment  
AWIA Emergency Response Plan  
Water Rate Study and Prop 218 Hearing

**14. Meetings and Event Calendar**

Board Meetings

04/08/21  
05/13/21  
06/10/21

Committee Meetings

03/22/21 Executive & Public Affairs  
03/24/21 Finance & Personnel

03/22/21 Engineering & Water Resources

06/03/21 Interagency

03/15/21 Joint City District

**Santa Margarita Groundwater Agency**

Board Meetings

03/25/21

04/22/21

05/27/21

**Association of California Water Agencies (ACWA) Events**

[2021 Virtual Spring Conference and Exhibition 05/12/21 – 05/13/21](#)

**15. Adjourn**

The next regular meeting of the Scotts Valley Board of Directors is scheduled for 04/08/21.

**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](http://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**  
**02/11/21 at 6:00 p.m.**  
**Minutes**

**1. Convene**

1.1. Call to Order and Roll Call

President Ekwall called the meeting to order at 6:00 p.m. The meeting was conducted in a remote access format in compliance with Executive Order N-29-20.

Directors

Bill Ekwall  
Wade Leishman  
Chris Perri  
Danny Reber  
Ruth Stiles

Staff

Bob Bosso, Legal Counsel  
Piret Harmon, General Manager  
David McNair, Operations Manager  
Donna Paul, Assistant to General Manager

Associate Directors

Noelle Downing  
Annie Finch

Audience

46 guests

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

None.

1.5. Oral Communications

None.

**2. Presentation**

Communications and Community Outreach Update

Jennifer Murray, Miller Maxfield presented the Communications and Community Outreach Update. [Click here](#) to view the presentation.

**3. Administrative**

3.1. Approval of Minutes

MOTION carried to approve the minutes of the 01/14/21 Regular Board Meeting by unanimous roll call vote.

3.2. Committee and other Agency Meeting Reports

Engineering and Water Resources Committee 01/20/21

There was nothing further to add to the written report.

Executive & Public Affairs Committee 01/18/21

There was nothing further to add to the written report.

Finance & Personnel Committee 01/19/21

There was nothing further to add to the written report.

Interagency Committee (none)

Joint City–District Committee (none)

Santa Margarita Groundwater Agency (SMGWA) Board 01/28/21

In addition to the written report, Director Stiles and Director Perri provided comments on new Board members, schedule and modeling scenarios.

3.3. Committees 2021

Information only, no action taken.

3.4. Consolidated Redevelopment Oversight Board Appointments

General Manager Harmon provided a staff report. Information only, no action taken.

**4. Consent** (none)

**5. Public Hearings** (none)

**6. Business**

6.1. Exploration of Possible Consolidation of Scotts Valley Water District (SVWD) and San Lorenzo Valley Water District (SLVWD)

General Manager Harmon provided a staff report.

Executive Officer Serrano of the Local Agency Formation Commission of Santa Cruz County presented an overview of the consolidation process. [Click here](#) to view the presentation.

Upon completion of the presentation, Executive Officer Serrano and General Manager Harmon responded to questions from the Board.

President Ekwall opened the floor for public comment and a question and answer session.

Upon completion of the public comment and question and answer session, final comments were made by the Board.

MOTION carried to proceed with exploring a possible consolidation of SVWD and SLVWD conditioned upon the San Lorenzo Valley Water District Board of Directors taking the affirmative action to move forward with exploring a possible consolidation by unanimous Roll Call vote.

6.2. Projects Mid-Year Update FY 2021

Operations Manager McNair presented the Projects Mid-Year Update FY 2021. [Click here](#) to view the presentation.

Information only, no action taken.

6.3. Water Supply Outlook 2021

General Manager Harmon provided the staff report.

Information only, no action taken.

6.4. ACWA JPIA 2021 Executive Committee Election

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

MOTION carried to adopt Resolution No. 01-21 concurring in nomination of Randall James Reed to the Executive Committee of the ACWA JPIA by unanimous Roll Call vote.

**7. Staff Reports**

7.1. Legal  
None.

7.2. Administrative  
The General Managers report is appended.

7.3. Finance  
Financial Reports 07/01/20 through 12/31/20  
None.

7.4. Operations  
Production, Demand and Rainfall Data through 01/31/21  
Leak Adjustment Report 07/01/20 through 12/31/20  
None.

**8. Directors Reports**

None.

**9. Written Correspondence**

The written correspondence was accepted without comment.

**10. Community Relations**

The written correspondence was accepted without comment.

**11. Closed Session (none)**

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

**13. Future Items**

Water Supply Outlook 2021  
Initial Projects List and Priorities FY 2022  
Groundwater Report WY 2020  
2020 Urban Water Management Plan  
AWIA Risk and Resilience Assessment  
AWIA Emergency Response Plan  
Water Rate Study and Prop 218 Hearing

**14. Meetings and Event Calendar**

Regular Board Meetings

03/11/21

04/08/21

05/13/21

Committee Meetings

02/22/21 Executive & Public Affairs

02/24/21 Finance & Personnel

02/22/21 Water Resources & Engineering

03/03/21 Interagency

02/22/21 Joint City District

**Santa Margarita Groundwater Agency**

Regular Board Meetings

02/25/21

03/25/21

04/22/21

**15. Adjourn**

The meeting adjourned at 8:52 p.m.

Approved:

Attest:

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Bill Ekwall,  
Board President

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Piret Harmon  
General Manager

## **STAFF REPORT – General Items**

Scotts Valley Water District

**Date:** February 11, 2021

**To:** Board of Directors

**From:** General Manager

1. (Los Angeles Times, 02/03/21) Even though the late January storms dumped large amounts of snow on the Sierra Nevada, precipitation indices show that the Northern Sierra is at 48% of normal, the Central Sierra, 58% and the Southern Sierra, 42%. The US Drought Monitor shows all of California in some level of drought, which is part of the broader drought afflicting the West. Utah and Nevada had their driest years on record in 2020, while other states in the Southwest endured a year that was among the driest in their history. The result has been that reservoirs on the Colorado River are less than half full. The same stands true for the major reservoirs in California that collectively are at about 51% of capacity and 75% of historical average.
2. I signed on to ACWA coalition letter supporting SB 323 on behalf of the District. The bill authored by Senator Anna Caballero recognizes the need to minimize fiscal uncertainty for public agencies by setting a time period (120 days) for a person or agency to bring a validation action in a superior court to determine the validity of a fee or charge for water and sewer service. The bill is intended to strike a balance between the interest of ratepayers and the need for public agencies to maintain reliable sources of revenue.
3. Executed a contract with Montgomery & Associates, in the amount of \$44,114, for evaluation of new production well at the former Well #6 site. Included in the scope of work: evaluate the suitability of the site for a new production well; recommend the depth and production capacity, evaluate potential impacts to basin groundwater levels and nearby production wells, develop an approach for constructing a well (environmental studies, permitting, drilling, test pumping).



# SCOTTS VALLEY WATER DISTRICT

svwd.org  svwater

## Engineering and Water Resources Committee

02/22/21 4:00 p.m.

### Meeting Report

#### 1. Convene

The meeting convened at 4:02 p.m. and was conducted in a remote access format in compliance with Executive Order N-29-20.

#### Present

Members: Community Member Krotcov, Director Leishman and Director Perri.

Staff: General Manager Harmon, Finance and Customer Service Manager Kurns, Operation Manager McNair, Assistant to General Manager Paul, Water Use Efficiency Coordinator Ravinale and Administrative Office Assistant Wallace.

Guests: Director Stiles (observer) and Director Ekwall (observer).

#### 2. Discussion Items

##### 2.1. Leak Adjustment Program Report 07/01/20 through 01/31/21

The committee reviewed and discussed the leak adjustment program report.

##### 2.2. Actions for WY 2021 Potential Supply Shortage

The committee discussed increased rebates amounts and other activities that may reduce water use. Based on discussion, staff will update the think twice program for committee review.

#### 3. Oral Communications

Director Perri commented on the Pure Water Soquel presentation made to the City – District Committee and suggested that it would have an educational value for the entire Board. Staff will work on scheduling.

#### 4. Future Agenda Items

Annual Groundwater Report 2020 (Mar)

Proposed Project Budget (Mar)

Leak Adjustment Program Review (Mar)

AWIA Risk and Resilience Assessment

Urban Water Management Plan 2020

#### 5. Adjourn

The meeting adjourned at 5:05 p.m.



# SCOTTS VALLEY WATER DISTRICT

svwd.org  svwater

## Executive and Public Affairs Committee Meeting

02/22/21 10:30 a.m.

### Meeting Report

#### 1. Convene Meeting

The meeting convened at 10:30 a.m. and was conducted in remote access format in compliance with Executive Order N-29-20.

##### Present

Members: Director Leishman and Director Stiles.

Staff: General Manager Harmon and Assistant to General Manager Paul.

Guests: Bill Maxfield.

#### 2. Discussion Items

##### 2.1. Mentoring of Junior Associate Board Members

After discussion, the Committee determined that the President and Vice President will each take on primary responsibility for mentoring one Junior Associate Director and the President will assign an alternate for each at the next Board Meeting.

##### 2.2. Exploration of Potential Consolidation, Direction to Staff

The Committee discussed the exploration of potential consolidation and directed staff to prepare an agenda report for the next board meeting that will allow discussion of the current status.

#### 3. Oral Communications

Director Stiles mentioned that the potential need for drought restrictions may affect public opinion during the rate study process.

#### 4. Future Agenda Items

Board and Committee Meetings Format

Community Outreach and Communications Workplan

#### 5. Adjournment

The meeting adjourned at 11:25 a.m.



# SCOTTS VALLEY WATER DISTRICT

svwd.org  svwater

## Finance and Personnel Committee

02/24/21 4:00 p.m.

### Meeting Report

#### 1. Convene

The meeting convened at 4:00 p.m. and was conducted in remote access format in compliance with Executive Order N-29-20.

##### Present

Members: Community Member Callahan, Director Ekwall and Director Reber.

Staff: General Manager Harmon, Finance and Customer Service Manager Kurns, Operations Manager McNair, Assistant to General Manager Paul and Administrative Office Assistant Wallace.

Guests: Wing-See Fox, Urban Futures, Inc. (UFI)

#### 2. Discussion Items

##### 2.1. Financial Reports 07/01/20 through 01/31/21

The reports were accepted without comments.

##### 2.2. FY 2022 Budget Calendar

The committee reviewed the budget calendar.

##### 2.3. Potential Capital Financing Options

This item was taken out of order. Wing-See Fox, UFI presented an overview of municipal bonds and the bond market, financing scenarios and pension obligation funding strategies. The committee recommends Board adopt a reimbursement intent resolution.

##### 2.4. Backflow Prevention Testing Program Funding

The Committee received information and concurred with the staff recommendation to fund additional services for the backflow preventions testing program contract.

##### 2.5. Employment Law Update 2021

The Committee received an update on recent enacted employment laws.

#### 3. Oral Communications

Upon the request of Community Member Callahan, staff provided information on the potential merger of SVWD and SLVWD.

4. Future Agenda Items
  - FY 2022 Budget Assumptions
  - Water Rate Study
  - Identity Theft Prevention Program
5. Adjourn
  - The meeting adjourned at 5:21 p.m.

## Board Meeting Recap: Feb 2021

### **SMGWA board seeks new well owner representative, progresses on Groundwater Sustainability Plan**

Santa Margarita Groundwater Agency's February board meeting was held Thursday, Feb. 25, and was conducted via all-remote, web- and phone-based access due to the coronavirus prevention guidelines. At the meeting, Director Jeff Koopman, who represents private well owners, was advanced from an alternate to a voting member of the board. An ad-hoc committee was formed to select the well owner representative to fill the seat of a vacant alternate position.

Continuing its work to develop the state-mandated Groundwater Sustainability Plan (GSP) that is due in early 2022, the board reviewed the narrative of focus areas for addressing groundwater sustainability, which has been called the "basin problem statement" in the past. The problem statement has evolved into an updated summary document, driven by comments and suggestions made by board members at earlier public meetings. The document emphasizes on groundwater problem conditions that will be addressed in the GSP with projects and management actions.

For the second meeting in a row, the board reviewed results of groundwater modeling scenarios for possible solutions that would help the basin achieve sustainability. Consultants provided a new projection scenario during the February meeting after the modeling projections shared in January resulted in an undesirable future outcome for the basin. The board had requested a less extreme climate forecast be presented, and the new scenario represents a greater variability in both temperature and precipitation than the first scenario considered by the board.

In developing the GSP, SMGWA must identify projects and management actions that will achieve long-term sustainability for the basin. Director Koopman presented a conceptual project idea and the board directed the staff to include this on the list of potential projects and management actions in the GSP. The agency also can rely on programs and projects that will be undertaken by member agencies, rather than executing these efforts directly.

The agency is seeking interested individuals to serve as an alternate (non-voting) Well Owner Representative. A position description and application are now available on the SMGWA website. Applications are due by 5 p.m. on March 19.

The next SMGWA Board of Directors meeting will be held Thursday, March 25, at 5:30 p.m. More information at [www.smgwa.org](http://www.smgwa.org).



**SCOTTS VALLEY**  
WATER DISTRICT

## **AGENDA REPORT**

Scotts Valley Water District

**Date:** 03/11/21  
**To:** Board of Directors  
**Item:** Business 6.1  
**Subject:** **Water Supply Outlook 2021**  
**Reason:** Supports District Mission

### **SUMMARY**

**Recommendation:** Receive information.

**Fiscal Impact:** The impact is unknown at this time.

**Previous Related Action:** On 05/14/20 the Board established Stage 2 Water Supply Conditions for Water Year 2020 and on 04/12/18 Stage 1 Water Supply Conditions for Water Year 2018.

### **BACKGROUND**

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

The Scotts Valley area, similarly to the rest of the State of California, experienced an extended period of drought in 2012 through 2015 when the cumulative rainfall reached 67% of the average. While WY 2019 received about average precipitations (104%), WY 2020 delivered only 50%.

### **DISCUSSION**

Last decade has been experiencing very volatile precipitation patterns. WY 2020 started off with the first 3 months of the water year showing the signs of a normal rainfall year with 30% of average precipitations at the end of December but the trend changed drastically at the beginning of 2020. The current water year has been quite opposite – the total rainfall amount for the for the first 3 months was 3.88 inches or about 9% of the average. The conditions reversed in January with the entire West Coast seeing heavy rain and snow, that resulted in 12.42 inches measured as of 1/31/21. February turned out to be a very dry again adding only 1.4 inches, the total cumulative of 13.82 still indicates a Stage 3 of the demand reduction plan. 21 inches total rainfall for the water year would transition us from Stage 3 to Stage 2 and 37 inches are required to reach Stage 1. Re-

spective demand reduction targets are presented in the following table. As a reference, WY 2018 potable system demand was 1,130 acre feet (AF), WY 2019 1,109 AF and WY 1,135 AF.

WATER SUPPLY CONDITION - AS OF FEBRUARY 28, 2021													
		Average Rainfall	Rainfall (inches)				Rainfall (percent of average)				Cumulative		Single Year
			2018	2019	2020	2021	2018	2019	2020	2021	3-year	2-year	
Stage 1	Cumulative rainfall over 2 years < 80% of average and/or Single year rainfall < 75% of average	41.63	24.26	43.72	20.9	13.82	58%	105%	50%	33%		42%	33%
Stage 2	Cumulative rainfall over 2 years < 70% of average and/or Single year rainfall < 60% of average	41.63	24.26	43.72	20.9	13.82	58%	105%	50%	33%	63%	42%	33%
Stage 3	Cumulative rainfall over 3 years < 50% of average and/or Single year rainfall < 50% of average	41.63	24.26	43.72	20.9	13.82	58%	105%	50%	33%	63%	42%	33%
Stage 4	precipitation with groundwater levels below historic low range	41.63	24.26	43.72	20.9	13.82	58%	105%	50%	33%	63%		

### DEMAND REDUCTION CALCULATION

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

			Target (AF)
Stage 1	Demand reduction	10%	1068
Stage 2	Demand reduction	15%	1009
Stage 3	Demand reduction	20%	950
Stage 4	Demand reduction	25%	890

It is still early in the water year to make predictions and develop necessary demand management strategies. We will continue monitoring the precipitation conditions and updating the Board on the water supply outlook. Staff recommends that the Board decides on the course of action for the remainder of the year either at its April or May meeting.

Submitted,

Piret Harmon  
General Manager

## **AGENDA REPORT**

Scotts Valley Water District

**Date:** 03/11/21

**To:** Board of Directors

**Item:** Business 6.2

**Subject:** **Exploration of Possible Consolidation of Scotts Valley Water District (SVWD) and San Lorenzo Valley Water District (SLVWD)**

**Reason:** Supports District Mission

### **SUMMARY**

**Recommendation:** Receive an update and provide input on the next steps including but not limited to establishing a committee to focus on this matter and selecting a consultant to conduct a study on potential consolidation of SVWD and SLVWD.

**Fiscal Impact:** The impact is unknown at this time.

**Previous Related Action:** On 02/11/21 the Board directed staff to proceed with exploring a possible consolidation of SVWD and SLVWD conditioned upon the San Lorenzo Valley Water District Board of Directors taking the affirmative action to move forward with exploring a possible consolidation.

### **BACKGROUND**

Public agency consolidations involve a lengthy public process administered by Local Area Formation Commission (LAFCO). LAFCO has authority to review and approve proposals for changes in local government organization, if the proposals are consistent with recommendations or conclusions of a sphere of influence study or other study prepared by LAFCO (Gov. Code 56378, 56425, or 56430).

Staff from SVWD and SLVWD meet regularly to discuss issues of mutual concern and find ways to enhance the efficiency of both agencies. Recently the idea of a potential consolidation was presented to the Board of Directors of both agencies.

### **DISCUSSION**

SLVWD Board is scheduled to discuss the matter on March 4, 2021. Depending on the outcome of that discussion, SVWD Board may provide additional direction to the staff on how to proceed.

Submitted,

Piret Harmon  
General Manager

## **AGENDA REPORT**

Scotts Valley Water District

**Date:** 03/11/21

**To:** Board of Directors

**Item:** Business 6.3

**Subject:** **Federal Tax Law Reimbursement Resolution**

**Reason:** Complies with Federal Regulations

### **SUMMARY**

**Recommendation:** Adopt Resolution No. 02-21 declaring the District's intent to incur tax-exempt obligations to reimburse expenditures for the acquisition, construction and improvements of certain facilities of the District's infrastructure.

**Fiscal Impact:** No direct impact from this action.

**Previous Related Action:** On 02/24/21 the Finance and Personnel Committee reviewed a presentation on capital financing options for the District and supported the staff initiative to further evaluate the options.

### **DISCUSSION**

The District is evaluating debt financing for new money to complete the Orchard Run Water Treatment Plant Improvements project, as well as the Groundwater Well 3B Project. The financing will provide the leverage to accomplish the improvements while maintaining desired reserves and potentially incurring smaller rate increases in the coming years. The District has engaged Municipal Advisor (Urban Futures, Inc.) and is in the process of conducting activities that are necessary for completing financing. Such financing is currently projected to be completed in Summer 2021.

It is not uncommon for public agencies to expend money on capital costs of a project prior to incurring tax-exempt obligations to finance a project, and to reimburse itself for those initial costs with proceeds of the obligations. However, Internal Revenue Service regulations require the public agency to declare its intent to reimburse itself 60 days prior to the capital expenditures.

Submitted,

Piret Harmon

General Manager

Enclosed: Resolution No. 02-21

RESOLUTION No. 02-21

RESOLUTION OF THE BOARD OF DIRECTORS OF THE  
SCOTTS VALLEY WATER DISTRICT  
SETTING FORTH THE INTENT TO REIMBURSE CERTAIN EXPENDITURES  
FROM PROCEEDS OF TAX-EXEMPT OBLIGATIONS

WHEREAS:

1. The Scotts Valley Water District ("District") intends to acquire, construct and improve certain capital projects consisting of and including, but not limited to: Orchard Run Water Treatment Plant Improvements Project, Groundwater Well 3B Replacement Project, New Lompico Formation Production Well and Treatment Plant Project ("Facilities");
2. The District intends to finance all or a portion of the costs to acquire, construct and improve the Facilities with proceeds of tax-exempt obligations, including without limitation the execution and delivery of one or more installment sale agreements (collectively "Obligations"), and to use a portion of the proceeds of the Obligations to reimburse expenditures made by the District for the Facilities ("Reimbursement Expenditures") prior to the issuance, or execution and delivery, of the obligations;
3. The District reasonably expects that the aggregate principal amount of the Obligations will not exceed \$6,000,000;
4. In order to use the proceeds of the Obligations to reimburse itself for Reimbursement Expenditures prior to the issuance, or execution and delivery, of the Obligations, but not more than 60 days before the date of adoption of this Resolution, Section 1.150-2 of the Treasury Regulations requires the Board of Directors of the District to declare its official intent to reimburse prior expenditures for the Facilities with proceeds of the Obligations;
5. The Board of Directors wishes at this time to take the necessary actions to declare its official intent to reimburse the expenditures referenced herein from the proceeds of the Obligations;

THEREFORE, BE IT RESOLVED by the Board of Directors of the Scotts Valley Water District that it hereby:

1. Declares its official intent to use proceeds of the Obligations for Reimbursement Expenditures. This declaration does not bind the District to make any expenditure, incur any indebtedness, or proceed with the Facilities.
2. This Resolution shall be in full force and effect upon its adoption.

RESOLUTION No. 02-21

PASSED AND ADOPTED this 11<sup>th</sup> day of March 2021, by the following vote:

AYES:

NOES:

ABSENT:

---

Bill Ekwall, President  
Board of Directors

Attest: \_\_\_\_\_  
Piret Harmon, General Manager

## **AGENDA REPORT**

Scotts Valley Water District

**Date:** 03/11/21  
**To:** Board of Directors  
**Item:** Business 6.4  
**Subject:** **ACWA JPIA 2021 Executive Committee Election**  
**Reason:** Complies with JPIA Procedures

### **SUMMARY**

**Recommendation:** Adopt Resolution No. 01-21 concurring in nomination of Randall James Reed to the Executive Committee of the ACWA JPIA.

**Fiscal Impact:** No direct impact from this action.

**Previous Related Action:** On 02/11/21 the Board adopted Resolution No. 01-21 concurring in nomination of Randall James Reed to the Executive Committee of the ACWA JPIA.

### **DISCUSSION**

ACWA JPIA will hold an election for its Executive Committee during the Board of Directors' meeting that is held in the spring of 2021. This election will fill four Executive Committee member positions, each for a four-year term. The current incumbents are Tom Cuquet, South Sutter WD, David Drake, Rincon Del Diablo MWD, Melody McDonald, San Bernardino Valley WCD, and Randall Reed, Cucamonga Valley WD.

Candidates for the election must be elected or appointed directors of the JPIA member that they represent and must have been appointed by that member to be on the JPIA's Board of Directors. Candidates must also be representatives of JPIA members that participate in all four of the JPIA's Programs: Liability, Property, Workers' Compensation, and Employee Benefits.

The candidates must also each receive concurring in nomination resolutions from three other JPIA members. JPIA members may *concur* in the nomination of as many candidates as they wish.

The deadline for submission of the concurring resolutions is 03/19/21.

Submitted,

Piret Harmon  
General Manager

Enclosed: Reso 03-21  
Melody McDonald, Biography

RESOLUTION No. 03-21

RESOLUTION OF THE BOARD OF DIRECTORS OF THE  
SCOTTS VALLEY WATER DISTRICT  
CONCURRING IN NOMINATION TO THE EXECUTIVE COMMITTEE  
OF THE ASSOCIATION OF CALIFORNIA WATER AGENCIES  
JOINT POWERS INSURANCE AUTHORITY (ACWA JPIA)

WHEREAS:

1. The Scotts Valley Water District is a member of the ACWA JPIA;
2. The bylaws of the ACWA JPIA provide for a nomination to be made to ACWA JPIA's Executive Committee, three member districts must concur with the nominating agency;
3. The San Bernardino Valley Water Conservation District has requested that Scotts Valley Water District concur in its nomination of its member of the ACWA JPIA Board of Directors to the Executive Committee of the ACWA JPIA.

THEREFORE BE IT RESOLVED by the Board of Directors of the Scotts Valley Water District that it hereby:

1. Concurs with the nomination of Melody McDonald of the San Bernardino Valley Water Conservation District to the Executive Committee of the ACWA JPIA;
2. Directs staff to transmit a certified copy of this resolution to the ACWA JPIA.

PASSED AND ADOPTED this 11<sup>th</sup> day of March 2021, by the following vote:

AYES:

NOES:

ABSENT:

---

Bill Ekwall, President  
Board of Directors

Attest: \_\_\_\_\_  
Piret Harmon, General Manager



[Melody.sbvxcd@gmail.com](mailto:Melody.sbvxcd@gmail.com)

**Melody  
Henriques-McDonald**

P.O. BOX 30197  
SAN BERNARDINO, CA 92413

*(909) 793-2503 District  
(909) 499-5175 cell  
(909) 867-9821 fax*

Like @ <https://www.facebook.com/Melody4Water>

**Candidate for:**

**ACWA JPIA  
EXECUTIVE COMMITTEE**  
(Incumbent, seeking re-election)



*Melody & Board receiving, District of Distinction Award, the highest governance and best practices accreditation possible.*

Kathleen Tieg, former Special Districts Board Member & ACWA President presenting. 2017

**ASSOCIATIONS**

Member, Board of Directors of the San Bernardino Valley Water Conservation District (Elected), Currently President, originally appointed in 1991, and first woman on the board.

Member, Executive Committee ACWA/JPIA

Chair, JPIA Liability Program Committee

Vice-Chair, Employee Benefits Committee

Director, ACWA/Joint Powers Insurance Authority

Member ACWA Federal Affairs Committee

Board Member, Association of the San Bernardino County Special Districts

*Over 28 + Years, Experience in the Water Industry includes:*

Past Member, (CWA) California Women for Agriculture

Past Member, ACWA Water Management Committee

Past Member, ACWA State Legislative Committee

Past Chair & Vice-Chair, JPIA Property & Workers Compensation Programs

Past Member, Board of Directors ACWA, Region 9 Chair

Past Chair, Water Management Certification Subcommittee

Chair, California Water Quality Control Board, Santa Ana Region  
8 Years of service, Gubernatorial Appointment 1993-2000

**CURRENT EMPLOYMENT**

Southwest Lift & Equipment, Inc. (Heavy Duty Vehicle Lifts)  
Broker/Associate, Century 21 Lois Lauer Realty

**PROFESSIONAL ASSOCIATIONS & LICENSES**

Redlands Association of Realtors  
California Real Estate Broker's License  
Arizona Real Estate Broker's License

**ORGANIZATIONS AND SOCIETIES**

Highland Chamber of Commerce  
San Bernardino Chamber of Commerce  
Immanuel Baptist Church Highland, CA  
BSF International

**EDUCATION**

San Geronio High School, 1976  
Western Real Estate School, 1989  
Graduate, Special Districts Board Management Institute, 1997  
Studied at Crafton Hills College

## **STAFF REPORT - Finance**

Scotts Valley Water District

**Date:** 03/11/21

**To:** Board of Directors

**From:** General Manager

**Item:** Staff Reports 7.3

**Subject:** **Financial Reports 07/01/20 through 1/31/21**

### **Summary**

Fiscal Year-to-Date (YTD) preliminary figures reflect the period of 07/01/19 through 1/31/21. YTD revenues total \$5.1M and expenses total \$4.8M.

### **Revenue**

January is the seventh month of the fiscal year and the first month of the January-February potable water billing period. Preliminary YTD potable water sales revenue is \$2.5M, water services revenue is \$1.2M, and new connections revenue is \$499K. Total YTD revenue in the potable water fund is \$4.8M, equal to 60% of the budget and slightly down from the same period last year.

YTD recycled water sales revenue is \$305K, water services revenue is \$33K, and no revenue from new connections for the period. Total YTD revenue of \$349K in the recycled water fund equals 46% of the budget, which is 6% lower than for the same period of last fiscal year.

### **Expenses**

Preliminary combined operating expenses YTD are below budget, with expenses of \$3.19M representing 52% of the budget. Project expenditures total \$1.1M and the debt service principal payment of \$567K was made.

### **Fund Balance**

Cash reserves at the end of January were approximately \$4.7M with another \$1.0M booked in Accounts Receivable.

### **Enclosed**

Budget Status Balance 07/01/20 – 1/31/21

Budget Status Revenue 07/01/20 – 1/31/21

Budget Status Expense 07/01/20 – 1/31/21

Projects Expense 07/01/20 – 1/31/21

Balance Sheet 1/31/21

Check Register 1/01/21 – 1/31/21

# Budget Status - Balance



Period: 07/01/20 - 01/31/21

FY Remain: 42%

	FY 2020 YTD Actual	FY 2021 YTD Actual	FY 2021 vs. FY 2020	YOY % change	FY 2021 Budget	FY 2021 Remaining Balance	%
<b>Period: 07/01/20 - 01/31/21 (7 months)</b>							
<b>Potable Water - Fund 01</b>							
Water Sales & Services (R10, R20)	\$ 3,815,590	\$ 3,718,920	\$ (96,670)	-3%	\$ 5,952,484	\$ 2,233,564	38%
New Connections (R25)	\$ 416,215	\$ 499,488	\$ 83,273	20%	\$ 786,110	\$ 286,622	36%
Other Revenue (R30, R40)	\$ 618,581	\$ 522,433	\$ (96,148)	-16%	\$ 1,175,391	\$ 652,958	56%
<b>Potable Water Total</b>	<b>\$ 4,850,387</b>	<b>\$ 4,740,842</b>	<b>\$ (109,545)</b>	<b>-2%</b>	<b>\$ 7,913,985</b>	<b>\$ 3,173,143</b>	<b>40%</b>
<b>Recycled Water - Fund 02</b>							
Water Sales & Services (R10, R20)	\$ 354,043	\$ 346,639	\$ (7,405)	-2%	\$ 547,998	\$ 201,359	37%
New Connections (R25)	\$ 15,978	\$ -	\$ (15,978)	-100%	\$ 32,126	\$ 32,126	100%
Other Revenue (R30, R40)	\$ 2,914	\$ 2,744	\$ (170)	-6%	\$ 177,985	\$ 175,241	98%
<b>Recycled Water Total</b>	<b>\$ 372,935</b>	<b>\$ 349,383</b>	<b>\$ (23,552)</b>	<b>-6%</b>	<b>\$ 758,109</b>	<b>\$ 408,726</b>	<b>54%</b>
<b>TOTAL REVENUE</b>	<b>\$ 5,223,321</b>	<b>\$ 5,090,225</b>	<b>\$ (133,097)</b>	<b>-3%</b>	<b>\$ 8,672,094</b>	<b>\$ 3,581,869</b>	<b>41%</b>
<b>Expenses - Fund 01 and Fund 02 Combined</b>							
Salaries & Benefits (E01)	\$ 1,703,136	\$ 1,716,034	\$ 12,899	1%	\$ 3,050,085	\$ 1,334,051	44%
Services & Supplies (E03-E80)	\$ 1,435,388	\$ 1,475,341	\$ 39,953	3%	\$ 3,074,046	\$ 1,598,705	52%
Project Expenses	\$ 228,589	\$ 1,080,250	\$ 851,661	373%	\$ 4,573,007	\$ 3,492,757	76%
Debt Service - Principal	\$ 460,030	\$ 567,298	\$ 107,268	23%	\$ 567,298	\$ -	0%
<b>TOTAL EXPENSES *</b>	<b>\$ 3,827,142</b>	<b>\$ 4,838,923</b>	<b>\$ 1,011,781</b>	<b>26%</b>	<b>\$ 11,264,436</b>	<b>\$ 6,425,513</b>	<b>57%</b>
<b>NET REVENUE</b>	<b>\$ 1,396,179</b>	<b>\$ 251,301</b>	<b>\$ (1,144,878)</b>		<b>\$ (2,592,342)</b>	<b>\$ (2,843,643)</b>	
<b>Period: 07/01/20 - 01/31/21 (7 months)</b>							
Total Revenue	\$ 5,223,321	\$ 5,090,225	\$ (133,097)	-3%	\$ 8,672,094	\$ 3,581,869	41%
Total Expenses *	\$ 3,827,142	\$ 4,838,923	\$ 1,011,781	26%	\$ 11,264,436	\$ 6,425,513	57%
<b>Net Revenue</b>	<b>\$ 1,396,179</b>	<b>\$ 251,301</b>	<b>\$ (1,144,878)</b>		<b>\$ (2,592,342)</b>		
<b>Period: 07/01/20 - 12/31/20 (6 months)</b>							
Total Revenue	\$ 4,204,846	\$ 4,129,816	\$ (75,029)	-2%	\$ 8,672,094	\$ 4,542,278	52%
Total Expenses *	\$ 3,355,903	\$ 3,965,062	\$ 609,159	18%	\$ 11,264,436	\$ 7,299,374	65%
<b>Net Revenue</b>	<b>\$ 848,942</b>	<b>\$ 164,754</b>	<b>\$ (684,188)</b>		<b>\$ (2,592,342)</b>		

\* Expense totals do not include depreciation expense

# Budget Status - Revenue



Period: 07/01/20 - 01/31/21

FY Remain: 42%

Fund 01	Potable Water	FY 2020 YTD Actual	FY 2021 YTD Actual	FY 2021 vs. FY 2020	YOY % change	FY 2021 Budget	FY 2021 Remaining Balance	%
R10	Operating Revenue - Water Sales							
01-000-41101	Residential Consumption - SF	\$ 1,474,086	\$ 1,498,445	\$ 24,359	2%	\$ 2,292,073	\$ 793,628	35%
01-000-41102	Residential Consumption - MF	\$ 100,392	\$ 101,845	\$ 1,454	1%	\$ 169,499	\$ 67,654	40%
01-000-41103	CII Consumption	\$ 691,882	\$ 549,919	\$ (141,963)	-21%	\$ 964,099	\$ 414,180	43%
01-000-41106	CII Consumption - Other	\$ 90,523	\$ 50,535	\$ (39,988)	-44%	\$ -	\$ (50,535)	
01-000-41105	Irrigation Consumption	\$ 261,522	\$ 272,811	\$ 11,289	4%	\$ 332,394	\$ 59,583	18%
01-000-41200	Other - Bulk Water	\$ 19,436	\$ 14,500	\$ (4,937)	-25%	\$ 25,745	\$ 11,245	44%
	R10 Sub Totals:	\$ 2,637,841	\$ 2,488,055	\$ (149,786)	-6%	\$ 3,783,810	\$ 1,295,755	34%
R20	Operating Revenue - Water Services							
01-000-41300	Other - Late Penalty	\$ 16,080	\$ 10,157	\$ (5,923)	-37%	\$ 25,800	\$ 15,643	61%
01-000-42100	Standby Basic Meter Charge	\$ 1,122,737	\$ 1,180,830	\$ 58,093	5%	\$ 2,074,649	\$ 893,819	43%
01-000-42121	Standby FP Basic Meter Charge	\$ 32,508	\$ 34,729	\$ 2,221	7%	\$ 57,725	\$ 22,996	40%
01-000-43300	Other Operating Revenue	\$ 6,425	\$ 5,150	\$ (1,275)	-20%	\$ 10,500	\$ 5,350	51%
	R20 Sub Totals:	\$ 1,177,750	\$ 1,230,866	\$ 53,116	5%	\$ 2,168,674	\$ 937,808	43%
R25	Operating Revenue - New Connections							
01-000-42101	Other Meter Fee	\$ 6,189	\$ 6,025	\$ (164)	-3%	\$ 12,891	\$ 6,866	53%
01-000-42102	Other Capacity Fee	\$ 406,764	\$ 490,562	\$ 83,798	21%	\$ 761,528	\$ 270,966	36%
01-000-42120	Other FP Meter Fee	\$ 2,512	\$ 235	\$ (2,277)	-91%	\$ 4,691	\$ 4,456	95%
01-000-43100	Other Will Serve	\$ 750	\$ 500	\$ (250)	-33%	\$ 1,000	\$ 500	50%
01-000-43200	Other Dev Proj Review	\$ -	\$ 2,166	\$ 2,166		\$ 6,000	\$ 3,834	64%
	R25 Sub Totals:	\$ 416,215	\$ 499,488	\$ 83,273	20%	\$ 786,110	\$ 286,622	36%
R30	Non-Operating Revenue - Other							
01-000-46000	Property Taxes	\$ 524,791	\$ 495,059	\$ (29,733)	-6%	\$ 1,077,212	\$ 582,153	54%
01-000-47110	Interest & Dividend	\$ 16	\$ 7	\$ (9)	-57%	\$ 21	\$ 14	67%
01-000-47120	Interest - LAIF	\$ 16,897	\$ 10,861	\$ (6,036)	-36%	\$ 52,500	\$ 41,639	79%
01-000-47520	Misc. Non-Operating Revenue	\$ 76,877	\$ (4,660)	\$ (81,537)	-106%	\$ 45,658	\$ 50,318	110%
01-000-47550	Third-Party Reimbursements	\$ -	\$ 20,657	\$ 20,657		\$ -	\$ (20,657)	
	R30 Sub Totals:	\$ 618,581	\$ 521,923	\$ (96,658)	-16%	\$ 1,175,391	\$ 674,125	57%
R40	Non-Operating Revenue - Grants							
01-000-45260	Local Grant - ACWA JPIA	\$ -	\$ 510	\$ 510		\$ -	\$ (510)	
	R40 Sub Totals:	\$ -	\$ 510	\$ 510		\$ -	\$ (510)	
	<b>Fund 01 Revenue:</b>	<b>\$ 4,850,387</b>	<b>\$ 4,740,842</b>	<b>\$ (130,202)</b>	<b>-2%</b>	<b>\$ 7,913,985</b>	<b>\$ 3,193,800</b>	<b>40%</b>
	Fund 01 Rev Excl Grants & Cap Contributions	\$ 4,850,387	\$ 4,740,332	\$ (130,712)	-2%	\$ 7,913,985	\$ 3,194,310	40%

# Budget Status - Revenue



Period: 07/01/20 - 01/31/21

**FY Remain: 42%**

		FY 2020 YTD Actual	FY 2021 YTD Actual	FY 2021 vs. FY 2020	YOY % change	FY 2021 Budget	FY 2021 Remaining Balance	%
<b>Fund 02</b>	<b>Recycled Water</b>							
R10	Operating Revenue - Water Sales							
02-000-41105	Irrigation Consumption	\$ 327,961	\$ 304,611	\$ (23,350)	-7%	\$ 482,653	\$ 178,042	37%
02-000-41200	Other - Bulk Water	\$ 3,821	\$ 8,579	\$ 4,758	125%	\$ -	\$ (8,579)	
	R10 Sub Totals:	\$ 331,783	\$ 313,191	\$ (18,592)	-6%	\$ 482,653	\$ 169,462	35%
R20	Operating Revenue - Water Services							
02-000-42100	Standby Basic Meter Charge	\$ 22,261	\$ 33,373	\$ 11,112	50%	\$ 65,345	\$ 31,972	49%
02-000-43300	Other Operating Revenue	\$ -	\$ 75	\$ 75		\$ -	\$ (75)	
	R20 Sub Totals:	\$ 22,261	\$ 33,448	\$ 11,187	50%	\$ 65,345	\$ 31,897	49%
R25	Operating Revenue - New Connections							
02-000-42101	Other Meter Fee	\$ 327	\$ -	\$ (327)	0%	\$ 825	\$ 825	100%
02-000-42102	Other Capacity Fee	\$ 15,651	\$ -	\$ (15,651)	-100%	\$ 31,301	\$ 31,301	100%
	R25 Sub Totals:	\$ 15,978	\$ -	\$ (15,978)	-100%	\$ 32,126	\$ 32,126	100%
R30	Non-Operating Revenue - Other							
02-000-47110	Interest & Dividend	\$ 2,914	\$ 2,324	\$ (590)	-20%	\$ 8,573	\$ 6,249	73%
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:	\$ 2,914	\$ 2,744	\$ (170)	-6%	\$ 177,985	\$ 175,241	98%
	<b>Fund 02 Revenue:</b>	<b>\$ 372,935</b>	<b>\$ 349,383</b>	<b>\$ (23,552)</b>	<b>-6%</b>	<b>\$ 758,109</b>	<b>\$ 408,726</b>	<b>54%</b>
	Fund 02 Rev Excl Grants & Cap Contributions	\$ 372,935	\$ 349,383	\$ (23,552)	-6%	\$ 758,109	\$ 408,726	54%
	<b>Revenue Totals:</b>	<b>\$ 5,223,321</b>	<b>\$ 5,090,225</b>	<b>\$ (153,754)</b>	<b>-3%</b>	<b>\$ 8,672,094</b>	<b>\$ 3,602,526</b>	<b>42%</b>
	Revenue Total Excl Grants & Cap Contributions	\$ 5,223,321	\$ 5,089,715	\$ (154,264)	-3%	\$ 8,672,094	\$ 3,603,036	42%

# Budget Status - Expense



Period: 07/01/20 - 01/31/21

FY Remain: 42%

		FY 2020 YTD Actual	FY 2021 YTD Actual	FY 2021 vs. FY 2020	YOY % change	FY 2021 Budget	FY 2021 Remaining Balance	%
<b>Fund 01 and Fund 02 Combined</b>								
<b>Dept</b>	<b>Administration</b>							
E01	Salaries & Benefits	\$ 367,908	\$ 390,925	\$ 23,017	6%	\$ 641,272	\$ 250,347	39%
E03	General & Admin - Services	\$ 169,834	\$ 168,875	\$ (960)	-1%	\$ 470,819	\$ 301,944	64%
E05	General & Admin - Supplies	\$ 14,458	\$ 5,130	\$ (9,328)	-65%	\$ 17,200	\$ 12,070	70%
E10	Source of Supply	\$ 148,521	\$ 291,021	\$ 142,500	96%	\$ 330,490	\$ 39,469	12%
E70	Other	\$ -	\$ -	\$ -		\$ 5,000	\$ 5,000	100%
	<b>Dept 100 Sub Totals:</b>	<b>\$ 700,722</b>	<b>\$ 855,951</b>	<b>\$ 155,229</b>	<b>22%</b>	<b>\$ 1,464,781</b>	<b>\$ 608,830</b>	<b>42%</b>
<b>Dept</b>	<b>Finance/Customer Service</b>							
E01	Salaries & Benefits	\$ 319,257	\$ 333,027	\$ 13,771	4%	\$ 563,967	\$ 230,940	41%
E03	General & Admin - Services	\$ 94,825	\$ 105,855	\$ 11,030	12%	\$ 210,163	\$ 104,308	50%
E05	General & Admin - Supplies	\$ 200	\$ -	\$ (200)	-100%	\$ 4,000	\$ 4,000	100%
E35	Customer Accounts	\$ 104,272	\$ 114,115	\$ 9,843	9%	\$ 207,113	\$ 92,998	45%
E70	Other	\$ 1,008	\$ 1,250	\$ 242	24%	\$ 1,038	\$ (212)	-20%
E80	Debt Service - Interest	\$ 43,083	\$ 37,902	\$ (5,180)	-12%	\$ 75,863	\$ 37,961	50%
	<b>Dept 200 Sub Totals:</b>	<b>\$ 562,644</b>	<b>\$ 592,150</b>	<b>\$ 29,506</b>	<b>5%</b>	<b>\$ 1,062,144</b>	<b>\$ 469,994</b>	<b>44%</b>
<b>Dept</b>	<b>Operations</b>							
E01	Salaries & Benefits	\$ 904,434	\$ 876,806	\$ (27,628)	-3%	\$ 1,619,059	\$ 742,253	46%
E03	General & Admin - Services	\$ 129,168	\$ 83,497	\$ (45,672)	-35%	\$ 205,260	\$ 121,763	59%
E05	General & Admin - Supplies	\$ 16,270	\$ 19,996	\$ 3,726	23%	\$ 17,000	\$ (2,996)	-18%
E07	General Production	\$ 72,263	\$ 68,203	\$ (4,060)	-6%	\$ 97,000	\$ 28,797	30%
E10	Source of Supply	\$ 111,827	\$ 15,054	\$ (96,773)	-87%	\$ 130,000	\$ 114,946	88%
E15	Pumping	\$ 274,816	\$ 241,252	\$ (33,564)	-12%	\$ 513,400	\$ 272,148	53%
E20	Water Treatment	\$ 153,132	\$ 107,585	\$ (45,547)	-30%	\$ 430,000	\$ 322,415	75%
E25	Transmission & Distribution	\$ 52,943	\$ 88,070	\$ 35,127	66%	\$ 131,200	\$ 43,130	33%
E70	Other	\$ 21,619	\$ 99,685	\$ 78,066	361%	\$ -	\$ (99,685)	
	<b>Dept 300 Sub Totals:</b>	<b>\$ 1,736,471</b>	<b>\$ 1,600,146</b>	<b>\$ (136,325)</b>	<b>-8%</b>	<b>\$ 3,142,919</b>	<b>\$ 1,542,773</b>	<b>49%</b>
<b>Dept</b>	<b>Engineering</b>							
E01	Salaries & Benefits	\$ 52,894	\$ 56,769	\$ 3,875	7%	\$ 105,710	\$ 48,941	46%
E03	General & Admin - Services	\$ 22,174	\$ 27,501	\$ 5,327	24%	\$ 189,900	\$ 162,399	86%
E05	General & Admin - Supplies	\$ -	\$ -	\$ -		\$ 1,000	\$ 1,000	100%
	<b>Dept 400 Sub Totals:</b>	<b>\$ 75,068</b>	<b>\$ 84,270</b>	<b>\$ 9,202</b>	<b>12%</b>	<b>\$ 296,610</b>	<b>\$ 212,340</b>	<b>72%</b>
<b>Dept</b>	<b>Board of Directors</b>							
E01	Salaries & Benefits	\$ 58,642	\$ 58,507	\$ (135)	0%	\$ 120,077	\$ 61,570	51%
E03	General & Admin - Services	\$ 4,975	\$ 350	\$ (4,625)	-93%	\$ 22,800	\$ 22,450	98%
E05	General & Admin - Supplies	\$ -	\$ -	\$ -		\$ 800	\$ 800	100%
	<b>Dept 900 Sub Totals:</b>	<b>\$ 63,618</b>	<b>\$ 58,857</b>	<b>\$ (4,761)</b>	<b>-7%</b>	<b>\$ 143,677</b>	<b>\$ 84,820</b>	<b>59%</b>

Full SMGWA Contribution made (vs. PY 50%)

Capacity Buy-Back (1x 1" and 1 x 5/8")

# Budget Status - Expense



Period: 07/01/20 - 01/31/21

FY Remain: 42%

		FY 2020 YTD Actual	FY 2021 YTD Actual	FY 2021 vs. FY 2020	YOY % change	FY 2021 Budget	FY 2021 Remaining Balance	%
<b>Summary</b>								
E01	Salaries & Benefits	\$ 1,703,136	\$ 1,716,034	\$ 12,899	1%	\$ 3,050,085	\$ 1,334,051	44%
E03	General & Admin - Services	\$ 420,977	\$ 386,078	\$ (34,899)	-8%	\$ 1,098,942	\$ 712,864	65%
E05	General & Admin - Supplies	\$ 30,928	\$ 25,126	\$ (5,801)	-19%	\$ 40,000	\$ 14,874	37%
E07	General Production	\$ 72,263	\$ 68,203	\$ (4,060)	-6%	\$ 97,000	\$ 28,797	30%
E10	Source of Supply	\$ 260,348	\$ 306,075	\$ 45,727	18%	\$ 460,490	\$ 154,415	34%
E15	Pumping	\$ 274,816	\$ 241,252	\$ (33,564)	-12%	\$ 513,400	\$ 272,148	53%
E20	Water Treatment	\$ 153,132	\$ 107,585	\$ (45,547)	-30%	\$ 430,000	\$ 322,415	75%
E25	Transmission & Distribution	\$ 52,943	\$ 88,070	\$ 35,127	66%	\$ 131,200	\$ 43,130	33%
E35	Customer Accounts	\$ 104,272	\$ 114,115	\$ 9,843	9%	\$ 208,151	\$ 92,785	45%
E70	Other	\$ 22,627	\$ 100,935	\$ 78,308	346%	\$ 5,000	\$ (99,685)	-1994%
E80	Debt Service - Interest	\$ 43,083	\$ 37,902	\$ (5,180)	-12%	\$ 75,863	\$ 37,961	50%
	Purchase Order Carryover					\$ 14,000		
<b>District Expense Total:</b>		<b>\$ 3,138,523</b>	<b>\$ 3,191,375</b>	<b>\$ 52,852</b>	<b>2%</b>	<b>\$ 6,124,131</b>	<b>\$ 2,913,756</b>	<b>48%</b>
<b>Fund 01 and 02 Combined</b>								
E01	Salaries & Benefits	\$ 1,703,136	\$ 1,716,034	\$ 12,899	1%	\$ 3,050,085	\$ 1,334,051	44%
E03-E80	Services & Supplies	\$ 1,435,388	\$ 1,475,341	\$ 39,953	3%	\$ 3,060,046	\$ 1,584,705	52%
	Purchase Order Carryover					\$ 14,000		
<b>District Expense Total:</b>		<b>\$ 3,138,523</b>	<b>\$ 3,191,375</b>	<b>\$ 52,852</b>	<b>2%</b>	<b>\$ 6,124,131</b>	<b>\$ 2,918,756</b>	<b>48%</b>

# Projects - Expense



Period: 07/01/20 - 01/31/21

FY Remain: 42%

Fund 01 and Fund 02 Combined		FY 2021 YTD Actual	FY 2021 Budget *	FY 2021 Remaining Balance	%
<b>Project</b>	<b>Description</b>				
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	\$ 370,541	\$ 2,113,507	\$ 1,742,966	82%
C16024	Bethany Tank Rehabilitation	\$ 86,459	\$ 244,528	\$ 158,069	65%
M17011	Meters with AMI	\$ 41,006	\$ 75,000	\$ 33,994	45%
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	\$ 100,977	\$ 75,000	\$ (25,977)	-35%
C18035	Sequoia Tank Rehabilitation	\$ 20,170	\$ -	\$ (20,170)	
C19020	El Pueblo WTP Improvements	\$ 55,979	\$ 56,050	\$ 71	0%
C19030	Hacienda Pump Station Improvements	\$ 130,958	\$ 57,728	\$ (73,230)	-127%
C19070	Vehicle Replacement Program	\$ 41,066	\$ 73,157	\$ 32,091	44%
C20010	Main Replacement Program - PW	\$ 14,722	\$ 675,379	\$ 660,657	98%
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%
<b>Projects Expense Totals:</b>		<b>\$ 1,080,250</b>	<b>\$ 4,573,007</b>	<b>\$ 3,492,757</b>	<b>76%</b>

\* Budget amounts include carryover funds from the prior year

# Balance Sheet



## Fund 01 and Fund 02 Combined

	<b>1/31/20</b>	<b>1/31/21</b>
<b>Assets</b>		
Cash	\$4,393,793	\$4,688,751
Accrued Interest	\$13,283	\$6,683
A/R Customer-Water	\$905,547	\$995,920
A/R - Other	\$259,482	\$207,273
Interfund Loan Receivable	\$888,040	\$888,040
Inventory	\$232,601	\$271,380
Prepaid Expense	\$63,200	\$155,303
Note Receivable	\$229,412	\$70,000
JPA Investment	\$332,010	\$387,112
Land & Right-of-ways	\$650,697	\$650,697
Construction-in-progress	\$656,500	\$1,619,075
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
	<b>\$30,022,920</b>	<b>\$31,349,584</b>
<b>Liabilities</b>		
A/P & Accrued Expenses	\$2,661	\$16,037
Accrued Salaries & Wages	\$0	\$0
Accrued Interest Payable	\$2,000	\$0
Customer Deposits	\$70,210	\$39,210
Interfund Loans	\$888,040	\$888,040
LT Liabilities Due in 1 Yr	\$30,508	\$40,998
Unearned Revenue	\$68,053	\$65,331
Long-term Liabilities	\$9,589,006	\$8,773,238
Deferred Pension Inflows	\$212,281	\$215,460
	<b>\$10,862,759</b>	<b>\$10,038,314</b>
<b>Fund Balance</b>		
Investment in Capital Assets	\$16,974,413	\$17,684,486
Unrestricted Net Position	\$116,146	\$1,642,955
	<b>\$17,090,559</b>	<b>\$19,327,441</b>
Total Liabilities and Fund Balance:	\$27,953,318	\$29,365,755
Total Retained Earnings:	\$2,069,602	\$1,983,829
Total Fund Balance and Retained Earnings:	\$19,160,161	\$21,311,270
<b>Total Liabilities, Fund Balance, and Retained Earnings:</b>	<b>\$30,022,920</b>	<b>\$31,349,584</b>

Scotts Valley Water District  
AP Check Register  
January 2021

Vendor Name	Check Date	Check No.	Check Amount	Description
ACWA/JPIA	1/21/2021	29517	\$ 38,460.92	EE and Retiree Benefits - Feb 2021
AFLAC	1/21/2021	29518	\$ 380.18	EE Self-Funded Supplemental Benefits - Dec 2020
AFSCME COUNCIL 57	1/21/2021	29519	\$ 780.00	Union Dues - Jan 2021
AFSCME COUNCIL 57	1/21/2021	29519	\$ 816.76	Union Dues - Dec 2020
AIRTEC SERVICE	1/21/2021	29520	\$ 380.00	HVAC Maint - 2 Civic Ctr
BADGER METER	1/7/2021	29455	\$ 3,817.21	Monthly Cell Charge for PW Meter Reads - Dec 2020
BADGER METER	1/7/2021	29455	\$ 794.50	Meter Purchases - Qty: 1
BADGER METER	1/7/2021	29455	\$ 63.19	Monthly Cell Charge for RW Meter Reads - Dec 2020
BATTERIES PLUS BULBS #314	1/7/2021	29456	\$ (18.00)	Core Return Credit on INV P34389990
BATTERIES PLUS BULBS #314	1/7/2021	29456	\$ 158.98	Vehicle Maint - Battery - Truck 12
BATTERIES PLUS BULBS #314	1/7/2021	29456	\$ 140.98	Tank Battery
BAYSIDE EQUIPMENT COMPANY	1/21/2021	29521	\$ 2,408.00	Generator Rentals - Hacienda & Bethany Boosters (PSPS)
BECKER ANDREAS	1/7/2021	29457	\$ 507.00	Customer Rebate - Lawn Replacement
BECKER ANDREAS	1/7/2021	29457	\$ 75.00	Customer Rebate - Downspout Redirect
BRENTNAG PACIFIC INC	1/21/2021	29522	\$ 11,210.14	Water Treatment Chemicals
CENTRAL HOME SUPPLY	1/7/2021	29459	\$ 20.36	Hydrant Maint - Fill Dirt
CHESTNUT IDENTITY APPAREL	1/21/2021	29523	\$ 2,699.40	Safety Clothing w/ District Logos
CITY OF SCOTTS VALLEY	1/7/2021	29460	\$ 360.00	Bacti Samples - Nov 2020
CIVIL CONSULTANTS GROUP INC	1/7/2021	29461	\$ 7,150.00	PW Main Improvements Task 1: Piping Plan & Coordination
CIVIL CONSULTANTS GROUP INC	1/7/2021	29461	\$ 2,660.00	Hacienda PS Improvements Task 8: Specs, Bid & Construction Phase
CIVIL CONSULTANTS GROUP INC	1/21/2021	29524	\$ 515.00	General Engineering Services - Dec 2020
CIVIL CONSULTANTS GROUP INC	1/21/2021	29524	\$ 440.00	SA-177 Plan Review
COUNTY OF SANTA CRUZ	1/21/2021	29525	\$ 968.92	Landfill Waste - Dec 2020
DASSELS PETROLEUM	1/21/2021	29526	\$ 934.61	Vehicle Fuel - Dec 2020
DUGGER SUNNY	1/7/2021	29462	\$ 96.56	UB Refund Check 012615-000
DYNAMIC PRESS INC	1/21/2021	29527	\$ 104.26	Business Cards - Albert McNair Ritchie
EUROFINS EATON ANALYTICAL	1/21/2021	29528	\$ 3,160.00	Lab Testing for Water Quality
EXCEEDIO	1/7/2021	29464	\$ 5,218.50	Monthly Managed Services: HaaS/SaaS/ITaaS - Jan 2021
EXCEEDIO	1/7/2021	29464	\$ 110.00	Monthly Managed Services: Add'l IT Support - Infowater Setup
EXCEEDIO	1/7/2021	29464	\$ 1,014.00	Monthly Managed Services: SCADA - Jan 2021
EXCEEDIO	1/21/2021	29529	\$ 131.70	Office Equipment - UPS Backups
EXCEEDIO	1/21/2021	29529	\$ 234.00	Monthly Managed Services: Add'l IT Support - Laptop Rentals
EXCEL ENVIRONMENTAL SVC	1/7/2021	29465	\$ 2,482.50	Non-Hazardous Wastewater Disposal - Well 7A
FASTENAL COMPANY	1/21/2021	29530	\$ 211.10	Safety Supplies - Gloves & Respirators
FORENSIC ANALYTICAL CONSULTING	1/7/2021	29466	\$ 5,526.36	Orchard Run WTP Improvements - Hazardous Waste Sampling
FOREST WARREN	1/21/2021	29531	\$ 50.00	Customer Rebate - Toilets
GASPAR TOM	1/7/2021	29467	\$ 50.00	Customer Rebate - Pressure Regulator
GOVERNMENT FINANCE OFFICERS ASSOC	1/21/2021	29532	\$ 160.00	Annual GFOA Membership - Kurns
GRAHAM CONTRACTORS INC	1/7/2021	29468	\$ 2,000.00	Refund Deposit - PW Bulk Meter
GRAINGER	1/7/2021	29469	\$ 13.19	Pump Station Maint - Misc Hardware
GRAINGER	1/7/2021	29469	\$ 3,662.72	Polo Ranch PS Upgrades - Strut Channels, Pipe Rack & Hardware
GRAINGER	1/21/2021	29533	\$ 545.08	Safety Supplies - First Aid, Sanitizer
GRANITE CONSTRUCTION CO	1/21/2021	29534	\$ 316.91	Main Maint - Aggregatebase
GRANITE ROCK COMPANY	1/7/2021	29470	\$ 191.62	OPS Supplies - Paving Tools
GRANITE ROCK COMPANY	1/7/2021	29470	\$ 144.01	Main Maint - Utility Trench Sand
GREEN WASTE RECOVERY INC	1/21/2021	29535	\$ 257.36	Trash Service - El Pueblo - Dec 2020
GREEN WASTE RECOVERY INC	1/21/2021	29535	\$ 136.68	Quarterly Trash Service - 2 Civic Ctr
HARRINGTON INDUSTRIAL PLASTICS LLC	1/21/2021	29536	\$ 561.17	WTP Maint - Gear Clamps, Valves & Pipe Connectors
HD SUPPLY FACILITIES MAINTENANCE	1/7/2021	29513	\$ 2,121.61	WTP Maint - Pressure Valves & Chlorine Reagent Sets
HD SUPPLY FACILITIES MAINTENANCE	1/21/2021	29558	\$ 1,894.98	WTP Maint - Chemical Feed Pump
HD SUPPLY FACILITIES MAINTENANCE	1/21/2021	29558	\$ 1,013.37	Small Tools - Siphon Pump, Colorimeter, Pipe Locator
HEALTHQUITY INC	1/7/2021	29471	\$ 41.30	HSA Admin Fees - Dec 2020
HEALTHQUITY INC	1/21/2021	29537	\$ 41.30	HSA Admin Fees - Oct 2020
HEALTHQUITY INC	1/21/2021	29537	\$ 41.30	HSA Admin Fees - Jan 2021
HILL BROTHERS CHEMICAL CO	1/7/2021	29472	\$ 346.61	Orchard Run Water Treatment Chemicals
HINES MICHAEL BRADLEY	1/7/2021	29473	\$ 4,600.00	Well Maint - Repaint & Finish - Well 10, 11A, 11B
HOSE SHOP	1/7/2021	29474	\$ 445.31	Vehicle Maint - Hoses & Adapters - Hydrovac
HOSE SHOP	1/7/2021	29474	\$ 299.87	Orchard Run WTP Improvements - Backwash Tank Fittings
ICON CLOUD SOLUTIONS LLC	1/21/2021	29538	\$ 342.39	Phone Service - Jan 2021
ICON CLOUD SOLUTIONS LLC	1/21/2021	29538	\$ 120.93	Phone Service - OPS - Jan 2021
ICONIX WATERWORKS (US) INC	1/7/2021	29475	\$ 814.17	Hydrant Maint - Misc Hardware
ICONIX WATERWORKS (US) INC	1/7/2021	29475	\$ 3,846.69	Service Line Maint - Stock
ICONIX WATERWORKS (US) INC	1/7/2021	29475	\$ 1,237.27	Meter Boxes - Qty: 32
ICONIX WATERWORKS (US) INC	1/21/2021	29539	\$ 910.54	Orchard Run WTP Improvements - Backwash Line Hardware
ICONIX WATERWORKS (US) INC	1/21/2021	29539	\$ 794.59	Meter Maint - Gaskets & Lid Remover
INDEPENDENT ELECTRIC SUPPLY	1/7/2021	29476	\$ 2,444.76	Polo Ranch PS Upgrades - Wiring & Electrical Hardware for Temp Power
INFOSEND	1/21/2021	29540	\$ 1,733.94	UB Statements Printing & Mailing - Dec 2020
INFOSEND	1/21/2021	29540	\$ 610.94	UB Inserts Printing & Mailing - Dec 2020
INLAND POTABLE SERVICES INC	1/21/2021	29541	\$ 14,892.00	Tank Maint - Clean & Inspect PW Tanks

Scotts Valley Water District  
AP Check Register  
January 2021

Vendor Name	Check Date	Check No.	Check Amount	Description
IN-SITU INC	1/7/2021	29477	\$ 701.02	Small Tools - GW Well Depth Measurements
JACKSON LYNN	1/21/2021	29542	\$ 390.00	Landscape Maint - 2 Civic Ctr - Dec 2020
JOSEPH J ALBANESE INC	1/21/2021	29543	\$ 2,000.00	Refund Deposit - RW Bulk Meter
KATHY BALLINGER - PETTY CASHIER	1/21/2021	29544	\$ 110.05	Petty Cash Replenishment - Jan 2021
KBA DOCUMENT SOLUTIONS LLC	1/7/2021	29478	\$ 144.84	Copier Maint & Printing Costs - Dec 2020
KBA DOCUSYS INC	1/7/2021	29479	\$ 396.50	Copier Lease - Dec 2020
KENNEDY/JENKS CONSULTANTS	1/21/2021	29545	\$ 46,903.75	Orchard Run WTP Improvements - Construction Support Services
LAUNCH BRIGADE	1/7/2021	29480	\$ 480.00	Quarterly Website Maint - svwd.org
LAW OFFICE OF ROBERT E BOSSO	1/21/2021	29546	\$ 3,000.00	Legal Counsel Services - Dec 2020
LAWSON LANE	1/7/2021	29481	\$ 300.00	Customer Rebate - Toilets
LIEBERT CASSIDY WHITMORE	1/7/2021	29482	\$ 3,555.00	Employment Relations Consortium Membership - 2021
MILLER MAXFIELD INC	1/21/2021	29547	\$ 4,600.00	Communication / Public Outreach Services - Nov - Dec 2020
MISSION UNIFORM SERVICE	1/7/2021	29484	\$ 428.65	Uniform Laundering & Rental Service - Dec 2020
MONRO INC	1/7/2021	29485	\$ 1,191.62	Vehicle Maint - New Tires & Lifetime Service - Truck 11
MONRO INC	1/7/2021	29485	\$ 776.37	Vehicle Maint - New Tires & Install - Truck 21
MONRO INC	1/21/2021	29548	\$ 123.95	Vehicle Maint - Trailer Tire Repair
MONTGOMERY & ASSOCIATES INC	1/7/2021	29486	\$ 910.00	2020 Annual GW Report - Oct-Nov 2020
NAPA AUTO PARTS	1/7/2021	29487	\$ 26.74	Main Maint - Misc
NAPA AUTO PARTS	1/7/2021	29487	\$ 304.81	Small Tools - Floor Jack
NAPA AUTO PARTS	1/7/2021	29487	\$ 80.82	Booster Pump Hardware - Generator Exhaust
NATIONWIDE RETIREMENT SOLUTIONS	1/7/2021	29488	\$ 2,958.86	IRS 457 Plan - Payroll Date 12/18/2020
NATIONWIDE RETIREMENT SOLUTIONS	1/7/2021	29488	\$ 1,297.30	IRS 457 Plan - Payroll Date 12/31/2020
NATIONWIDE RETIREMENT SOLUTIONS	1/21/2021	29549	\$ 2,958.86	IRS 457 Plan - Payroll Date 1/11/2021
OLIVE SPRINGS QUARRY	1/7/2021	29489	\$ 101.89	Main Maint - Asphalt
PACIFIC GAS & ELECTRIC	1/7/2021	29490	\$ 72.33	Electricity - Skypark - Nov 2020
PACIFIC GAS & ELECTRIC	1/21/2021	29550	\$ 236.22	Electricity - RW - Nov - Dec 2020
PACIFIC GAS & ELECTRIC	1/21/2021	29550	\$ 3,674.07	Electricity - 2 Civic Ctr - Nov - Dec 2020
PACIFIC GAS & ELECTRIC	1/21/2021	29550	\$ 54,384.36	Electricity - PW - Nov - Dec 2020
PALACE BUSINESS SOLUTIONS	1/7/2021	29491	\$ 497.46	OPS Office Supplies - Ink, Log Books, Pens, Planners
PALACE BUSINESS SOLUTIONS	1/21/2021	29551	\$ 35.37	Office Supplies - Wall Calendar & Pens
PATEL BHAVESH	1/7/2021	29492	\$ 100.00	Customer Rebate - Smart Irrigation Controller
PATEL VINA	1/7/2021	29493	\$ 100.00	Customer Rebate - Smart Irrigation Controller
PIED PIPER EXTERMINATORS	1/7/2021	29494	\$ 260.00	Pest Control @ Pump Buildings - Dec 2020
PSOMAS	1/7/2021	29495	\$ 5,265.00	Orchard Run WTP Improvements - Construction Mgmt & Inspection
RAFTELIS FINANCIAL CONSULTANTS INC	1/7/2021	29496	\$ 786.25	Water Rate Study - Financial Plan Development
RAFTELIS FINANCIAL CONSULTANTS INC	1/7/2021	29496	\$ 3,502.50	Water Rate Study - Project Initiation, Mgmt, Data Collection
RAIN FOR RENT	1/21/2021	29552	\$ 3,474.63	Orchard Run WTP Improvements - Storage Tank Rentals & Hauling
REGIONAL WATER MGMNT FOUNDATION	1/7/2021	29497	\$ 10,000.00	IRWM Coordination & Support Services - FY2021
SANTA CRUZ SIGNS	1/7/2021	29498	\$ 285.48	Vehicle Decals - Hydrovac
SANTOS MICHELLE	1/21/2021	29553	\$ 158.82	UB Refund Check 010355-000
SCARBOROUGH LUMBER & BUILDING SUPPLY	1/7/2021	29499	\$ 382.07	Safety Supplies - Face Masks & Gloves
SCARBOROUGH LUMBER & BUILDING SUPPLY	1/7/2021	29499	\$ 39.14	WTP Maint - Buckets
SCARBOROUGH LUMBER & BUILDING SUPPLY	1/7/2021	29499	\$ 12.61	Bldg Maint - Spackle & Putty Knife
SCARBOROUGH LUMBER & BUILDING SUPPLY	1/21/2021	29554	\$ 535.40	OPS Supplies - Tarps, Bungees, Propane, Rain Gear, Gloves, Bins, Misc
SCARBOROUGH LUMBER & BUILDING SUPPLY	1/21/2021	29554	\$ 1,195.16	Small Tools - Vacuum, Shovels, Saw Blades, Flashlights, Headlamp, Misc
SCARBOROUGH LUMBER & BUILDING SUPPLY	1/21/2021	29554	\$ 58.05	Pump Maint - Generator Exhaust
SCARBOROUGH LUMBER & BUILDING SUPPLY	1/21/2021	29554	\$ 322.46	Meter Maint - Lumber & Concrete
SCARBOROUGH LUMBER & BUILDING SUPPLY	1/21/2021	29554	\$ 27.11	Orchard Run WTP Improvements - Cables
SCARBOROUGH LUMBER & BUILDING SUPPLY	1/7/2021	29499	\$ 38.67	Finance Charge
SCARBOROUGH LUMBER & BUILDING SUPPLY	1/7/2021	29499	\$ 150.77	Polo Ranch PS Upgrades - Misc Hardware
SCARBOROUGH LUMBER & BUILDING SUPPLY	1/7/2021	29499	\$ 41.19	Service Line Maint - PVC
SCARBOROUGH LUMBER & BUILDING SUPPLY	1/7/2021	29499	\$ 77.57	Kitchen Supplies - OPS
SCHULTZ DAVID	1/7/2021	29500	\$ 100.00	Customer Rebate - Pressure Regulators
SCOTTS VALLEY SPRINKLER	1/7/2021	29501	\$ 92.15	Orchard Run WTP Improvements - Backwash Tank Fittings
SCOTTS VALLEY SPRINKLER	1/7/2021	29501	\$ 41.65	OPS Supplies - Tape & Sealant
SOIL CONTROL LAB	1/21/2021	29555	\$ 275.00	Water Quality Testing
SPRINGBROOK HOLDING COMPANY LLC	1/7/2021	29503	\$ 162.00	Web Payment Transaction Fees - Dec 2020
STEVENSON LANDSCAPING	1/7/2021	29504	\$ 750.00	Landscaping @ Misc Locations - Dec 2020
SWRCB	1/7/2021	29505	\$ 17,426.20	Large Water System Annual Fees - FY2021
SWRCB-DWOC	1/21/2021	29556	\$ 105.00	D5 Cert Renewal - McNair
SYCAL ENGINEERING INC	1/7/2021	29506	\$ 2,182.82	El Pueblo WTP Improvements - Panel Upgrades
SYCAL ENGINEERING INC	1/21/2021	29557	\$ 20,154.25	Orchard Run WTP Improvements - Panel Upgrades
SYCAL ENGINEERING INC	1/21/2021	29557	\$ 6,675.00	Polo Ranch PS Upgrades - Panel Upgrades
TAYLOR TERI	1/7/2021	29507	\$ 50.00	Customer Rebate - Pressure Regulator
TOP TIER GRADING	1/7/2021	29508	\$ 2,000.00	Refund Deposit - RW Bulk Meter
UNITED RENTALS INC	1/7/2021	29509	\$ 548.06	Vehicle Maint - Backhoe Repair
UNITED SITE SERVICES	1/7/2021	29510	\$ 233.23	Portable Toilet Rental - Orchard Run WTP - Dec 2020
UNITED SITE SERVICES	1/7/2021	29510	\$ 234.77	Portable Toilet Rental - 229 Mt Hermon - Dec 2020
UNITED SITE SERVICES	1/7/2021	29510	\$ 243.68	Bethany 2nd Tank Addition - Temp Fence Rental

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 AP Check Register  
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Vendor Name	Check Date	Check No.	Check Amount	Description
UNIVERSAL BUILDING SERVICES	1/7/2021	29511	\$ 473.00	Janitorial Service - 2 Civic Ctr - Dec 2020
UNIVERSAL BUILDING SERVICES	1/7/2021	29511	\$ 385.00	Janitorial Service - El Pueblo - Dec 2020
UNIVERSITY OF SOUTHERN CALIFORNIA	1/7/2021	29512	\$ 179.45	Annual Membership - Cross-Connection & Hydraulic Research
VALERO FLEET	1/7/2021	29514	\$ 151.50	Vehicle Fuel - Dec 2020
VERIZON WIRELESS	1/7/2021	29515	\$ 311.74	Cell Phones / Tablets - Dec 2020
WASSERMAN JAMES	1/21/2021	29559	\$ 100.00	Customer Rebate - Toilet
WEBSOFT DEVELOPERS INC	1/7/2021	29516	\$ 16,500.00	Annual License for MobileMMS Subscription - FY2021
			<b>\$ 369,522.96</b>	

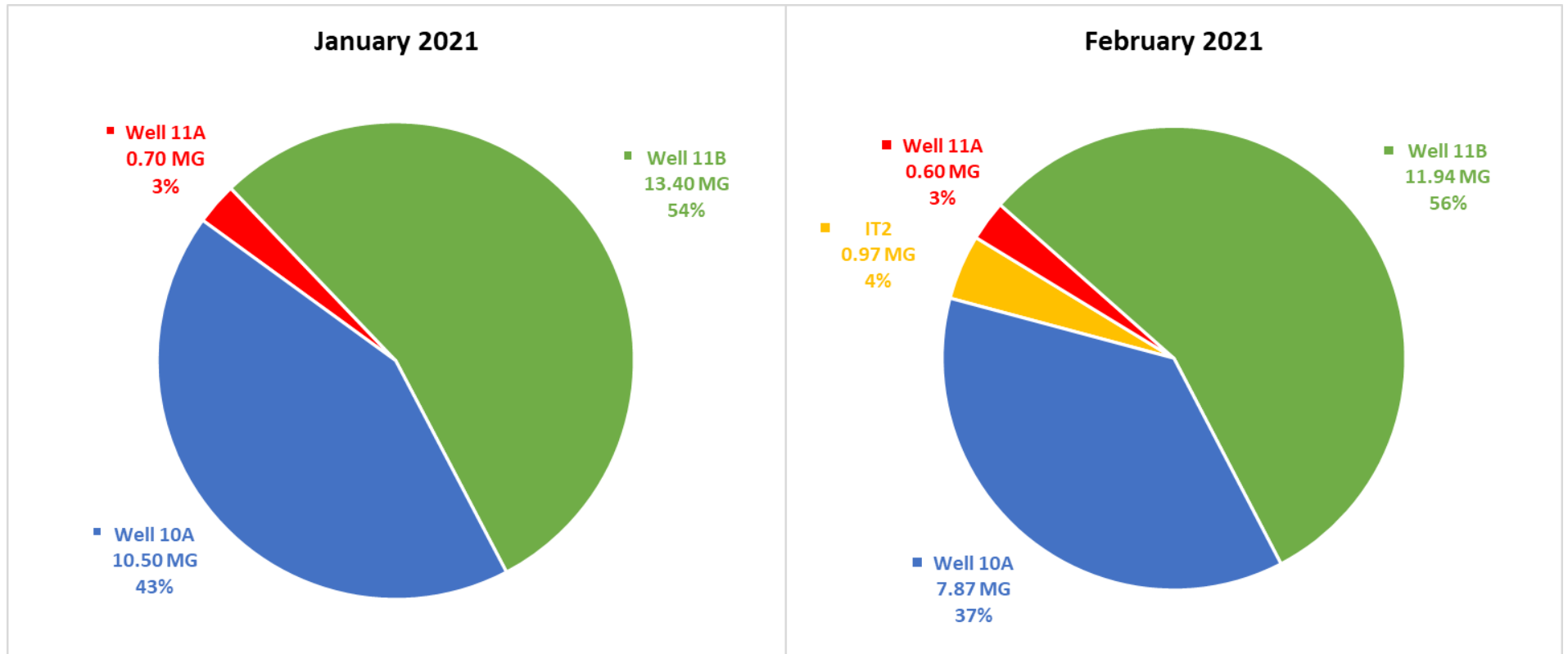
Wire / ACH Payments  
 January 2021

Vendor Name	Trans Date	Check No.	Trans Amount	Description
ADP	1/8/2021	n/a	\$ 182.90	ADP Workforce Now HR Fees - Dec 2020
ADP	1/8/2021	n/a	\$ 185.30	ADP Time & Attendance Fees - Dec 2020
ADP	1/8/2021	n/a	\$ 394.05	ADP PW51, PW53 Fees - Dec 2020
BlueFin	1/4/2021	n/a	\$ 702.32	Bluefin CC Processing Fees - Dec 2020
BlueFin	1/4/2021	n/a	\$ 73.07	Bluefin Civic PayPad Fees - Dec 2020
CalPERS	1/14/2021	n/a	\$ 11,012.54	CalPERS Retirement - PW02 Ended 1/11/2021
CalPERS	1/28/2021	n/a	\$ 11,166.76	CalPERS Retirement - PW04 Ended 1/25/2021
GSE Construction	1/21/2021	n/a	\$ 240,928.55	Orchard Run WTP Improvements - Construction Pymt #1
Wells Fargo	1/11/2021	n/a	\$ 3,210.43	Bank Service Fees - Jul - Dec 2020
Wells Fargo CC	1/4/2021	n/a	\$ 14,144.76	WFB CC Payment - Dec 2020
Wells Fargo CC	1/21/2021	n/a	\$ 3,387.37	WFB CC Payment - Jan 2021
			<b>\$ 285,388.05</b>	

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

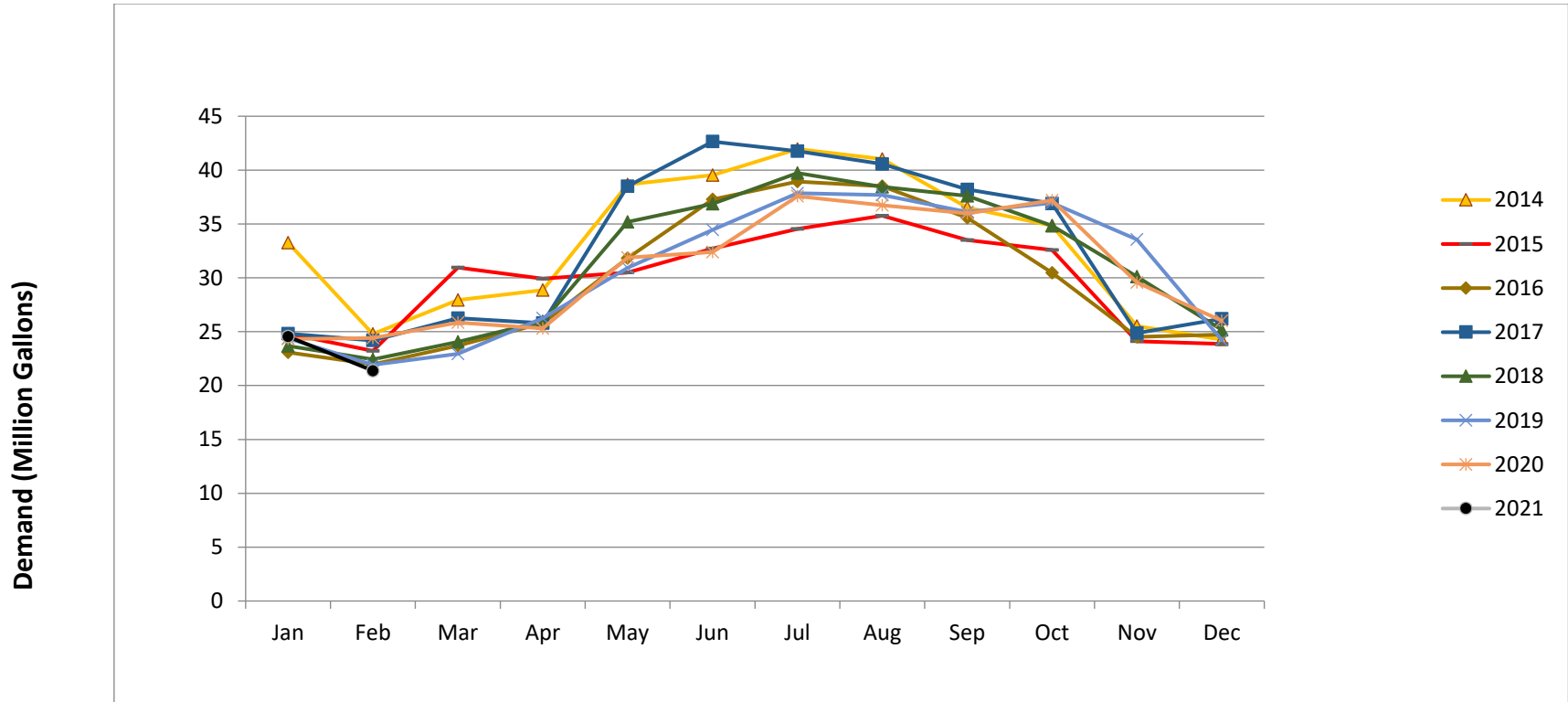


### Total Production (Million Gallons)

January 2021	24.6 MG	5.38 % decrease from December
February 2021	21.38 MG	12.90 % decrease from January

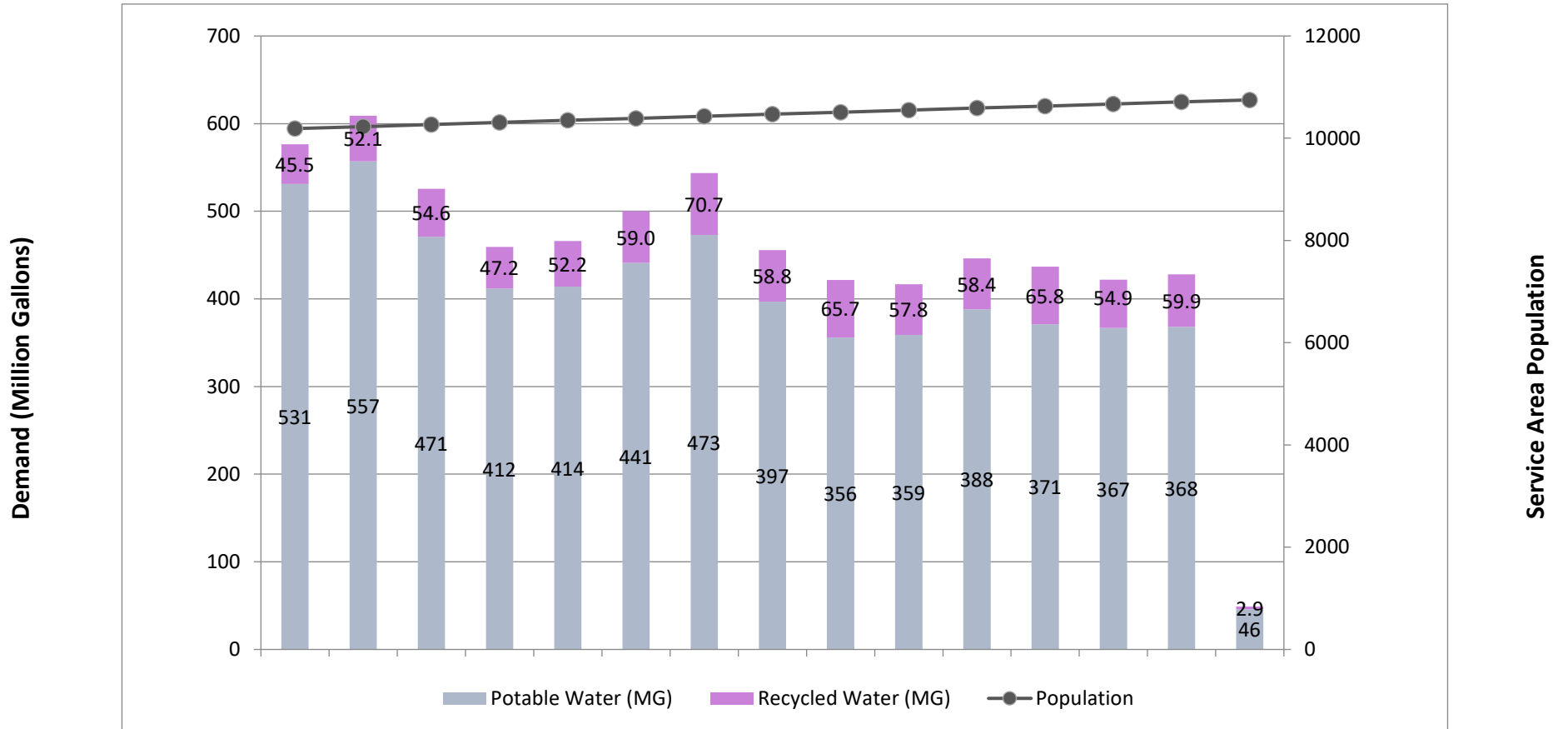
**Production is Water Pumped +/- Water used for Well Maintenance Activities**

### 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

<b>Potable</b>												
	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	21,378,258	23,864,720
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		27,074,726
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		28,484,835
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		37,001,136
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
<b>Total</b>	<b>413,759,753</b>	<b>440,736,967</b>	<b>472,661,082</b>	<b>397,193,044</b>	<b>356,483,075</b>	<b>358,577,047</b>	<b>387,828,472</b>	<b>370,543,233</b>	<b>367,011,756</b>	<b>367,865,818</b>	<b>45,610,254</b>	<b>394,962,796</b>

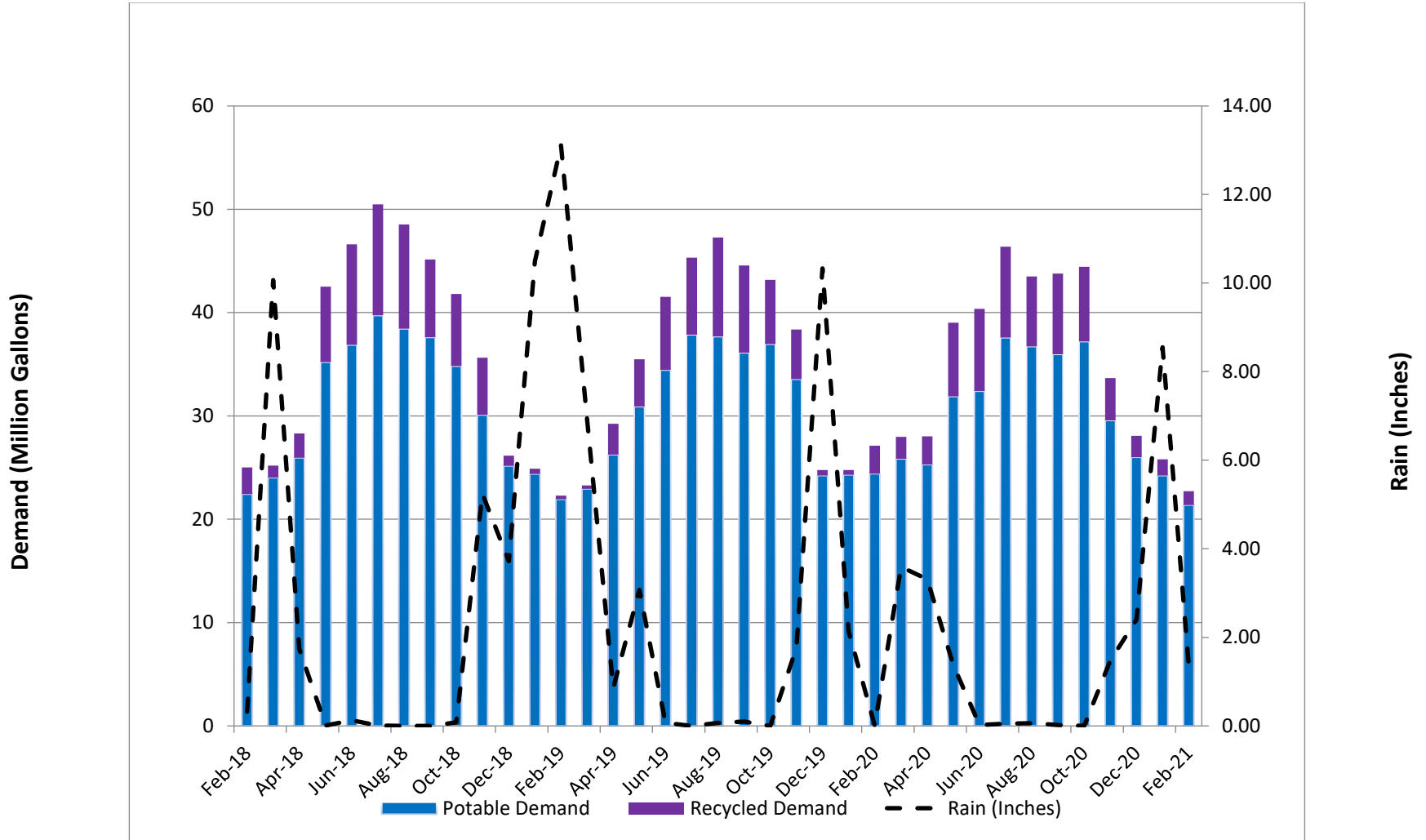
  

<b>Recycled</b>												
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Average
Jan.	496,000	2,139,000	620,000	3,019,613	635,420	862,984	156,267	838,172	493,100	450,147	1,560,234	944,411
Feb.	1,120,000	2,352,000	2,268,000	1,248,862	1,545,957	1,813,868	94,521	2,589,717	366,055	2,714,767	1,331,033	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		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		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		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
<b>Total</b>	<b>47,220,000</b>	<b>49,163,000</b>	<b>58,988,000</b>	<b>70,678,335</b>	<b>58,836,264</b>	<b>65,978,129</b>	<b>58,014,734</b>	<b>58,378,757</b>	<b>65,770,410</b>	<b>59,910,655</b>	<b>2,891,267</b>	<b>58,597,571</b>

**Demand is Production +/- the Change in Storage**

*\*971,002 potable gallons added through Intertie Two*

### Potable and Recycled Water Demand vs. Rainfall



Demand is Production +/- the Change in Storage

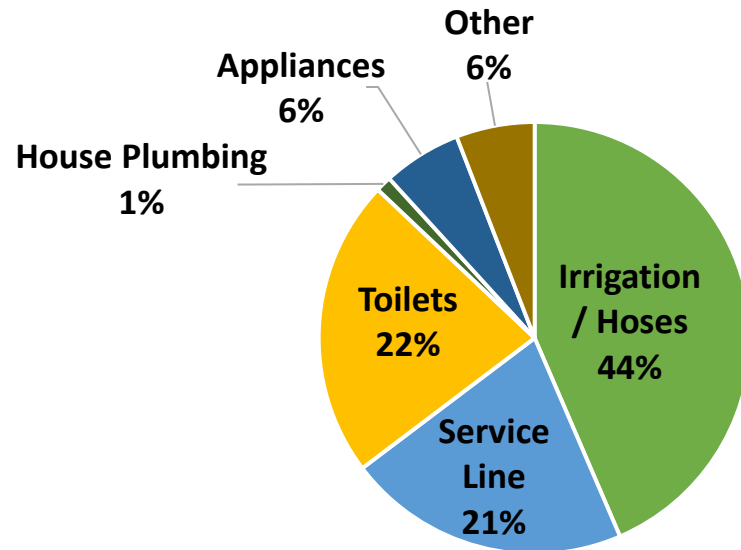
**Rainfall**  
El Pueblo Weather Station

WATER YEAR		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	TOTAL	% of Avg.
High Year	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%
	<b>1982-83</b>	<b>5.35</b>	<b>10.50</b>	<b>7.74</b>	<b>13.90</b>	<b>18.00</b>	<b>19.90</b>	<b>7.80</b>	<b>0.98</b>	<b>0.00</b>	<b>0.00</b>	<b>0.17</b>	<b>1.91</b>	<b>86.25</b>	<b>205%</b>
	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	<b>2013-14</b>	<b>0.01</b>	<b>0.87</b>	<b>0.78</b>	<b>0.05</b>	<b>11.52</b>	<b>4.02</b>	<b>2.02</b>	<b>0.01</b>	<b>0.02</b>	<b>0.09</b>	<b>0.01</b>	<b>0.92</b>	<b>20.32</b>	<b>48%</b>
	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	-	-	-	-	-	-	-	13.82	33.76%
Cumulative 2020-2021		<b>0.00</b>	<b>1.48</b>	<b>3.88</b>	<b>12.43</b>	<b>13.82</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>		
Monthly Average 1981-2020		<b>1.87</b>	<b>4.74</b>	<b>7.84</b>	<b>8.28</b>	<b>7.91</b>	<b>6.50</b>	<b>2.50</b>	<b>1.00</b>	<b>0.24</b>	<b>0.01</b>	<b>0.04</b>	<b>0.26</b>	<b>41.63</b>	
Cumulative Ave 1981-2020		<b>1.87</b>	<b>6.62</b>	<b>14.46</b>	<b>22.74</b>	<b>30.65</b>	<b>37.15</b>	<b>39.65</b>	<b>40.64</b>	<b>40.89</b>	<b>40.90</b>	<b>40.94</b>	<b>41.20</b>	<b>41.20</b>	

## 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								
MAR								
APR								
MAY								
JUN								
<b>Total</b>	<b>82</b>	<b>2</b>	<b>76</b>	<b>8</b>	<b>0</b>		<b>\$24,758</b>	<b>1,839,190</b>

### Sources of Leaks



# Santa Cruz County Water Resources Management Status Report for 2020



Prepared by County of Santa Cruz  
Environmental Health



Photo of burned water pipeline belonging to the San Lorenzo Valley Water District in September 2020. Credit Kristen Kittleson

## Introduction

Santa Cruz County surface water and groundwater resources provide drinking water for residents and visitors, critical habitat to numerous plant and animal species, and opportunities for recreational and commercial activities. Like many other areas of California, the County faces water resource challenges including inadequate water supply particularly during droughts, impaired water quality, overdrafted groundwater basins, depleted streams, and degraded riparian habitat. The overwhelming majority of Santa Cruz's water supply is locally derived – a unique situation in a state supported by large federal and state water projects. Domestic supply within the region is provided by five large public agencies, four medium water systems, 115 small water systems, and some 8,000 individual wells. County staff, local agencies, organizations, and the community are continuing to work together toward long term solutions to ensure a reliable water supply balanced with maintaining environmental benefits.

The 2020 water year was mixed. By mid-January rainfall levels were well above average and there was hope for a substantial water year. Instead, the rain stopped leading to a complete lack of measurable precipitation the entire month of February. Significant rainfall did pick up in March and continue through May but discharge rates in the San Lorenzo River watershed remained below average after mid-January as did total precipitation.

There were two major stories that shaped 2020 at a local level, both of which had some impact on water. On March 16<sup>th</sup> local businesses, offices, tourist attractions, and hotels shut down, as the County locked down in response to the COVID-19 pandemic. That shift, while most dramatic in the spring, greatly changed the way the community uses water. There was a decrease in commercial water use from restaurants, hotels, camps and offices, and an increase in water use from residences as people sheltered in place. While there is still analysis to be done, it appears that there was an overall slight increase in water use over the previous year.

The next major story was the CZU Lightning Complex Fire. The fire was started by a rare and stunning lightning storm which struck on August 16<sup>th</sup>, and ultimately burned more than 85,000 acres of land in West Santa Cruz County. Over 900 houses were destroyed. Several water systems including the San Lorenzo Valley Water District, the City of Santa Cruz Water Department, and the Big Basin Water Company experienced damage to infrastructure and/or the watershed on which they rely. County Environmental Health worked with the Federal Emergency Management Agency and California Office of Emergency Services to quickly remove hazardous materials from the burn site, begin the process of removing debris, and take efforts to control possible toxic runoff before the region sees heavy rains. The County Water Quality Lab is working with staff from the City of Santa Cruz and San Lorenzo Valley Water District to monitor the impact of the fire on surface water quality. The ultimate impact of the fire and subsequent tree removal on water quality and habitat value will not be fully understood for at least a year or two. The potential for catastrophic landslides which could damage property and critical fish habitat is a big concern going into 2021.

One more big change is taking place in 2021. After over 40 years working on countywide water resources management, John Ricker is retiring at the end of 2020. John started working as a student worker for the County in 1974 and, with the exception of an extended sailing trip in the early 1980's, has been with the County ever since. His always calm and thoughtful approach to challenges, along with a strong commitment to partner with the other water management groups within the County, has shaped resource protection and built a strong foundation of positive collaboration in Santa Cruz. Appreciation has poured in from throughout the County and the State, thanking John for his decades of service and we all wish him well on his next adventure.

The County and its partner agencies continue to conduct a range of efforts for water resource management to address resource challenges. Following is a summary of some of the water resource management activities undertaken in 2020, organized under seven topic areas:

1. [Water Quality \(Page 3\)](#)
2. [Watershed Health, Aquatic Habitat, and CZU Fire Response \(Page 7\)](#)
3. [Groundwater Management \(Page 11\)](#)
4. [Water Supply Planning \(Page 13\)](#)
5. [Stormwater, Recharge, Flood Management, and Climate Change \(Page 17\)](#)
6. [Small Water Systems \(Page 20\)](#)
7. [Water Conservation \(Page 21\)](#)

## 1. Water Quality

2020 was a dynamic year as the County Water Quality Lab navigated COVID-19 restrictions, responded to water quality concerns in the aftermath of the CZU lightning fires, expanded their drinking water testing program, and sustained ongoing beach and watershed monitoring. A big focus was to develop rapid screening methods for detecting the evidence of contamination in water systems impacted by the fires. In addition, significant progress was made on microbiological testing.



- a) **Fire recovery support:** Two types of water quality issues were triggered by the CZU fires. Immediately after the fires, many local residents reported damage to wells, water tanks, pipelines, and onsite treatment systems. In addition, there are ongoing concerns about impacts of runoff, downed trees, and debris flow on local watersheds. The water quality program launched two parallel efforts in support of the fire recovery efforts.



- i. **Drinking water systems:** Testing supplies and analytical tools were procured to enable rapid testing of drinking water systems that were directly or indirectly impacted by the fires.



The water quality program was able to go beyond the traditional testing approaches and implement new analytical capabilities to detect fire-related chemical contaminants. To date, the County has tested drinking water from about 30 sites in Ben Lomond, Bonny Doon, Boulder Creek, Brookdale, Davenport, and Empire Grade. The primary issue identified was bacterial contamination due to tank failures or loss of pressure. A more comprehensive testing program is planned for 2021 with a focus on detecting and mitigating fire-related chemical contamination.

- ii. Ambient water resources: The County identified sentinel monitoring sites along the north coast and in the San Lorenzo Valley to try to detect evidence of fire-related contamination. To date three sets of samples have been collected from about 20 locations. Immediately after the fires, access was limited due to safety concerns. In general, sites were monitored in three timeframes:

- within 3 weeks after the fires,
- post-fire and pre-rain, and
- post rain.

The County is also partnering with the City of Santa Cruz for monitoring some sites in the San Lorenzo Valley to track potential changes over the upcoming storm season.



- iii. Following the CZU Lightning Complex Fire, the Volatile Organic Compound Benzene was detected above the state MCL in the Riverside Grove neighborhood of Boulder Creek. Following the detection, the San Lorenzo Valley Water District (SLVWD) issued a Do Not Drink, Do Not Boil Notice. Meanwhile, SLVWD crews:

- Continued to collect water quality samples in all fire affected zones
- Aggressively flushed the fire affected areas
- Physically removed from the distribution system all service laterals to connections of burned structures

VOC's were not detected above the state MCL's after 9/7/2020, as SLVWD's actions led to a quick recovery in water quality of the distribution system. The SLVWD will be monitoring fire impacted areas on a routine basis for VOC's until at least December 2022. The County's Water Quality program is also implementing testing for benzene and other VOCs on an as-needed basis.

- b) Monitoring programs: The County's ongoing recreational water monitoring program includes routine

monitoring of about 30 beach sites to track potential health risks due to bacterial contamination. During 2020, some sampling activities were curtailed due to COVID-19 restrictions and beach closures. The County also partnered with the City of Watsonville and Watsonville Wetlands



Watch to implement bimonthly testing of Watsonville Sloughs. The County also continued monitoring programs to meet requirements of the Clean Water Act (CWA) Total Maximum Daily Loads (TMDLs) in local waterbodies. Coordination with other organizations: County staff continued to coordinate with the City of Santa Cruz, the City of Capitola, the City of Scotts Valley, and the County Sanitation District to implement projects and conduct monitoring to assess public health threats, reduce bacterial

contamination, and improve water quality. Data are posted on a website<sup>1</sup> and mobile dashboard<sup>2</sup> where the most recent water quality data are mapped for locations across the County.

- i. County staff continued to collaborate and strategize with the City of Santa Cruz, Save the Waves Coalition, Surfrider Foundation, and the Sierra Club in the Cowell Beach Working Group, to better understand and control recurring episodes of elevated bacteria levels at Cowell. Ongoing City improvements and improved monitoring protocols have led to more consistent water quality, however there were still health advisories due to elevated bacteria (29 in 2017, 8 in 2018, 13 in 2019, 67 in 2020). About 23% of the 2020 health advisories were associated with wet weather events. When there are elevated bacterial levels, the County strives to conduct follow-up testing within 48 hours to try to identify potential causes through supplemental water quality testing and bacterial speciation. The County continues to work closely with the City to ensure that posting of the beaches is accurate and up-to-date. The 2020 monitoring season provided an opportunity to conduct trials of EPA approved testing technologies that can provide same-day water quality results and enable more rapid follow-up investigations. These methodologies will be developed further in 2021.
  - ii. County staff continue to monitor harmful algae blooms in vulnerable waterbodies. The County partners with the City of Watsonville to monitor nutrient levels and cyanobacterial toxins in Pinto Lake. There was no evidence of release of cyanobacterial toxins in Pinto Lake during 2020, most likely due to mitigation measures and the in-lake treatment that was implemented in 2017. However, algal blooms were detected at nearby Kelly and Drew Lakes and also in several nearshore lagoons.
  - iii. County staff contribute monitoring data and statistical analyses of water quality in impaired watersheds (San Lorenzo, Soquel, Aptos, Pajaro, Corralitos/Salsipuedes, Watsonville Sloughs, Pinto Lake) in accordance with the Total Maximum Daily Load (TMDL) requirements of the Clean Water Act. County staff also conduct monitoring to in conjunction with flood control efforts, particularly in the lower Pajaro River.
- c) Analytical capabilities: During 2020, the County's Water Quality Laboratory expanded its analytical capabilities to enable detection of organic contaminants in drinking water and surface water. The Laboratory also continued refining microbiological and biochemical test methods
- i. Organic contaminants: In late 2020, the Laboratory installed a new gas chromatograph to enable screening of water samples to identify the presence of volatile organics in water, such as benzene. The Laboratory also implemented the use of fluorometry and enzyme methods to determine if benzo(a)pyrene or other fire-related contaminants are present in drinking water sources and in runoff in the aftermath of storm events.

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<sup>1</sup> <http://sccch.com/waterquality.aspx>

<sup>2</sup> <http://sccgis.maps.arcgis.com/apps/opsdashboard/index.html#/d500dbfbd292461a834462cb867c2224>

ii. Nutrient testing: A key concern in the aftermath of fires is to determine if increased loading of nutrients and organic carbon to local watersheds can trigger algal blooms and release of cyanobacterial toxins. During 2020, the County expanded the scope of testing to allow for more detailed tracking of the form of nitrogen and phosphorus that are prevalent in each watershed.



iii. Microbiological testing: The Laboratory continued refining molecular and biochemical techniques to determine if microbiological contamination is due to human activities within the watershed (e.g. onsite wastewater systems, encampments, illicit discharges). The Laboratory implemented EPA methods for same-day detection of indicator bacteria (Enterococci) to complement ongoing beach monitoring activities. The Laboratory also explored the feasibility of implementing wastewater surveillance techniques to track the prevalence of COVID-19.



iv. Cyanobacterial toxins: The Laboratory continued development of capabilities to detect seasonal health risks in inland lakes and nearshore lagoons due to algal blooms and release of cyanobacterial toxins.

d) Outreach: County staff partnered with Citizen Science activities sponsored by the Coastal Watershed Council and the Watsonville Wetlands Watch to process samples and generate defensible water quality data. Due to COVID-19 restrictions, the annual May 'Snapshot Day' was cancelled in 2020. The County also hosted student interns from UCSC and from Whitman College. The students participated in field and laboratory activities and received hands-on experience in various aspects of the water resources program. They also were able to learn about potential career pathways.



e) Laboratory Accreditation: During 2020, the Water Quality Laboratory continued to meet accreditation requirements under the State's Environmental Laboratory Accreditation Program (ELAP) and provide analytical services for small drinking water systems, private wells, storm drains, and other local water quality testing requirements. The laboratory has applied for renewal of the ELAP accreditation, which currently expires in early 2021.

f) County staff maintain ongoing efforts for water quality protection through onsite wastewater system management, monitoring, and investigation, funded by County Service Area (CSA) 12. Properly functioning onsite wastewater systems are critical for maintaining in-stream flows in the San Lorenzo River to support fisheries and ecosystems. County staff submitted in November an updated sewage disposal ordinance and a Local Area Management Plan (LAMP) to the Central Coast Regional Water Quality Control Board for their review. The ordinance and LAMP must comply with State standards for onsite sewage systems.

## 2. Watershed Health, Aquatic Habitat, and CZU Fire Response

The County and partner agencies and organizations continue to prioritize the management of natural resources to benefit the plants and animals living within the County, many of which are threatened or endangered. 2020 was a particularly challenging year as groups throughout the County navigated the aftermath of the CZU fire which burned over 87,000 acres of land.

- a) The County Water Resources Program and the Resource Conservation District of Santa Cruz County (RCD) developed and implemented a program to reduce toxic runoff from burned structures to protect community water supplies. This Toxic Runoff Control Program focused on approximately 400 high priority structures that were adjacent to streams or within water supply watersheds. The County and the RCD then worked with CalOES, the Department of Water Resources and the California Conservation Corps to install runoff control measures such as wattles and compost socks. The RCD secured additional support from the Fire Recovery Fund of the Community Foundation of Santa Cruz County and from the City of Santa Cruz to provide runoff control materials for additional sites, and completed several demonstration sites to train crews, volunteers, and landowners on proper installation of runoff and erosion control measures. For more information on the post-fire recovery services the RCD is providing, visit <http://www.rcdsantacruz.org/post-fire>
- b) The RCD responded to community needs for post-fire recovery education, coordination, and technical assistance to support landowners as they were able to safely return to their properties. The RCD's outreach and education efforts include webinars, workshops, tabling events, supporting public communication through the Fire Safe Council of Santa Cruz County, and developing an online post-fire recovery resource library. Water Resources staff contributed a presentation about preparing for post-fire changes along streams and waterways. In partnership with the RCD, County Water Resources and Planning staff produced a Watershed Recovery Guide that includes the basics about post-fire property assessments, where to find more information and when to rely on nature for recovery. Water Resources staff assisted with messaging and outreach about debris flow hazards.
- c) The RCD mobilized a team of experts with specialties in erosion control, rural roads, forestry and engineering to complete over 400 site visits to properties impacted by the CZU Lightning Complex Fire. Common areas of questions and concerns amongst landowners include erosion control (and proper installation of erosion control measures), impacts to roads and culverts, tree hazards, stream wood, and control of potential toxic debris runoff.
- d) In August 2020 the SLVWD experienced significant fire damage during the CZU



*Pipeline destruction, SLVWD*

Lightning Fire Complex fires. Approximately, 1600 acres along the Ben Lomond Mountain, a key water supply watershed, were burned. SLVWD staff, the County, and Cal Fire are working on erosion control, restoration, and hazard tree removal. Prior to the CZU fires staff was working to prepare a Fire Management Plan through partnership with Panorama Environmental Inc. The plan will improve mapping, road access for fire personnel and improve communications with Fire Prevention Agencies. Mapping proved valuable during the fire; it helped the SLVWD prepare for fire moving through the area, giving Cal Fire access to facilities. Staff is also working to create

a post-fire plan to ensure the most efficient recovery of SLVWD's water resources following the CZU fire event.

- e) County Water Resource Program staff continue to implement various programs and projects to benefit steelhead and coho salmon habitat that is degraded due to historic and current land and water use. Coho salmon are listed as endangered under both the state and federal Endangered Species Act (ESA) and are critically endangered in Santa Cruz County. Small populations of coho salmon persist in North Coast streams with the support of a conservation hatchery. Steelhead are listed as threatened under the Federal ESA and continue to persist in most county streams at low to moderate population numbers. Current recovery actions focus on improving dry season streamflow and habitat complexity.
- f) The County partnered with the Central Coast Wetlands Group and the RCD to mentor two Americorps Watershed Stewards from October 2019 to August 2020. As part of their focus on riparian conservation, the Watershed Stewards completed an analysis of riparian conditions in the San Lorenzo Watershed. Riparian condition scores were primarily in the mid-range, with some very good and excellent condition sites. Narrow riparian width and non-native vegetation were 2 common reasons for lower scores.
- g) County Water Resource Program staff continued to collaborate with local water agencies to monitor juvenile steelhead densities and stream habitat in four watersheds: San Lorenzo, Soquel, Aptos and Pajaro. Preliminary results for 2020 show overall decreased densities in all 4 watersheds compared to 2019. Densities observed in 2020 were more similar to those observed from 2014-2018. Growth rates ranged from average to below average at most sites with a majority of young steelhead growing into the larger size class (> 75 mm). In 2020, lower densities indicated fewer adult returns and less successful spawning during a dry winter. For Aptos lagoon, mark and recapture sampling resulted in the third highest juvenile steelhead estimate of the 8 sampling years. For Soquel lagoon, the population estimate was below average and fish were larger than in 2019. No juvenile steelhead were observed in the Pajaro lagoon.
- h) County Water Resource Program staff continued to implement the Stream Wood Program to maintain large wood in streams for habitat value while allowing modification to manage flood risk and infrastructure protection. Staff responds to public requests, evaluates fallen trees and accumulations of wood, and provides a determination as to whether it is acceptable to leave wood in place or make modifications. Significant benefits of stream wood include pool formation and cover habitat, sediment retention and sediment sorting. The winter of 2019-20 created a low number (7) of new stream wood sites. The CZU Fire will likely result in a significant input of large wood within and downstream of the fire area.
- i) County staff provided logistical and planning assistance to the Salmonid Restoration Federation in hosting the 2020 conference in Santa Cruz. The conference, cancelled due to COVID-19, would have provided a state-wide showcase for local efforts to support steelhead and coho salmon conservation.
- j) County staff continue to participate in a multi-agency effort to restore natural lagoon and marsh dynamics at Scott Creek while constructing a new Highway 1 bridge at this location. The RCD is leading the project with a Technical Advisory Committee that includes regulatory and natural resource agencies. Caltrans has begun initial bridge design.

- k) County staff continue to participate in a multi-agency effort to restore natural lagoon and marsh dynamics at Scott Creek while constructing a new Highway 1 bridge at this location. The RCD is leading the project with a Technical Advisory Committee that includes regulatory and natural resource agencies. The project just reached a major milestone with the completion of 65% designs for the Scotts Creek lagoon and marsh restoration project. In addition, CalTrans is advancing the initial bridge design and integration with the restoration project elements in collaboration with the RCD, the Regional Transportation Commission, and the Technical Advisory Committee.
- l) The County provided funding to the RCD to work directly with property owners to provide outreach and technical assistance on repairing and preventing storm related damage. The RCD visited properties at landowners' request with concerns related to home drainage/erosion, roads, landslides, and streambank failures, permit assistance, fire preparedness, livestock management, invasive species control and habitat enhancement. The annual Living on Rural Properties and other education and outreach activities were postponed due to COVID-19 and staff focused on the urgent fire response needs. These funds helped the RCD write and submit a grant proposal to the California Fire Safe Council (to support countywide fire preparedness) and IRWMP (to support countywide sediment reduction from rural roads and rural residential properties) that were both awarded and will start in 2021.
- m) The RCD continued to work with landowners and agency partners to plan and permit habitat improvement projects through the Integrated Watershed Restoration Program (IWRP). Projects include: fish passage barrier removals on Branciforte Creek, large wood installation on Soquel and Aptos Creeks, south county salamander breeding pond creation, and removal of the lower Mill Creek dam. Other projects underway or completed include: rural road upgrades, managed aquifer recharge projects, stormwater management and community education.
- n) In June 2020, the RCD completed a three-year project funded by a US EPA Clean Water Grant through an agreement with the State Water Resources Control Board. The goal of the project was to reduce pesticide loading and toxicity to surface and groundwater in the Pajaro River watershed by collaborating with growers and landowners and providing cost-share funding to implement a variety of voluntary management practices. Working with many partners including UC Davis, NRCS, Point Blue Conservation Science, and other RCDs, growers and landowners on nine farms in the Upper and Lower Pajaro Watershed implemented projects ranging from tried and true practices like hedgerows and grassed filter strips, to more innovative, multistep, collective treatment systems incorporating biochar filtration. This resulted in a total of 1,685 irrigated agricultural acres that receive water quality benefits through these projects.
- o) The City of Santa Cruz and San Lorenzo Valley Water District continued efforts to monitor streamflow and habitat conditions in their drinking water watersheds in an effort to establish objectives for habitat improvement.
- p) The City of Santa Cruz has continued to bypass significantly more flow for fish than in previous years in Laguna, Majors, and Liddell Creeks, and the lower San Lorenzo River as a part of an interim agreement with the fishery agencies. The City continues to work on its Endangered Species Act compliance and completed an administrative draft Habitat Conservation Plan (HCP) for anadromous salmonids at the end of FY 2020. A

draft HCP for species under US Fish and Wildlife Service jurisdiction also moved into final review at the end of FY 2020.

- q) The City of Santa Cruz continued work on a number of other watershed protection efforts, including watershed lands fire preparedness work, ongoing lagoon monitoring, San Lorenzo Lagoon water surface elevation control management, Integrated Pest Management program development, conducting patrols along the San Lorenzo River, cleaning up homeless camps and pursuing enforcement on illegal stream diversions on critical streams. In the summer of 2020, the City observed coho salmon young of the year for the first time in 15 years in Laguna Creek lagoon during their annual seining surveys. Additionally, the City observed coho salmon young of the year for the first time in Majors Creek during snorkel surveys in the fall of 2020.
- r) While the City and partners (including the County Water Resources Program) were able to hold the 6th annual State of the San Lorenzo River Symposium, the City's interpretive programming was severely affected by COVID-19. Many events ranging from Loch Lomond interpretive tours to elementary school programming simply could not proceed safely. In response, the City has recently developed limited curriculum for remote participation and is actively planning additional resources to support FY 2021 work. Several videos related to this work can be found here:  
[https://www.youtube.com/channel/UCyHCA2YNIF2Q\\_TSOIhiCFGw](https://www.youtube.com/channel/UCyHCA2YNIF2Q_TSOIhiCFGw)
- s) The City of Watsonville, Pajaro Storm Drain Maintenance District, and Watsonville Wetlands Watch were awarded a Proposition 1 IRWM grant for the Upper Struve Slough Habitat Restoration and Public Access Project. This project is a multi-benefit project that would improve water quality and water conveyance through Struve Slough.
- t) SLVWD is preparing a Habitat Conservation Plan to mitigate the impacts to listed species in Sandhills habitat which result from the SLVWD's Capital Improvement Projects. The initial draft of the plan is aimed for completion in January 2021.
- u) The Olympia Conservation Area Management Plan was completed by May 31, 2020 and is available for public review as of July 18, 2020. This plan was developed to guide habitat management, restoration, enhancement, and related activities, (collectively, 'management') and monitoring within the Olympia Conservation Area—a 6.3-acre conservation area located within the SLVWD's 180-acre Olympia Watershed Property. The conservation area was set aside by SLVWD to mitigate impacts of its capital improvements and operations and maintenance projects on rare species and sensitive habitat in the Sandhills.
- v) In June 2020 the SLVWD's Board of Directors approved the Integrated Pest Management Policy (IPMP). The IPMP should alleviate pest problems with the least possible hazard to people, property and the environment and create procedures of future usage of pesticides, herbicides, and rodenticides on SLVWD properties.
- w) The Pajaro Valley Water Management Agency (PV Water) continues to monitor water quality, hydrologic, and land use conditions throughout the Pajaro Valley Basin. Agency staff routinely collect and analyze water quality data from over thirty surface water monitoring sites. PV Water also maintains a large network of autonomous dataloggers and measure discharge to monitor stream conditions. In 2020, PV Water completed its tenth consecutive annual summer land use survey which is used to characterize water demand in basin modeling and identify changes of land use in the watershed.

### 3. Groundwater Management

The County has worked with the water districts and purveyors, small water system operators, and private wells for many years to manage groundwater, a critical source of drinking water in the county. The existing collaborations laid the groundwork for complying with the Sustainable Groundwater Management Act of 2014 (SGMA) went into effect on January 1, 2015. In addition to the work required under SGMA, the individual agencies that depend on groundwater for some or all of their water supply continue to implement projects and management actions.

- a) The County is actively working with local water agencies to pursue sustainability for the three major groundwater basins in the County as follows:
  - i. Management of the Santa Cruz Mid-County Basin is overseen by a Joint Powers Authority (JPA) consisting of the County of Santa Cruz, City of Santa Cruz, Soquel Creek Water District and Central Water District. This JPA is referred to as the Santa Cruz Mid-County Groundwater Agency (MGA), which is the Groundwater Sustainability Agency (GSA) for the basin. The MGA governing board includes three private well representatives and two representatives from each partner agency. The Mid-County Basin is designated by the State as being in a condition of critical overdraft due primarily to the risk of seawater intrusion on the aquifers. Groundwater extraction has also reduced streamflow. Despite significant improvement of coastal groundwater levels due to water conservation, further work is needed to ensure long term sustainability.

In January, the MGA submitted their completed Groundwater Sustainability Plan to the Department of Water Resources (DWR). DWR received dozens of comments on the GSP and now has until 2022 to review and determine whether they will accept the Plan. In the meantime, the MGA is continuing to monitor the Basin and pursue GSP implementation. The completed GSP can be found at the website [www.midcountygroundwater.org](http://www.midcountygroundwater.org).

- ii. Management of the Santa Margarita Basin is overseen by a JPA consisting of the County, the Scotts Valley Water District, and the San Lorenzo Valley Water District. This JPA is referred to as the Santa Margarita Groundwater Agency (SMGWA), which is the GSA for the basin. The SMGWA governing board includes two private well representatives, two representatives from each partner agency, and one representative each from the City of Scotts Valley, the City of Santa Cruz, and the Mount Hermon Association. The Santa Margarita Groundwater Basin has experienced a significant historical decline in groundwater levels, particularly in the South part of the Basin near Scotts Valley, and also seen reduction in streamflow. The GSP for Santa Margarita must be completed by January 2022. In 2020, the SMGWA Board has been actively defining the statements of significant and unreasonable, and the groundwater model has been calibrated and is now being used to analyze baseline conditions, what conditions would have looked like with no pumping, and studying the impacts of proposed projects and management actions. More information is available at [www.smgwa.org](http://www.smgwa.org).
  - iii. The Pajaro Valley Water Management Agency (PV Water) is the designated GSA the Pajaro Valley Basin. PV Water submitted the Basin Management Plan Update (2014), the Integrated Hydrologic Model of Pajaro Valley Report, the Salt and Nutrient Management Plan, and other supporting documentation (collectively "Plan") to DWR as a Groundwater Sustainability Plan Alternative in 2016. In July

2019, DWR determined that the Plan satisfies the objectives of the Sustainable Groundwater Management Act and issued approval, making the Pajaro Valley Basin the first critically overdrafted basin in California to have an approved plan. PV Water continues to implement the projects and programs identified in the Plan and in September 2020, initiated a 5-year update of the Plan guided by a stakeholder committee. More information is available at <https://www.pvwater.org> and <https://sgma.water.ca.gov/portal/#intro>.

- b) The County led a process to hire and select a vendor to develop a regional data management system to help the GSAs meet the requirements of SGMA, and additionally to collect and organize data collected by all of the water agencies in the County. There are several advantages to a regional system, it will provide a robust storage system for critical historical data, it will make it easier to compare data across agencies, and the portal will make it easy for interested parties to view results. The database selected is the Water Information System by Kisters (WISKI) software.
- c) The RCD, in partnership with the three Santa Cruz County GSAs, submitted a grant application to the Dept. of Conservation Sustainable Groundwater Management Act (SGMA) Watershed Coordinator Program. If funded, RCD will support the GSAs to coordinate and collaborate on regional groundwater management strategies, develop information and monitoring strategies needed to achieve sustainability, and build community support for local management initiatives.
- d) Groundwater elevations in the Pajaro Valley Basin are frequently at or below sea level in much of the basin, with seawater intrusion extending inland to approximately San Andreas Road. Preliminary monitoring results from 2020 indicate a subtle increase in groundwater levels in the Pajaro Valley Basin over 2019 during a year with below average precipitation. Groundwater levels remain approximately 4 feet higher than the conditions observed in 2015 at the end of the most recent drought. PV Water continues to implement the Basin Management Plan, which includes optimizing existing water supplies, conservation, and the development of new water supply projects such as the approved College Lake Integrated Resources Management Project and the proposed Watsonville Slough Systems Managed Aquifer Recharge and Recovery Projects. In 2020, PV Water constructed approximately 9,900 feet of new pipeline to expand the Coastal Distribution System and provide supplemental water to 700 acres of farmland west of San Andreas Road. The expanded service will alleviate groundwater pumping in an area impacted by seawater intrusion and will provide “in-lieu” recharge to groundwater.
- e) Soquel Creek Water District (SqCWD) continues to implement the Pure Water Soquel Program, to address the critical overdraft condition of the Santa Cruz Mid-County Groundwater Basin and prevent seawater intrusion from moving further inland. Pure Water Soquel, at its currently designed capacity of producing up to 1,500 acre-feet per year (AFY) of purified water, has been included as a primary Group 2 Project in the Santa Cruz Mid-County Groundwater Sustainability Plan (GSP) with the goal of being operational by the end of 2022/early 2023. In 2020, the City of Santa Cruz and Soquel Creek Water District continued to collaborate on the design efforts of the tertiary treatment facility that will be located at the Santa Cruz Wastewater Treatment Facility; the Willowbrook seawater intrusion prevention (SWIP) well was drilled and the Twin Lakes Church Pilot SWIP Well was redeveloped; and design efforts of the conveyance infrastructure and the treatment facilities were nearing completion. In 2020, SqCWD executed a California Prop 1 Groundwater Grant for \$50 million and closed a low-

interest loan through the federal Environmental Protection Agency's Water Infrastructure Finance and Innovation Act (WIFIA) Program for up to \$88 million. For more information, visit [www.soquelcreekwater.org/pws](http://www.soquelcreekwater.org/pws).

Pure Water Soquel is also identified as a Group 3 Project in the GSP whereby an expansion of up to 3,000 afy of purified water could be developed should the region need to meet water shortage drought needs or the Basin needs additional supplies to meet sustainability goals based on project performance and monitoring of the GSP's implementation measures.

- f) The Santa Cruz County Sanitation District Enforcement Compliance Unit is working in conjunction with the City of Santa Cruz on the supply side of the Pure Water Soquel project. This entails monitoring all permitted, Significant Industrial Users (SIU) for additional parameters to meet the Division of Drinking Water's requirements for recycled wastewater use in groundwater recharge. At this time, the Sanitation District is required to monitor SIUs only once for the Pure Water Soquel parameters. This exercise was done during the fourth quarter of 2020.
- g) The County continues to coordinate submission of groundwater level data to the State's 'CASGEM' groundwater monitoring program. County staff is also offering free well soundings to private well owners in the Santa Margarita and Santa Cruz Mid-County basin boundaries. This service is made available on the agency websites.
- h) The RCD continues to facilitate the Community Water Dialogue, a stakeholder group addressing aquifer overdraft in the Pajaro Valley. In August 2020, the Community Water Dialogue Guidance Team met to receive an update on the progress of the Agricultural Water Conservation Program implemented as part of the PV Water Basin Management Plan, and provided feedback on strategies to improve the effectiveness of the program.

#### **4. Water Supply Planning**

In the face of a changing climate, improving water supply reliability is a key component of resiliency planning. Changing rainfall patterns will affect recharge rates, impacting already strained surface and groundwater supplies. The CZU fire served as a wakeup call that even current supplies are vulnerable. All the water suppliers in the County are working on diversifying their water supply portfolios with an eye to the future.

- a) The County and San Lorenzo Valley Water District (SLVWD) continue to work on a grant from the Wildlife Conservation Board Streamflow Enhancement Program to develop a San Lorenzo Watershed Conjunctive Use and Baseflow Enhancement Plan. The Plan will be used to improve water supply reliability and increase summer stream flows in the immediate future and recommend further infrastructure improvements needed in the long run. In 2020 a draft of the Plan was completed, the water rights work is beginning, and a CEQA consultant has been brought onboard.
- b) The County, City of Santa Cruz Water Department (City), SLVWD, and Scotts Valley Water District continue to collaborate on a Memorandum of Agreement to work together on exploring conjunctive water use options in the San Lorenzo Watershed and Santa Margarita Groundwater Basin. These efforts will explore many ways to utilize excess winter surface water when available to increase groundwater storage and water supply reliability and increase dry season stream flow.

- c) The City and Soquel Creek Water District (SqCWD) are continuing to analyze the role water transfers has in reducing groundwater pumping from the Mid-County Basin. A 5-year pilot project was in place from November 2015 through December 2020. The pilot study has consisted of transferring water from the City's to SqCWD's distribution system to evaluate any water quality, water quantity and operational issues. The first year of transfer (Phase I) began in December 2018. Phase II of the water transfer began on December 6, 2019 and extended through February 1, 2020. The volume of water transferred and the length of time in which transfers occurred were dependent on the City's available excess water supply and SqCWD's system demand which included all of Service Area 1 with approximately 5,200 connections.

On February 1, the intertie was shut down entirely for the season due to the lack of precipitation and operational issues. Just under 34 million gallons (104 acre-feet) of water, averaging roughly 0.6 million gallons per day was transferred during Phase II. The only water quality issue identified during Phase II were elevated disinfection byproducts in the District's distribution system, which briefly exceeded the maximum contaminant levels (MCLs) for both total trihalomethanes and haloacetic acids. The exceedances were not MCL violations.

City and District staff have engaged in discussions regarding the potential extension of the current water transfer agreement to provide a better understanding of the agencies to understand benefits to the groundwater basin, and the potential for water being transferred back to the City. For more information, visit <https://www.soquelcreekwater.org/Water-transfers>

- d) The City of Santa Cruz Water Department continues to pursue development of an Aquifer Storage and Recovery (ASR) program which would inject treated surface water into the Mid-County and/or Santa Margarita groundwater basin to increase groundwater storage for use during drought. The City completed a pilot ASR test in their Beltz 12 production well located on Research Park Drive in July 2019 with no operational or water quality issues found.

The second phase of pilot testing involved the second of four existing groundwater wells, Beltz 8. Two new monitoring wells were drilled at the Beltz 8 site and Pleasure Point between January and March 2020 and pilot testing to inject and extract water over three increasingly-longer cycles commenced shortly thereafter. Cycles 1 and 2 were completed in May; Cycle 3 was postponed until further data collection and evaluation could be completed related to unexpectedly higher levels of Arsenic. It is too early to determine if the presence of arsenic will be a fatal flaw for ASR moving forward at this well or if concentrations will "peak" at some point and drop off over time.



*Monitoring well near the Beltz 8 well.*

- e) The City of Santa Cruz Water Department continues to implement the Santa Cruz Water Rights project to improve the City's water system flexibility while enhancing stream flows for local anadromous fisheries. The project includes changes to the City's existing water rights in terms of places of use (including diversion to groundwater storage), points of diversion, and extension of time to beneficially use existing rights under existing permits. No change to the authorized amounts of diversions is being proposed. This project is needed to facilitate regional supply projects. The Draft Environmental Impact Report is scheduled for public review April 2021.
- f) The City of Santa Cruz is continuing the evaluation of the role recycled water may play in a future water supply portfolio by implementing Phase 2 of the Recycled Water Study. Unlike the Phase 1 study that considered a wide-range of alternatives to make use of recycled water, Phase 2 focuses on only those alternatives that contribute to water supply. Those alternatives include groundwater injection in the Mid-County and/or Santa Margarita groundwater basins, use for irrigation, and direct potable. This study is scheduled to conclude fall 2021.
- g) As the City of Santa Cruz Water Department begins to wrap up the various technical and pilot studies of the work plan recommended by the Water Supply Advisory Committee in 2015, staff has begun the work of developing a water supply implementation plan that consists of projects and schedules for constructing those projects. The plan will also be informed by a vulnerability analysis of the water system that will recognize the highly uncertain future with respect to climate change and supply variability as well as the inherent vulnerabilities of the water system. This work is ongoing through calendar year 2021.
- h) In 2017, the Scotts Valley Water District (SVWD) had prepared a Recycled Water Groundwater Replenishment Program Facilities Planning Report that considered potential alternatives to expand the use of recycled water. Due to the recent issues and challenges at the City of Scotts Valley's Wastewater Reclamation Facility, the SVWD decided to evaluate additional project alternatives and contracted with Kennedy Jenks Consultants to conduct another study that was presented to the SVWD Board in September 2020. The study scored and ranked three local and three regional conceptual projects based on technical, financial, and social aspects.
- i) The SLVWD is working on a multi-tier effort to optimize operations, sustainably manage water supply and diversify the SLVWD's water supply portfolio to ensure a resilient water supply for a changing climate through the following efforts:
- Water Conservation
  - Improving System Efficiencies through Conjunctive Use (Using surface water when available to rest and recharge groundwater sources)
  - Capital Improvement (increasing pipeline sizes, reducing leaks, and increasing storage tank capacities)
  - Permit Intertie Pipelines to optimize operations and sustainably manage water supply.
  - Sustainable Groundwater Management (SMGWA.ORG)
  - Climate Adaptation and Mitigation (The Climate Registry)
- j) In January 2017, PV Water's Board of Directors approved an action to proceed with the implementation of water supply projects described in the stakeholder developed Basin

Management Plan Update and Alternative to a GSP. The Plan describes a three-part approach designed to eliminate groundwater overdraft and halt seawater intrusion: 1) conservation of water, 2) optimization of existing water supplies, and 3) development of new water supplies. A description of the PV Water conservation program is included in the Water Conservation section.

PV Water previously completed Phase I of Recycled Water Facility improvements, a project that included construction of a 1.5 million gallon recycled water storage tank and distribution pump station improvements. In 2020, construction of Phase II, the Disk Filter Improvement Project, finished and was placed into service. PV Water also expanded the Coastal Distribution System adding 9,900 feet of new pipeline on the San Andreas Terrace to provide supplemental water to 700 acres of farmland and alleviate coastal groundwater pumping. Agency staff, in collaboration with a team of engineers, environmental scientists, and other experts, continue working to engage with stakeholders, refine project descriptions, advance project designs, prepare environmental documentation, apply for water rights, and seek grant funding to implement the new water supply projects summarized below:

- i. *College Lake Integrated Resources Management Project.* When constructed this project would collect, store, treat, and deliver approximately 1,800 to 2,300 acre-feet per year (AFY) of surface water for agricultural irrigation in the coastal area.
  - ii. *Watsonville Slough System Managed Aquifer Recharge and Recovery Projects.* This proposed project has the potential to yield 2,400 AFY by diverting storm water runoff from Harkins Slough and the confluence of Struve and Watsonville Sloughs to a shallow aquifer system on the San Andreas Terrace for short-term storage and recovery.
- k) In October 2020, PV Water kicked off the Basin Management Plan: Groundwater Sustainability Update 2022 (GSU22). The GSU22 effort is a mandated 5-year update of PV Water's Alternative to a GSP and will address ten recommendations from the Department of Water Resources (DWR) to strengthen the plan and facilitate DWR review. The update process will be guided by a 17-member stakeholder committee and includes the development of sustainable management criteria for seawater intrusion, surface water depletion, and chronic groundwater lowering. The effort will culminate in the submission of the GSU22 by January 1, 2022.
- l) Santa Cruz County partner agencies continue to work together on the Integrated Regional Water Management (IRWM) program, with the Regional Water Management Foundation (RWMF) serving as a hub for the 12 agencies in the Regional Water Management Group. The County and all of the cities and public agencies dealing with water are signatories to the Santa Cruz IRWM Memorandum of Agreement, which was updated in 2016. The agencies contribute a combined \$80,000 annually to support maintenance of the IRWM efforts. The RWMF is also providing administrative services to the Santa Cruz Mid-County Groundwater Agency, and grant administration for the Santa Margarita Groundwater Agency. <http://www.santacruzirwmp.org/>.
- m) The Santa Cruz and Pajaro IRWM regions continue to work to utilize IRWM grant funds to further evaluate and address the water needs of disadvantaged communities in the Central Coast, including the Santa Cruz and Pajaro regions. This project is being administered by the RWMF.
- n) The RWMF with the support from the Central Coast Wetlands Group and in coordination with the Regional Water Management Group agencies completed an addendum to the 2014 IRWM Plan. The addendum included new information on climate change

vulnerabilities and selected water quality contaminants. The addendum, submitted to the Department of Water Resources (DWR) for review in December 2019, was approved by DWR as consistent with the State’s IRWM Guidelines in April 2020.

- o) In February 2020, the RWMF on behalf of the IRWM Region submitted a grant proposal to fund the implementation of five projects and grant administration. In July 2020, the proposal was recommended by the DWR for funding under the 2019 Proposition 1 IRWM Implementation Grant Program. The grant agreement and lead project sponsor agreements are anticipated to be completed in early 2021 and work will initiate. The \$2.3 million dollar grant award will be matched by local and federal dollars to fund the following projects identified in the table below.

Project Title	Lead Agency	Grant Amount
Countywide Sediment Reduction from Developed Parcels & Rural Roads	Resource Conservation District Santa Cruz County	\$701,283
Stormwater to Groundwater Recharge Project	County of Santa Cruz, Environmental Health	\$234,410
Davenport Water Supply Tank Project	County of Santa Cruz, Davenport County Sanitation District	\$154,120
Storm Drainage Improvements for the Rio del Mar Flats	Santa Cruz County Flood Control and Water Conservation District - Zone 6	\$599,904
Watsonville Slough Farms Wetland Restoration Project	Resource Conservation District Santa Cruz County	\$478,305
Grant Administration	Regional Water Management Foundation	\$135,000

- p) All of the current water supply planning projects take into account projected impacts of climate change and population growth, including increased water demand, reduced groundwater recharge, more significant droughts, and increased rainfall intensity.

### 5. Stormwater, Recharge, Flood Management, and Climate Change

The County along with other regional partners are working towards shared goals of reducing negative impacts of stormwater and instead viewing runoff as a possible resource. While the region is typically facing the problem of not enough water, the County is also always preparing to deal with situations in which we have too much water. The extremes of the pendulum swing between too wet and too dry are likely to be exacerbated by climate change.

- a) The County of Santa Cruz Water Resources recently was awarded a grant to fund a stormwater recharge project at the Seascapes Golf Course. The project is funded by a Proposition 1 Integrated Regional Water Management grant and is a partnership between the County, the Soquel Creek Water District, and the Golf Course. When complete, the project will recharge approximately 11 acre-feet per year near the coast in an area of seawater intrusion.
- b) The Santa Cruz County Flood Control and Water Conservation District – Zone 7 (Zone 7), Monterey County Water Resources Agency (MCWRA), City of Watsonville, and other entities continue to pursue implementation of a flood risk reduction project with the Army Corps of Engineers to significantly upgrade the flood conveyance system to provide an

adequate level of flood protection for the Pajaro River, Salsipuedes Creek, and Corralitos Creek. The draft Final Reevaluation Report and Environmental Assessment (GRR/EA) was completed and released by the Army Corps of Engineers in February 2019 and included a revised Addendum and signed Directors Report in December 2019. The Directors Report acknowledges the project's 1966 Congressional authorization and pivots the project into the Design Phase. The federal government has now awarded the project \$1.8M to start the Design Phase and the Army Corps has requested an additional \$2.91M in federal funds to complete the first phase of design. The Governor of California also signed AB 489 which allows the State to invest upwards of approximately \$100M in the project in the absence of federal participation.

- c) The Santa Cruz County Flood Control and Water Conservation District continues to refine and expand County-wide stream and rain gage monitoring capability to support enhanced situational awareness and emergency response. This activity includes enhanced web-based, publicly accessible data as well as improved communication and support of the County Emergency Operations Center and Emergency Management personnel. County Public Works Department (DPW) staff continue to maintain operation of the Automated Local Evaluation in Real Time (ALERT) flood warning system. This system has recently been expanded to include 7 additional rain gaging sites and additional online monitoring features in support of emergency response for debris flows emanating from the CZU Lightning Complex burn scar. Staff have also been highly engaged with the State WERT Team, other federal and State technical specialists, and the County Geologist in assessing debris flow hazards and working to support emergency warnings and response for debris flows.



*USGS rainfall/soil moisture gage that was recently installed for the CZU burn scar above Boulder Creek. Ownership of the equipment will transfer to the County following initial technical support and maintenance*

- d) The Santa Cruz County Flood Control and Water Conservation District has been awarded a Flood Emergency Response Grant from the California Department of Water Resources in the amount of \$725,467 to fund the configuration, installation, and operation of an enhanced weather monitoring system. The system will monitor real-time rainfall across the County via X-band radar and will drastically improve the predictive capability of flooding events through the provision of higher spatial and temporal resolution of inbound and overhead storm systems.
- e) The Pajaro Storm Drain Maintenance District (PSDMD) is entering the feasibility phase of a multi-benefit tidal marsh and wetland restoration project in the lower Watsonville Slough. The purpose of the Project is to conduct feasibility analysis and initial design for a mostly nature-based infrastructure project that re-establishes and enhances wetland and tidal marsh habitat while providing flood risk reduction, climate change adaptation, and recreational opportunities to economically-disadvantaged local residents. PSDMD will secure partial funding from the Army Corps of Engineers under the Section 1135 Continuing Authorities Program, and the remainder of necessary funding will come from a Prop 1 grant award from the Ocean Protection Council in the amount of \$850,000. Feasibility work is expected to begin in January 2021.
- f) The City of Watsonville completed drafting the single jurisdiction Local Hazard Mitigation Plan through a Pre-Disaster Mitigation Grant award from California Office of Emergency Services. It has been approved by both the California Office of Emergency Services and FEMA once approved and adopted by City Council.

- g) The City of Watsonville was awarded a \$200,000 Climate Resiliency Challenge grant through the Bay Area Council Foundation to create a Green Infrastructure and Implementation Plan (GIIP). Through the GIIP, the City will look for opportunities to reduce impacts of climate change to the community by increasing water quality supply, reducing flooding, combating urban heat island effect, and improving neighborhood vitality and overall community aesthetics.
- h) The City of Watsonville was awarded two CivicSpark Climate Action Fellows to assist the City with implementation of projects that focus on the following Climate Action and Adaptation goals: community empowerment and resilience, food security, disaster preparedness, and grassroots implementation of climate action strategies.
- i) The City of Watsonville was awarded an additional grant from the Santa Cruz IRWM to leverage current engagement efforts on pollution prevention related to stormwater in disadvantaged community block groups.
- j) Managed Aquifer Recharge (MAR) is a landscape management strategy that can help reduce aquifer overdraft by facilitating stormwater capture and infiltration into the aquifer. The RCD and the University of California, Santa Cruz (UCSC) have implemented four MAR projects in the Pajaro Valley with funding from DWR, the USDA Natural Resource Conservation Service (NRCS), and State Coastal Conservancy. These systems could recharge collectively more than ~500AFY. Two additional projects, in Monterey County but within the Pajaro Groundwater Basin, are currently being evaluated. The RCD and UCSC continue to assess site suitability, explore new technology to survey subsurface conditions, and develop additional MAR projects. The results of the MAR Suitability Study by Dr. Andrew Fisher from UCSC and the RCD are available at <http://www.rcdsantacruz.org/managed-aquifer-recharge>.
- k) The RCD, UCSC, and the PV Water are partnering to implement the Recharge Net Metering (ReNeM) program. This is a unique 5-year pilot program that provides a financial incentive to landowners that collaborate to build a managed aquifer recharge basin on their property. The program will be tested for five years to assess the benefits to the Pajaro Groundwater Basin, its businesses, and its residents. The primary focus of the ReNeM program is on stormwater collection directed to infiltration facilities, using a variety of techniques, to improve groundwater supplies.
- l) PV Water has collaborated with the U.S. Geologic Survey (USGS) to conduct climate change model simulations of the Pajaro Valley Basin with projections through 2100. The climate change analysis evaluated potential impacts to the Pajaro Valley Basin from a combination of sea level rise and three climate change scenarios used by the California Department of Water Resources for climate-based water resource assessments.
- m) In the last decade three stormwater infiltration systems have been constructed in Scotts Valley by the Scotts Valley Water District and private developers. The District monitors all three – the combined infiltration total for water year 2020 was over 19 acre-feet.
- n) County staff from Public Works and Environmental Health continue to implement the County's stormwater management program and update the program to address evolving State and Federal requirements.

## 6. Small Water System Oversight

The Drinking Water Program continues to oversee 115 small water systems (SWSs) with 5 to 199 residential connections and noncommunity systems including schools, outdoor camps, and businesses with their own source of drinking water. Drinking Water Program staff work with these systems to maintain compliance with public health standards and meet the ongoing needs of the people and communities that rely upon them. County oversight includes regulation of water quality, quantity, monitoring, treatment, distribution, water system organization, and compliance with evolving federal and state compliance requirements. These systems are required to test for up to 84 different constituents on an ongoing basis.

- a) The CZU Lightning Complex Fire impacted more than 20 water systems in Santa Cruz County, affecting thousands of residents over the course of the disaster. Critical activities have included input during the repopulation process, inspection of evacuation shelters, and management of public notification requirements for residents allowed to return to properties served by damaged water systems. Drinking Water Program staff continue to work in cooperation with these systems and with state and local agencies on the recovery process. Volatile Organic Chemical (VOC) contamination from the CZU fire has been found to be less severe than in other recent wildfires in the state, with benzene detections at lower levels and within smaller portions of the service areas. Aggressive pipe replacement and flushing procedures have been implemented in response to lessons learned from previous fires. The larger water systems in Santa Cruz County which had to issue Do Not Drink notices have lifted them for most of their customers and will be implementing long-term VOC monitoring plans.
- b) During the COVID-19 pandemic, safe and reliable drinking water is even more important. Drinking Water Program staff have provided guidance on COVID-19 impacts to water systems and continue to conduct site visits and inspections following standard safety protocols. Shelters established to provide additional housing were inspected for water system safety, including at the Santa Cruz County Fairgrounds and the Seventh Day Adventist Soquel Conference Grounds.
- c) Water system testing for Per- and Polyfluoroalkyl Substances, also known as PFAS, is ongoing. These chemicals have been the focus of national attention due to their status as unregulated contaminants and were previously used in firefighting foam and consumer products such as nonstick pans. Monitoring and investigation efforts to determine the local extent of contamination are focused particularly in areas around landfills and the Watsonville airport. There have been some detections of PFAS in the South County area, near the Buena Vista landfill. State regulations are currently under development, which will guide potential solutions, including consolidation, treatment, and source modification.
- d) County staff continue to work with SWSs to track water production. This information is critical for the assessment of rural water use, an important component of groundwater management. System managers can also operate more effectively using this data to identify usage trends and potential leaks.
- e) County Staff continues to assist public water systems with state reporting requirements, which continue to change. In particular, the electronic Annual Report often has complicated questions that smaller system operators may be less familiar with.

## 7. Water Conservation

- a) County water use has declined greatly since 2000 even as the population has grown (Figure 1). Figure 2 shows precipitation and water use from 1984-2020. Water use remains 15-20% below the pre-drought levels due in part to permanent water conservation measures such as plumbing fixture retrofits and drought tolerant landscaping that many residents implemented during the drought. That said, water use has increased slightly since the drought ended. The impact of the pandemic has shifted water use as the commercial sector was limited and people spent more time in their houses and gardens. With the limited data available, it is hard to say whether the increase in water use in 2020 over 2019 was due to the pandemic, or simply to the fact that it was a dry year.
- b) County staff have continued to participate with all the countywide water agencies in the Water Conservation Coalition of Santa Cruz County to increase outreach and education to the public. Though most in-person events were cancelled this year, the Coalition presented the “Value of Water” campaign. “Value of Water” is a social media campaign that drives residents to the [watersavingtips.org](http://watersavingtips.org) site to learn more about water infrastructure around the county and to engage with a quiz and earn prizes from local businesses. The Water Conservation Coalition is a collaboration between Ecology Action, Santa Cruz County, the City of Watsonville, the City of Santa Cruz, Soquel Creek Water District, Pajaro Valley Water, San Lorenzo Valley Water District and Central Water District. Recently, this campaign logged 957 views and 94 residents taking the quiz. The Coalition and maintains the website: [www.watersavingtips.org](http://www.watersavingtips.org).
- c) The Scotts Valley Water District Advanced Metering Infrastructure (AMI) project that commenced in 2017 is under way with 90% of all meters replaced. The i-Meters (Intelligent Meters) are supported by WaterSmart web portal that helps customers to monitor their water usage to be more water efficient (<https://www.svwd.org/customer-info/i-meters>). The District activated leak alerts in WaterSmart that resulted in total excess water tracked through Leak Adjustment Program to be reduced by about 50% (from 7 million gallons to 3.5 million gallons). It is anticipated that the i-Meter installation will be complete by Spring 2021.
- d) Scotts Valley Water District’s Think Twice Water Use Efficiency Program comprised 118 rebates generating water savings of 880,000 gallons/year.
- e) The City of Watsonville conserved at least 2,666,144 gallons of water through rebate and conservation device programs in July 2019 through June of 2020. There were 9 lawn replacements, 21 toilet replacements, 42 washing machine replacements, and 339 water conservation devices and education.
- f) Nine hundred thirty-one resident students received in person or online education about Watsonville City tap water and water recycling in the 2019-2020 School year with the goal of building a next generation that is knowledgeable about and engaged with conserving fresh water resources.
- g) The City of Santa Cruz’s water conservation program efforts continued through water year 2020. Major areas of focus were on various rebate programs supporting water efficient fixtures, appliances and the replacement of turf with water efficient landscaping. Additional efforts focused on reviewing and improving data collection related to lost and

non-revenue water resulting from system leaks and inefficient metering. In response to aging metering infrastructure, the City also initiated a project to fully replace customer water meters with new metering infrastructure that will allow leak notices to be communicated to customers immediately and assist customers to further monitor and manage their water use. All regulatory requirements related to customer water use and lost water were met during water year 2020.

- h) Since 2014 when the Soquel Creek Water District's (SqCWD) Board of Directors declared a Groundwater Emergency due to groundwater overdraft and seawater intrusion, SqCWD has been in a Stage 3 water supply shortage. The Stage 3 shortage calls for SqCWD customers to reduce water usage by 25% as compared to 2013 levels. This equates to a water use guideline of 50 gallons per capita per day (gpcd). While SqCWD groundwater production has rebounded several hundred acre-feet from the 2015 low (during the height of the statewide drought) of approximately 3,100 acre-feet, residential customers are still using water efficiently at a rate of about 56 gpcd based on a running annual average from 2014.
- i) The Soquel Creek Water District continued to maintain their Water Demand Offset (WDO) program which, in lieu of a building moratorium, allows new development to proceed without increasing water demand on the basin. (Note: The WDO program no longer applies to the construction of Accessory Dwelling Units due to the 2019 passage of Senate Bill 13). The WDO program is intended to serve as a bridge until a supplemental water supply can be secured. The program requires developers to fund a reduction in existing water use and/or increase in supply amounting to 200% of their projected new water use. Since 2019, each development project's offset fee of \$55,000 per acre-foot has been directed toward funding a water meter system upgrade from drive-by Advanced Meter Reading to Advanced Metering Infrastructure. The upgrade is anticipated to save 86 acre-feet of water per year due to earlier leak notification features. In total, 12 Conditional Will Serves and 7 Unconditional Will Serves (i.e. final guarantee of water service) were granted by SqCWD in 2020.
- j) SLVWD customers continue to demonstrate commitment to ongoing conservation efforts, maintaining at least a 15-22% reduction in yearly water usage from 2013 consumption levels. SLVWD's 2020 target water use is 84 GPCD. The SLVWD's 22,795 population served (not including the Felton system which only relies on surface water) meets the 84 GPCD target.
- k) SLVWD actively pursues incidents of water waste by investigating, recommending corrective action, and providing follow-up documentation of resolution. In July 2016 the SLVWD's Board of Directors approved the Badger Meter project with the goal of installing the advanced metering technology at all meters. As of April 2020 about 20% of the meters have been upgraded. The new meters, combined with the Badger Eye on Water engagement portal allow the customers to view hourly usage history, setup leak detection alerts and high bill notifications. In compliance with SB555, SLVWD has been conducting and submitting water loss audit reports to the Department of Water Resources (DWR). SLVWD has been improving its audit score every year from 49 in 2016 to 50 in 2019.
- l) The majority of the SLVWD's customer accounts are residential; therefore, the SLVWD targets indoor and outdoor water savings programs toward these customers. In Fiscal Year 2019/2020 the SLVWD issued 20 rebates for grey water system, Energy Star rated washing machine, low-flow toilet, and weather-based irrigation controller installations.

SLVWD conducts a variety of public education activities such as a dedicated Water Use Efficiency Page on its website, e-Newsletters, billing inserts, Instagram and Facebook postings.

- m) The RCD continues providing a number of programs to assist growers with conserving water through irrigation efficiency and soil health improvements. Services include irrigation system evaluations, season-long monitoring to inform growers of how the volume of water applied to their crops compares to the volume of water required by their crops, providing technical and financial assistance to implement water use efficiency and irrigation scheduling improvements, practical field guides and irrigator trainings in English and Spanish, and rebates for cover crop seed to reduce stormwater erosion and improve infiltration. During 2019, RCD assisted 23 growers to monitor and/or improve the efficiency of their irrigation. The RCD assisted growers of strawberry, caneberry, vegetable and nursery operations with monitoring and evaluating irrigation relative to crop need, monitoring soil moisture, and/or implementing more efficient irrigation practices. The Pajaro Valley Water Management Agency provided a total rebate amount of \$26,865 to growers for implementing practices recommended through this program during fiscal years 19/20 and 20/21. The RCD prepared irrigator Tool Kits (used to train irrigators to measure pressure in drip and sprinkler systems) for 45 irrigators, though distribution of the kits is postponed due to COVID-19 restrictions. Additionally, RCD and partners authored monthly articles in the Santa Cruz County Farm Bureau newsletter, *Between the Furrows*, focused on agricultural water management or other land management topics.
- n) PV Water is continuing to support water conservation efforts valley-wide through voluntary agricultural and residential conservation programs. Both programs provide information, technical advice, and rebates to incentivize reducing water consumption. PV Water's agricultural conservation program is supported through contracts with the RCD and the University of California Cooperative Extension, utilizing the region's technical experts and the trusted reputations the institutions have built over decades in the farming community. Technical experts evaluate current irrigation practices, provide recommendations, and assist farmers in tracking water and fertilizer use through time. The residential conservation program supports residents through providing information about indoor and outdoor water efficient use practices, issuing rebates for rainwater catchment and graywater systems, and offering free water saving devices. PV Water's overall goal is to achieve conservation of 5,000 acre-feet per year, as established in the Basin Management Plan Update, with an interim milestone of 75% progress toward the goal by 2020, and achieving 100% by 2023. Although 2020 is not yet complete, based on five years of water use data from 2015-2019, PV Water anticipates it will fall short of the 2020 target. PV Water has initiated an effort to evaluate additional programs and practices for potential implementation in order to achieve the overall conservation goal of 5,000 acre-feet per year.
- o) As articulated in the Sustainable Santa Cruz County Plan (2014) and the Housing Element of the General Plan (2016-2023) County Planning continues to encourage multi-family development, smaller units and Accessory Dwelling Units, which are all water saving relative to other types of development, as well as water saving landscapes.

**Table 1: Water Use in Santa Cruz County, 2020** (Data for smaller systems is from 2019)

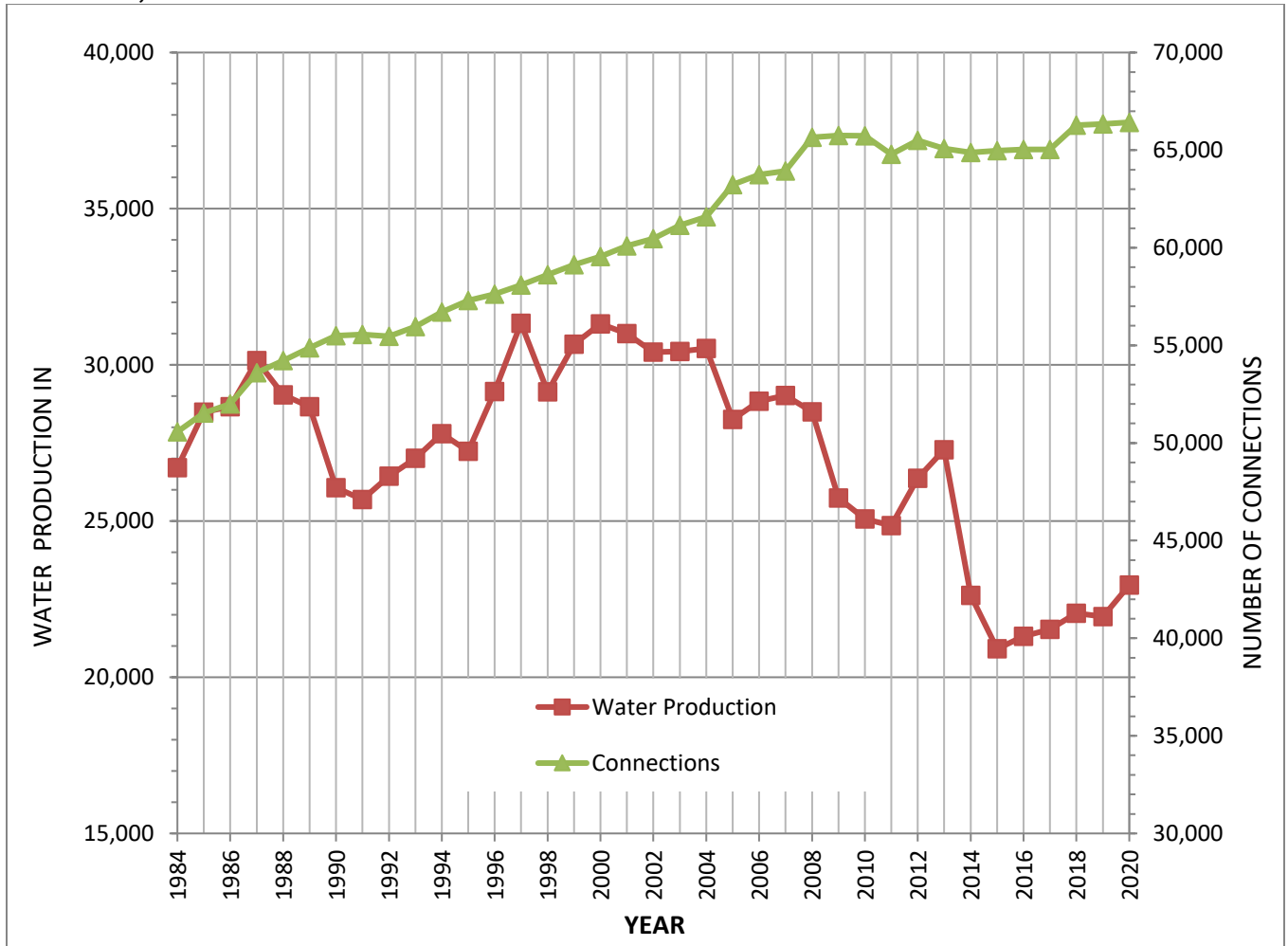
<b>Water Supplier</b>	<b>Connections</b>	<b>Population</b>	<b>Water Use Acre-Feet/Yr</b>	<b>Ground water</b>	<b>Surface Water</b>	<b>Recycled Water</b>	<b>Imported from Outside County</b>
Santa Cruz City Water Dept.	24,561	97,417	8,375	5.0%	95.0%		
Watsonville City Water Service	14,855	65,966	7,201	100.0%	0.0%		
Soquel Creek Water District	14,479	40,632	3,312	96.7%	3.3%		
San Lorenzo Valley Water District	7,900	23,700	1,953	53.0%	47.0%		
Scotts Valley Water District	3,807	10,709	1,339	87.0%		13.0%	
Central Water District	823	2,706	411	100.0%			
Big Basin Water Company	605	1,694	205	37.0%	63.0%		
Mount Hermon Association	494	2,850	155	100.0%			
Forest Lakes Mutual Water Company	326	1,076	40	100.0%			
Smaller Water Systems (5-199 conn.)	2,616	7,691	1,552	91.0%	6.0%		3.0%
Individual Users*	8,000	21,000	2,400	95.0%	5.0%		
Pajaro Agriculture (SC Co only)**†			22,250	92.0%	1.0%	7.2%	
Mid- & North-County Agriculture*			2,400	90.0%	10.0%		
<b>Totals</b>	<b>78,466</b>	<b>275,441</b>	<b>51,593</b>	<b>78%</b>	<b>19%</b>	<b>3%</b>	<b>0.1%</b>
<b>Summary by Water Source (acre-feet/year)</b>				<b>40,027</b>	<b>9,788</b>	<b>1,776</b>	<b>1,776</b>
<b>Summary of Non-Agricultural Use (acre-feet/year)</b>				<b>26,943</b>	<b>17,397</b>	<b>9,326</b>	<b>47</b>

\*Values are Estimates

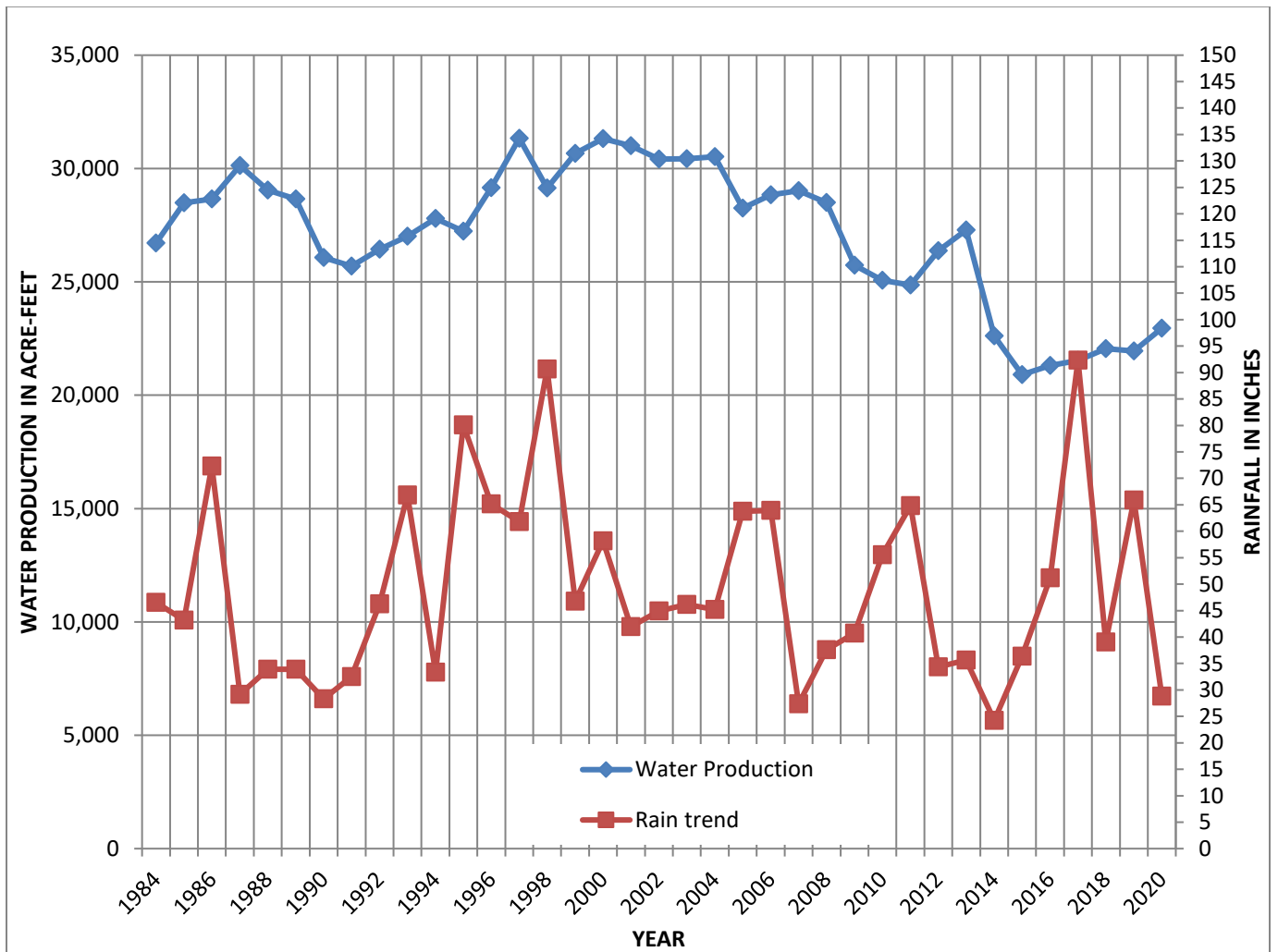
\*\* Includes a small number of water systems

† Recycled water source is the City of Watsonville

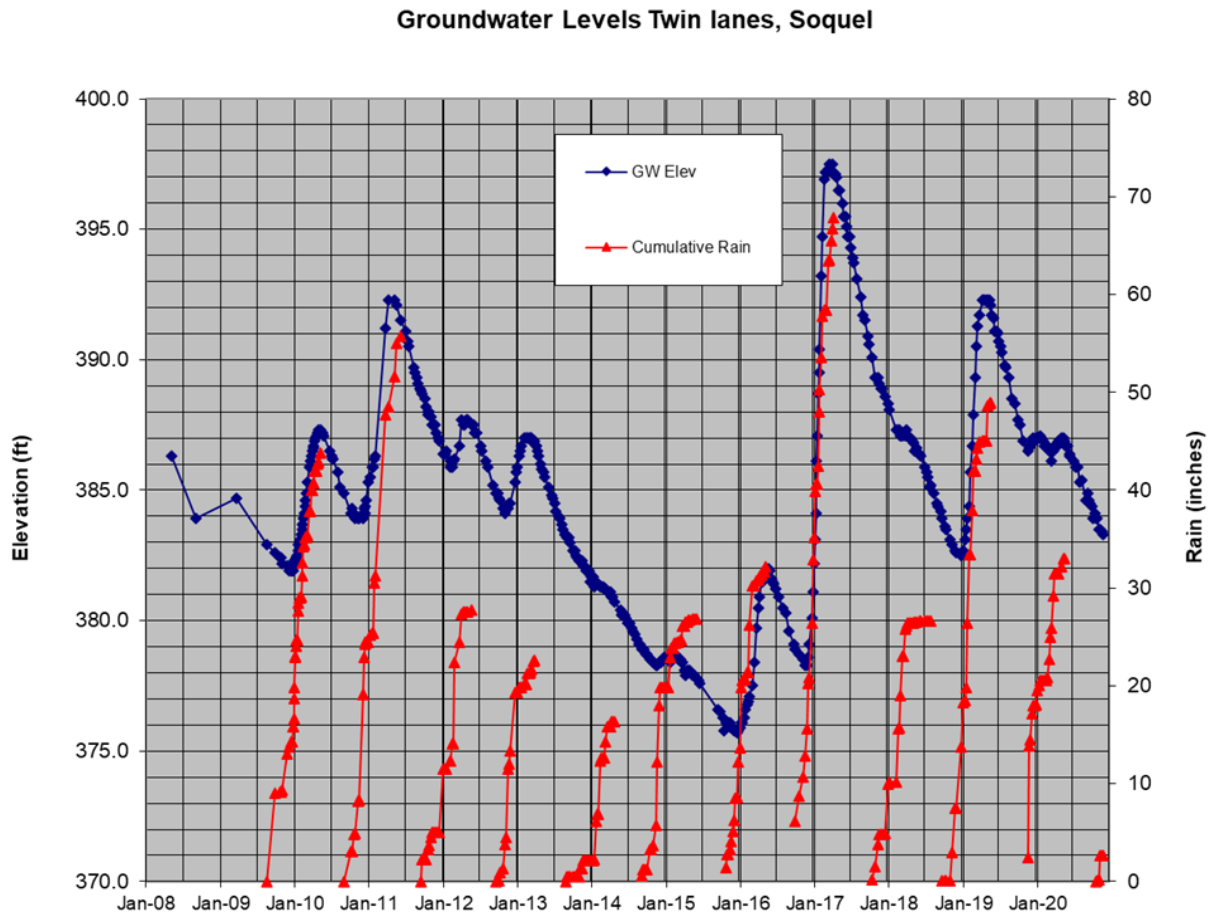
**Figure 1: Water use relative to number of connections for all major municipal suppliers, combined, 1984-2020**



**Figure 2: Municipal water use and rainfall, 1984-2020**



**Figure 3: Inland Groundwater Levels, Mid-County Basin, Soquel Hills**



**Figure 4: Coastal Groundwater Levels, Mid-County Basin, New Brighton area**

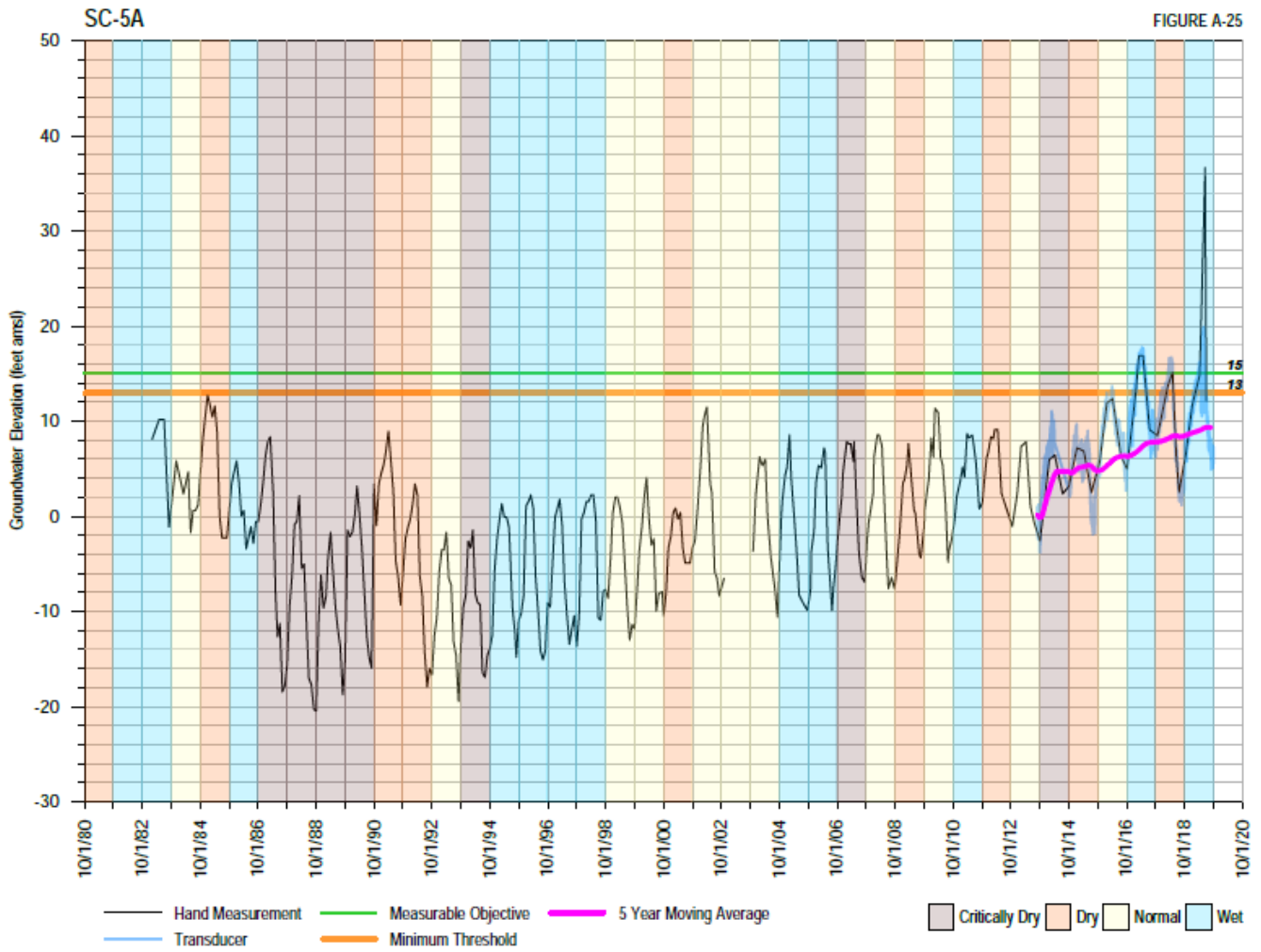


Table 2: Useful Resources for More Information.

County Water Resources Program	<a href="http://scceh.com/Home/Programs/WaterResources.aspx">http://scceh.com/Home/Programs/WaterResources.aspx</a>
County Water Quality Map	<a href="http://scceh.com/waterquality.aspx">http://scceh.com/waterquality.aspx</a>
County Steelhead Monitoring Program	<a href="http://scceh.com/steelhead.aspx">http://scceh.com/steelhead.aspx</a>
Santa Cruz County Fire Recovery	<a href="http://www.co.santa-cruz.ca.us/FireRecovery.aspx">http://www.co.santa-cruz.ca.us/FireRecovery.aspx</a>
Central Water District	<a href="https://sites.google.com/view/centralwaterdistrict">https://sites.google.com/view/centralwaterdistrict</a>
City of Santa Cruz Water Department	<a href="https://www.cityofsantacruz.com/government/city-departments/water">https://www.cityofsantacruz.com/government/city-departments/water</a>
City of Watsonville Public Works and Utilities	<a href="https://www.cityofwatsonville.org/590/Public-Works-Utilities">https://www.cityofwatsonville.org/590/Public-Works-Utilities</a>
San Lorenzo Valley Water District	<a href="https://www.slvwd.com/">https://www.slvwd.com/</a>
Scotts Valley Water District	<a href="https://www.svwd.org/">https://www.svwd.org/</a>
Soquel Creek Water District	<a href="https://www.soquelcreekwater.org/">https://www.soquelcreekwater.org/</a>
Pajaro Valley Water Management Agency	<a href="https://www.pvwater.org/">https://www.pvwater.org/</a>
Santa Cruz Mid-County Groundwater Agency	<a href="https://www.midcountygroundwater.org/">https://www.midcountygroundwater.org/</a>
Santa Margarita Groundwater Agency	<a href="https://smgwa.org/">https://smgwa.org/</a>
Resource Conservation District of Santa Cruz County	<a href="http://www.rcdsantacruz.org/">http://www.rcdsantacruz.org/</a>
Santa Cruz Integrated Regional Water Management Plan	<a href="http://www.santacruzirwmp.org/">http://www.santacruzirwmp.org/</a>
Water Conservation Coalition of Santa Cruz County	<a href="https://watersavingtips.org/">https://watersavingtips.org/</a>



## **Water 101: With big changes afoot countywide, everything you need to know about what's coming out of your tap**

By Mallory Pickett

February 28, 2021

Water has always been a precious and scarce resource in California, and the Santa Cruz region is no exception. As a warming climate sparks changes in rainfall patterns, local supplies are under more stressors than ever.

Anticipating this future, and dealing with expensive, aging and, in some cases, fire-damaged infrastructure, many local government water districts are making or planning big changes.

With that in mind, now is a good time to understand how water is managed in the area, where it comes from, and how water issues vary depending on where you live, including whether shortages might become more prevalent, [whether last year's CZU fires might lead to water pollution](#), and how much everyone is paying for the resource.

### **A locally fed supply, and the challenges that come with that**

Unlike many counties in California, Santa Cruz County's dozen-plus local government water agencies do not rely on state or federal water sourcing. Instead, water is sourced from a combination of local groundwater basins, which make up 80% of the supply, and reservoirs and streams, which comprise the remaining 20%.

Independence means the county is "somewhat insulated" from droughts affecting the rest of the state, according to the county's Department of Environmental Health.

But the county is still often in a precarious situation as local rainfall is almost never enough to meet demand. This means groundwater levels are in a long, slow decline, and surface water is highly sensitive to each year's rainfall.

The future looks likely to be punctuated by more severe drought, and more intense rainfall — even though it looks possible the average overall precipitation will remain the same.

These wild swings are hard on water systems. "The way the water comes is almost as important as the amount of water total," Sierra Ryan, the interim county water manager said. "Having several dry years followed by intensive wet years is not going to have the same impact to the water system as averaging that out over time."

During very wet years, "we might get the same amount of water, we might even get more water, but we can't do anything with it in those big storm events," Ryan explained.

When all the water comes at once, it doesn't have the opportunity to percolate into the ground and recharge groundwater basins. "That's huge in this county, because most of the residents of the county get their water from groundwater," Ryan said.

Surface water (water from streams and reservoirs like Loch Lomond) is also at risk, as higher temperatures mean more evaporation, and less ground water can affect surface water levels too.



*Carbonera Creek in Scotts Valley (Kevin Painchaud/Look Santa Cruz)*

### **Even in ideal conditions, a difficult task**

Even without the added stressor of climate change, maintaining a steady, clean, affordable supply of water to customers is a difficult feat. "It's on demand, high quality anytime, unlimited quantity," said Piret Harmon, the general manager of the Scotts Valley Water District. "You want to get up at two o'clock in the morning and you want to take a nice hot bath, it's there." Making that happen, and maintaining infrastructure for it, is expensive.

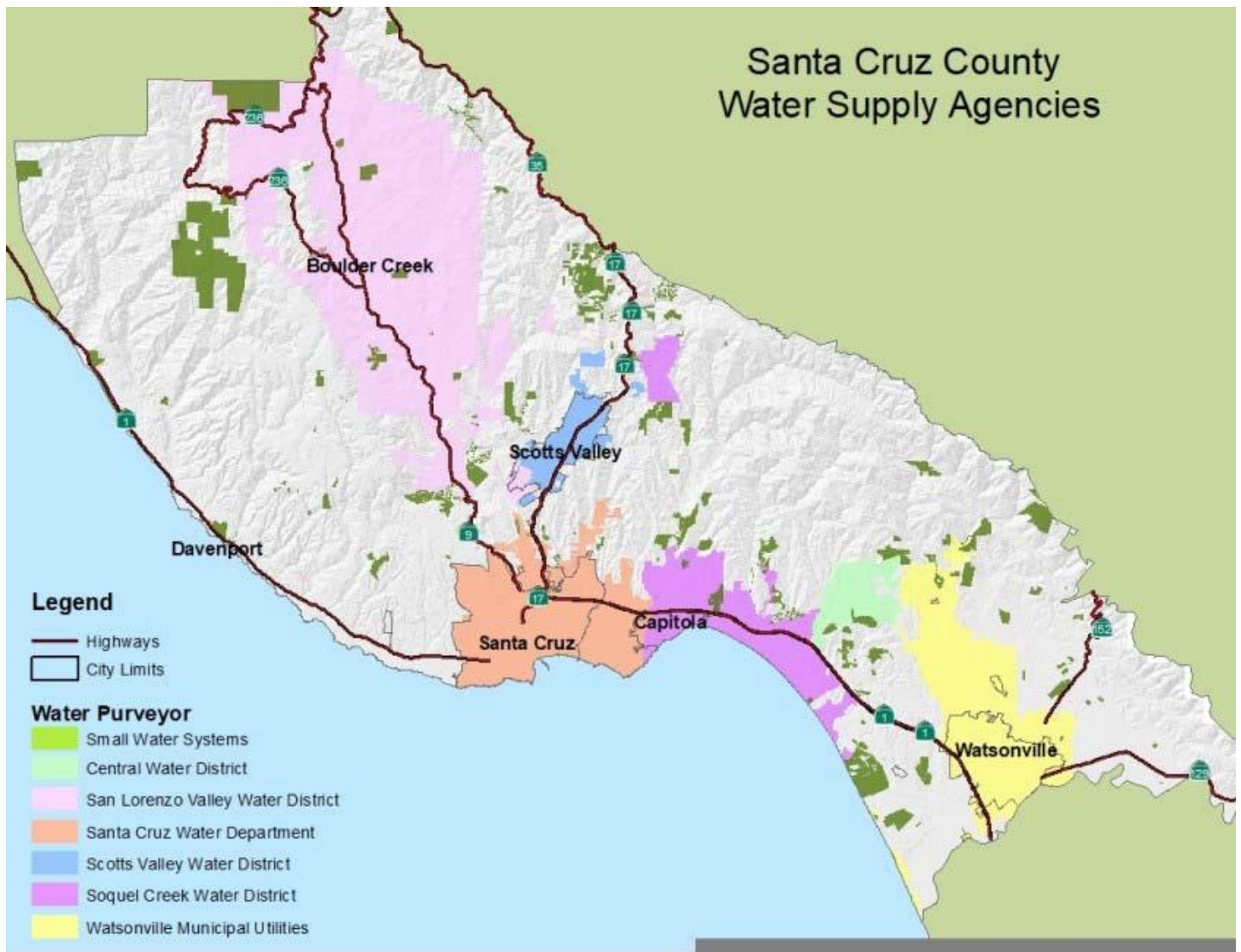
"We have about 170 miles of distribution pipe to move our water around our service area, and we aim to replace a couple miles a year," said Beau Kayser, of the city of Watsonville's Water District. "It's a million and a half dollars per mile."

The science and engineering behind what comes out of your tap not only is mind-boggling, but another complicating factor is the collection of government agencies that manage water supplies for the county's

276,000 residents. In all, there are 13 entities that serve the population, each facing its own series of challenges. Among them:

- The Loch Lomond reservoir which stores water for the city of Santa Cruz during the dry season, is currently at a 74% capacity. The city’s new water contingency plan states that “If winter rains have not replenished Loch Lomond’s storage,” peak season usage reductions are applied. Representatives from the City of Santa Cruz have said restrictions are possible this summer.
- On the government side of things, the San Lorenzo and Scotts Valley water districts are considering a merger, to improve efficiency and possibly prevent rates from increasing too steeply in the future.
- The Soquel Creek Water District plans to spend about \$90 million on a project to recharge its groundwater basin with recycled water.

Here’s a look at the largest water districts countywide some of the major issues they’re facing. Average monthly rates are taken from a comparison produced by the Soquel Creek district this month:



*A map of the major water supply agencies in the County (Sierra Ryan, County of Santa Cruz)*

## City of Santa Cruz Water Department

- **Number of customers served:** 97,417
- **Approximate cost:** \$65 (average monthly bill within city limits), \$75 (average monthly bill for customers *outside the city*)
- **Current issues:** “Climate change is really the priority item,” city Water Director Rosemary Menard said. “But also, we have a situation where, you know, as I mentioned, we have aging infrastructure. And we have a lot of work to do.” Multiple multimillion-dollar projects are underway, including \$69 million of maintenance work at Loch Lomond. “It’s a generational reinvestment in the water system,” Menard said.

## Scotts Valley Water District

- **Number of customers served:** 10,709
- **Approximate cost:** \$75 (average monthly bill)
- **Current issues:** The possibility of a merger between the Scotts Valley and San Lorenzo water districts is top of mind for district leadership. “How can I provide high quality water? How can I have resiliency and sustainability and have an infrastructure in good shape and do it at a reasonable the lowest cost that I possibly can?” said Piret Harmon, the general manager. “I’ve done a lot of things here, just within one district, and then like any business you look at, ‘Are we too small. Are we too expensive per unit?’”

## Soquel Creek Water District

- **Number of customers served:** 40,632
- **Approximate cost:** \$85 (average monthly bill)
- **Current issues:** “Our primary water challenges are (1) a critically over-drafted groundwater basin and (2) seawater intrusion occurring into our groundwater supply along our coastline,” Melanie Mow Schumacher, a communications manager at Soquel Creek, wrote to Lookout. “Our groundwater supply, the Santa Cruz Mid County Basin, which is the sole source of supply in the mid-county region, was designated by the state in 2014 as critically over-drafted.” As the groundwater level is depleted, saltwater intrudes. Soquel Creek Water District “has been in Stage 3 Water Shortage and Groundwater Emergency since 2014 due to our community’s long-term groundwater supply shortage and the threat of seawater intrusion to our water supply.” Schumacher said. To ameliorate the threat of intrusion, the Soquel Creek Water District has begun an ambitious, \$90 million project to recharge the basin with recycled water.

## City of Watsonville Water Department

- **Number of customers served:** 65,966
- **Approximate cost:** \$58 (average monthly bill)
- **Current issues:** Infrastructure is top of mind for water manager Beau Kayser. “Generally speaking, you build something and we hope to get 50 years out of it. The truth is we’ve got stuff older than that,” Kayser said. “We’ve got one well that’s close to 100 years old.” Climate change could make flooding more of an issue as the sea level rises. “We are somewhat of a coastal agency, not a lot of our infrastructure lies in a low lying area, but there are scenarios that would be susceptible to a massive flood,” Kayser said. The district is working with the Army Corp of Engineers and the Pajaro Valley Water Management Agency to try to rebuild the river levy.

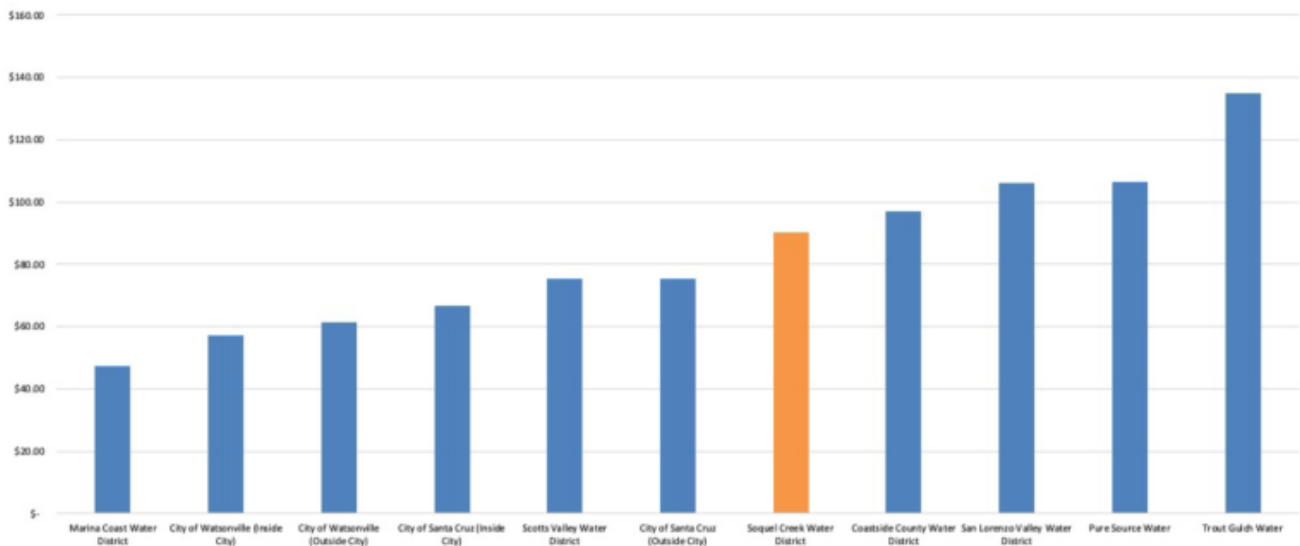
## San Lorenzo Valley Water District

- **Number of customers served:** 23,700
- **Approximate cost:** \$105 (average monthly bill)
- **Current issues:** The CZU Lightning Complex Fire burned through the San Lorenzo Valley, decimating miles of raw water pipeline and damaging surface water and water storage infrastructure.

After the fire, sampling revealed volatile organic compounds in the water of fire-impacted areas. VOCs “have not been detected in any mainline samples since September 16, 2020,” according to the district’s year-end report, “however the SLVWD plans to monitor the distribution system for VOCs in the long term.”



Comparison of Average Monthly Water Bill (Service Charge + 6 units) of Local Water Agencies, 2/2021



Soquel Creek Water District

# SANTA CRUZ LOCAL

## Does more housing mean more water demand in Santa Cruz County?

**by Jeremiah Oetting**

FEBRUARY 15, 2021

*Editor's note: Santa Cruz Local's team digs into reader and listener questions. Submit your questions to [info@santacruzlocal.org](mailto:info@santacruzlocal.org).*

"Do we have a sufficient, sustainable water supply to support new housing at the densities proposed?"

– Nancy Drinkard, a Santa Cruz resident and Santa Cruz Local member

**SANTA CRUZ >>** With many recent housing proposals in Santa Cruz County, residents have questioned the impact of new development on water demand.

The answer is counterintuitive, water officials said. Despite population growth in Santa Cruz County in recent years, total water use has declined, according to county water officials and data. It's largely because of a culture of water conservation, water-saving technology in appliances and building codes, water district leaders said.

"It's not enough to say that water use has remained consistent over the years," said Sierra Ryan, the interim water resources manager of Santa Cruz County. "Water use has gone down, significantly."

The problem today — even if no more homes were built — is a lack of water storage and overdrawn groundwater basins. The city of Santa Cruz's water supply is dependent on winter rain and needs more storage capacity to endure droughts, a city water leader said. Soquel Creek Water District and other large water districts in the county are dependent on groundwater. Underground aquifers in the Mid-County and Pajaro Valley basins and the Santa Margarita basin in the Santa Cruz Mountains are drawn down faster than the rains replenish them.

Today's population is about 65,000 in the city of Santa Cruz and 273,000 in the county, according to the U.S. Census Bureau. If the county were to grow by 24,000 people in the next 25 years — which state and regional governments said is the projected growth — the chief problem in the city of Santa Cruz would still be the need for a more reliable water supply, not increased water demand. For other coastal areas of the county, sea-water intrusion in underground aquifers would remain more of a problem than water demand.

That potential growth includes figures from UC Santa Cruz's Long Range Development Plan that would add up to 11,700 new students, faculty and staff in the next 20 years. The plan guides future development but doesn't mandate enrollment or staff growth.

“There is a marginal increase in water demand associated with the anticipated new growth, but that marginal increase is not what is driving our need to augment water supply,” said Rosemary Menard, water director for the city of Santa Cruz. Menard said the city has needed a more reliable water supply for decades.

“That need isn’t being driven or even made significantly larger by the anticipated population growth or additional housing,” Menard said.

### **Water supply**

The city of Santa Cruz’s water supply mainly comes from Loch Lomond Reservoir, the San Lorenzo River and other above ground streams, creeks and waterways. The rest of the county’s water districts mainly rely on surface water and underground aquifers. Some of those water districts include Scotts Valley, Soquel Creek and the city of Watsonville’s water department.

Loch Lomond reservoir can hold up to 2.8 billion gallons of water to supplement the San Lorenzo river in the dry season. The reservoir is at 74% capacity. A recent projection shows that the reservoir could drop below 66% by October.

The rest of the county mostly depends on groundwater aquifers. Because underground aquifers are replenished from multiple sources and at varying rates, drought has a delayed impact on groundwater supply. But all of the county’s groundwater basins are overdrawn to some degree, meaning more water is being used than is replenished, water officials said. Near the coast, this diminished freshwater supply allows saltwater to intrude into the groundwater basin and threaten what remains.



*Figure 1 The San Lorenzo River is the City of Santa Cruz’s largest water source. It represents about 45% of the water supply. (Kara Meyberg Guzman — Santa Cruz Local)*

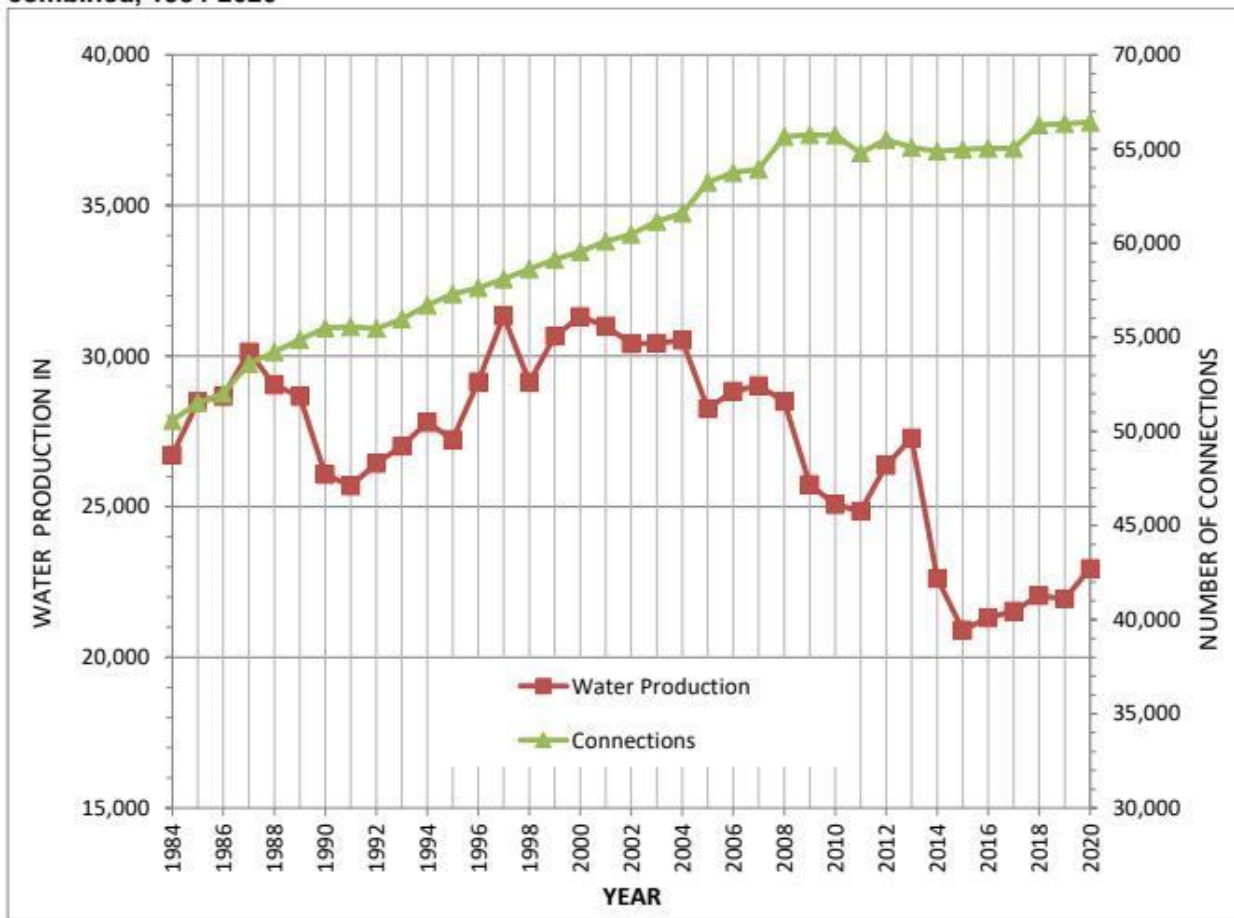
“Sea water intrusion is the bane of our existence,” said Ron Duncan, general manager of Soquel Creek Water District. The district serves mid-county from 41st Avenue to La Selva Beach. Its water sources are considered critically over drafted — the state’s most severe designation. Because of that problem, a new project aims to inject water into basins to try to stem saltwater intrusion.

### **Water demand**

Since the 1980s, there have been wetter-than-average years and years-long droughts. Meanwhile, the population has grown and water connections have increased in homes, businesses and other places.

- Among Santa Cruz County’s major municipal water suppliers, there were roughly 66,000 water connections in 2020, which is an all-time high, according to county data.
- Water demand however, peaked in 1997 and 2000 with about 31,000 acre feet of water, according to county data. Demand has fallen to about 23,000 acre feet in 2020.

**Figure 1: Water use relative to number of connections for all major municipal suppliers, combined, 1984-2020**



*A chart shows water production, or use, in acre feet and the number of water connections in Santa Cruz County. (County of Santa Cruz)*

Ryan, the county water resources manager, noted that water use was lowest in 2015 during a multi-year drought that parched the state. Even as the drought faded and population continued to increase across the county, water use has remained low, Ryan said.

Rosemary Menard, water director of the city of Santa Cruz, also has said that UCSC’s growth in recent years has not led to increased water demand. Water use has remained flat, Menard said.

Piret Harmon, the general manager of Scotts Valley Water District, said building codes and technology also have a lot to do with water demand.

**Building technology**

High-efficiency plumbing fixtures like low-flow toilets flush less water. Harmon said a single flush from a toilet in the 1970s could use up to five gallons of water. Modern toilets use a gallon or less. “People can still go to the bathroom as many times as they used to,” Harmon said. “But every flush is five times less.”

Water-saving technology also is required in new housing developments planned across the county. Modern apartment complexes are particularly efficient, housing a large number of people with a low water cost, Harmon said. And years of incentive programs have enabled single-family home owners to cheaply update aging fixtures. Water-efficient clothes washers and dishwashers also make a difference.

“Of course, more people will use more water,” said Harmon, of Scotts Valley Water District. “But we don’t count people. We count gallons.”

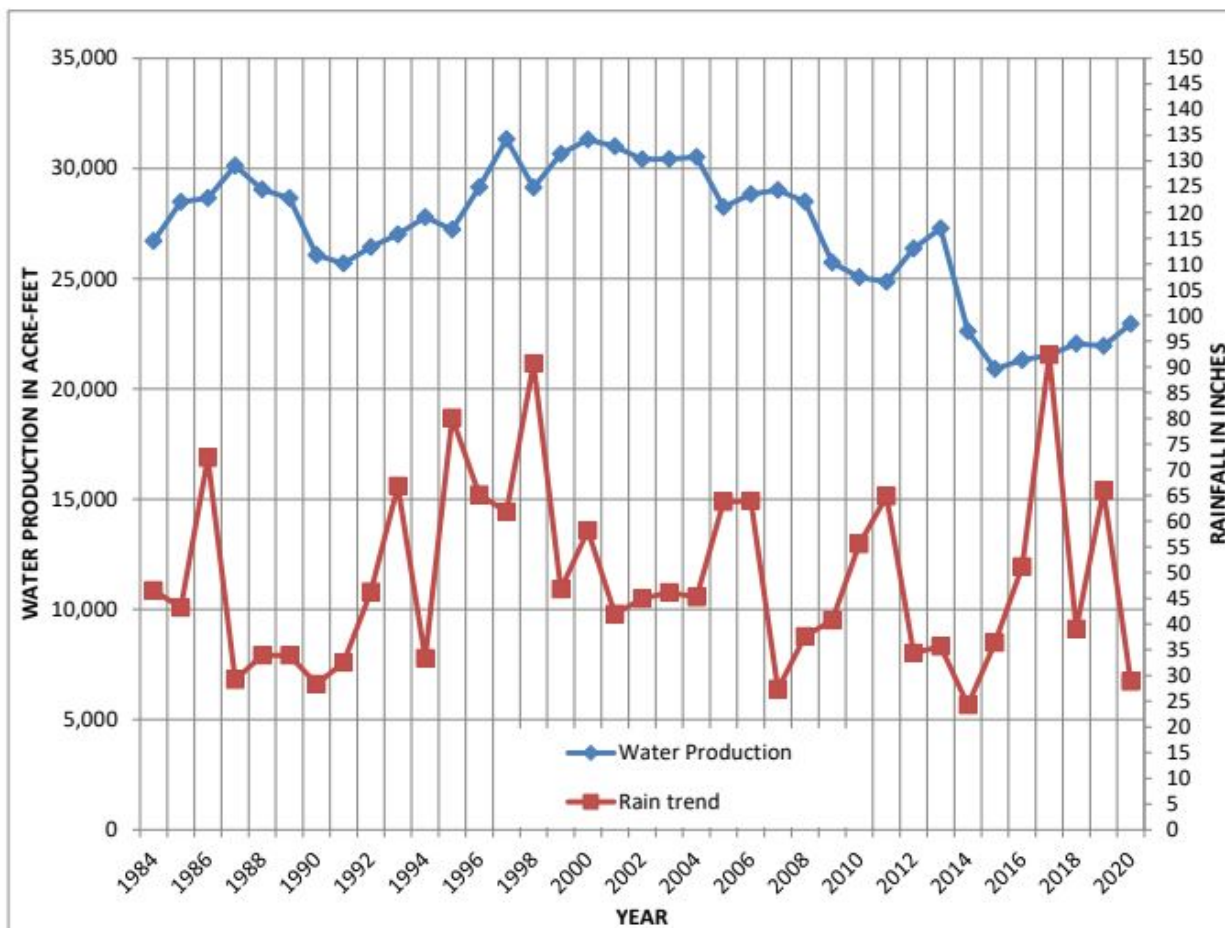
But conservation is just one way to protect water supply, said Menard, the water director for the city of Santa Cruz. “We’ve done what we can do” as far as increasing efficiencies and lowering water use, Menard said in an interview.

“We really have to solve the problem of getting additional supply here for the kinds of drought conditions that we’re going to be experiencing perhaps more routinely in the future, due to climate change,” Menard said.

Menard said that water rationing might be a reality this summer. But it’s still too early to make the call. “Just like the opera, it ain’t over ’til it’s over,” she said. “And the rainy season isn’t over until maybe even into April these days.”

Climate change means more uncertainty and potentially more drought. “Climate change is squarely on our radar,” she said. “This is a problem that has to get solved for the people that live here now.”

**Figure 2: Municipal water use and rainfall, 1984-2020**



**Table 1: Water Use in Santa Cruz County, 2020** (Data for smaller systems is from 2019)

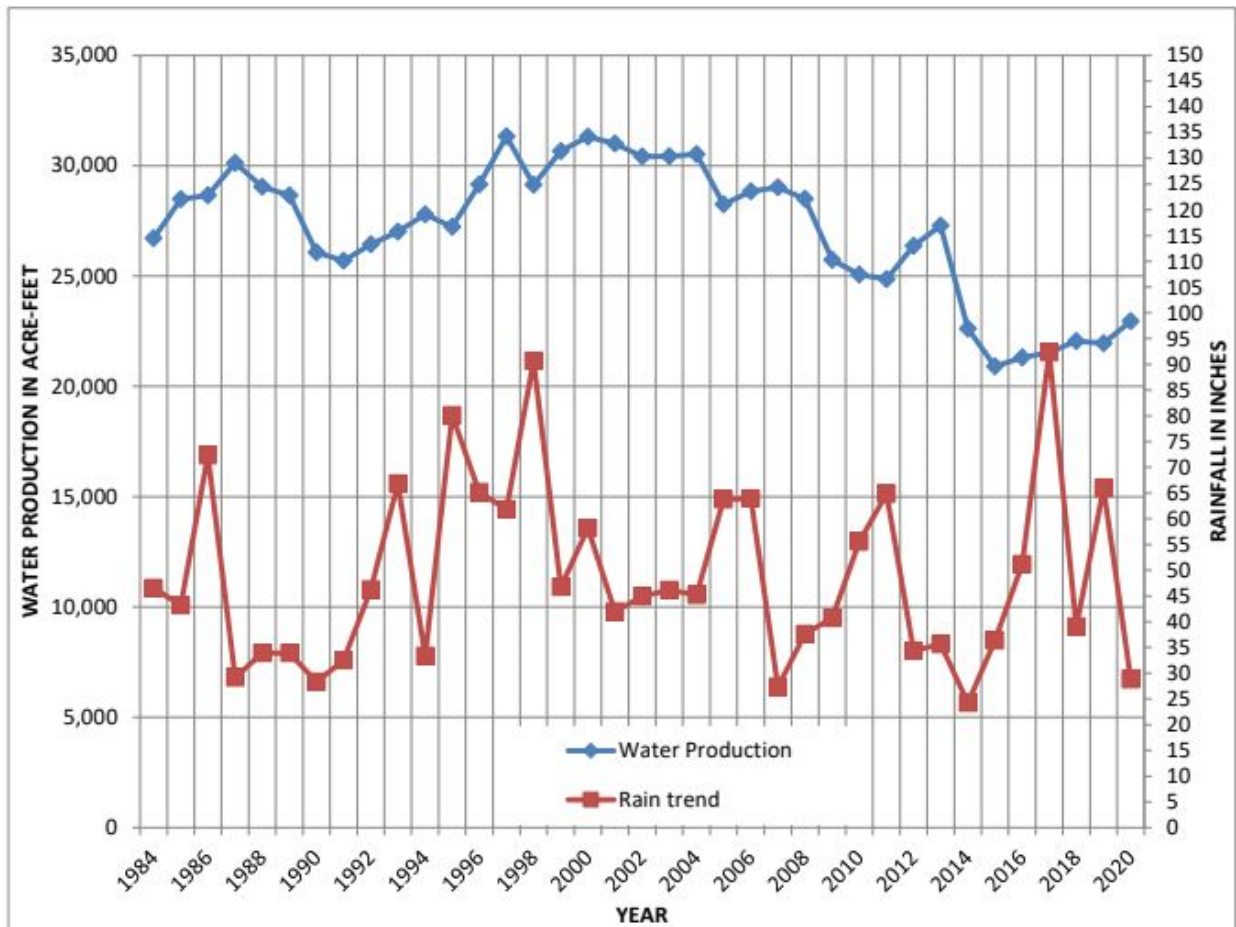
Water Supplier	Connections	Population	Water Use Acre-Feet/Yr	Ground water	Surface Water	Recycled Water	Imported from Outside County
Santa Cruz City Water Dept.	24,561	97,417	8,375	5.0%	95.0%		
Watsonville City Water Service	14,855	65,966	7,201	100.0%	0.0%		
Soquel Creek Water District	14,479	40,632	3,312	96.7%	3.3%		
San Lorenzo Valley Water District	7,900	23,700	1,953	53.0%	47.0%		
Scotts Valley Water District	3,807	10,709	1,339	87.0%		13.0%	
Central Water District	823	2,706	411	100.0%			
Big Basin Water Company	605	1,694	205	37.0%	63.0%		
Mount Hermon Association	494	2,850	155	100.0%			
Forest Lakes Mutual Water Company	326	1,076	40	100.0%			
Smaller Water Systems (5-199 conn.)	2,616	7,691	1,552	91.0%	6.0%		3.0%
Individual Users*	8,000	21,000	2,400	95.0%	5.0%		
Pajaro Agriculture (SC Co only)**†			22,250	92.0%	1.0%	7.2%	
Mid- & North-County Agriculture*			2,400	90.0%	10.0%		
<b>Totals</b>	<b>78,466</b>	<b>275,441</b>	<b>51,593</b>	<b>78%</b>	<b>19%</b>	<b>3%</b>	<b>0.1%</b>
<b>Summary by Water Source (acre-feet/year)</b>				<b>40,027</b>	<b>9,788</b>	<b>1,776</b>	<b>1,776</b>
<b>Summary of Non-Agricultural Use (acre-feet/year)</b>				<b>26,943</b>	<b>17,397</b>	<b>9,326</b>	<b>47</b>

\*Values are Estimates

\*\* Includes a small number of water systems

† Recycled water source is the City of Watsonville

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\*Values are Estimates

\*\* Includes a small number of water systems

† Recycled water source is the City of Watsonville

A table and chart show water use in Santa Cruz County. (Screenshots from the 2020 Annual Water Resources Report — County of Santa Cruz)

### Potential solutions

Because areas outside the city of Santa Cruz have such a problem with sea water intrusion, projects have started to try to keep salt water at bay. The \$90 million Pure Water Soquel project aims to refill the groundwater basin by injecting recycled wastewater supplied by the city of Santa Cruz underground. The purified wastewater provides a barrier to intruding salt water and an additional source of freshwater, water officials said.

Pajaro Valley Water Management Agency also uses some recycled water supplied by Watsonville to fend off sea water intrusion. It’s a technique used in other parts of California and the world to maintain a steady supply of water that is less reliant on the climate or weather.

Water officials said even if there were no population growth in Santa Cruz County in the next 20 years and no new homes were built, water supply and storage needs to be fixed.

“We have a problem for the people who live here now, and there’s no way to solve that problem without getting more supply,” said Menard, the Santa Cruz city water director.

Put another way, Menard said preventing new housing to try to solve Santa Cruz County’s water crisis wouldn’t be enough. “We would have to reduce our (current) population by 20% or 30% or 40%,” Menard said. “That’s not happening.”

## Leap of faith: North County water districts toe line of merger talks

February 18, 2021

*By Katie Evans & Christina Wise*

The San Lorenzo Valley Water District (SLVWD) and Scotts Valley Water District (SVWD) have considered beginning studies on the impact of a potential consolidation of the two districts.

Both boards hosted Joe Serrano, the Local Agency Formation Commission (LAFCO) Executive Officer, who presented [a roadmap for the potential consolidation process](#). SLVWD hosted an impassioned—and at times vitriolic—meeting about the merger on Feb. 4. SVWD hosted its own meeting a week later and took its first steps toward considering the merger.



Ultimately, the latter passed a conditional motion that staff should begin analysis of consolidation if, and only if, SLVWD also directs staff to explore the possibility. After an inconclusive meeting on Feb. 4, that board will return to the subject in its meeting on March 4.

### IN THE MOUNTAINS

For the past five years, the agencies' general managers, Piret Harmon (SVWD) and Rick Rogers (SLVWD), had regular monthly meetings. They'd discuss the direction of their districts and share best practices. Rogers says the inter-district collegiality was a refreshing new approach considering the previous rivalry, and it's been a benefit to each district.

"Scotts Valley was the lead agency on the Regional Intertie Project back in 2013 that resulted in a \$3.917 million grant benefitting five different local water agencies, including SLV," Rogers said. "Currently, we're working on the joint Urban Water Management Plan document, and we're seeing that there are significant savings by combining the districts and using one consultant."

When the topic of merging the two districts came up, both Harmon and Rogers agreed to take the idea to their boards. Both boards agreed to add the idea to their respective meeting agendas, and that's when things started rocking.

"Neither of us wanted to appear as the aggressor in this situation, so we tried to roll it out at the same time," Rogers said. "We had talked about this before the CZU August Lightning Complex fire began, so the idea had been on hold since early August. I know people were questioning the timing of introducing the merger, but we'd been sitting on it for six months."

As for the overall reaction from SLV residents at the Feb. 4 board meeting, Rogers says he wasn't surprised.

“People are passionate about this topic, but you won’t see residents with balloons standing at the light in Felton in favor of it,” he said. “All of us drive through Scotts Valley, and you look at their growth and wonder if they have enough water. In reality, Scotts Valley’s demand has remained the same—their pumping has decreased by 40 percent from their historical highs in the ‘90s.”

Rogers says that he, Harmon, and several key members of Harmon’s staff are knocking on retirement’s door. By looking at consolidating the districts, Rogers sees the financial benefit of slimming down operations.

“Think about the savings of running one administrative building, only having one manager/director, and reducing overhead costs,” he said.

For now, the two districts are flowing down the same stream in unison. They both draw from the same aquifers and they’re working hand-in-hand on restoring them under the Santa Margarita Groundwater Agency to reach sustainability by 2042.

“Usually, when a merger happens, it’s because one agency needs something from the other. In this case, I think we need each other,” Rogers said. “We’re both small districts, and in order to keep rates low, invest in capital improvements and comply with state regulations, we need a solid customer base to increase revenue. Our district is struggling with increased operational costs, and there aren’t a lot of areas to reduce expenditures. We need to explore the benefits of consolidation—that includes doing some studies and answering folks’ top questions—but I see this as a move that will strengthen both of our districts.”

While residents are concerned about the impacts of a merger, Rogers is worried about what happens if the consolidation doesn’t happen and another, larger agency such as Santa Cruz of San Jose merges with Scotts Valley.

“We already have over 1,000 water connections in Scotts Valley; ultimately, combining the two districts strengthens our position with groundwater and surface water. It gives us greater control, and I think it’s a good fit,” he said. “We’ll need surveys done, and we’ll need data reports from our engineers, and that information will help answer a lot of the residents’ questions. The best way to control our water supply is to have local management of it, so I see a lot of positives.”

At the March 4 meeting, the board will have a conversation about getting basic preliminary information regarding the merger. Rogers hopes that will help the SLV board determine if they want to pursue the idea.

“No decisions have been made, no actions have been taken,” he said. “It’s strictly exploratory; we’re looking at a minimum of two years of board meetings to get information to our ratepayers, and it’s up to both boards as to whether they want to move forward with that exploration.”

## **DOWN THE VALLEY**

Harmon echoed Rogers at the SVWD Feb. 11 meeting, saying that the meeting was “this is the first step of the first step, just to see if the board is interested in giving staff direction.”

“Let’s see if there is merit to this proposal. I’m not convinced there is,” she said. “We may come out of this study and find that there are as many downsides as merits. But I am a person of facts and I need to look at something tangible and quantifiable to bring a recommendation to the board.”

During public comment participants voiced concerns over the cost of conducting analysis, differing consumption rates between the two valleys and employee representation. Harmon struggled to see a disadvantage in considering consolidation.

“I’m too much of an engineer for that, everything should be evaluated for efficiency, unless it’s too expensive or our partner is unwilling from the get-go,” she said.

According to Serrano, if both boards direct staff to begin analysis, LAFCO would fund one-third of the fee for an outside consultant hired to conduct a detailed analysis.

The trouble, Director Chris Perri said, is both agencies—staff and ratepayers—need to be willing to merge.

“If they’re not taking an action, I don’t want it to appear as though we are the ones driving this,” he said.

Director Wade Leishman echoed Perri: “It feels like we’re both strapped up to bungee cords at the end of the bridge, holding hands, saying, ‘You jump first,’ ‘No you.’”

“The first person might jump and the second person could stand there and change his mind... If we jump first, then we are the aggressor. We are trying to take over, that’s the message,” he said. “Until we’re really sure they’re a willing participant... I worry about jumping off the bridge first. I’d like to be hand-in-hand.”

Harmon originally proposed consolidation to Rogers because of the potential increases in efficiency of both districts. According to Harmon, consolidation could allow for the elimination of many redundancies such as top executive positions, support services (legal counsels, auditors, public outreach, web hosting) and professional services (integrated regional water management agencies, LAFCO, engineering consulting, hydrogeological consulting). Consolidation could also reduce time spent on regulatory reports, lead to better utilization of assets, and larger departments would provide better customer service coverage, Harmon says.

“All of this is expected to result in increased efficiency, reduced operating expenses, lower rate increases, improved customer service, increased job satisfaction, and productivity,” she said.

Consolidation might also improve the work environment, she says.

Despite the potential positives, some SVWD staff expressed concerns during the board meeting, calling into question the timing of the move. Harmon said change is always difficult, and even more so when so little information is available.

“I’m very proud of them, that they came forward with their fears,” she said. “I heard from them some great ideas. I want to make sure, if it were to go forward, that they can be part of designing the new organization.”

For now, the districts await the March 4 meeting.

“Based on what they heard from us, I hope that the [SLVWD Board] will decide to act,” Harmon said. “For now, it’s a waiting game.”

*Get in touch with the Scotts Valley Board of Directors at <https://www.svwd.org/board>. Read up on the Feb. 11 meeting at <https://www.svwd.org/board-meetings>.*

## SVWD rebuilds largest water treatment plant

By: KATHRYN EVANS

February 5, 2021

The Scotts Valley Water District (SVWD) has begun construction on its largest water treatment plant, Orchard Run.

GSE Construction demolished the 38-year-old plant in December and plans to finish construction by May 1.

The new plant, which provides 1 million gallons of water per day, will greatly improve Scotts Valley's water aesthetic, said Water District General Manager Piret Harmon.

"Surface water and groundwater taste very different," Harmon said. "All of our potable water comes from the ground and, at Orchard Run, from wells 1,000 feet deep on the north side of town. There's a lot of sediments there and it's high in iron and manganese. Those make up the flavor profile. We have always wanted to improve on the taste and smell of our water."

David McNair, the district's operation manager, said "Scotts Valley has been notorious for its taste, a little too much flavor."

"The waters that we deal with in the aquifer are very challenging to treat aesthetically," McNair said. "The current state of our technology filtering system is a good basic filter. In many cases that is all you might need, but with our water, especially the Butano aquifer this plant draws from, it's more difficult."

To improve water aesthetics, the district will install two new granular activated carbon (GAC) filters, a flow paced chlorine analyzer, a 40,000-gallon welded steel storage tank and odor scrubber. Based on taste tests conducted in 2010, GAC filters are best suited for treating Scotts Valley water, according to McNair. With the new equipment, minerals and chlorine in the water will be much less perceptible.

The new Orchard Run will also connect to the sewer system, unlike the previous plant, saving the district about \$3,500 a month in sewage off hauling fees.



*Orchard Run Treatment Plant Project began demolition in December and should be completed by May 1*

SVWD staff intentionally planned construction for the middle of the winter when demand is relatively low.

“We have three treatment plants, but if something was to happen to the other treatment plants, we may have to reach out to our neighbors,” Harmon said.

District members have also implemented emergency infrastructure that would allow for access to the Orchard Run well if needed.

Ultimately, the new plant will cost \$3.5 million, the most expensive project for the water district throughout Harmon’s eight years. The district has built up reserves to cover the project, Harmon said.

“Rates will never stay the same, but it’s not because of this project,” Harmon said.



## Board meets to discuss consolidation

Scotts Valley Water District (SVWD) will meet Thursday, Feb. 11, at 6 p.m. to consider exploring the possibility of consolidating operations with the San Lorenzo Valley Water District (SLVWD) in the future.

The meeting will be virtual. [Join the meeting online](#) or call (646) 749-3122. Access Code 488-730-213.

Joe Serrano, executive officer of the Santa Cruz Local Agency Formation Commission (LAFCO) will provide an overview presentation about the consolidation process during the board meeting.

“LAFCOs were created to support how municipal services, such as water, are delivered. It is encouraging to see that the two water districts continue to collectively search for ways to ensure that their constituents have adequate water supply through a strong level of service,” Serrano said. “Consolidation is simply another tool that districts can utilize to improve how water is delivered.”

The SLVWD board heard Serrano's presentation at their meeting on Feb. 4 and held their first discussion about possible consolidation.

Executive staff from SVWD and SLVWD meet regularly to discuss issues of mutual concern and find ways to enhance the efficiency of both agencies through collaborative efforts. The managers of both water districts agree there is the potential of substantial benefits by joining the two agencies.

“This is a collaborative effort to consider what is best for our customers, our water

supply and our environment now and into the future,” SLVWD Manager Rick Rogers said. “It’s a good time to consider our options and have a conversation with the community.”

“We think we have complimentary strengths that are worth a public review for potential to benefit customers and employees of both districts,” SVWD Manager Piret Harmon said. “Specific benefits of merged operation could mean economies of scale, improved levels of customer service and more opportunities for employees.”

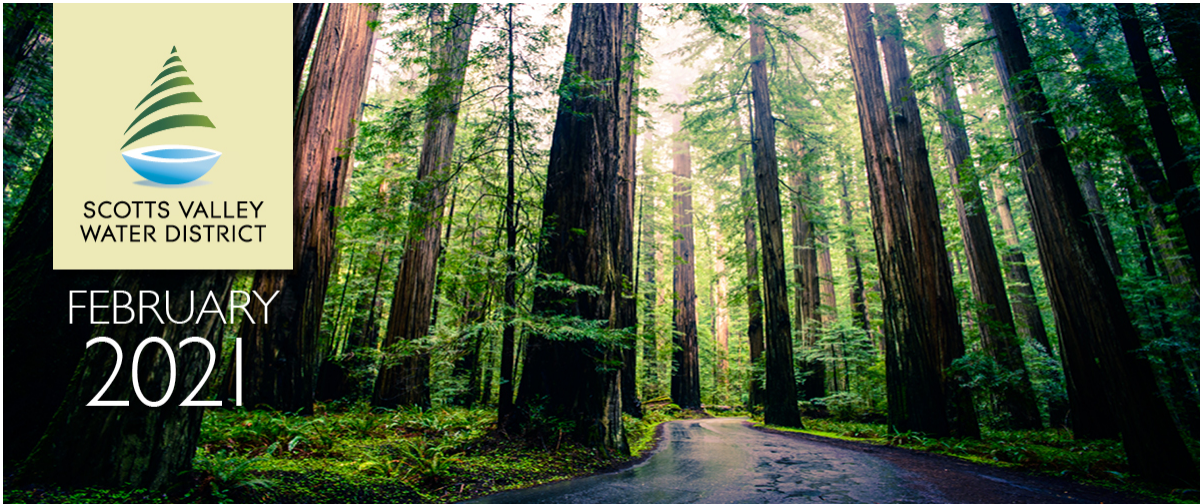
SLVWD and SVWD both draw water from the Santa Margarita Groundwater Basin, a series of aquifers in the region. They also are connected through an intertie system, allowing them to share water during emergency situations.

The process of consolidation, which is facilitated by LAFCO, begins with an exploratory phase of at least one year that includes an analysis of both districts and input from a stakeholder group that includes representatives from both districts. If the feasibility study is favorable to consolidation, the districts can apply for a change of governance with LAFCO. There would be multiple opportunities for public engagement and feedback, followed by a specified period during which customers would have an opportunity to support or oppose the proposal. Following public review, the two boards could only approve consolidation if it is not opposed by a majority of ratepayers.

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# Turf's Up! Get 2x the rebate for lawn replacement this spring

The Scotts Valley Water District is doubling its lawn replacement rebate from \$1 to \$2 per square foot for a limited time to encourage customers to install low-water-use landscaping at their properties.

Through the Turf's Up! campaign, customers are urged to [replace irrigated lawn areas with low-water-use plants and/or permeable landscape materials](#) such as mulch, decomposed granite, permeable pavers or artificial turf to reduce water use. Outdoor irrigation accounts for approximately one-third of the water used by District customers.

A light blue rectangular graphic with white and blue text. At the top, it says "TURF'S UP!" in large, bold, black letters. Below that, in smaller blue text, it says "DOUBLE YOUR REBATE for replacing your lawn with a drought-tolerant, low-water option." and "Apply by April 15 to be eligible." The central focus is the price change: "\$1" is crossed out with a blue diagonal line, and "\$2" is next to it. Below this, it says "PER SQUARE FOOT OF LAWN REPLACED" in bold black letters. At the bottom, it says "For details, visit [www.svwd.org/rebates](http://www.svwd.org/rebates)". The graphic is decorated with illustrations of green grass, a succulent, and purple flowers at the bottom.

“Our customers have done a great job being efficient with indoor water use, including installing low-flow fixtures and water-efficient appliances,” SVWD Manager Piret Harmon said. “Being mindful of outdoor water use is a natural next step to being good stewards of our water resources, especially as we address increasing concern about drought conditions this year.”

Rainfall totals in the Scotts Valley area this year are about half of normal, and last year also was a dry year. While the District is supplied by groundwater and recycled

water, years of low rainfall have impacts on water use and future water levels in the aquifers that supply the District.

The Turf's Up! rebate program requires both pre- and post-inspections. Existing sprinkler heads must be either converted to drip (or other low-volume devices) or removed and glue-capped. Inactive valves must be removed and pipes glue-capped. High and low-volume devices should not exist on the same valve.

Customers must apply for the Turf's Up rebate by April 15, 2021, and all work — including the final inspection — must be completed by June 30, 2021, to be eligible for the \$2 per square foot special offer. [See details and apply online.](#)

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## Plant of the Month: Pin Cushion

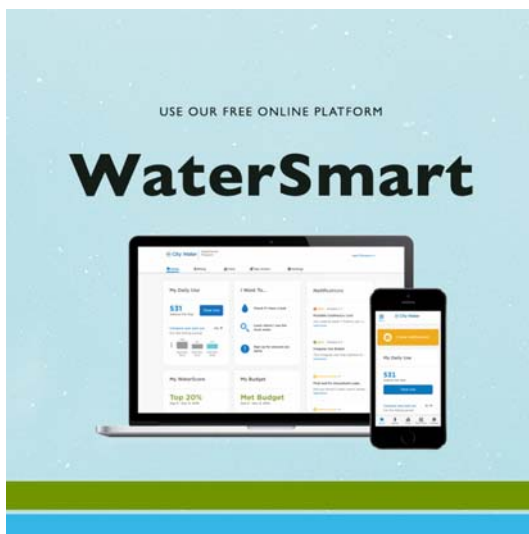
Did you know that there are around 50 varieties of the Pin Cushion (leucospermum) plant? It can grow 3 to 16 feet tall. The plant's blossoms are popular cut flowers as they are hardy and last a long time.

*Photo credit: [@johnthoma811](#)*



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**Wondering how to monitor water use at your home or business?**



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## **SMGWA News: Hydrogeological Modeling Scenarios Reviewed**

[Santa Margarita Groundwater Agency's](#) January board meeting was held Thursday, Jan. 28, and was conducted via all-remote, web- and phone-based access due to the coronavirus prevention guidelines. The agency welcomed two new board members: Manu Koenig from the County of Santa Cruz, and Mark Smolley from the San Lorenzo Valley Water District (SLVWD). Also, private well owner Angela Franklin's resignation from the board was announced – the board will start the process to fill the vacancy at the February meeting.

SMGWA continues its work to develop the Groundwater Sustainability Plan (GSP), a requirement of the Sustainable Groundwater Management Act (SGMA), due in early 2022.

The board reviewed the Basin's problem statement that they had worked on in December and provided feedback on the specific sections. The meeting's GSP elements development session focused on the results of hydrogeological modeling scenarios for possible projects and management actions that would help the basin achieve sustainability. The proposed climate projection scenario predicts a significant increase in the number of dry and critically dry years, and a decline in the total rainfall in the region. Higher predicted temperatures will result in more

evapotranspiration. This, in turn, reduces the amount of recharge, which is the source of natural replenishment of the aquifers in the groundwater basin.

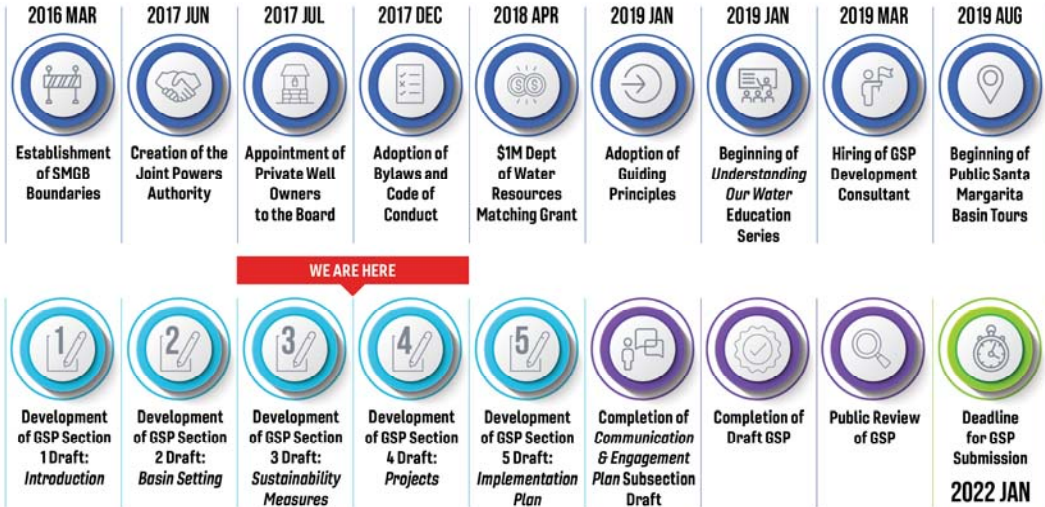
[The board reviewed four modeling runs during the meeting](#), including the baseline that assumes a slight increase in demand for both municipal pumpers: 0.26% per year for SVWD and 0.18% per year for SLVWD. This was compared to project scenarios including aquifer storage and recovery (ASR), injection-only and in-lieu recharge. The first two of these scenarios involve putting water back into the aquifer through well injection well sites. In-lieu recharge means wells are allowed to rest during wet, winter months when surface water could be provided to groundwater users. None of the project scenarios resulted in a desirable future outcome for the basin, to the effects of the drastically dryer climate projection scenario, the groundwater levels would continue to decline. The board requested that a different, less extreme, climate forecast be used for modeling.

In developing the GSP, SMGWA must identify projects and management actions that will achieve long-term sustainability for the basin. The agency can rely on programs and projects that will be undertaken by member agencies, rather than executing these efforts on its own.

Per agency bylaws, the board also elected officers for the 2021 calendar year. Chris Perri of SVWD was selected as chair; Gail Mahood of SLVWD as vice chair; and Jack Dilles of the City of Scotts Valley as secretary. The board also received quarterly reports on financials and community outreach.

The next SMGWA Board of Directors meeting will be held Thursday, Feb. 25, at 5:30 p.m. [More information.](#)

# The Path to a Groundwater Sustainability Plan (GSP)



SANTA MARGARITA  
Groundwater Agency

Groundwater sustainability  
is all our responsibility  
smgwa.org



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