Santa Clarita Valley Water Agency

Local Hazard Mitigation Plan

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SECTION 1. INTRODUCTION

1.1. Purpose of the Plan

Emergencies resulting from disasters can have severe negative impacts on a community if not properly identified and addressed. Disasters can leave people injured or displaced, result in fatalities, cost tremendous amounts in terms of the response and recovery dollars and economic loss, and cause other significant negative impacts to our communities, businesses, infrastructure and environment. Hazard mitigation planning reduces the risk of these negative impacts by providing a comprehensive plan designed to mitigate hazards specific to the Santa Clarita Valley Water Agency (SCV Water).

Natural hazards, such as floods and earthquakes, are inevitable, and little can be done to control their force and intensity. Further, given the changing climate, many areas are experiencing greater frequency and intensity of hazards. The possibility of man-made and technological disasters, such as hazardous materials incidents and terrorism, are also ever-present, however the requirement of a Federal Emergency Management Agency (FEMA) hazard mitigation plan is to address natural hazards only.

When a disaster occurs, repairs and reconstruction are typically completed to restore infrastructure to its pre-disaster conditions. Such efforts expedite a return to normalcy; however, merely replicating pre-disaster conditions results in a cycle of damage, reconstruction, and repeated damage which is ultimately detrimental to SCV Water and its customers. Although we cannot prevent disasters from happening, hazard mitigation attempts to break this cycle by outlining tangible steps to reduce SCV Water's hazard vulnerability. For those hazards that cannot be fully mitigated, the community must be prepared to provide an efficient and effective response to expedite the recovery process. This can be accomplished through a well-organized public education and awareness effort.

The purpose of this Local Hazard Mitigation Plan (LHMP) is to identify potential natural hazards to SCV Water and to formulate mitigation measures for future protection of SCV Water's critical infrastructure and the community's safety with respect to SCV Water's facilities and services. Following provides a summary:

- Develop a single source of SCV Water's needs related to hazard mitigation and emergency management;
- Increase public (service recipients) awareness and education of hazards and hazard mitigation;
- Maintain grant eligibility for FEMA funding;
- Coordinate with jurisdictions where the SCV Water provides service prior to a disaster event;
- Maintain compliance with state and federal legislative requirements for local hazard mitigation plans.

Acceptance of this LHMP by the State of California Office of Emergency Services (CalOES) and then approval by the Federal Emergency Management Agency (FEMA) will allow SCV

Water to become eligible to receive federal funding assistance under the Local Hazard Mitigation Grant Program or the Pre-Disaster Mitigation program and the Building Resilient Infrastructure Community. The established mitigation projects provided herein were identified and reviewed by members of SCV Water's Safety Planning Committee led by Engineering Solutions Services, Inc. (ESS or the Consultant).

SCV Water's staff, customers, and professionals active in disaster planning, response, and mitigation provided important input in the development of this LHMP including the recommended goals and objectives, mitigation measures, and priorities for each action.

This plan fulfills the requirements of the following programs:

1. **Pre-Disaster Mitigation (PDM)**
2. **Hazard Mitigation Grant Program (HMGP)**
3. **Flood Mitigation Assistance (FMA) Program**
4. **Building Resilient Infrastructure Community (BRIC)**

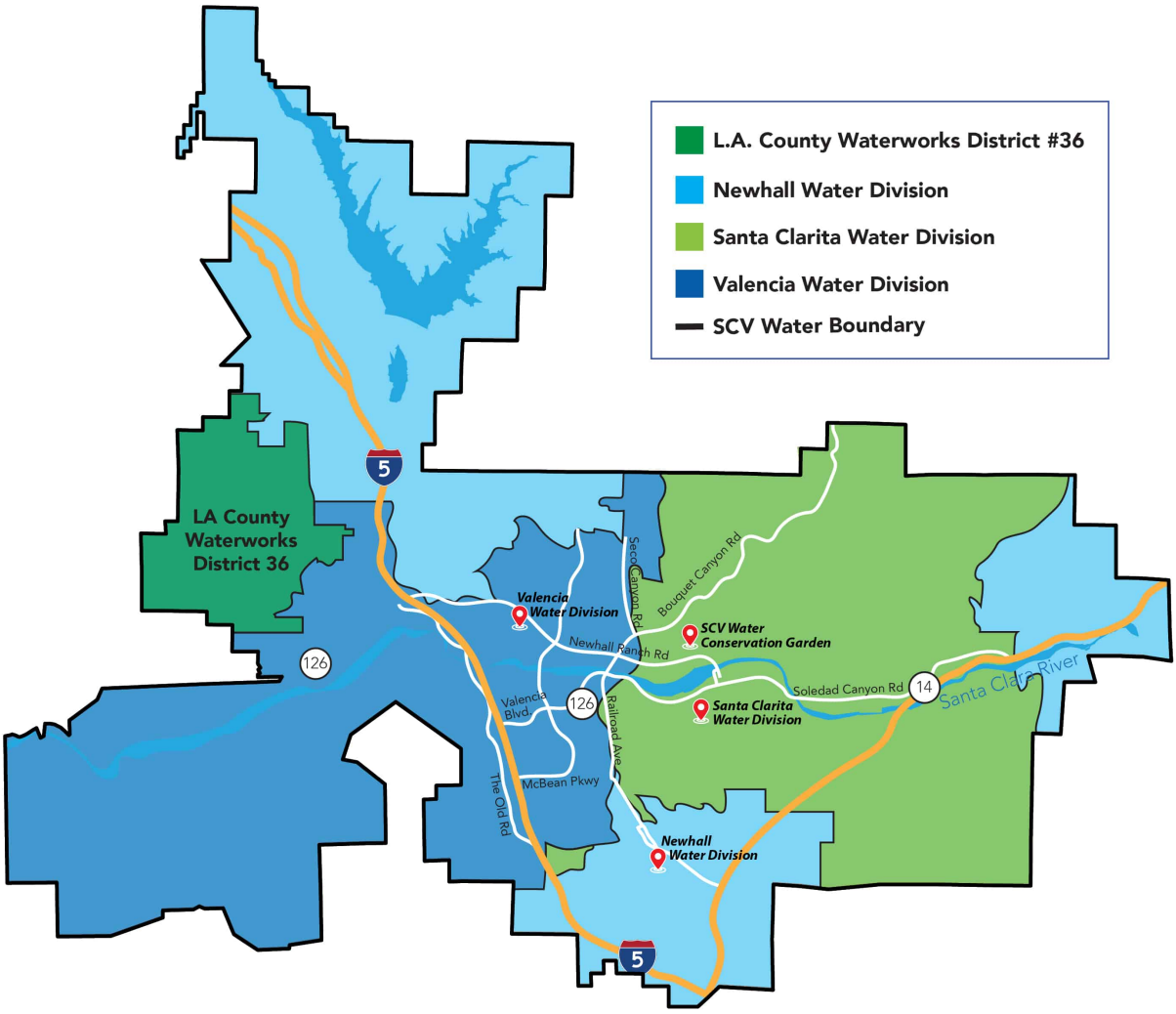
For reference, Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5165, enacted under section 104 of the Disaster Mitigation Act of 2000, P.L. 106-390, provides new and revitalized approaches to mitigation planning. Section 322, in concert with other sections of the Act, provides a significant opportunity to reduce the Nation's disaster losses through mitigation planning and emphasizing the need for State, local and tribal entities to closely coordinate mitigation planning and implementation efforts. An important requirement of the law is the development of local hazard mitigation plans. These plans must be developed, and approved by the CalOES and FEMA for the local jurisdictions to be eligible for HMGP funding from State- and Federal-declared disasters that occur after 2001. Local mitigation plans must be reviewed, updated, and re-approved by FEMA every five years to remain eligible. This LHMP has been completed to meet the requirements of the Act and the regulations established by FEMA.

1.2. Service Area Physical Setting

SCV Water's service area is located in the northern part of Los Angeles County approximately 33 miles north of the City of Los Angeles, 35 miles east of the City of Ventura, and 20 miles west of the City of Palmdale. The lowest elevation in its service area is 774 feet in Pinetree and the highest elevation is 2,887 feet in Tesoro. SCV Water's current service area encompasses approximately 195 square miles or 125,000 acres and serves a population of 280,192. SCV Water's service area is the same as one of its predecessor agencies, the former Castaic Lake Water Agency (CLWA). CLWA was the former wholesale water provider to the Santa Clarita Water Division, Newhall County Water District, and the Valencia Water Company. As you will read below, these three agencies were consolidated with the formation of SCV Water in 2018 in accordance with Senate Bill 634 (SB634). The major cities and unincorporated areas within SCV Water's service area includes the City of Santa Clarita and the unincorporated areas of Los Angeles County known as Stevenson Ranch, Castaic, Pinetree, and Tesoro and small sections in Ventura County.

Temperatures within SCV Water's service area range from an average high of 88ºF to an average low of 55ºF. The record high for the area is 110ºF, and the record low is 31ºF. The annual average rainfall for the area is 18 inches. The climate is characterized by hot, dry summers when temperatures can rise above 90º, and moderate winters, with rare freezing temperatures. A major portion of the precipitation occurs between December and March.

FIGURE 1. Santa Clarita Valley Water Agency Service Area Map



1.3. History

SCV Water was formed in 2018 by California State Senate Bill 634 which consolidated operations of CLWA with three retail water purveyors (Santa Clarita Water Division, Newhall County Water District, and the Valencia Water Company). Los Angeles County Waterworks District #36 is operated by Los Angeles County Public Works and receives wholesale water service from SCV Water.

1.4. Demographics

According to SCV Water's 2020 Urban Water Management Plan (UWMP), the SCV Water service area has a population of 280,192 of which 7.0% are under the age of 5, 25.8% are under the age of 18 and 11.7% are over the age of 65. The average person per household is 3.06 and the Median Household Income is $99,666. These datapoints and other relevant demographic data are summarized in Table 1 below.

TABLE 1. SCV Water Demographics

Demographic Category	Value
Age and Sex	
Persons under 5 years, percent	7.0%
Persons under 18 years, percent	25.8%
Persons 65 years and over, percent	11.7%
Female persons, percent	50.1%
Race and Hispanic Origin	
White alone, percent	71.0%
Black or African American alone, percent	3.9%
American Indian and Alaska Native alone, percent	0.8%
Asian alone, percent	11.1%
Native Hawaiian and Other Pacific Islander alone, percent	0.1%
Two or More Races, percent	5.9%
Hispanic or Latino, percent	33.5%
White alone, not Hispanic or Latino, percent	47.9%
Housing	
Owner-occupied housing unit rate, 2015-2019	70.0%
Median value of owner-occupied housing units, 2015-2019	$537,000
Median gross rent, 2014-2018	$2,647
Families & Living Arrangements	
Persons per household, 2015-2019	3.06
Education	
High school graduate or higher, percent of persons age 25 years+, 2015-2019	90.5%
Bachelor's degree or higher, percent of persons age 25 years+, 2015-2019	36.8%
Economy	
In civilian labor force, total, percent of population age 16 years+, 2015-2019	67.9%
Median household income (in 2018 dollars), 2015-2019	$99,666
Persons in poverty, percent	8.2%

Note: Categories and values presented in this table reflect those provided at: https://www.census.gov/quickfacts/fact/table/santaclaritacitycalifornia/PST045219 ; 2010-2019 data.

1.5. Population

According to SCV Water's 2020 Urban Water Management Plan (UWMP), SCV Water directly serves a total population of 280,192 and provides water resources to an additional 9,000 residents who are served by LACWWD 36) for a total of 289,192.

1.6. Existing Land Use

Based upon current land-use policies of the City of Santa Clarita and Los Angeles County within the boundaries of SCV Water, SCV Water projects that the undeveloped land within its boundaries will continue to be developed, as building of new homes and business around the nation are in full swing and booming. SCV Water's service area is being developed rapidly.

There are several large residential home development projects in various stages of the permitting process in the service area. The existing land uses within SCV Water are controlled by the City of Santa Clarita and Los Angeles County.

SCV Water operates within 49 pressure zones due to changes in elevation within its service area. Due to the intricate nature of operating many pressure zones, equal attention was directed to specific areas particularly vulnerable to certain hazards. These pressure zones are distributed as follows: Castaic – 3 zones; Newhall – 7 zones; Pinetree – 4 zones; Santa Clarita – 17 zones; Tesoro – 2 zones; and Valencia – 16 zones.

All of SCV Water's facilities listed below are vulnerable to drought, earthquakes, floods, windstorms and wildfire.

TABLE 2. Facility Vulnerability List

Facility	Drought	Earthquake	Flood	Wildfire	Windstorms
Administrative Offices		✓	✓	✓	✓
Water Treatment Plants	✓	✓	✓	✓	✓
Water Filtration Facility	✓	✓	✓	✓	✓
Wells	✓	✓	✓	✓	✓
Reservoirs	✓	✓	✓	✓	✓
Pump Stations	✓	✓	✓	✓	✓
Operations Facilities		✓		✓	✓
Warehouses		✓		✓	✓

1.7. Development

Currently, housing development in the service area is strong with at least 20 new home subdivisions under various stages of construction. Additionally, there are numerous shopping centers and businesses being developed in SCV Water's service area. Although it is not SCV Water's responsibility to approve new developments in the service (this function is done by the City of Santa Clarita and Los Angeles County), SCV Water is responsible for reviewing the development plans and determining if SCV Water is capable of providing water services to these new developments. If SCV Water has the capacity to serve water to the new developments, SCV Water will issue a 'Will Serve Letter'.

1.8. Water Development Trends

The water facilities required to accommodate new development may consist of the following components:

- Sources of Supply
- Booster Pumping Plants
- Water Pipeline Facilities
- Water Storage Reservoirs
- Water Treatment Plants

It is expected that the majority of future developments will occur in the southern and western portion of SCV Water's service area which will yield additional dwelling units and businesses. Some of the developments are equipped with dual-plumbed system to accommodate the future use of recycled water.

The Santa Clarita Valley has experienced significant growth in the last 20 years. Within the last several years, Santa Clarita growth has increased significantly following 8 years of recession in the United States.

As captured in the 2020 SCV Water UWMP, SCV Water projects growth within each category listed below. While water use efficiency is always at the forefront of SCV Water's goals, increased development will also increase water use. From 2020 to 2040, SCV Water projects the following increase to the drinking water sectors.

TABLE 3. SCV Water Projected Demands (2020 UWMP)

Water Use (AF)	2020	2050	% Increase
Single Family	34,300	39,100	14
Multi-Family	7,000	11,500	64
Commercial	5,300	7,300	38
Industrial	1,900	2,700	42
Institutional	2,400	2,000	-17
Irrigation	12,100	12,900	7
Other*	1,700	23,300	1271
Total	**64,700**	**98,800**	**53**

* Other water demands include recycled water and non-potable water demands, which will be expanded in future years.

1.9. Infrastructure Overview

Table 4 below provides an overview of the key facilities SCV Water currently owns and operates.

TABLE 4. SCV Water Facilities Overview

SCV Water Facilities Overview	
Facility	**Units**
Admin Office	5
Water Treatment Plants	2
Water Wells	42
Miles of Water Main	879
Booster Stations	52
Storage Reservoirs	96
Turnouts	24
Hydrants	7,126
Operations Facilities	2
Warehouses	3

SECTION 2. PLAN ADOPTION

2.1. Adoption by Local Governing Body

SCV Water is part of the Los Angeles County Operational Area. Prior to submittal of the plan to CalOES, SCV Water will post the final draft on its website and notify its residents to review and comment through posting on the website and by including notice of the plan in the SCV Water newsletter and on customer's monthly bills.

Pursuant to the mitigation planning regulations, SCV Water's LHMP will be submitted to CalOES for review and approval. CalOES will conduct a review of the Plan in accordance with the Code of Federal Regulations; once this review is complete and any revisions are made, CalOES will forward the plan to FEMA for another review and potential revisions. FEMA will notify SCV Water when FEMA has approved the final LHMP. Upon FEMA's approval of the LHMP, the SCV Water Board of Directors will forward a Resolution adopting the LHMP to CalOES, and CalOES will submit the Resolution to FEMA. ESS will then send a copy of the LHMP and Resolution to the Los Angeles Office of Emergency Management.

2.2. Promulgation Authority

This Hazard Mitigation Plan will be adopted by the SCV Water elected Board of Directors, following approval of the plan by CalOES and FEMA:

TABLE 5. SCV Water Board of Directors (2022)

Board of Directors	Division
Gary R. Martin (President)	One
Maria Gutzeit (Director)	Three
Jerry Gladbach (Vice President)	Two
Kathye Armitage (Director)	Three
BJ Atkins (Director)	Three
Beth Braunstein (Director)	One
Ed Colley (Director)	Two
William Cooper (Director)	One
Jeff Ford (Director)	Appointed Director for Los Angeles County Waterworks District #36
R.J. Kelly (Director)	One
Piotr Orzechowski (Director)	Two
Lynne Plambeck (Director)	Three

2.3. Primary Point of Contact

The points of contact are listed below:

Michael Alvord, Director of Operations & Maintenance
Santa Clarita Valley Water Agency
661-702-4429 (Office)
malvord@scvwa.org

Gary Sturdivan, ESS (Consultant)
Engineering Solutions Services
909-658-5974
gsturdivan@engineeringsolutionsservices.net

SECTION 3. PLANNING PROCESS

This section documents the planning process used to review and compile information that leads to an effective LHMP. A comprehensive description of the planning process informs citizens and other readers how the plan was developed and provides a permanent record of how decisions were reached. These decisions can be reconsidered, replicated, or modified in future updates. Documentation of how the public was engaged throughout the process is an integral part of the planning process.

This LHMP was completed with the coordination and involvement of SCV Water staff, representatives from the City of Santa Clarita and other local agencies and organizations that have a vested interest in the performance and resiliency of SCV Water. The consultant contacted the agencies below via email and provided a draft of the final LHMP to receive comments on the document and revised the document as necessary based on the comments received. SCV Water received no comments from the public. However, SCV Water Board of Directors had several comments on the LHMP, all comments are listed in Appendix D of this LHMP.

- LADWP – has underground facilities within the service area
- MWD – has underground facilities within the service area
- DWR – operator of Castaic Lake and the Castaic Dam
- Los Angeles County Sanitation District – sewer collection and treatment facilities
- Los Angeles County Department of Public Works – sewer and storm water collection
- City of Santa Clarita – sewer and storm water collection

Additionally, this section includes a list of the Planning Team Members and coordination efforts with the surrounding communities/groups, and public outreach efforts.

3.1. Plan Development Process

The Planning Team reviewed FEMA's "Hazard Mitigation Plan Crosswalk," the Los Angeles County HMP, and the City of Santa Clarita HMP. The consultant completed a FEMA Hazard Profile of the area to determine the most significant hazards in the area. The Hazard Profile maps were used in the planning meetings to show past flood areas, earthquakes, fire hazard zones, power outages, and other disasters that have historically affected the area. Other written documentation of past events was also reviewed. The team discussed the different events that have happened in the area, such as widespread fires, flash flooding, earthquakes, windstorms, and power outages. Some members of the planning team have been longtime residents of the community and have lived through many of these emergency events.

The planning process pursued by the consultant consisted of:

- Documenting past events
- Incorporating data
- Engaging the Planning Team
- Posting the meeting agendas, meeting minutes, and draft LHMP onto SCV Water's

website and asking for public input and comments on the LHMP sections
- Sharing information at the Board of Directors meetings
- Conducting public outreach

Drafting the Hazard Mitigation Plan was accomplished in 8 Phases:

FIGURE 2. Flow Chart for Developing a Hazard Mitigation Plan

During the planning process, the Planning Team used the following plans to gain information on the hazards facing the area and mitigation goals of Los Angeles County.

TABLE 6. Plans Reviewed by Team

Study Plan	Approval Date	Key Information
2018 California HMP	9/28/2018	Goals for the State of California
Los Angeles County, Approved HMP	2/9/2018	Hazard identification, mitigation measures
USGS Golden Guardian 2008	5/23/2008	Earthquakes, affects, planning
Santa Clarita Valley Water Agency Urban Water Management Plan	6/29/2021	Goals, hazards, water use and water demand
City of Santa Clarita Draft HMP	10/21/2021	Land use for area, future projects

TABLE 7. Financial Resources for Future Mitigation Project Funding

Local	Revenues	Amount
SCV Water's Budgets and Financial Planning Documents	Retail Water Sales, Wholesale Water Sales, Recycled Water Sales, Property Tax, and Facility Capacity Fee, Bonds	Varies from year to year
Grants and Reimbursements	Various funding sources	Varies from year to year
CalOES Mitigation Grants	SCV Water has applied for CalOES funding in the past	See below

TABLE 8. SCV Water Grant Funding Sources

Grant	Start Date	End Date	# of SCV Water Projects within Grant	SCV Water Project Names	Total Project Costs	Grant Funding	Funding Match (Non-State/Federal Share)	Other Non-State/Federal Share
DWR Prop 84 Round 1 Implementation	4/10/12	3/31/22	4	1. Grant Administration 2. SCV Water Use Efficiency Plan 3. Santa Clara River Sewer Truck Line Relocation 4. Recycled Water Project Phases 2B & 2D	$ 14,057,107	$ 6,264,551	$ 4,110,280	$ 7,792,556
DWR Prop 84 Round 2 Implementation	6/17/14	12/31/20	4	1. Grant Administration 2. CLWA SCV WUE Program 3. SCWD WUE Programs 4. Foothill Feeder Connection	$ 7,804,002	$ 4,008,399	$ 3,800,608	
DWR Prop 84 2014 Drought Grant	7/20/15	12/31/20	3	1. Grant Administration 2. RRB/CLWA Banking Program 3. CLWA/SWSD Extraction & Conveyance	$ 15,646,780	$ 11,535,067	$ 4,081,713	
DWR Prop 1 Sustainable Groundwater Planning	12/5/18	12/31/22	2	1. Grant Administration 2. Planning Activities	$ 2,047,434	$ 1,307,265	$ 740,169	
DWR Prop 1 Round 1 IRWM Implementation	9/24/20	3/31/26	2	1. Grant Administration 2. Recycled Water Phase 2C	$ 9,200,450	$ 3,216,800	$ 4,829,205	$ 1,154,445
Community Power Resiliency Allocation - Special Districts Program - CalOES subaward	7/1/21	10/31/21	1	Generator Replacement at Earl Schmidt Filtration Plant	$ 249,854	$ 249,854	$ -	

3.2. The Planning Team

The Planning Team compiled information and reviewed this LHMP under the authorization of the General Manager of SCV Water. The Planning Team members include:

Name: Michael Alvord
Title: Director of Operations and Maintenance
Description of Involvement: Lead for Internal Planning Team
Mike Alvord has worked in the water industry for 25 years. He received a Bachelor of Science degree in Biology and a graduate degree in Environmental/Occupational Health both from California State University, Northridge. He began his career as a Water Quality Specialist and is currently working as the Director of Operations and Maintenance for SCV Water. Mr. Alvord oversees all field operations, water quality and safety departments. Throughout his career he has been an integral part of various groundwater treatment projects, including perchlorate and per- and polyfluoroalkyl substances (PFAS) removal and centralized groundwater softening.

Name: Keith Abercrombie
Title: Chief Operating Officer
Description of Involvement: Internal Planning Team Member
Keith Abercrombie is the Chief Operating Officer of SCV Water and was the Retail Manager of SCWD. Mr. Abercrombie received his degree in Agricultural Business from Colorado State University and received his Master's degree in Business Administration, Agribusiness from Santa Clara University. Prior to employment with SCV Water, Mr. Abercrombie served as General Manager of the Valencia Water Company. Mr. Abercrombie previously worked at the Newhall Land and Farming Company serving as assistant to the Vice President of Agriculture and Manager of Energy Resources. Mr. Abercrombie holds a Grade 5 Water Distribution Operator certification and a Grade 2 Water Treatment Operator certification from the State Water Resources Control Board – Division of Drinking Water and is a member of the American Water Works Association and the Association of California Water Agencies.

Name: Steve Cole
Title: Assistant General Manager
Description of Involvement: Internal Planning Team Member
Steve Cole is the Assistant General Manager of SCV Water and was the general manager of the former NCWD, acting as the chief executive officer responsible for the operations and management of NCWD for the past thirteen years. He has over twenty years of experience dealing with a variety of issues in the water field and actively participates in the Association of California Water Agencies serving as the Region 8 Chair. Mr. Cole is certified by the State of California as a Grade V Water Distribution Operator, a Grade 3 Water Treatment Operator and a Registered Environmental Health Specialist. He received his Bachelor of Science degree in Environmental Science from Fresno State and his Master of Science degree in Environmental Science from California State University Northridge.

Name: Cheryl Fowler
Title: Management Analyst II
Description of Involvement: Internal Planning Team Member - Agency Coordination
Cheryl Fowler is a career administrative professional with over 35 years of experience in various industries including legal (transactional/litigation), real estate development, medical device design and marketing, technology, and most recently, seven years in the Water Resources Department at SCV Water. In 2018, possessing strong organizational skills, an understanding of legal terminology and contracts, and a penchant for following rules, she transitioned into grant administration when a need arose within the SCV Water. In that role, Ms. Fowler serves as the Project Manager on several multi-project state grants, acts as liaison to grantor agencies, and oversees and assists with preparation of state and federal grant and loan applications and contracting.

Name: Kathie Martin
Title: Communications Manager
Description of Involvement: Internal Planning Team Member - Public Outreach Coordination
Kathie Martin was first hired as the Public Information Officer for SCV Water in December 2017, and currently serves as the Communications Manager. She has 20 years of experience in government communications and holds a bachelor's degree from Cal Poly Pomona. Her areas of responsibility include strategic communications planning and implementation, media relations, stakeholder engagement, social media, and legislative affairs. She is also trained in crisis and emergency communications.

Name: Jose Diaz
Title: Emergency Preparedness and Safety Coordinator
Description of Involvement: Internal Planning Team Member
Jose Diaz has been with SCV Water for over a year. Mr. Diaz retired as a Firefighter with over 25 years and specialized in wildland fire fighting, emergency management, hazardous materials and technical rescue. He spent several years teaching basic and advanced firefighting skills with various organizations and assisted with the CERT program (community emergency response team). Mr. Diaz is a certified emergency medical technician (EMT) and certified BLS (basic life support) American Heart Association instructor for SCV Water.

Name: Rebecca Lustig
Title: Environmental Health and Safety Supervisor
Description of Involvement: Internal Planning Team Member
Rebecca Lustig is the Environmental Health and Safety Supervisor for SCV Water. She received her bachelor's degree and master's in Environmental and Occupational Health (EOH) from California State University, Northridge. Ms. Lustig worked for the Ventura County Environmental Health Division for 15 years and assisted in response and recovery activities related to the Thomas Fire, Woolsey Fire, and COVID pandemic. She is certified by the State of California as a Grade I Water Distribution Operator and is a Registered Environmental Health Specialist.

The Planning Team participated in monthly meetings to coordinate efforts, provide input, and receive support for the LHMP. The support received from the planning team included technical

expertise, resource materials, and tools. SCV Water facilitated the LHMP process and provided information to follow FEMA's requirements for the program. The tools, resource materials, and other project-related information are maintained on a project portal on SCV Water's website at www.yourSCVwater.com/lhmp/, which allowed access to the information by all participants and the public. All Draft LHMPs were posted on SCV Water's website and a press release issued. A statement was posted on social media (Facebook, Instagram and Twitter), the monthly e-newsletter and monthly bills letting the customers know how to access the LHMP. Gary Sturdivan's contact information was listed on the newsletter, press release and website for residents to direct their questions and concerns. The SCV Water LHMP Planning Team reviewed the document and made corrections or voiced concerns to the consultant. These comments were discussed at the next Team meeting, and corrections were then made to the document.

3.3. Coordination with other Jurisdictions, Agencies and Organizations

The Planning Team undertook several initiatives to inform other jurisdictions, agencies and organizations of the hazard mitigation planning effort and to solicit their input. The Planning Team discussed several alternatives, including hosting workshops, sending emails, and making phone calls to other agencies to stimulate communications. Due to the COVID-19 pandemic, contactless engagement processes were selected. The selected jurisdictions, agencies and organizations were invited to participate in meetings for the development of the LHMP.

The Consultant first called representatives from the City of Santa Clarita, Los Angeles County Sanitation District, Metropolitan Water District (MWD), Los Angeles Department of Water and Power, Los Angeles County Department of Public Works, Los Angeles Department of Water Resources, to discuss the upcoming LHMP and receive guidance. The Consultant sent a draft of various sections of the LHMP electronically to each reviewer and gave each a month to make comments. The Planning Team considered all comments received and incorporated them into the final document.

3.4. Public Involvement/Outreach

SCV Water engaged in a widespread announcement for preparation of the Plan by issuing a press release to invite the community members to participate in the process. The information was posted on social media (Facebook, Instagram and Twitter), customer bills and in the monthly newsletter "Water Currents" providing a link to SCV Water's website. Residents were asked to participate in an online survey (Survey Monkey) that was linked on SCV Water's website and provide their experience with natural disasters as well as their input on greatest threats to the community.

Residents were regularly informed and invited to participate in review of the draft documents as they were prepared and posted on SCV Water's website. The information was posted on social media (Facebook, Instagram and Twitter), and in the monthly newsletter "Water Currents" providing a link to SCV Water's website, where the draft LHMP sections were posted.

The Planning Team participated in monthly meetings on Zoom to coordinate public outreach efforts, post the relevant information and discuss the comments received from public for the

LHMP. The final draft LHMP was provided to the public during a 30-day review and comment period, as required by FEMA through SCV Water's website www.yourscvwater.com. The consultant's (Gary Sturdivan) contact email address and phone number were listed on the draft LHMP to receive all comments on the LHMP. The Appendices in this LHMP provide details of the public involvement process such as the meeting dates, purpose, agendas, public comments, and a screenshot of the webpage showing requests for public participation. This LHMP, with the accompanying appendices, will be sent to CalOES and FEMA.

3.5. Assess the Hazards

A critical component of the LHMP process is to assess the likely hazards that may have an impact on SCV Water's facilities and operations. It is important to have a thorough understanding of these hazards without over-analyzing remote or highly unlikely hazards to ensure the efficiency of the LHMP. This LHMP has been developed through an extensive review of available information on hazards SCV Water has faced in the past and that it will most likely face in the future.

The Planning Team reviewed and discussed state, regional, and local disasters that have happened in the State of California, in Southern California, and SCV Water's service area. The LHMP Planning Team reviewed documents such as engineering drawings, photographs, and available geotechnical and geologic data both from the internet and outside sources such as FEMA Hazard Mapping, Los Angeles County hazard maps, and other documents. SCV Water used a GIS database to provide mapping of critical hazard risk areas. The team used data from this mapping to determine hazards that present the greatest risk to SCV Water.

The Planning Team completed the assessment of the various hazards in a group setting. The team members have many years of personal experience working in the local area and many working in a water utility agency. Team members know the history of past hazardous or emergency events, such as the California fire incidents in 2018 and 2019, the 6.7 magnitude Northridge earthquake of 1994 and several other hazards and the effects on SCV Water.

3.6. Set Goals

The process of identifying mitigation goals began with a review and validation of damages caused by specific hazards at similar agencies in the surrounding area. Damages to other agencies outside the area were also considered. In addition, the Planning Team estimated damages using engineering budget estimates for anticipated response and replacement costs. The Planning Team completed an assessment of the likelihood and damages for each identified hazard and discussed whether each of the mitigation goals were valid. This discussion led to the identification of new goals and objectives for mitigation in the LHMP. From this, the Planning Team determined the best mitigation goals to reduce or avoid long-term vulnerabilities.

3.7. Review and Propose Mitigation Measures

A wide variety of mitigation measures that can reduce the impact of the hazards or the severity of damage from hazards were examined. These measures were identified to help ensure the

implementation of the Planning Team's goals and objectives. The following categories were used in the review of possible mitigation measures:

1. Public Information and Education – Outreach projects and technical assistance
2. Preventive Activities – Zoning, building codes, stormwater ordinances
3. Structural Projects – Retention basins, reservoirs, road, and bridge improvements
4. Property Protection – Acquisition, retrofitting
5. Emergency Services – Warning, sandbagging, road signs/closures, evacuation
6. Natural Resource Protection – Wetlands/environmental protection, best management practices

Throughout the discussions, the Planning Team focused on the mitigation aspects recommended by FEMA in STAPLEE (Social, Technical, Administrative, Political, Legal, Economical, and Environmental) to arrive at their suggestions. The Planning Team then prioritized the individual mitigation measures considered the most appropriate for SCV Water.

Based on STAPLEE, the Planning Team addressed the following questions to determine mitigation options:

Does the Action:

1. Solve the problem?
2. Address vulnerability assessment?
3. Reduce the exposure or vulnerability to the highest priority hazard?
4. Address multiple hazards?
5. Address more than one (1) goal/objective?
6. Benefits equal or exceed costs?

Can the Action:

1. Be implemented with existing funds?
2. Be implemented by existing state or federal grant programs?
3. Be completed within the 5-year life cycle of the LHMP?
4. Be implemented with currently available technologies?

Will the Action:

1. Be accepted by the community?
2. Be supported by community leaders?
3. Adversely impact segments of the population or neighborhoods?
4. Result in legal action such as a lawsuit?
5. Positively or negatively impact the environment?

Is there:

1. Sufficient staffing to undertake the project?

2. Sufficient funds to complete the project?
3. Existing authority to undertake the project?

3.8. Draft Local Hazard Mitigation Plan

SCV Water's consultant led the Planning Team and prepared the draft LHMP with input from the Planning Team, representatives from other organizations, and the public. The Planning Team reviewed and commented on the draft LHMP, and subsequent changes were made before the LHMP was finalized and submitted to CalOES. All draft sections of the LHMP were posted on SCV Water's website. Customers and other agencies in the service area were notified via email, social media, press release and a monthly e-newsletter, stating that all LHMP documents were posted at www.yourSCVwater.com/LHMP and asked for comments. The consultant, Gary Sturdivan, addressed all comments and concerns by email or phone calls.

The LHMP was reviewed in comparison to the FEMA-designed Review Tool. The Review Tool links the federal requirements and identifies the sections in the LHMP where the information can be found and provides a rating as to the level of compliance with the federal regulations.

3.9. Adopt the Plan

After the public review, the draft plan will be submitted to CalOES for review. Once the CalOES has approved the LHMP, the document will be sent to FEMA by CalOES. FEMA will provide SCV Water with an "Approval Pending Adoption" letter when the LHMP update meets all federal requirements. Upon receipt of this letter, the final plan will need to be submitted to SCV Water's Board of Directors for consideration and adoption. Once adopted, the adopting Resolution will be submitted to FEMA and CalOES for incorporation into the LHMP. A copy of the final LHMP will be delivered to Los Angeles County office of Emergency Management.

SECTION 4. RISK ASSESSMENT

The goal of mitigation is to reduce the future impacts of a hazard, which can include property damage, disruption to local and regional economies, and the amount of public and private funds spent for recovery. Mitigation decisions are based on risk assessments where the probability of an event is evaluated with respect to the anticipated damages caused by the event.

The purpose of this section is to understand the hazards and their risks in SCV Water's service area. There are generally four steps in this process which include; Hazard Identification, Vulnerability Analysis, Risk Analysis and Vulnerability Assessment. The Vulnerability Assessment also includes an estimation of potential losses.

4.1. Hazard Identification

The Planning Team discussed potential hazards and evaluated their probability of occurrence. The following sections describe this process and the results.

4.2. Hazard Screening Criteria

The intent of screening the hazards is to help prioritize which hazards create the greatest concern to SCV Water. A list of natural hazards to consider was obtained from Federal Emergency Management Agency's (FEMA) State and Local Mitigation Planning How-to Guide: Understanding Your Risks (FEMA 386-1). The team used the Stafford Act, the California Emergency Service Act and STEPLEE (Social, Technical, Administrative, Political, Legal, Economic, and Environmental) feasibility criteria to help rank each risk. The risks were given a

ranking of 1 – 4: with (1) being a “Highly Likely” event, (2) being a “Likely” event (3) being a “Somewhat Likely” event, and (4) being a "Least Likely" event

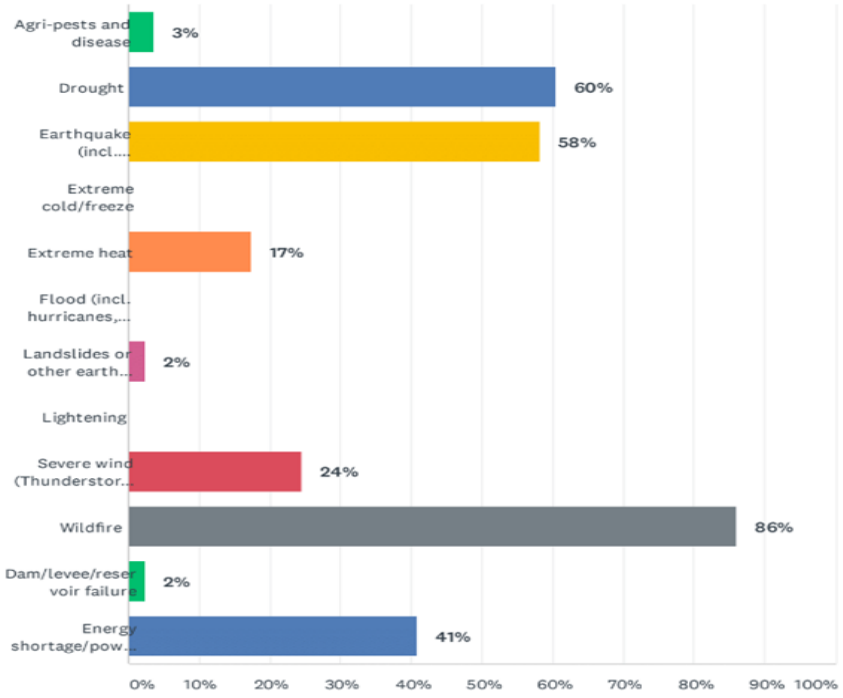
The Planning Team reviewed each hazard on the list using their experience, considering the public survey, and historical data pertaining to each hazard and developed the following ranked list in Table 9. The natural hazards that were considered not to affect or be a risk to SCV Water were given a ranking of 4 and are not considered applicable to SCV Water for mitigation.

TABLE 9. Hazard Risk Rankings

Hazard	Risk Ranking (1-3)
Earthquake	1
Wildfire	2
Climate Change Induced Drought	2
Flooding	3
Windstorm	3
Dam Inundation	3
Volcanoes	4
Tsunami Liquefaction	4
Landslides	4

SCV Water released an online survey to the public to understand its constituents’ hazard concerns. Figure 3 is the survey results for the top three hazards within the service boundaries. The full survey report is located in Appendix B.

FIGURE 3. SCV Water Constituents Survey Results: Top Three Hazards



Hazard Assessment Matrix
SCV Water used a qualitative ranking system for the hazard screening process consisting of generating a high/medium/low style of rating for the probability and impact of each screened hazard. The probability and impact ranking system categories are summarized as follows:

Probability Ratings: Highly Likely, Likely, or Somewhat Likely
Impact Ratings: Catastrophic, Critical, or Limited

Screening Assessment Matrix
The Planning Team used a screening assessment matrix to prioritize SCV Water's hazards to be mitigated. The hazards have been placed in the appropriate cell of the corresponding "Screening Assessment Matrix" based on the Planning Team's collective experience. The hazard screening assessment is shown in Table 10. Prioritization of the hazards is discussed in the following section. The probability and impact ranking are based on a 5-year occurrence and are presented as percentages representing the likelihood of the hazard within the 5-year occurrence.

TABLE 10. Screening Assessment Matrix

	Impact			
Probability	**Probability/Impact Rating**	*Catastrophic*	*Critical*	*Limited*
	Highly Likely (1) *(75 – 100%)*	Earthquake		
	Likely (2) *(50-75%)*		Climate Change Induced Drought	Wildfires
	Somewhat Likely (3) *(25 – 50%)*	Dam Inundation		Flooding Windstorms

4.3. Hazard Profiles

This section looks at all the hazards identified by the Planning Team that may affect SCV Water within its boundaries. This section also provides an overview of each hazard, the definition of each hazard, and a description of how each hazard is expected to affect SCV Water's service and/or service area. The expected effects of each hazard are predicted using observed hazards in SCV Water's service area, the hazards identified on the FEMA website, and the FEMA software program known as HAZUS. HAZUS contains models of natural disasters and the effects the disasters can have on a region. The subsequent sections provide the results of the probability, impact, and priority ranking of each notable hazard as well as general information on the hazard.

The below sections provide information for all the hazards affecting the agency as identified by the Planning Team within its boundaries.

4.3.1. Earthquakes

Probability: (75-100%)
Impact: Catastrophic
Priority: Highly Likely

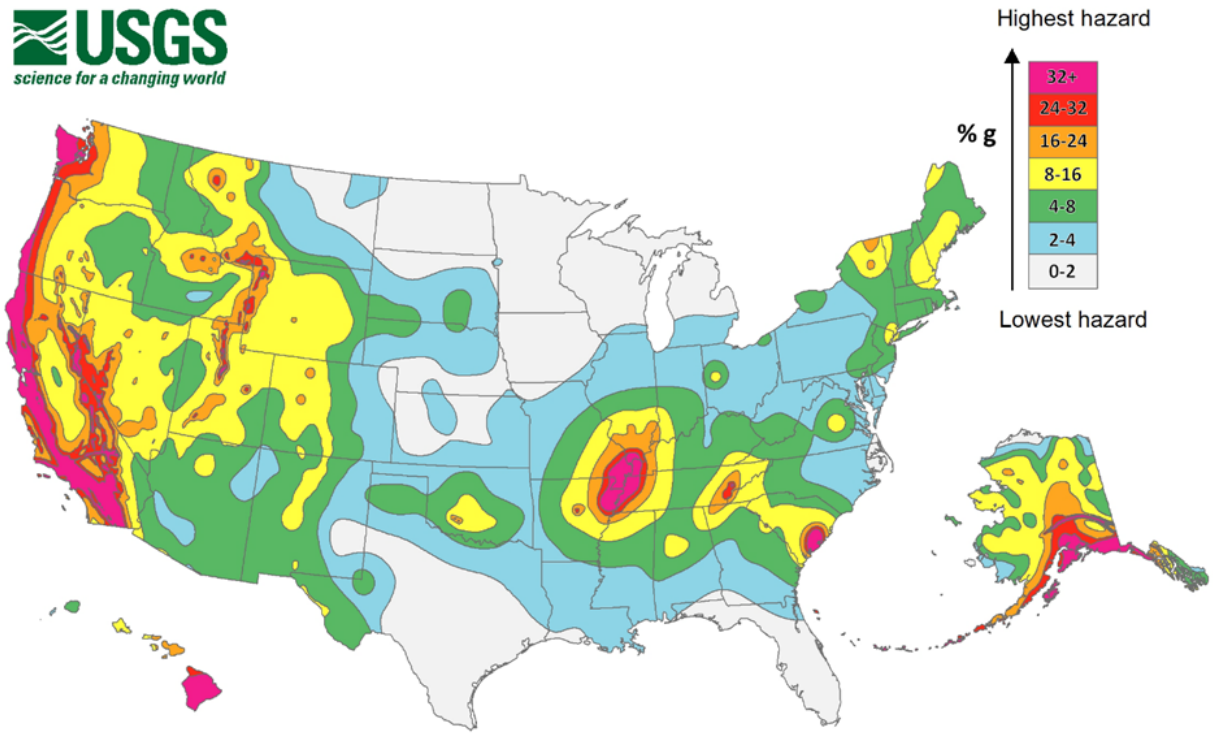
General Definition: An earthquake is defined as a sudden, rapid shaking of the earth caused by the breaking and shifting of rock beneath the earth's surface. For hundreds of millions of years, the forces of plate tectonics have shaped the earth's surface. As the plates move slowly over, under, and past each other, mountains, valleys, and all other geological formations are created. Usually, the movement is gradual; however, increased movement occurs when the plates become locked together for long periods of time and are unable to release the accumulating energy. When the accumulated energy grows strong enough, the plates break free causing the ground to shake. Most earthquakes occur at the boundaries where plates meet; however, some earthquakes occur in the middle of plates.

Ground shaking from earthquakes can cause liquefaction, landslides, fires, tsunamis, utility pipeline failures, dam failures, collapse of buildings and bridges, disruption of utilities (gas, electric, water, and phone services). Buildings with foundations resting on unconsolidated fill material and other unstable soil, as well as homes not tied to their foundations, are at risk because they can be shaken off their mountings even during a mild earthquake. When an earthquake occurs in a populated area, it may cause deaths, injuries, and/or extensive property damage to the local population.

Earthquakes strike suddenly at any given time of year and without warning. On a yearly basis, 70 to 75 damaging earthquakes occur throughout the world. Estimated of losses from a 7.8 magnitude earthquake in the southern section of the San Andreas Fault System (located in the regional area near Los Angeles County) could easily reach $200 billion in damages. This information was gathered from the California Great ShakeOut United States Geological Survey (USGS) scenario.

Earthquakes pose a moderate to very high risk for 45 states and territories in the United States of America, and can occur in every region of the Country. Of the 45 states and territories, California experiences the most frequent damaging earthquakes. However, Alaska experiences the greatest number of large earthquakes, most located in uninhabited areas. The nearby southern section of the San Andreas Fault is ranked in the top five (5) most likely faults to cause major damage in the United States by USGS.

FIGURE 4. United States Earthquake Hazard Map



The greatest earthquake threat in the United States is along tectonic plate boundaries and seismic fault lines located in the central and western states. A new earthquake rupture forecast for California was developed by the 2007 Working Group on California Earthquake Probabilities (WGCEP 2007). The Earthquake Working Group was organized in September 2005 by the USGS, the California Geological Survey (CGS), and the Southern California Earthquake Center (SCEC) to better understand the locations of faults in California. The group produced a revised, time-independent forecast for the National Seismic Hazard Map for California.

Description: Several earthquake faults run through or in close proximity to SCV Water's boundaries; however, the San Fernando Fault and San Andreas Fault lines are the most known.

The San Fernando Fault runs though SCV Water's service area on an east-west trajectory. This fault can generate a maximum moment magnitude of 6.7 approximately every 200 years.

The San Andreas Fault is located approximately 16 miles northeast of SCV Water's service area along a north-south trajectory and is the dominant active fault in California. There have been numerous historic earthquakes along the San Andreas Fault. This fault can produce a moment magnitude of 8-8.5 magnitude. Geologists estimate the recurrence interval of a major quake along this fault to be 130-140 years.

The San Gabriel Fault Zone is primarily right-lateral strike-slip with an estimated magnitude of 7.2 and approximately 140 km long. Reoccurrence intervals for this fault is not known.

The Holser Fault trends along the northern border of the Santa Clarita River Valley. This fault is

an east-west trending fault that dips to the North. It is capable of generating a maximum moment magnitude of 6.5. The interval between major ruptures on this fault is uncertain.

While there have been many earthquakes in and around SCV Water, there has not been a major earthquake in many years. In an event that there is an earthquake from multiple faults it would disrupt SCV Water's water service infrastructure.

FIGURE 5. Santa Clarita Valley Water Agency Fault Map

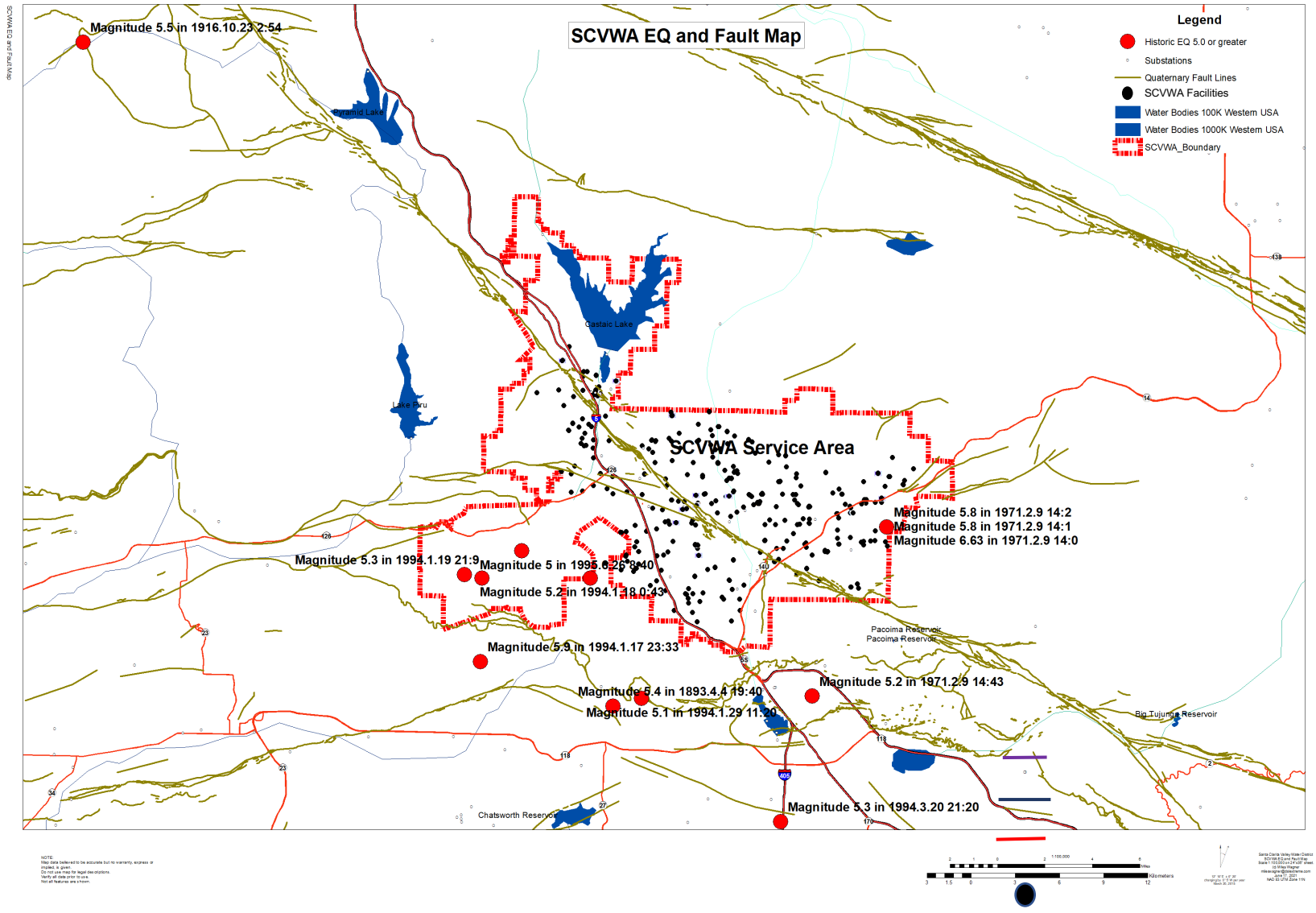


FIGURE 6. Santa Clarita Valley Water Agency, USGS ShakeOut Map

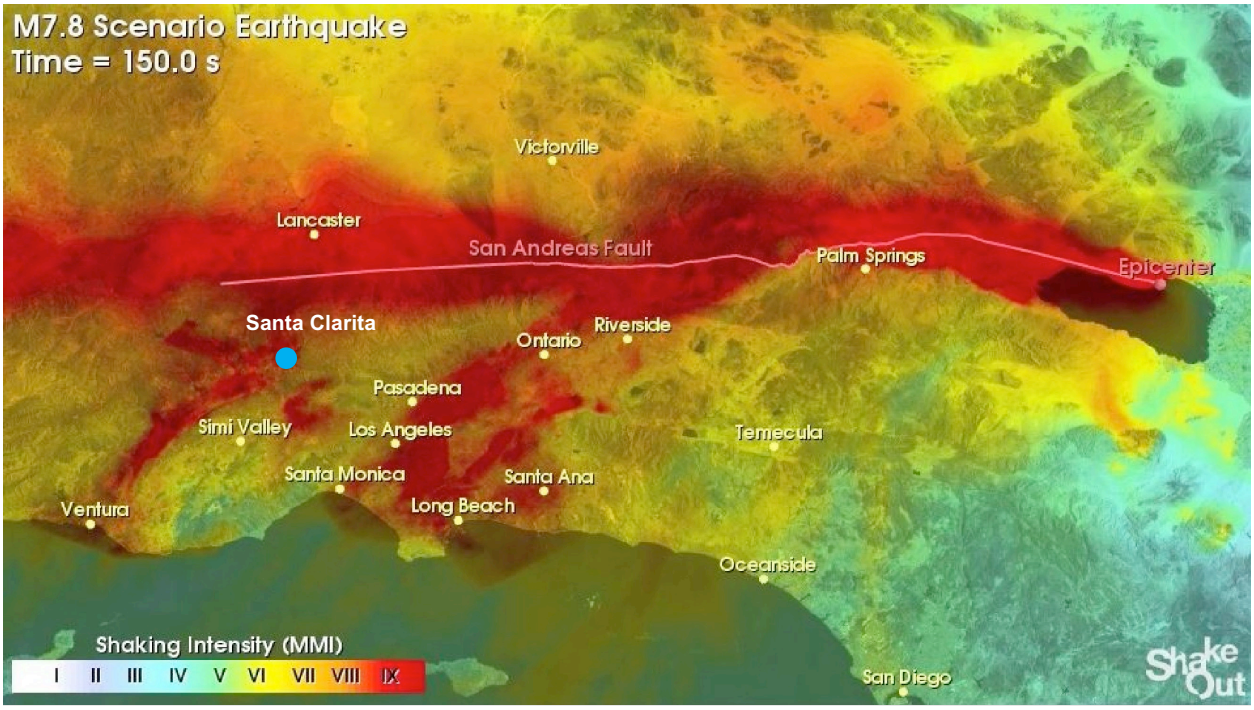


FIGURE 7. USGS Modified Mercalli Intensity Scale

Intensity	Shaking	Description/Damage
I	Not felt	Not felt except by a very few under especially favorable conditions.
II	Weak	Felt only by a few persons at rest,especially on upper floors of buildings.
III	Weak	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
IV	Light	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V	Moderate	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Strong	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
VII	Very strong	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII	Severe	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Violent	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Extreme	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.

TABLE 11. Significant Southern California Earthquakes

Date	Area	Location	Mag	MI	Total damage / notes
4/5/2019	Kern/SB	Ridgecrest/Trona	7.1 M_w	VI	Unknown
7/4/2019	Kern/SB	Ridgecrest	6.72M_w	VIII	Limited
7/29/2008	Los Angeles Area	Chino Hills Earthquake	5.5 M_w	VI	Limited
10/16/1999	Eastern	Hector Mine Earthquake	7.1 M_w	VII	Limited
*1/17/1994	Los Angeles Area	Northridge Earthquake	6.7 M_w	IX	$13–$40 billion
6/28/1992	Inland Empire	Big Bear Earthquake	6.5 M_w	VIII	Moderate/Triggered
6/28/1992	Inland Empire	Landers Earthquake	7.3 M_w	IX	$92 million
4/22/1992	Inland Empire	Corona	6.3 M_w	VII	Light–moderate
6/28/1991	Los Angeles Area	Sierra Madre Earthquake	5.6 M_w	VII	$33.5–40 million
2/28/1990	Los Angeles Area	Upland Earthquake	5.7 M_w	VII	$12.7 million
11/24/1987	Imperial Valley		6.5 M_w	VII	Triggered
11/23/1987	Imperial Valley		6.1 M_w	VI	$3 million
10/1/1987	Los Angeles Area	Whittier Narrows Earthquake	5.9 M_w	VIII	$213–358 million
7/21/1986	Eastern	Chalfant Valley Earthquake	6.2 M_w	VI	$2.7 million / sequence
7/13/1986	South Coast		5.8 M_w	VI	$700,000
7/8/1986	Inland Empire	North Palm Springs Earthquake	6.0 M_w	VII	$4.5–6 million
4/26/1981	Imperial Valley	Calexico	5.9 M_w	VII	$1–3 million
5/25/1980	Eastern	Salton Sea	6.2 M_w	VII	$1.5 million/Swarm

*Events with an asterisk indicate a direct effect on SCV Water.

The General Manager of the Valencia Water Company (now part of SCV Water) published an

abstract titled: “Northridge Earthquake: A Review of the Performance of Various Water Main and Service Line Materials”. This paper notes that “the Northridge earthquake dewatered the Valencia water system in 30 minutes from three water storage tank failures and hundreds of water main and service line breaks.” Three other water storage tanks had significant but repairable damage. The earthquake disabled electricity and phone communications, which rendered the Supervisory Control and Data Acquisition (SCADA) system non-functional. Most of the significant ‘above-ground’ issues were identified within a matter of hours such as destroyed water storage tanks or collapsed walls at well sites. Some indications of underground pipeline failures were obvious because of cavities in water storage tank access roads or public roadways while other below-ground failures were less obvious. Electrical service was restored to portions of the service area within 12 hours with all electrical service restored in 24 hours. At that point the task of evaluating the condition of the pumping equipment (wells and booster stations) began. Fortunately, most of these facilities were operable, suffering from only minor damage such as wall failure or piping breaks within the facilities.

The majority of the pipeline breaks were experienced by asbestos-cement pipe. These breaks were generally beam breaks or collar breaks. While there are less steel or ductile iron pipe in the system, there were a number of failures with these types of materials as well. Steel pipe failed at weld-joints at angle points but also on straight runs. Several instances of ductile iron failure appeared to be caused by the pipes separating at the joints (push-on type fittings). Connections on bridges oftentimes failed at the abutments.

Service lateral failures typically occurred at the connection point with the mainline or at the meter box location. Both PVC and PE laterals performed similarly, with most breaks at the connection points. Within four days of the earthquake, Valencia had restored service to 75% of its customers. Progress continued but the remaining customers out of service were not fully back in service until 13 days after the earthquake. The boil-water notice was lifted a week after water services were restored, which was 19 days after the earthquake itself. Though service was restored, repairs would continue for 1 ½ to 2 years after the earthquake. Due to the necessity of returning service to customers as quickly as possible, some repairs were made without the proper materials or coating systems. These would need to be repaired again in the future in the event of a significant earthquake. Also, the destruction of three water storage tanks and damage to three other tanks required some temporary connections between zones to allow for the repairs and reconstruction of the tanks. These temporary inter-connections would need to be removed once the tanks had been repaired and replaced.

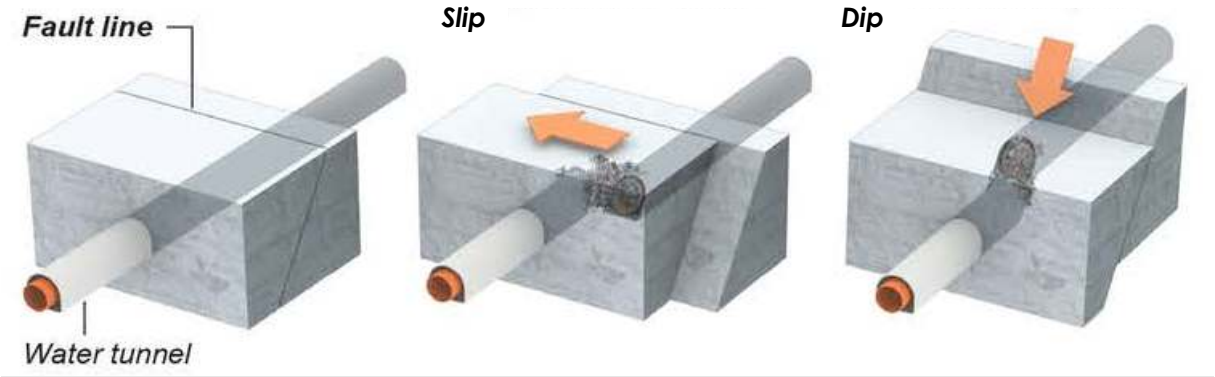
Impact Statement: A significant earthquake could have a devastating impact on SCV Water and its assets. Shaking during earthquakes can cause structural failures, while ground displacement and liquefaction can cause infrastructure to sink, sag, float, rupture, or sever completely. Access to all assets may be impeded if the access roads are damaged and impassable. An extended loss of power or widespread damage to a system could impair SCV Water’s ability to provide service, especially if generators are compromised. This could, in turn, lead to not only a loss service but also a loss of revenue during a time when costly repairs are required. Fires following earthquakes are also a significant concern and could affect operations. A severe earthquake would have direct impacts to SCV Water personnel as well, which would impede the ability of essential personnel to report for duty and may further hinder operations.

Domestic Water Assets

Ground shaking, displacement, and liquefaction may cause structural failure of steel reservoirs (e.g., elephant foot buckling), as demonstrated by the Landers Earthquake. Water treatment plants and wells could also fail due to severe shaking or when the ground beneath them becomes displaced.

Breaks in piping (water mains, laterals) can not only cause physical damage to pipes but can also cause loss of pressure needed to keep a water system functioning. Figure 8 below shows how different types of ground displacement can sever pipes. Cast iron pipes have the highest susceptibility to breaking during earthquake events. Asbestos cement pipes have moderate to high susceptibility to breaking and are particularly vulnerable to liquefaction. Pipes are most prone to breaking at connections to above-ground structures, such as reservoirs, treatment plants, or booster stations. To mitigate this vulnerability, SCV Water has installed flexible pipe fittings where many pipes meet these types of structures.

FIGURE 8. How Ground Displacement Can Sever Pipes



Liquefaction may cause buried domestic water pipes to sink, affecting gravity-fed systems. Once liquefied soils re-solidify after an earthquake, they would need to be uncovered and repaired. Lateral spreading may damage wells and percolation ponds.

SCV Water could experience a loss of water from damaged systems. SCV Water has installed earthquake shutoff valves that will automatically stop water from being released from its reservoirs if seismic shaking above a magnitude 5.0 is detected to help mitigate potential water loss at reservoirs.

Irrigation assets similar to water pipelines, ground shaking, displacement, and liquefaction may cause irrigation canals and laterals to crack, sever and otherwise fail.

Earthquakes may also trigger landslides that can damage utility service lines. The size of a landslide usually depends on the geology, moisture content, and the nature of the underlying materials and hillside conditions. Areas where landslides have occurred before or areas that have been altered for construction of buildings and roads and steep slopes are more susceptible to experiencing landslides.

As a result of the magnitude 6.7 Northridge, California, earthquake, more than 11,000 landslides occurred over an area of 10,000 square kilometers. Most were in the Santa Susana Mountains and in mountains north of the Santa Clara River Valley. The earthquake destroyed dozens of homes, blocked roads, and damaged oil-field infrastructure.

Building Facilities
Shaking, ground displacement, and liquefaction have the potential to cause structural failure to buildings, including the office buildings at SCV Water's administrative locations. Less catastrophic events may cause unanchored furniture and items on shelves to fall. If an event were to occur during working hours, failure may result in employee and customer deaths and injuries. Further, crews out in the field may also be subject to injury or death.

Energy Storage and Power Failure
An adequate supply of energy is critical for SCV Water to maintain its daily processes and functions. Power failures occur when the reliable, uninterrupted supply of energy to all or part of service area is disrupted, causing detriment to the SCV Water's ability to provide service.

In summary, the SCV Water service area, inclusive of all current and future assets (infrastructure, buildings, critical facilities, and population), are considered at-risk to earthquake events.

4.3.2. Wildfires

Probability: (50-75%)
Impact: Limited
Priority: Likely

General Definition: A wildfire is any fire occurring in a wildland area (i.e. grassland, forest, brush land) except for fire under prescription or a "controlled burn" fire, undertaken by land management agencies. For reference, controlled burn is the process of igniting fires under selected conditions, in accordance with strict parameters, in order to reduce the impact of a wildfire. Wildfires are natural events that contribute to the natural management of wildland ecosystems; however, wildfire may also be caused by human activity. Nationally, more than 80 percent of wildfires are started by negligent human behavior such as smoking in wooded areas or improperly extinguishing campfires. The second most common cause for wildfire is lightning. Other common causes of wildfires are downed utility poles or power lines.

There are three classes of wildland fires: surface fire, ground fire, and crown fire. A surface fire is the most common of these three classes and burns along the floor of a wildland area, moving slowly and killing or damaging trees and plants. A ground fire (muck fire) is usually started by lightning or human carelessness and burns on or below the forest floor. Crown fires spread rapidly by wind and move by jumping along the tops of trees. Wildland fires are usually signaled by dense smoke that fills the area for miles around.

Wildfire probability depends on local weather conditions, outdoor activities such as camping,

debris burning, and construction, and the degree of public cooperation with fire prevention measures. Drought conditions and other natural hazards (such as tornadoes, severe winds, etc.) increase the probability of wildfires by producing fuel in both urban and rural settings. Cyclical climate events, such as El Niño-La Niña events, can also have a dramatic effect on the risk of wildfires. Fewer fires are typically seen during El Niño (when more rain is present) and larger, more frequent fires are typical during La Niña events.

California is highly susceptible to wildfires, especially during the fall and summer months. Southern California experiences Santa Ana winds that develop mostly in the late summer and fall seasons. These winds are known for their high speeds and drying effect, which turn the natural grasses brown and dry. These winds are also capable of causing downed power lines that can start fires in the mountains and hills. The fires are driven by the high winds and can become large events that destroy enormous areas, including towns and cities, leading to loss of life and millions of dollars in property damage. In the jurisdictional boundaries, brush fires are known to jump from place to place due to patches of dry vegetation and winds. The fires that burned in and around the Santa Clarita Valley in October of 2003 were made far more dangerous by Santa Ana winds that continually changed directions and enabled the fire to spread extremely quickly. Eventually the fire threatened thousands of homes in the western Santa Clarita Valley before firefighters gained control of and extinguished the blaze.

Description: Local wildfires are a significant concern to SCV Water because the service area is arid and surrounded by a mountainous terrain that influences the air movement. For example, canyons can funnel air and act as chimneys, which can intensify fire and cause it to spread faster. From an urban setting perspective, another influential factor is the presence of diverse fuels in the landscape, such as natural vegetation, manmade structures, and combustible materials. In addition, weather patterns combined with certain geographic locations can create a favorable climate for wildfire activity. Areas where annual precipitation is less than 30 inches per year are extremely fire susceptible. Recent concerns about the effects of climate change, particularly drought, contribute to concerns about wildfire vulnerability. Unusually dry winters, or significantly less rainfall than normal, can lead to relatively drier conditions and leave reservoirs and water tables lower, thereby reducing the amount of water available to fight wildfires. Prolonged drought leads to problems with irrigation and may contribute to additional fires, or additional difficulties in fighting fires.

The largest fire in the area has been the Powerhouse Fire that began on May 20, 2013, and lasted for 10 days before it was contained. This fire burned over 30,000 acres, resulted in 10 injuries and destroyed 58 structures. Several lawsuits were subsequently filed alleging that the Los Angeles County of Department of Water and Power (LACDWP) was responsible for the fire because of poor equipment maintenance and power lines near the DWP Powerhouse No. 1 power plant off San Francisquito Canyon Road.

SCV Water has facilities within the FEMA fire zone, which would be adversely affected by a large, uncontrolled, wind-driven fire in mountainous areas that could easily spread throughout SCV Water's territory. SCV Water is also concerned about the impact wildfires can have on electrical outages thus limiting water operations and services during a wildfire event.

FIGURE 9. SCV Water Fire

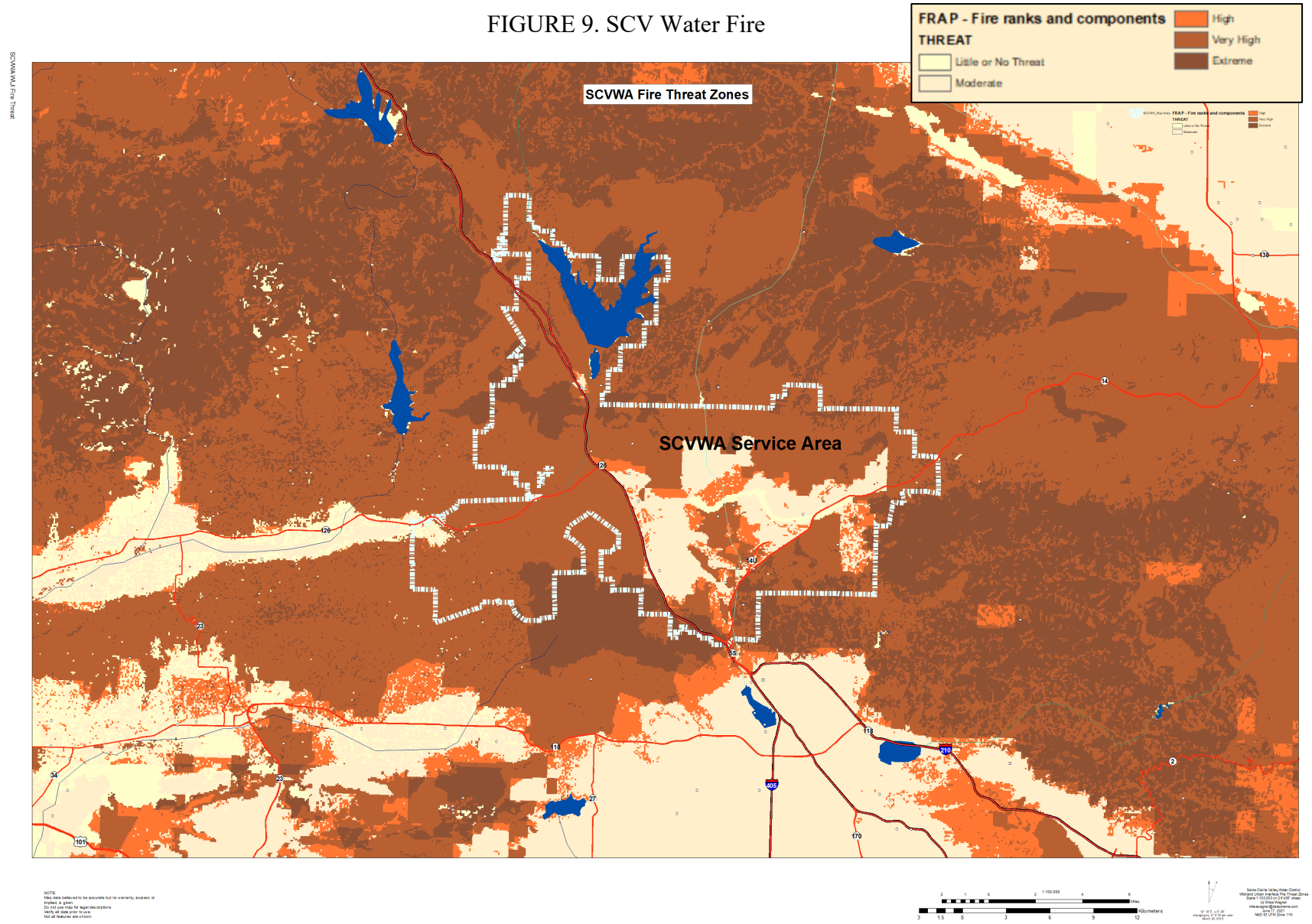


Figure 9 above shows that 80-90 percent of SCV Water's territory is located in a Very High to Extreme fire threat area.

TABLE 12. Santa Clarita Wildfires

Fire Name	Date	Acres Burned
North Fire	April 2021	650
Soledad Fire	July 2020	1,525
Castaic Fire	August 2020	178
Tick Fire	October 2019	4,615
Stone Fire	June 2018	1,352
Charlie Fire	August 2018	3,380
Rye Fire	December 2017	6,049
Castaic Fire	August 2017	30
Lake Fire	June 2016	800
Sage Fire	July 2016	1,109
Calgrove Fire	June 2015	415
Powerhouse Fire	May 2013	30,274
Lake Fire	May 2013	712
Magic Fire	May 2013	149

Impact Statement: Wildfire events have the potential to cause a variety of impacts to SCV Water and its assets. Wildfires could directly damage above-ground assets that are burned or melted by fires. In addition, wildfires have the potential to cause damage to underground pipes in domestic water systems, as demonstrated in Santa Rosa, CA, where heat from a wildfire melted underground pipes, causing benzene to leach into the water supply. Wildfires may also impede access to assets that need maintenance or repair which could pose life safety threats to SCV Water employees trying to access those assets. SCV Water will also need to supply water for fighting wildfires, which could affect available supply.

In addition, wildfires can also have indirect, or cascading, hazards to SCV Water. For example, wildfires can cause power outages if utility lines are damaged or downed. Once the wildfire has burned through an area and destroyed the natural vegetation, the burned areas are much more susceptible to landslides, as demonstrated by the 2018 mudflows in Montecito, CA. Further, large wildfires may have devasting impacts to agricultural and/or tourism industries, which would have widespread economic impacts throughout the area.

Of note, many individual homes and cabins, subdivisions, resorts, recreational areas, organizational camps, businesses, industries, and the water infrastructure serving those areas are located within high wildfire hazard areas. This results in the need to build infrastructure in wildfire hazard areas.

A power outage has the potential to disrupt services provided in the service area. SCV Water relies on an adequate energy source to power many of its assets, including booster stations, lift stations, reclamation plants, water treatment plants, and any other asset that requires an electrical

component. SCV Water has back-up power supplies located at a number of its critical assets to minimize the impacts of power outages. However, long term outages may exceed fuel required to power back-up generators. This could compromise nearly all services including domestic water delivery, water treatment, and irrigation. Administrative buildings also require an energy source and disruptions could compromise operations, billing, and communications. A loss of power resulting in the inability of SCV Water to provide essential services could have direct impacts in terms of revenue loss and reputational impacts, in addition to far-reaching community impacts.

In summary, the entire service area, inclusive of all current and future assets (infrastructure, buildings, critical facilities, and population), are considered at-risk to wildfire events. All current and future above-ground assets, drinking water systems, and populations (e.g., employees) are considered to be most at-risk to wildfire.

4.3.3. Climate Change Induced Drought

Probability: (50-75%)
Impact: Critical
Priority: Likely

General Definition: A drought is a period of below-average precipitation in a given region resulting in prolonged shortages in surface water and groundwater. Droughts are often associated with climatic factors such as high temperatures, high wind, and low relative humidity. Drought occurs in virtually all climatic zones, varying significantly from one region to another. Droughts occur when there are long periods of inadequate rainfall. The cycle of droughts and wet periods are often part of the El Niño and La Niña weather cycles.

The severity of a drought depends on the degree of moisture deficiency, the duration, and the size and location of the affected area. It is generally difficult to pinpoint the beginning and the end of a drought. In California, a few dry months do not typically constitute a drought. Because the impacts of a drought accumulate slowly at first, one may not be able to recognize a drought until it has become well established. Even during a drought there may be one or two months with above average precipitation totals. However, these wet months do not necessarily signal the end of a drought and generally do not have a major impact on moisture deficits. Droughts can persist for several years before regional climate conditions return to normal. While drought conditions can occur at any time throughout the year, the most apparent time is during the summer months.

Research supports that climate change will have significant impacts on drought frequency and intensity depending on the region. Higher temperatures lead to increased evaporation rates, including increasing loss of moisture in plant leaves (creating fuel for wildfires as discussed previously). Even in regions where precipitation does not decrease, increases in surface evaporation will lead to more rapid drying of soil if not offset by other changing factors, such as reduced wind speed or increased humidity. As soil dries, a larger proportion of the sun's incoming heat will go toward heating soil and adjacent air rather than evaporating moisture, resulting in hotter temperatures and drier conditions.

Measuring Droughts: The United States has several quantitative methods for measuring

drought. The U.S. Drought Monitor is a relatively new index that combines quantitative measures with input from experts in the field.

U.S. Drought Monitor

The U.S. Drought Monitor is designed to provide the general public, media, government officials, and others with an easily understandable overview of weekly drought conditions by region, state, or county, throughout the United States. The U.S. Drought Monitor is unique because it assesses multiple numeric measures of drought, including the PDSI and three other indices, as well as the interpretations of experts to create a weekly map depicting drought conditions across the United States. As shown below, the U.S. Drought Monitor uses five drought intensity categories, D0 through D4, to identify areas of drought.

TABLE 13. U.S. Drought Monitor Categories of Drought

D0	**Abnormally Dry**	Going into drought: short-term dryness slowing planting, growth of crops or pastures. Coming out of drought: some lingering water deficits; pastures or crops not fully recovered
D1	**Moderate Drought**	Some damage to crops, pastures; streams, reservoirs, or wells low, some water shortages developing or imminent; voluntary water-use restrictions requested
D2	**Severe Drought**	Crop or pasture losses likely; water shortages common; water restrictions imposed
D3	**Extreme Drought**	Major crop/pasture losses; widespread water shortages or restrictions
D4	**Exceptional Drought**	Exceptional and widespread crop/pasture losses; shortages of water in reservoirs, streams, and wells creating water emergencies

A drought is a regional event that is not confined to geographic or political boundaries; it can affect several areas at once. It can also range in severity across those areas.

Drought is one of the main concerns in California, as the State has been experiencing reoccurring drought events. Northern California experienced some relief in the winter of 2016; however, the El Niño effect that was expected to relieve the statewide drought did not materialize in Southern California. The lack of rain and, most importantly, the lack of snowfall in the Sierra Nevada Mountain range severely affected most residents of California. The SCV Water service area is at risk for drought occurrence and impacts.

Description: SCV Water's water supply comes from four main sources, including: imported water, groundwater, recycled water and water banking (storage). In 2020, SCV Water's water supply was distributed between; groundwater (26.0% of annual supply), recycled water (0.7% of annual supply), imported water (39.0% of annual supply), and water banking (34.3% of annual supply). SCV Water's groundwater supply is obtained sustainably from local aquifers. SCV Water's recycled water is developed by treating used water within SCV Water's service area. SCV Water's imported water supply is sourced from the State Water Project (SWP) which imports surface water from the San Francisco Bay-Delta (the Delta). Lastly, SCV Water

maintains water banking (storage) programs which makes water available for use in times of need, such as during a drought or emergency.

Climate change can be expected to increase drought frequency and severity in the SCV Water's service area. Warmer temperatures cause drought conditions by reducing soil moisture. Additionally, increased evapotranspiration and reduced snowpack projected with warmer temperatures is expected to result is reduced flows to the SWP that SCV Water relies on.

The National Integrated Drought Information System (NIDIS) is a tool that measures the drought-related risks in certain areas of the U.S. Figures 10, 11, and 12 below shows that Los Angeles County (as with most of California), despite the high levels of precipitation in 2020, is currently in the midst of another severe drought.

The maps below are taken from https://droughtmonitor.unl.edu/Maps/MapArchive.aspx and show the drought differences in the period between 2011, 2016, and 2021, which vary drastically from each monitor recording.

FIGURE 10. August 16, 2011 California Drought Monitor

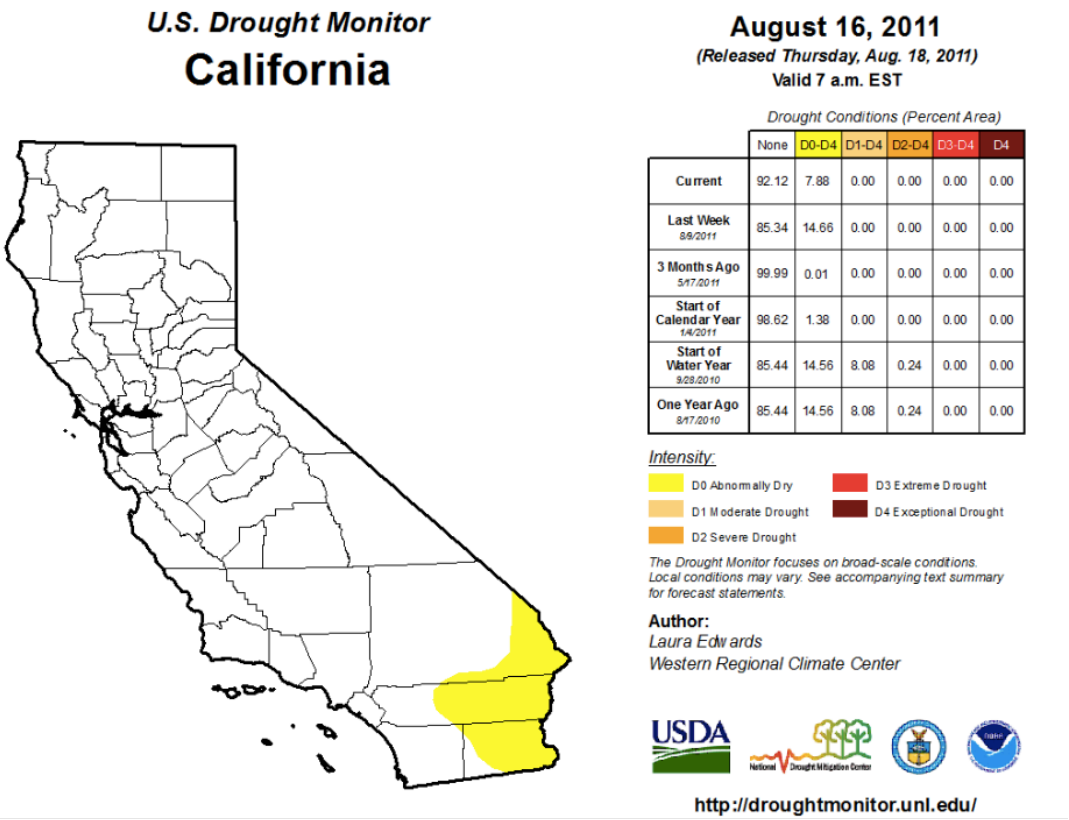


FIGURE 11. August 16, 2016 California Drought Monitor

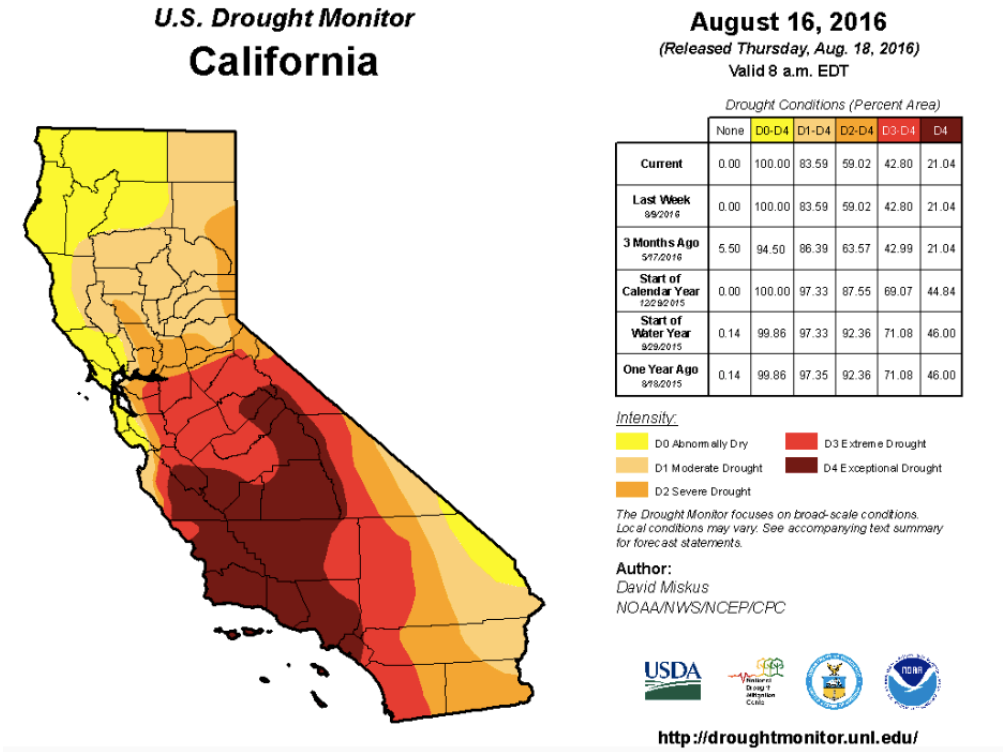


FIGURE 12. August 17, 2021 California Drought Monitor

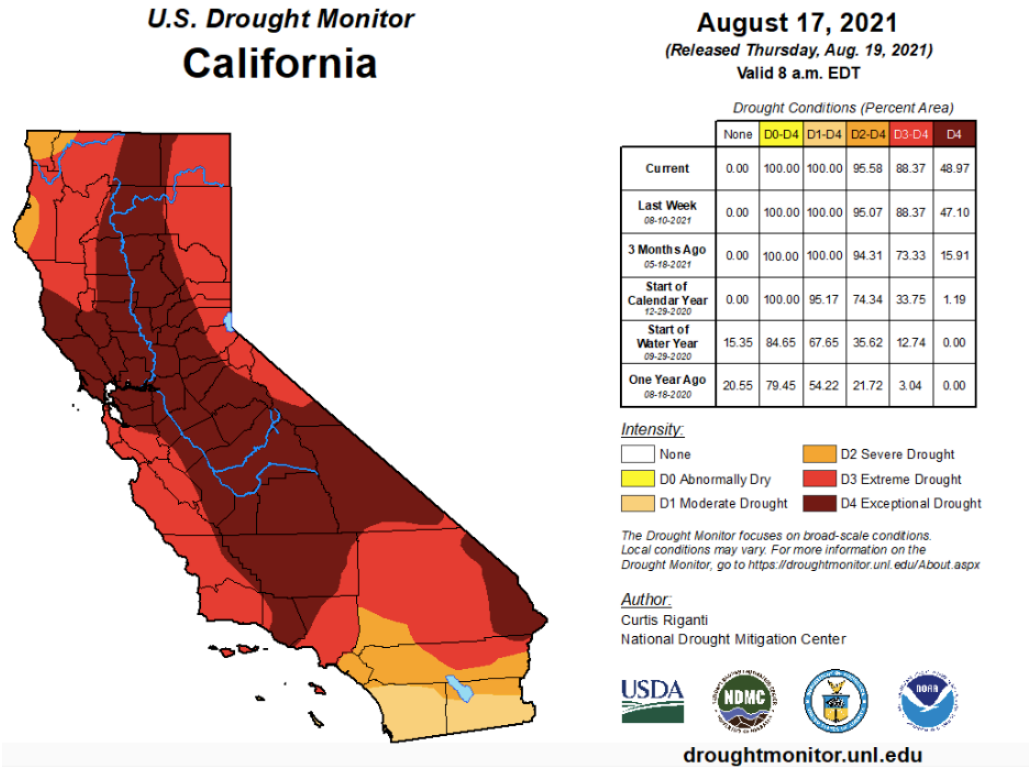


TABLE 14. California Drought History (extracted from USGS, California Drought History)

Year	Drought History
2021 - Present	The state of California is currently in the midst of another major drought as per the U.S. Drought Monitor. The effects and severity of this drought is too early to tell since it is ongoing.
2011-2017	From December 2011 to March 2017, the state of California experienced one of the worst droughts to occur in the region on record. The period between late 2011 and 2014 was the driest in California history since record keeping began.
2007–2009	2007–2009 saw three years of drought conditions, the 12th worst drought period in the state's history, and the first drought for which a statewide proclamation of emergency was issued. The drought of 2007–2009 also saw greatly reduced water diversions from the State Water Project. The summer of 2007 saw some of the worst wildfires in Southern California history.
1986–1992	California endured one of its longest droughts ever observed from late 1986 through early 1992. Drought worsened in 1988 as much of the United States also suffered from severe drought. In California, the six-year drought ended in late 1992 as a significant El Niño event in the Pacific Ocean (and the eruption of Mount Pinatubo in June 1991) most likely caused unusual persistent heavy rains.
1976–1977	1977 had been the driest year in state history to date. According to the Los Angeles Times, "Drought in the 1970s spurred efforts at urban conservation and the state's Drought Emergency Water Bank came out of drought in the 1980s."
1950s	The 1950s drought contributed to the creation of the State Water Project.
1929–1934	This drought was during the infamous Dust Bowl period that ripped across the plains of the United States in the 1920s and 1930s. The Central Valley Project was started in the 1930s in response to drought.
1924	This drought encouraged farmers to start using irrigation more regularly because of the fluctuation in California weather the need for consistent water availability was crucial for farmers.
1864	This drought was preceded by the torrential floods of 1861-1862, showing the fluctuation in climate back in the 1800s.
1841	The drought was so bad that "a dry Sonoma was declared entirely unsuitable for agriculture"

Progression of the drought from December 2013 to July 2014 (extracted from USGS, California Drought History)

The period between late 2011 and 2014 was the driest in California history since record keeping began. In May 2015, a state resident poll conducted by Field Poll found that two out of three respondents agreed that it should be mandated for water agencies to reduce water consumption by 25%.

The 2015 prediction of El Niño raised hopes of bringing rains to California to end the drought. In the spring of 2015, NOAA named the probability of the presence of El Niño conditions until the end of 2015 at 80%. Historically, 16 winters between 1951 and 2015 had created El Niño. Six of those had below-average rainfall, five had average rainfall, and five had above-average rainfall. However, as of May 2015, drought conditions had worsened, and above-average ocean temperatures had not resulted in large storms. The drought led to Governor Jerry Brown instituting mandatory 25% water use reductions in June 2015.

Approximately 102 million trees in California died from the 2011–2016 drought, of which, 62 million died in 2016 alone. By the end of 2016, 30 percent of California had emerged from the drought, mainly in the northern half of the state, while 40 percent of the state remained in the extreme or exceptional drought levels. Heavy rains in January 2017 were expected to have a significant benefit to the State's northern water reserves, despite widespread power outages and erosional damage in the wake of the deluge. The winter of 2016–17 turned out to be the wettest on record in Northern California, surpassing the previous record set in 1982–83. Governor Brown declared an official end to the drought on April 7, 2017.

Drought affects all of Los Angeles County including SCV Water. Consumers in the SCV Water service area have been affected during droughts and are asked to conserve water in extreme drought conditions.

Impact Statement: Water is also needed to manage structural fires and wildfires. A lack of, or limited, water supply presents wildfire management vulnerability. Substantial water is needed to fight wildfires, which are also more frequent in dry conditions. While water for firefighting is a priority and no restrictions are in place, a lack of availability could slow this capability.

The majority of drought impacts are societal impacts. A drought's impacts on society, and thus the SCV Water's service area, result from the interplay between a natural event and the demand people place on water supply. SCV Water is in charge of supplying potable and recycled water within its service area; therefore, SCV Water would be greatly affected, both fiscally and politically, if it was unable to provide a reliable water supply because of drought conditions. Economically, water restrictions imposed during drought periods could result in lost revenue for SCV Water.

To ensure adequate water supplies, SCV Water employs a portfolio approach to its water resources strategy and prepares a Water Shortage Contingency Plan. This plan is required by the state of California and will help improve water conservation and water shortage planning, especially during a drought or catastrophic event.

4.3.4. Flooding

Probability: (25-50%)
Impact: Limited
Priority: Somewhat Likely

General Definition: A flood is defined as an unusually heavy rain in a concentrated area, over a short or long period of time that collects on the ground in low areas of the land. Flooding occurs when there are large amounts of rainfall in areas where the water runs off to lower elevations.

Flooding is a very frequent, dangerous, and costly hazard. Globally, it accounts for 40 percent of all natural disasters and results in an average of more than 6,500 deaths annually. In the U.S., flooding results in an average of 86 deaths annually. Nearly 90 percent of all presidential disaster declarations result from natural events where flooding was a major component. On average, flooding causes more than $2 billion in property damage each year in the United States. Floods

cause utility damage and outages, infrastructure damage, structural damage to buildings, crop loss, decreased land values and impeded travel.

Flooding is the most common environmental hazard, due to the widespread geographical distribution of valleys and coastal areas. The severity of a flooding event is typically determined by a combination of several major factors including: stream and river basin topography and physiography; precipitation and weather patterns; recent soil moisture conditions; and the degree of vegetative clearing and impervious surface. Flooding events can be brought on by severe (heavy) rain. The types of floods impacting the SCV Water's service area is flash flooding or riverine flooding that are described below.

Flash Flooding

Flash floods occur within a few minutes or hours of heavy amounts of rainfall and can destroy buildings, uproot trees, and scour out new drainage channels. Heavy rains that produce flash floods can also trigger mudslides and landslides. Most flash flooding is caused by slow-moving thunderstorms, repeated thunderstorms in a local area, or by heavy rains from hurricanes and tropical storms. Although flash flooding often occurs in mountainous areas, it can also occur in urban centers where much of the ground is covered by impervious surfaces.

Riverine Flooding

Periodic flooding of lands adjacent to non-tidal rivers and streams (known as the floodplain) is a natural and inevitable occurrence. When stream flow exceeds the capacity of the normal watercourse, some of the above-normal stream flows onto adjacent lands within the floodplain. Riverine flooding is a function of precipitation levels and water runoff volumes within the watershed of a stream or river. According to USGS, the recurrence interval of a flood is defined as probability of an event in any given year (e.g., 1% annual chance). Flood magnitude increases with increasing recurrence interval.

Wildfires can exacerbate flooding conditions, when soil infiltration is affected, and limited vegetation is in place. Major wildfires are known to contribute to major flooding, as less vegetation on hillsides allows the rainwater to run off of the hills onto the valleys below. While the recent drought conditions have resulted in a lack of rain events, the potential for future flooding still exists.

Description: The Santa Clarita Valley climate is classified as Semiarid or Mediterranean in the Koppen climate classification system. The Santa Clarita Valley is generally hot and dry through most of the year, ranging from 70-100 degrees during the summer, and 40-65 degrees during the winter. Monthly precipitation ranges from 0-5 inches, depending on the month. The "wettest" months occur between December and March, with very little rain in Santa Clarita from April through August. Flooding is most common during El Niño years with the potential to bring intense rainfall to the area. Urban flooding in SCV Water's service area occurs when the amount of water from rainfall and runoff exceeds the City's stormwater capacity. The service area may also be subject to riverine flooding which is the overbank flooding of rivers and streams. The Santa Clara River runs through the City of Santa Clarita and is susceptible to flooding events. This river is the only major river drainage from the San Gabriel Mountains that remains un-channelized for most of its length. Another potential for flooding in the service area would be by

inundation from Castaic Reservoir or Bouquet Reservoir. SCV Water is a special district and are not allowed to participate in the National Flood Insurance Program (NFIP).

FIGURE 13. Flooding Map

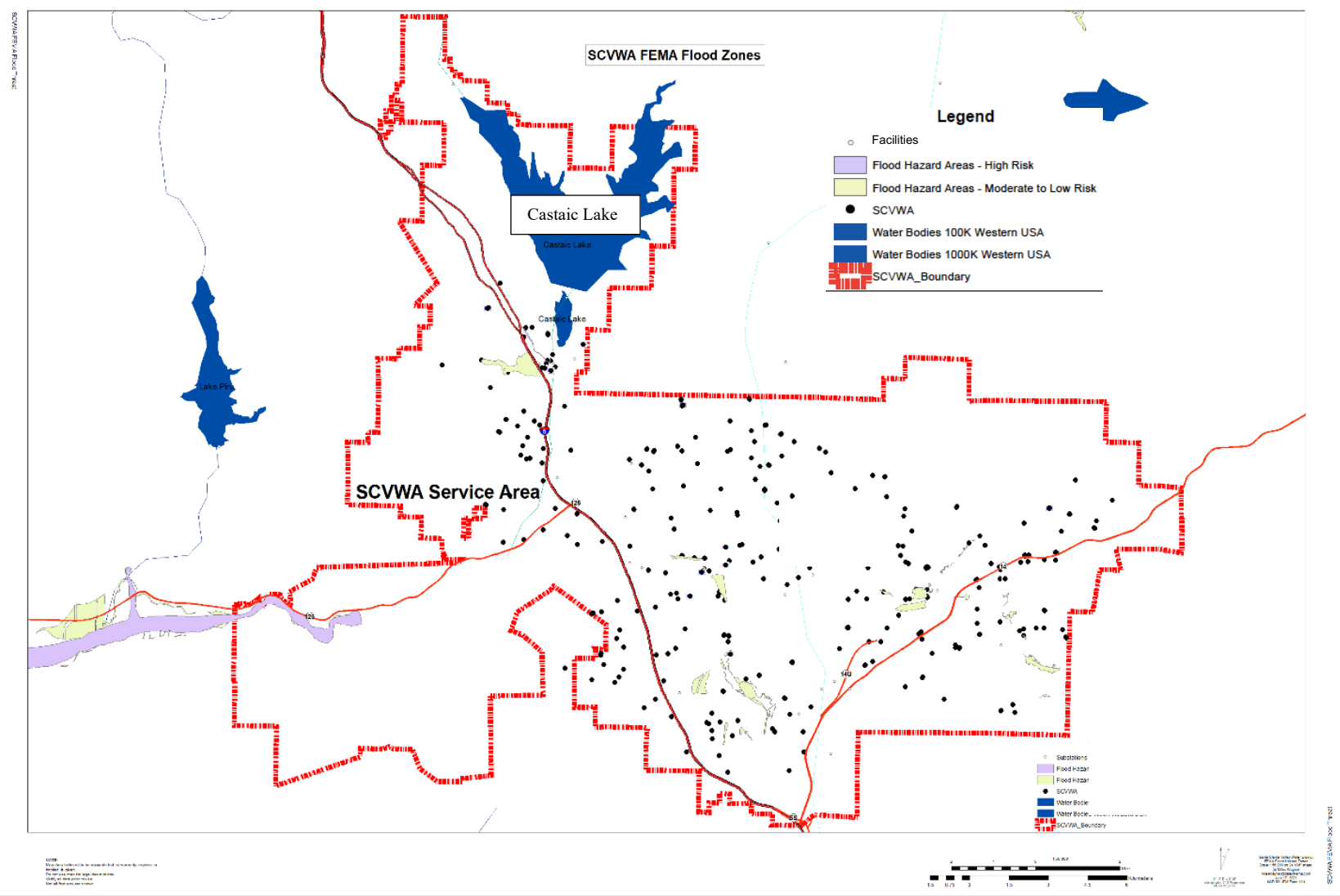


TABLE 15. USGS Flooding History

Date of event	Type of Damage	Amount of Damage	Statewide or Local
*March 2010	FEMA Disaster No 1584	Severe storms, flooding, debris flows, and mudslides	Local
*April 2005	FEMA Disaster No 1585	Severe storms, flooding, debris flows, and mudslides	Local
*Feb 2005	FEMA Disaster No 1577	Severe storms, flooding, debris flows, and mudslides	Local
Feb-1998	17 deaths	$550 M	Various
Feb-1995	17 deaths	Public property $190.6 M; individual $122.4 M; business $46.9 M; highways $79 M; ag $651.6 M; TOTAL approximately $1.1 billion; damage to homes: major-1,322; minor-2,299; destroyed 267	57 counties (all except Del Norte)
Jan-1995	11 deaths	Public $299.6 M; individual $128.4 M; businesses $58.4 M; highways $158 M; ag-$97 M; TOTAL $741.4 M; damage to homes: major-1,883; minor 4, 179; destroyed-370.	Various
Dec-1992	Snow, rain, and high winds, 20 deaths, 10 injuries	Total - $600 M	Various
Feb-1992	Flash Flooding, rainstorms, mud slides; 5 deaths	Public-$95 M; private-$18.5 M; business $8.5 M, agricultural $1.5 M; TOTAL $123 M	Los Angeles, Ventura, Kern, Orange, San Bernardino Counties
Winter 1982-1983	Heavy rains, high winds, flooding, levee breaks	Public $151 M; private $159 M; agricultural $214 M; Total $524 M	Various
Feb-1980	Rain, wind, mud slides, and flooding	18M to 20M	Various
Winter 1978	14 dead, at least 21 injured	Public $73 M; private-$44 M; Total $117 M; 2,538 homes destroyed	Various
Winter 1969	Storms, flooding, 47 dead, 161 injured. An alluvial flood and debris flow on Deer Creek in San Bernardino County killed 11 people.	Public $185 M, Private -$115 M; Total $300 M	Various
Winter 1966	Abnormally heavy and continuous rainfall.	Public- $14.6 M; private $14 M; Total $28.7 M	Various

Date of event	Type of Damage	Amount of Damage	Statewide or Local
Apr-58	13 deaths, several injuries	$20 M, plus $4 M agricultural	Statewide
Dec-55	74 deaths	$200 M	Statewide

*Events with an asterisk indicate a direct effect on Santa Clarita Valley Water Agency.

SCV Water has been experiencing severe damage to its pipelines traversing rivers:

Placerita Creek

1. Hacienda Lane – about 175 feet of 10" ductile iron pipe (DIP) washed out and was replaced in 2010.
2. Meade View Avenue – about 120 feet of 8" DIP washed out and was replaced in 2008.
3. Railroad/Placerita Creek Bridge – about 500 feet of 8" Asbestos Cement Pipe (ACP) washed out and was replaced in 2008.

Eastern Portion of Santa Clara River

1. In the Santa Clara River – about1800 feet of 10" VCP sewer pipe washed out and was replaced in 2008.
2. In the Santa Clara River – about1500 feet of 10" VCP sewer pipe washed out and was replaced in 2006.
3. Sand Canyon Rd – about 200 feet of 8" ACP washed out and was replaced in 2006.

Impact Statement: Flooding can result in a variety of impacts, such as death and injury, asset damage, inability to access facilities or assets and road closures. Normal operations may be interrupted due to flooding. Some impacts from flooding include:

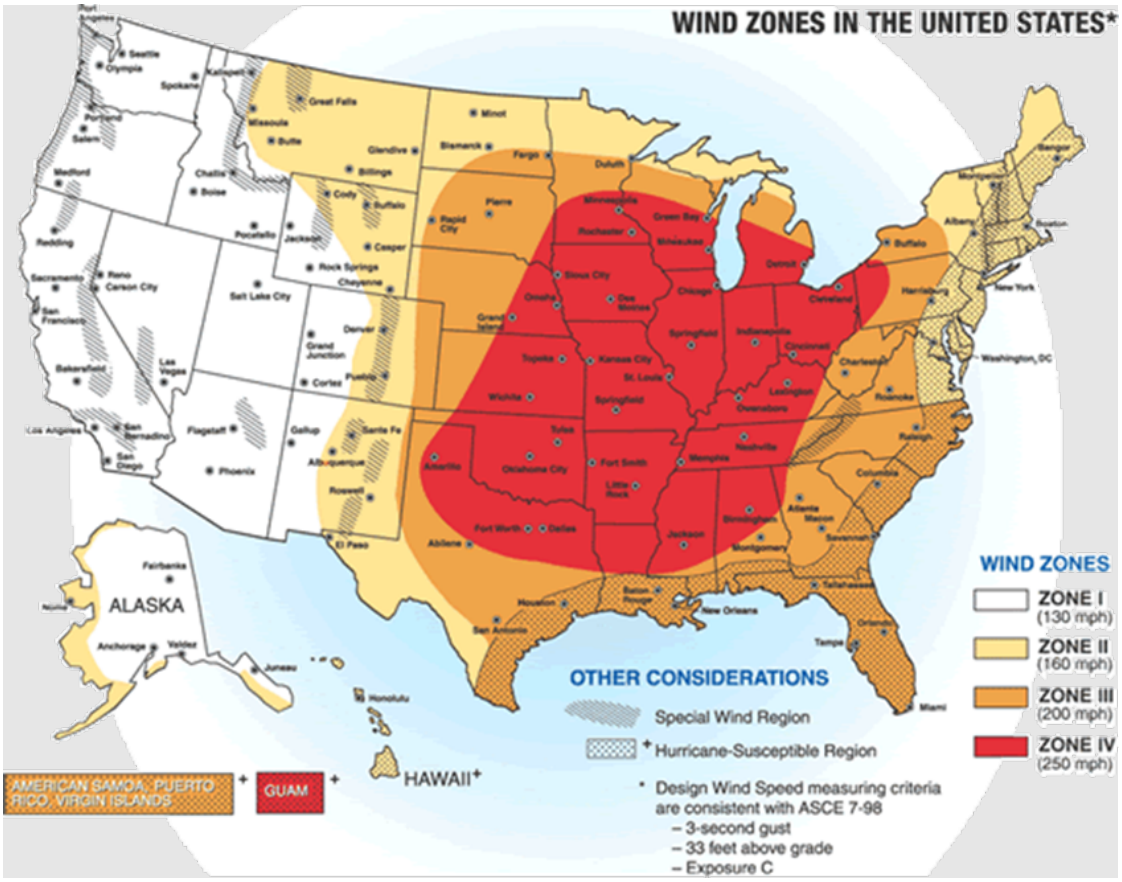
- Floodwaters often contain bacteria and chemicals. Flooding of wells or reservoirs may result in water contamination, resulting in boil water advisories or reduced service.
- Floodwaters can prevent normal access to assets and facilities. This presents a danger when motorists and pedestrians attempt to traverse floodwaters. Motor vehicles and pedestrians can get swept up in flood currents, increasing the risk for drowning. Even in shallow waters, fast-moving currents can carry individuals or vehicles into deeper waters, where pressure from flowing water can prevent drivers from escaping submerged vehicles. As little as six inches of floodwater can move a vehicle, and as little as two inches can move a person.
- Replenishment facilities, including peculation ponds, may be washed out by flooding, resulting in damages.
- Assets with electrical parts or motors may be damaged by flooding if these parts are submerged.
- Structures exposed to flooding, including critical facilities, can be severely damaged. Building contents can be lost, damaged, or destroyed, and structures themselves can be compromised by floodwaters. Pressure from floodwater, especially as seepage through soil, can damage foundations.
- Buildings exposed to floodwaters may develop mold or wood rot.

4.3.5. Windstorms

Probability: (25-50%)
Impact: Limited
Priority: Somewhat Likely

General Definition: There are several types of wind hazards that affect the planning area. These include high or strong wind events (typically associated with Santa Ana winds) and thunderstorm wind events (including straight line winds and microbursts). High wind definitions can vary by region; however generally speaking high wind events are those that are greater than normal averages and have the potential to cause property damage. Wind events are common throughout the U.S.; however, the severity varies depending on location.

FIGURE 14. Wind Zones in the United States



Santa Ana winds are a regional wind hazard specific to Southern California. Santa Ana winds are known to cause large amounts of damage and increase the spread of wild and structural fires. Santa Ana winds are generally defined as warm, dry winds that blow from the east. The complex topography of Southern California combined with various atmospheric conditions creates numerous scenarios that may cause widespread or isolated Santa Ana wind events. Santa Ana windstorms are common during the late summer and fall months in Southern California. Winds

are caused by a low-pressure system over the southern coastline and a high pressure over the Great Basin in Nevada. When the high pressure turns counterclockwise, the warm, dry air is pulled to the low-pressure zone and out to the Pacific Ocean. Due to the warm and dry characteristics of Santa Ana winds, Santa Ana winds are quick and effective at spreading wildfires. The combination of windstorm activity with the major fires that occur every few years creates the greatest danger to the urban and wild land interface. Santa Ana winds spread the flames in even greater speed than in times of calm wind conditions.

The National Weather Service Center normally issues a high wind advisory or warning depending on the following criteria: A wind advisory is issued when conditions are favorable for the development of high winds over all or part of the forecast area, but the occurrence is still uncertain. The criteria of a wind advisory are sustained winds of 31 to 39 mph and/or gusts 46 to 57 mph for any duration. A high wind warning is issued when sustained winds from 40 or higher are expected for at least one hour or any wind gusts are expected to reach 58 mph or more. Forecasters at the National Weather Service in Oxnard and San Diego usually place speed minimums on these winds and reserve the use of "Santa Ana" for winds greater than 25 knots (approximately 29 miles per hour). Table 16 is a Beaufort Wind Scale that shows the appearance of wind effects based on the knots of wind and its classification.

TABLE 16. Beaufort Wind Scale

Force	Wind (Knots)	WMO Classification	Appearance of Wind Effects	
			On the Water	On Land
0	Less than 1	Calm	Sea surface smooth and mirror-like	Calm, smoke rises vertically
1	1-3	Light Air	Scaly ripples, no foam crests	Smoke drift indicates wind direction, still wind vanes
2	4-6	Light Breeze	Small wavelets, crests glassy, no breaking waves	Wind felt on face, leaves rustle, vanes begin to move
3	7-10	Gentle Breeze	Large wavelets, crests begin to break, scattered whitecaps	Leaves and small twigs constantly moving, light flags extended
4	11-16	Moderate Breeze	Small waves 1-4 ft. becoming longer, numerous white caps	Dust, leaves, and loose paper lifted; small tree branches move
5	17-21	Fresh Breeze	Moderate waves 4-8 ft. taking longer form, many whitecaps, some spray	Small trees in leaf begin to sway
6	22-27	Strong Breeze	Larger waves 8-13 ft., whitecaps common, more spray	Larger tree branches moving, whistling in wires
7	28-33	Near Gale	Sea heaps up, waves 13-20ft, white foam streaks off breakers	Whole trees moving, resistance felt walking against wind
8	34-40	Gale	Moderately high (13-20 ft.) waves of greater length, edges of crests begin to break into spindrift, foam blown into streaks	Whole trees in motion, resistance felt walking against wind
9	41-47	Strong Gale	High waves (20 ft.), sea begins to roll, dense streaks of foam, spray may reduce visibility	Seldom experienced on land, trees broken or uprooted, considerable structural damage
10	48-55	Storm	Very high waves (20-30 ft.) with overhanging crests, sea white with densely blown foam, heavy rolling, lowered visibility	"

11	56-63	Violent Storm	Exceptionally high (30-45 ft.) waves, foam patches cover sea, visibility more reduced	“
12	64+	Hurricane	Air filled with foam, waves over 45 ft., sea completely white with driving spray, visibility greatly reduced	“

Description: The service area of SCV Water is subject to continual strong winds. Wind speeds can reach 100 mph during these events and can represent significant threat to life and property. These annual events occur during the late summer and fall months and drive wildfires in California, causing electrical outages, downed power lines, fallen trees, fires, and pose risks to life and safety of the residents as well as catastrophic destruction to property as seen during the devastating fires in California in the last several years. Within SCV Water's boundaries the damages from high-wind storms include loss of power, downed power lines, and wildfires which will affect the entire service area. SCV Water faces the ultimate hazard of windstorms when one is accompanied with wildfire. This increases the damage done both from wildfire and windstorms and increases damage from power loss. Significant peak wind events identified by the National Weather Service (National Weather Service, National Climate Data Center, 2015) include the following high wind events for the Santa Clarita Valley Zone:

TABLE 17. Significant Wind Events Since 2007

Date	Magnitude (MPH)	Deaths/ Injuries	Event Summary
2/17/2017	66	0/0	Strong southerly winds were reported in the Santa Clarita Valley. Some wind gusts from local RAWS stations include: Saugus (gust 66 MPH) and Newhall Pass (gust 61 MPH).
11/15/2015	71	0/0	Strong northerly wind developed across the Santa Clarita Valley. The RAWS sensor at Saugus reported northerly wind gusts of 71 MPH while the sensor at Del Valle reported gusts to 68 MPH.
4/8/2013	79	0/0	An extended northerly wind event developed across Southwestern California. The combination of strong northerly (offshore) pressure gradient and strong winds above the surface produced northerly wind gusts between 65 and 85 MPH across sections of Ventura and Los Angeles counties.
12/1/2011	67	0/0	On December 1st, a strong north to northeast wind event, which developed on November 30th, continued across sections of Southern California. Widespread wind gusts between 60 and 70 MPH were reported across the mountains of Ventura County as well as the mountains and valleys of Los Angeles County through December 1st. Widespread power outages were reported, especially across the San Gabriel Valley where over 350,000 residents lost power. In the city of Pasadena, significant wind damage was reported with at least 42 buildings red-tagged due to wind damage. Along with the power outages, numerous trees were uprooted or severely damaged from La Canada-Flintridge to Monrovia. Strong northerly cross winds at Los Angeles International Airport resulted in 23 flights being diverted to Ontario International Airport.
3/7/2011	71	0/0	Strong northwest to north winds developed across sections of Southwestern California. The strongest winds occurred in the mountains of Los Angeles and Ventura counties, the Antelope Valley and the Santa Clarita Valley. Sustained winds as high as 59 MPH were reported along with gusts as high as 76 MPH.

1/10/2009	72	0/0	The combination of strong surface high pressure over the Great Basin and a ridge aloft produced strong and gusty Santa Ana winds across Ventura and Los Angeles counties. Across the higher terrain, wind gusts as high as 73 MPH were reported.
11/15/2008	66	0/0	An extended period of offshore winds affected Southern California. North to northeast wind gusts in excess of 65 MPH were reported in some areas. The strong winds, combined with very dry conditions, helped fuel two significant wildfires. The Tea Fire, near Montecito in Santa Barbara County, burned 1,940 acres. The Sayre Fire, north of Sylmar in Los Angeles County, burned 11,262 acres. Both fires produced significant loss of residences.
10/21/2007	69	0/0	Between October 20th and 24th, strong surface high pressure developed over the Great Basin and produced a strong and long-lasting Santa Ana wind event across Southern California. This particular Santa Ana wind event was the strongest and most widespread in recent memory with peak wind gusts over 100 mph reported at Laguna Peak and Whitaker Peak. The offshore winds produced very warm and dry conditions across Southern California which led to 9 different wildfires across Santa Barbara, Ventura and Los Angeles counties. Four of the wildfires exceeded 700 acres with one fire burning nearly 60,000 acres.

The 2003 fires that burned in and around the Santa Clarita Valley were perpetuated by the Santa Ana winds that continually changed directions and allowed the fire to pose a greater danger to the residents in the service area.

Windstorms can have direct consequences to the local economy related to both physical damages and interrupted services. For example, severe windstorms with over 70 mph winds in San Gabriel Valley in 2011 resulted in thousands of downed trees, fallen power lines causing widespread area outages for more than 400,000 Southern California Edison customers. The resulting damage from this windstorm to public infrastructure was estimated at $33 million.

Prior occurrences of wildfires are discussed in the previous sections.

Impact Statement: SCV Water's service area has been experiencing local winds that are generally below 50 mph and higher velocity winds exceeding 70 mph.

Severe wind has the potential to damage reservoirs, treatment plant facilities, wells, and ponds. Severe winds can also damage structures including shingles, siding, awnings, and other features of buildings and overturn trees. Severe winds can also blow objects through the air at high velocities, which could damage assets and structures. In some cases, structures may be blown off foundations or infrastructure. In addition, mobile or modular units (such as those installed for temporary uses) are considered at a higher risk to severe wind. Severe winds can cause damage to communications infrastructure, utility poles, and above-ground power lines, resulting in loss of power. Fallen trees also contribute to power line disruptions. When strong winds reach a force great enough to threaten above-ground facilities, areas may experience power outages.

The entire service area, including all current and future assets (infrastructure, buildings, critical facilities, and population), is vulnerable to annual severe wind because the topography and movement of weather fronts through the area. Exposed (e.g., above-ground) assets are considered most at risk to severe winds.

4.3.6. Dam Inundation

Probability: (25-50%)
Impact: Catastrophic
Priority: Somewhat Likely

General Definition: A dam failure is the partial or total collapse, breach, or other failure of a dam that causes flooding downstream. Dam failures are usually considered secondary events to natural hazards such as a flood event, earthquakes, or landslides. Earthquakes can undermine the structure of dams and cause breaches or complete failures. Dam failures may also be caused by human-induced events such as improper maintenance. In the event of a dam failure, the people, property, and infrastructure downstream could be subject to devastating damage.

Description: Areas downstream of dams are considered at risk. A failure of the Castaic Dam and inundation from the Castaic Lake and could cause major flooding in SCV Water's service area. Castaic Dam is located within SCV Water boundaries. The dam is located southwest of Castaic Lake, just north of Castaic Lagoon. Castaic Lake, completed in 1974 and located 45 miles north of downtown Los Angeles, provides a water supply to more than 5.2 million Californians.

Drinkwater Dam is located 7 miles northeast of Castaic and would cause minor inundation if it were to break according to Division of Safety of Dams (DSOD).

Dry Canyon Dam is considered to have an extremely high downstream hazard according to DSOD. The Dry Canyon Dam inundation zone runs northeast of Santa Clarita and cuts west within the city center. The main concern for the downstream hazard is loss of life, damage to homes, businesses, streets, and bridges.

Bouquet Reservoir failure would include Saugus and Valencia areas. In such a situation, any structure situated north of McBean Parkway in the Bouquet Canyon area at an elevation under 1,200 feet would be exposed to flood waters within 49 minutes of dam failure. This area includes Rosedell Elementary School and Saugus High School and residential areas around King Crest and Alaminos Drive. After flooding down Bouquet Canyon, the floodwaters would enter the Santa Clara River. The water level would rise and likely inundate Newhall Ranch Road and parts of Interstate 5 south of Castaic Junction.

FIGURE 15. Drinkwater Inundation Map

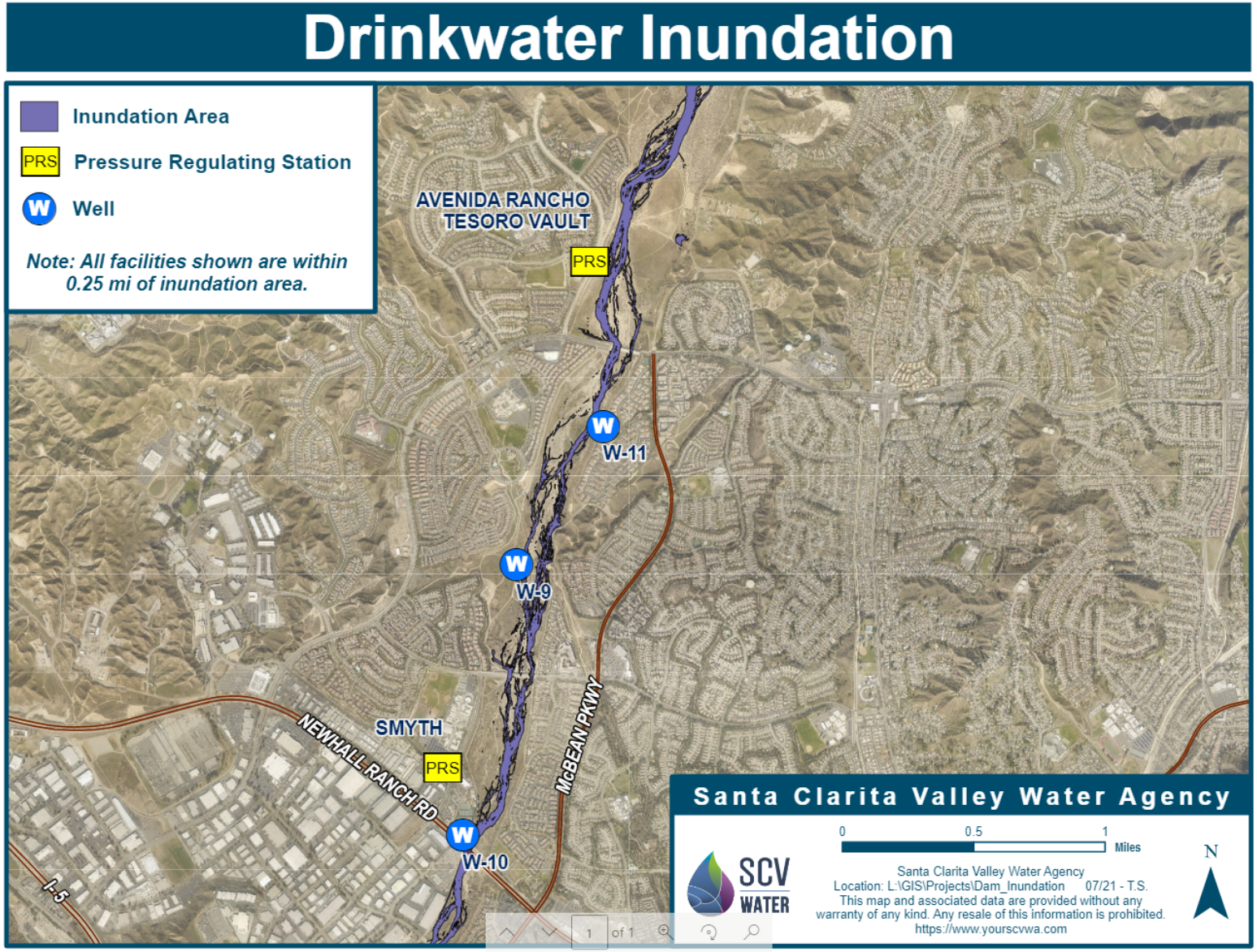


FIGURE 16. Dry Canyon Inundation Map

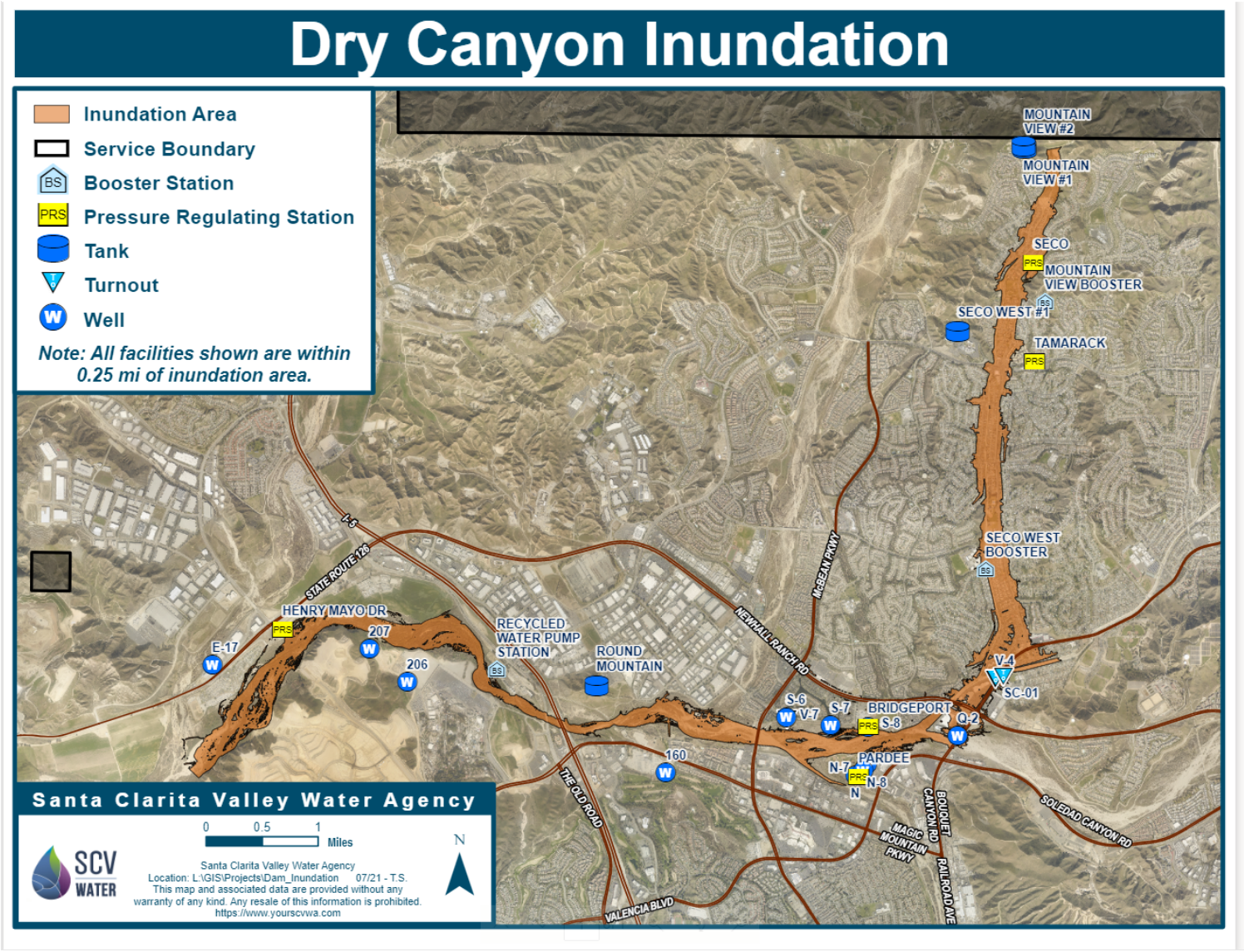
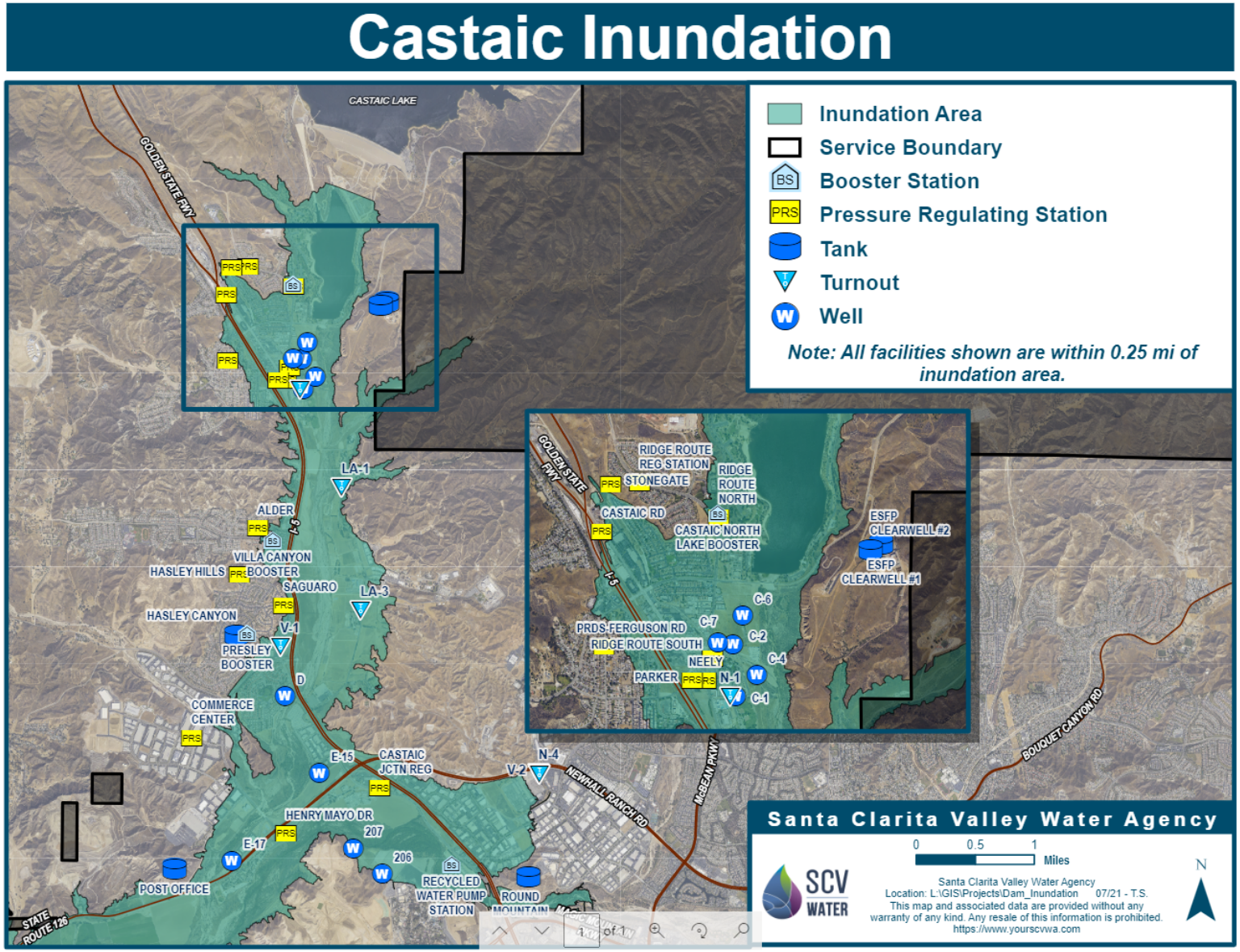


FIGURE 17. Castaic Dam Inundation Map



In the San Fernando earthquake in 1971, the Von Norman Dam showed signs of structural damage, prompting a mass evacuation of tens of thousands of people. They evacuated because of fears of a dam failure until the dam could be drained. This dam has never been refilled.

Impact Statement: Dam failure can be measured in terms of loss of life or property such as the SCV Water's assets. Because it is required for each dam to have their own dam failure flood inundation maps, we know that there will be severe impacts on some of the SCV Water infrastructure depending on which dam fails. Both the Castaic Dam and the Dry Canyon Dam are located in an unincorporated area but, if a failure were to occur, sections of the areas within the SCV Water boundaries could be severely impacted.

4.4.Inventory Assets Hazard Susceptibility

The following sections provide an overview of the assets owned by SCV Water and the hazards to which these facilities are susceptible.

Facilities Owned Overview

- Administrative Offices: 5
- Water Treatment Plants: 2
- Water Wells: 42
- Miles of Water Main: 879
- Booster Stations: 52
- Storage Reservoirs: 96
- Turnouts: 24
- Hydrants: 7,126
- Operations Facilities: 2
- Warehouses: 3

Vulnerability Assessment

The Planning Team reviewed USGS, FEMA HAZUS maps for each of SCV Water's hazards. The maps were overlayed with SCV Water's infrastructures in place to present the potential impacts for each hazard. The Planning Team has extensive knowledge of the area and knowledge of the potential disasters and emergencies that can occur in and around SCV Water's boundaries. The team has the knowledge to assess the system and give valuable input into the assessment and vulnerabilities to SCV Water.

Methodology

The Planning Team reviewed SCV Water's infrastructure and applied their local and operational knowledge to evaluate the vulnerability of each facility for a potential hazard. The team ranked the facilities and infrastructure by their importance to SCV Water. The team then used the ranking and insurance documents provided by SCV Water to develop an estimate of potential economic impacts that could be caused by the high priority hazards. Based on the ranking of

annual revenue projected for 2020-2021, a percentage was used to assess the annual economic impact for each hazard.

4.4.1. Earthquake Vulnerability Analysis

Population: Approximately 100% of SCV Water is vulnerable.

Critical Facilities: Approximately 100% of SCV Water critical facilities are vulnerable.

All facilities are vulnerable in the event of a major earthquake within SCV Water's boundaries. Multiple nearby faults could affect SCV Water's facilities, the largest being the San Andreas and the San Fernando faults. If any of these faults experience a rupture of 6.5 magnitude or more, it will have a negative effect on SCV Water's facilities and pipelines.

Estimated Losses: The economic loss resulting from this hazard is approximately $41,197,000. The loss from damage to structures and pipelines from this hazard is approximately $531,441,000.

4.4.2. Wildfire Vulnerability Analysis

Population: Approximately 100% SCV Water population is vulnerable.

Critical Facilities: Approximately 50% of SCV Water critical facilities are vulnerable.

Wildfires are a major concern in California. Most of the facilities within SCV Water are in a high fire risk zone, which is a major concern.

Estimated Losses: The economic loss resulting from this hazard is approximately $20,549,000. The loss from damage to structures from this hazard is approximately $354,250,000.

4.4.3. Drought Vulnerability Analysis

Population: 100% of SCV Water population is vulnerable to drought.

Critical Facilities: Approximately 50% of SCV Water critical facilities are vulnerable.

Estimated Losses: The economic loss resulting from this hazard is approximately $16,478,745. The loss from damage to structures from this hazard is approximately $338,700,000.

4.4.4. Flooding Vulnerability Analysis

Population: Approximately 50% of the SCV Water population is vulnerable.

Critical Facilities: Approximately 25% of SCV Water critical facilities are vulnerable.

Flooding predominately happens when heavy and concentrated rains occur in the area and runoff

is channeled down the hills into the low sections within SCV Water's boundaries.

Estimated Losses: The economic loss resulting from this hazard is approximately $4,119,686. The loss from damage to structures from this hazard is approximately $38,422,000.

4.4.5. Windstorm Vulnerability Analysis

Population: Approximately 25% of SCV Water's population is vulnerable.

Critical Facilities: Approximately 25% of SCV Water's critical facilities are vulnerable.

Above-grade facilities are vulnerable in the event of a Santa Ana wind event within SCV Water's boundaries. These events damage water storage tanks, down power lines, and cause long-term power outages. When a potable water utility loses power during a long-term power outage and cannot maintain a system pressure of 25 psi, the water in the system is no longer potable. Windstorms can affect the entire service area.

Estimated Losses: The economic loss resulting from this hazard is approximately $1,647,875. The loss from damage to structures from this hazard is approximately $38,400,000.

4.4.6. Dam Inundation Vulnerability Analysis

Population: Approximately 40% of SCV Water population is vulnerable.

Critical Facilities: impacted by dam inundation from all dams were 17 water wells, 10 booster stations and 3 turnouts.

Castaic Dam, Dry Canyon Dam, Drinkwater Dam.

Estimated Losses: The economic loss resulting from this hazard is approximately $16,478,745. The loss from damage to structures from this hazard is approximately $56,100,000.

SECTION 5. COMMUNITY CAPABILITY ASSESSMENT

5.1. Introductions

The purpose of conducting the capability assessment is to determine the ability of SCV Water to implement a comprehensive mitigation strategy and to identify potential opportunities for establishing or enhancing specific mitigation policies, programs, or projects.

The capability assessment has two components: 1) an inventory of the existing relevant plans, ordinances, or programs and 2) an analysis of SCV Water's capacity to bring them to fruition. A capability assessment highlights the positive mitigation activities already in place within SCV Water and will detect the potential gaps in addressing hazard mitigation.

5.2. Emergency Management

SCV Water is in the Northeastern section of Los Angeles County. SCV Water serves the City of Santa Clarita and some unincorporated areas of Los Angeles and Ventura Counties. SCV Water serves approximately 73,542 service connections and a population of approximately 280,192.

The General Manager, Matthew Stone, has nearly 30 years of water experience and has been with SCV Water since December 2015. Mr. Stone spent his first two years at SCV Water as the General Manager of the predecessor agency, Castaic Lake Water Agency. Throughout his career, he has been mitigating fire, earthquake, flood, and drought impacts that affect the public. The Chief Operating Officer, Keith Abercrombie, has worked with SCV Water, or one if its successor agencies, for over 25 years and has experience in fire, drought, and earthquake mitigations. The Emergency Preparedness and Safety Coordinator, Jose Diaz, has over 25 years of experience in the safety management industry and has been involved in emergency management and mitigation of various disasters ranging from earthquake, flood, drought, and power shut-off events. SCV Water also utilizes engineering consultants who design infrastructure to mitigate impacts from earthquake, fire, wind, and landslides at SCV Water's reservoir sites.

To help mitigate the potential impacts of disasters, SCV Water joined the California Water/Wastewater Agency Response Network (CalWARN). SCV Water has a mutual aid agreement with CalWARN that covers most water and wastewater agencies in California. As a government entity (Special District, within California Law), SCV Water can access the Emergency Managers Mutual Aid (EMMA) and the Emergency Management Assistance Compact (EMAC) for national mutual aid. In addition, the National WARN System through the American Water Works Association (AWWA) can be accessed by SCV Water.

CalWARN holds workshops twice a year for water agency members. CalWARN engages in public outreach so the public has a better understanding of hazard mitigation planning in their communities. These workshops promote mitigation and address how to prevent the impacts of hazards on the utility's infrastructure. CalWARN has access to utility leaders and their experience in addressing past emergencies. Sharing ideas and experiences is key to

understanding future mitigation strategies and actions.

SCV Water employs approximately 220 full-time staff members, and by joining CalWARN, SCV Water has the potential of having hundreds of additional mutual aid workers at its disposal within hours of an emergency.

Emergency Response Plan: An emergency response plan (ERP) outlines responsibilities and how resources are deployed during and following an emergency or disaster. The primary objective of the plan is to guide the identification of potential emergencies, a timely and effective response, and the protection of the health and safety of the community. The ERP guides the process when an emergency occurs, including being a blueprint for general operations during a disaster, assigning and managing responsibilities among authorities, and identifying liability.

SCV Water's ERP was last revised in September 2020 and details how SCV Water will respond to various emergencies and disasters including:

- Operational incidents, such as power failure or bacteriological contamination of water.
- Outside or inside malevolent acts, such as threatened or intentional contamination of water, intentional damage/destruction of facilities, detection of an intruder or intruder alarm, bomb threat, cyber security, or suspicious mail.
- Natural disasters, such as earthquakes, wildfires or floods.
- Recurring disasters as a result of climate change or other causes (e.g., wildfires, prolonged drought).
- Communications with critical customers, media outreach, and public notification process.

SCV Water is also required to follow the Standard Emergency Management System (SEMS), the National Incident Management System (NIMS), and the Incident Command System (ICS) when responding to emergencies.

Emergency Operations Center (EOC): An EOC provides a location, on or off-site, from which an agency coordinates a disaster response operation. In times of non-disasters, EOCs typically provide a centralized hub for communication and security oversight. SCV Water currently uses a meeting room as an EOC during events.

SCV Water is also in the process of evaluating emergency management software and will coordinate with Los Angeles County Emergency Management departments to make the software interoperable, if possible.

Emergency Management Training and Staff: Dedicated emergency management staff and regular training can help prepare an agency for events and guide effective response and recovery. SCV Water has a dedicated Emergency Preparedness and Safety Coordinator, Jose Diaz, who will manage staff and staff training for emergency response.

SCV Water conducts regular emergency exercises, following their emergency training plan. Through this training, the staff is trained across divisions within each department to assist with

emergency response operations. The Safety Coordinator has on-call 24/7 access to the executive authority. Additionally, SCV Water has a well-developed emergency notification process for critical staff. SCV Water has multiple office locations throughout the Santa Clarita Valley. Therefore, in addition to the overall Agency-wide Emergency Response Plan, there are individual location-based Emergency Action Plans.

As mentioned previously, SCV Water participates in California Water/Wastewater Agency Response Network (CalWARN) and California Utilities Emergency Association (CUEA), both of which facilitate training workshops.

5.3. Planning and Regulatory Capability

Planning and regulatory capability is based on the implementation of plans, policies, and programs that demonstrate SCV Water's commitment to guiding and managing growth while maintaining the general welfare of the community. It includes emergency response and mitigation planning, master planning, capital planning, and enforcement of design and construction standards. Although conflicts can arise, these planning initiatives present significant opportunities to integrate hazard mitigation principles into SCV Water's decision-making process.

Urban Water Management Plan
The Urban Water Management and Planning Act was passed in 1983 under Assembly Bill 797, which requires water suppliers to estimate current and future water demands and available water supplies. SCV Water's updated 2020 Urban Water Management Plan (UWMP) was completed in June 2021. UWMPs are required to evaluate the adequacy of water supplies, including projections of water supply and demands up to 20 years in the future. These plans are also required to include impacts of climate change and water shortage contingency planning for dealing with shortages, including a catastrophic water supply interruption.

Water Supply Reliability Assessment is a section of the UWMP that aims to understand the ability to satisfy the water demand during different types of years (e.g., years with average rainfall versus drier years).

UWMPs are intended to be integrated with other urban planning requirements and management plans. Some of these plans include Water Master Plans, Recycled Water Master Plans, Integrated Water Resource Plans, Integrated Regional Water Management Plans, Groundwater Sustainability Plans, Emergency Response Plans, and others.

Water Shortage Contingency Plan
Certain elements of the Water Shortage Contingency Plan (WSCP) are required by California Water Code (Water Code), including five specific response actions that align with six standard water shortage levels based on SCV Water's water supply conditions and shortages resulting from severe water supply interruptions. The WSCP also contains SCV Water's procedures for conducting an annual water supply and demand assessment, which is the written decision-making process for determining supply reliability each year, along with the data and methods used to evaluate reliability.

The WSCP is implemented through a series of strategies, programs, and by ordinance of water use restrictions in different stages. For instance, Stage 1 requires a 10% reduction of water use, and Stage 5 requires a 50% reduction of water use. The preferred methods to reduce water use include education, engagement, and conservation program support (rebates, incentives, and onsite check-ups).

Groundwater Basin Salt and Nutrient Management Plan
The Salt and Nutrient Management Plan (SNMP) is an effort to manage salts and nutrients on a groundwater basin-wide or watershed-wide basis while also encouraging recycled water use.

The study of salt and nutrients in groundwater is vital to future water quality. The SNMP examines the geologic structure, hydrology, hydro stratigraphy, and other details of each sub-basin in the SCV Water's service area. Also, the SNMP addresses management strategies including public outreach, source water quality management, demand management and conservation, and stormwater management. The SNMP also includes a monitoring plan and compliance with CEQA.

5.4. Existing Plans

The following emergency-related plans apply as appropriate:

- CalWARN Emergency Operations Plan – Updated every 10 years
- SCV Water Emergency Response Plan – Updated in 2020
- 2020 SCV Water Risk and Resilience Assessment
- SCV Water Emergency Action Plan (for each location)
- SCV Water's Illness Injury Prevention Plan (IIPP) – Updated annually
- SCV Water's Urban Water Management Plan – Updated every 5 years
- SCV Water's Water Shortage Contingency Plan (WSCP) – Updated every 5 years
- Los Angeles County Fire Master Plan – Updated annually
- Los Angeles County Flood Master Plan – Updated annually

5.5. Mitigation Programs

SCV Water staff have been involved with several mitigation activities such as those caused by the Northridge earthquake, various flooding events and drought events.

SCV Water employees have experience with past hazard mitigation and hazard planning and can enhance their hazard mitigation skills by participating in trainings offered by other local agencies or regional governments.

SCV Water holds public outreach sessions to educate the community concerning hazard mitigation and planning. SCV Water will improve public outreach by utilizing social media (Facebook, Instagram, and Twitter) and sending the monthly newsletter "Water Currents" to help reach out to their customers.

5.6. Fiscal Resources

The ability of SCV Water to act during an emergency event is closely associated with the fiscal resources available to implement mitigation policies and projects. This may take the form of outside grant funding awards or Agency-based revenue and financing. The costs of mitigation policy and project implementation vary widely. In some cases, mitigation actions are tied primarily to staff time or administrative costs associated with creation and monitoring of a given program. In other cases, direct expenses are linked to an actual project, such as installing backup power generators and sustainable energy resources, which can require a substantial commitment from SCV Water, state, and federal funding sources. SCV Water has made fiscal commitments to the mitigation of hazards through its capital improvement program.

The fiscal resources for SCV Water include the following:

- Wholesale & Retail Water Sales
- Regional Water Rate Revenues
- Recycled Water Sales
- One-Percent Property Tax Revenues
- Facility Capacity Fee Revenues
- Grants and Reimbursements
- Other non-Operating Revenues, i.e., investment income and cell site leases

Through the Bureau of Reclamation, California State Water Resources Control Board, California Office of Emergency Services, California Department of Water Resources, local grants and/or loans are available for water conservation, groundwater management, studies, and activities to enhance local water supply quality and reliability. Project eligibility depends on the type of organization(s) applying and participating in the project, as well as the specific type of project. More than one grant or loan may be appropriate for a proposed activity. Completing the LHMP will allow SCV Water to apply for and obtain grant funding from FEMA programs such as BRIC, HMGP, or FMA grants. Grant opportunities will be reviewed each year to ensure there will be funding available for specific mitigation items.

5.7. Capabilities Assessment

A Capability Assessment examines SCV Water's capabilities to detect any existing gaps or weaknesses within ongoing activities that could hinder proposed mitigation activities and possibly exacerbate community hazard vulnerability. The conclusions of the Risk Assessment and Capability Assessment serve as the foundation for the development of a meaningful hazard mitigation strategy. The list below outlines key capabilities SCV Water may consider in the Mitigation Strategy.

1. **Coordinate** with the City of Santa Clarita and County Emergency Management Departments to achieve interoperability of EOC software and representations in appropriate EOC.
2. **Provide** necessary staffing and software for GIS department for ongoing maintenance of asset management program data.

3. **Add funding** for hazard mitigation actions to SCV Water's Capital Improvement Program planning efforts.
4. **Incorporate** projects from the capital improvement program into the mitigation strategy (and vice versa).
5. **Expand** public outreach and education on emergency management**.** This allows SCV Water to form a plan to continually educate their customers regarding natural hazards and the effects these hazards have on the drinking water system. They are educating the residents on the importance of mitigation of these hazards to build a more resilient community for the betterment of the community and to lessen the impacts of hazards on the community. This plan should begin with education in the local K-12 schools with presentations on mitigation, at community meetings, and on the SCV Water's Website.
6. **Broaden** staff training. SCV Water employees have experience with past hazard mitigation and hazard planning and can improve their hazard mitigation skills by participating in trainings offered by other agencies or other regional governments.

SECTION 6. MITIGATION STRATEGIES

6.1. Overview

The intent of the Mitigation Strategy ("Strategy") is to provide SCV Water with the goals that will serve as guiding principles for future mitigation implementation along with the identification of mitigation actions deemed obtainable to meet those goals and reduce the impact of identified hazards. Mitigation measures are designed to be comprehensive, strategic, and functional in nature:

- Comprehensive: The development of the Mitigation Strategy will include a thorough review of all hazards and will identify extensive mitigation measures intended to not only reduce the future impacts of hazards, but also to help achieve compatible economic, environmental, social, and security goals.
- Strategic: The development of a Strategy that works to align proposed policies and projects with pre-identified, long-term planning goals.
- Functional: Each proposed mitigation action is linked to established priorities with target completion deadlines. When available, funding sources are identified that can be used to assist in project implementation.

Because this is SCV Water's first hazard mitigation plan, the Mitigation Strategy was developed through a process with the Consultant Team and the Planning Team in a manner that followed a traditional format which is as follows:

- Identify Goals
- Identify Actions
- Develop a Mitigation Action Plan

SCV Water derived its mitigation strategy from the in-depth review of the existing vulnerabilities and capabilities outlined in previous sections of this plan, combined with a vision for creating a disaster resistant and sustainable system for the future. This vision is based on informed assumptions that recognize both mitigation challenges and opportunities are demonstrated by the goals and objectives outlined below. Additionally, the mitigation measures identified under each objective include an implementation plan for each measure. The measures were individually evaluated during discussions of mitigation alternatives and the conclusions were used as inputs when priorities were decided. All priorities are based on consensus of the Planning Team.

Mitigation measures are categorized generally for all hazards and specifically for the six high-risk hazards facing cities and districts that were extensively examined in the risk assessment section. These hazards include earthquakes, wildfires, climate change induced drought, flooding, windstorms, and dam inundation.

6.2. Mitigation Goals, Objectives, and Projects

As stated before, this is the first LHMP for SCV Water. The process of identifying goals began with a review and validation of the FEMA Hazard Maps for SCV Water and surrounding cities

in Los Angeles County. The team completed an assessment and discussion of whether each of the goals was valid. These discussions led to the opportunity to identify the recommended Goals and Objectives. In reviewing the mitigation objectives and actions, it was the Planning Team's consensus that the following goals should be included in the LHMP.

Overall, the primary objective is to protect lives and prevent damages to infrastructure that disrupts water services. Global measures that apply across all hazards include:

- Identify and expand hazard mitigation activities to protect SCV Water's assets from current and future hazard events.
- Increase the resilience of SCV Water by ensuring hazard mitigation and climate change policies, projects, and activities receive considerations for funding, integration, and implementation.
- Continually improve the community's understanding of potential impacts due to hazards and the measures needed to protect lives and critical infrastructure.
- SCV Water communications should provide public outreach to inform the public of the hazards identified to the drinking water system in emergencies and instructions on how to conserve water in the event of a disaster and how to obtain drinking water when water may not be available.
- Engage in a regional mitigation effort by continuing to build stronger partnerships between SCV Water, local and county governments, businesses, residents, and other entities within the service area and provide state and local agencies with updated information about hazards, vulnerabilities, and mitigation measures at SCV Water.
- Review the key facilities and developments in high-risk areas to verify that they are appropriately protected from potential hazards.
- Identify and mitigate imminent threats to life, safety, and facility damage.

The six high-profile hazards for SCV Water are earthquake, wildfire, climate change induced drought, flooding, windstorms, and dam inundation. While other hazards were profiled in the hazard risk assessment, SCV Water's priority and focus for the mitigation projects will be for the six high-profile hazards.

6.2.1. Earthquake

Goal: To protect life and property in SCV Water's service area in the event of an earthquake.

Description: *The goal is to avoid injury, loss of life, and damages to property*. SCV Water agrees that strengthening of buildings and fire codes related to construction of the utility components are critical to the protection of property, life and the reduction of seismic-caused damages. These codes help water utilities design and construct reservoirs, pump stations, groundwater wells, and pipelines to resist the forces of nature.

Objectives:

- Design new facilities and upgrade existing facilities to withstand a 7.0 earthquake. SCV Water is in a high-risk earthquake area with many geologic fault zones
- Adopt cost-effective standards to protect life, properties and critical infrastructure

- Establish partnerships with other levels of government and business community to improve and implement methods to protect property

Mitigation Projects:
The identified projects and current cost estimates include:

TABLE 18. Earthquake Mitigation Projects

Action Description	Priority	Implementation Timeframe*	Estimated Cost	Responsible Department
Flexible pipe joints at wellheads, pump stations, and storage tanks/reservoirs	High	2 years	Very High	Operations
Seismic shut-off valves	High	2 years	High	Operations
Tie-down equipment	Medium	2 years	Moderate	Operations
Seismic retrofit of storage tanks/reservoirs	High	5 years	Very High	Operations
Communication equipment interoperable with the County	High	Annually	Moderate	Operations/Engineering

Potential Funding Sources: Projects will be implemented as funding becomes available. Some of the mitigation efforts may be funded by grants from FEMA/CalOES, HGMP, and BRIC.

6.2.2. Wildfires

Goal: To protect life and property in SCV Water's service area in the event of a wildfire.

Description: *The goal is to avoid injury, loss of life, damage to property, and to maintain water flow for firefighting efforts.* SCV Water has a large area of open land within and surrounding its service area that is comprised of vegetation subject to becoming fire fuel in the event of a wildfire. Wildfires have been and will continue to be a relevant hazard within SCV Water's service area. SCV Water's goal is to ensure there is enough water available in the distribution system for firefighters in the event of a wildfire and to ensure minimal impact to the operation of its water distribution system.

Mitigation Projects:
Below you will find the priority of the project, internal department responsible for implementation, and the source of funding. Further analysis will be required for each mitigation project to provide a more accurate cost estimate when ready to implement. The identified projects and current cost estimates include:

TABLE 19. Wildfire Mitigation Projects

Action Description	Priority	Implementation Timeframe*	Estimated Cost	Responsible Department
Provide generators for critical booster stations and well sites	Medium	3 years	High	Operations
Install Heli-port/ hydrant connections	High	2 years	Very High	Operations/ Engineering
Clear trees and bush 25 feet from all facilities	Medium	Annually	Low	Operations
Foster better communication programs with fire/ police departments	Medium	Annually	Low	Operations
Develop a refueling plan for generators	High	Semi-Annually	Low	Operations
Regional emergency storage project	Medium	5 years	Very High	Engineering
Communication equipment interoperable with the County	High	Annually	Moderate	Operations/ Engineering

Potential Funding Sources: Projects will be implemented as funding becomes available. Some of the mitigation efforts may be funded by grants from FEMA/CalOES, or California Department of Forestry and Fire Protection (Cal Fire).

6.2.3. Climate Change Induced Drought

Goal: To protect life and property in SCV Water's service area in the event of a drought.

Description: *The goal is to avoid injury, loss of life, and damages to property*. Because of climate change, there are more extremes in the weather, which means the summers can be hotter, the winters colder, and periods of rain can become less wet or wetter, which causes flooding. It is expected that there will be greater fluctuations in weather patterns, including prolonged dry periods and the drought hazard, which can be mitigated over the long-term. The objectives listed below have been taken from the declaration of a Drought, State of Emergency for California, signed by Governor Jerry Brown in May of 2015.

Mitigation Projects:

TABLE 20. Climate Change Induced Drought Mitigation Projects

Action Description	Priority	Implementation Timeframe*	Estimated Cost	Responsible Department
Complete well siting/ construction for dry-year well program	High	5 years	Very High	Operations
Improve operational efficiency/ system leaks	High	5 years	Very High	Operations
Water conservation outreach	High	1 year	Low	Water Resources

Increase water-pumping capabilities	Medium	2 years	Very high	Operations/Engineering
Interconnections within the various pressure zones of the distribution system	High	1 year	Moderate	Operations
Develop customer notification of water conservation during events	High	Annually	Low	Water Resources
Regional emergency storage project	High	5 years	Very High	Engineering

Potential Funding Sources: Projects will be implemented as funding becomes available. Some of the mitigation efforts may be funded by grants from FEMA/CalOES and a variety of federal and state agencies.

6.2.4. Floods[1]

Goal: To protect life and property in SCV Water's service area in the event of a flood.

Description: *The goal is to avoid injury, loss of life, and damages to property*. SCV Water will work to replace and upgrade its storm water facilities in its service area (as-needed) to have enough capacity to remove flood waters during a flood event and install retaining walls around vulnerable and critical facilities.

Mitigation Projects:

TABLE 21. Flood Mitigation Projects

Action Description	Priority	Implementation Timeframe*	Estimated Cost	Responsible Department
Install retaining walls around vulnerable and critical facilities	Medium	2 years	High	Operations/Engineering
Improve drainage system in vulnerable facilities	Medium	5 years	Very High	Engineering
Communication equipment interoperable with the County	High	Annually	Moderate	Operations/Engineering

Potential Funding Sources: Projects will be implemented as funding becomes available. Some of the mitigation efforts may be funded by grants from FEMA/CalOES BRIC, HMGP and a variety of federal and state agencies.

6.2.5. Windstorms

Goal: To protect life and property in SCV Water's service area in the event of a windstorms.

Description: *The goal is to avoid injury, loss of life, and damages to property*. The Santa Ana winds are notorious in Southern California for wreaking havoc during the fall and winter months

[1] SCV Water is **not** a participant under the National Flood Insurance Program (NFIP).

each year. The winds are known for their hot, dry weather and bring the lowest relative humidity of the year. The Santa Ana winds easily reach speeds of over 40 miles per hour with a gust of over 60 miles per hour. These winds topple trees, power lines, start wildfires, and generally cause havoc throughout the region. This has caused Southern California Edison and other power providers in California to cut power in regions during these wind events; these actions are called Public Safety Power Shutoff (PSPS) events.

Mitigation Projects:

TABLE 22. Windstorm Mitigation Projects

Action Description	Priority	Implementation Timeframe*	Estimated Cost	Responsible Department
Develop better communication with Edison (SCE)	High	Annually	Low	Operations
Provide generators for critical booster stations and well sites	Medium	3 years	High	Operations
Install Heli-port/ hydrant connections	High	2 years	Very High	Operations/Engineering
Foster better communication programs with fire/ police departments	Medium	Annually	Low	Operations
Develop a refueling plan for generators	High	Semi-Annually	Low	Operations
Communication equipment interoperable with the County	High	Annually	Moderate	Operations/Engineering

Potential Funding Sources: Projects will be implemented as funding becomes available. SCV Water will research available funding from federal and state sources for the mitigations.

6.2.6. Dam Inundations

Goal: To protect life and property in SCV Water's service area in the event of dam inundation.

Description: *The goal is to avoid injury, loss of life, and damages to property*. The areas downstream of dams are considered at risk. The failure of the dams would inundate and could cause major flooding in SCV Water's service area. Castaic Dam is located within SCV Water boundaries. The main concerns for the downstream hazard are loss of life, damage to homes, businesses, streets, and bridges.

Mitigation Projects:

TABLE 23. Dam Inundation Mitigation Projects

Action Description	Priority	Implementation Timeframe*	Estimated Cost	Responsible Department
Install retaining walls around vulnerable and critical facilities	Medium	2 years	High	Operations/Engineering
Improve drainage system in vulnerable facilities	Medium	5 years	Very High	Engineering
Communication equipment interoperable with the County	High	Annually	Moderate	Operations/Engineering

Potential Funding Sources: Projects will be implemented as funding becomes available. Some of the mitigation efforts may be funded by grants from FEMA/CalOES BRIC, HMGP and FMA.

6.3. Planning level Cost Estimates

To estimate the cost, the planning level cost of each action was categorized based on the following criteria:

- Low Estimated Cost ($5000 - $49,999)
- Moderate Estimated Cost ($50,000 - $249,999)
- High Estimated Cost ($250,000 - ($1,000,000)
- Very High Estimated Cost ($1,000,000 - Above)

Further analysis will be required for each mitigation project to provide a more accurate cost estimate when ready to implement.

6.4. Mitigation Priorities

During the development of the risk assessment for SCV Water, the Planning Team proposed and discussed alternative mitigation goals, objectives, and specific mitigation measures that SCV Water should undertake to reduce the risk from the six high-risk hazards facing SCV Water.

The team considered multiple factors to establish the mitigation priorities included in this plan. It assigned the highest priority rankings to those mitigation measures that met three primary criteria:

- Greatest potential for protecting life and safety
- Greatest potential for maintaining critical Agency functions and operability following a disaster
- Achievability in terms of residents' support and cost effectiveness

All rankings were determined by the consensus of the Planning Team. As described in the previous section on hazard and risk assessment, it is clear that earthquakes have the potential to affect the largest number of people, damage critical facilities and buildings, and to cause the greatest economic losses. This fact, combined with the relatively high probability of an

earthquake occurrence in the next several decades, makes increasing disaster resistance and readiness to earthquakes a high priority. Given the extreme importance of maintaining critical functions in times of disaster and the large number of customers who depend and rely on SCV Water services and infrastructure, those mitigation measures that improve disaster resistance, readiness, or recovery capacity are generally given higher priority.

Drought, earthquake, wildfires, climate change induced drought, flooding, windstorms, and dam inundation mitigation actions are identified and assigned a priority according to their importance, cost, funding availability, project planning readiness, and the anticipated time to implement the measures.

Using the above rationale for establishing mitigation priorities, each mitigation measure is assigned a priority ranking as follows:

- High – Projects that will be the primary focus of implementation over the next five years
- Medium – Projects that may be implemented over the next five years
- Low – Projects that will not be implemented over the next five years unless conditions change (new program and funding source)

This document provides SCV Water with a proactive approach to disaster management and risk reduction, to meet the defined goals of this LHMP. The cohesive collection of actions listed below can also serve as an easily understood menu of mitigation policies and projects SCV Water's decision makers who want to quickly review the recommendations and proposed actions of the plan and potentially integrate with other planning documents.

6.5. Implementation Strategy

The implementation strategy is intended to successfully mitigate the hazards identified in this plan within a reasonable amount of time. SCV Water is currently operating within its annual budget and has been fortunate that recent recessions didn't cause major issues with the budget or revenue. SCV Water revenues have remained strong throughout the recent recessions, and capital improvement projects have remained a priority. SCV Water staff will review the LHMP each year before obtaining the next year's fiscal budget. The LHMP will also be reviewed by the Board of Directors for items to be included in the new fiscal budget. SCV Water staff will also look for ways to obtain hazard mitigation grants each year to off-set the impacts on the fiscal budget and to show some relief for the residents. It is relevant to note that the Hazard Mitigation Grants require a Benefit Cost Analysis based on the formula shown below:

$$B/C = \left[\frac{B_0}{(1+i)^0} + \ldots + \frac{B_T}{(1+i)^T}\right] \div \left[\frac{C_0}{(1+i)^0} + \ldots + \frac{C_T}{(1+i)^T}\right]$$

6.6. Mitigation Projects Funding Source

There is currently limited funding in SCV Water's budget for mitigation efforts. SCV Water will include mitigation funding considerations into the budgeting process and determine what mitigation projects could be funded in future budget cycles.

6.7. Timeframe

Over the next five years, SCV Water will incorporate mitigation into all capital improvement projects that SCV Water undertakes. SCV Water prepares a Capital Improvement Plan (CIP) on annual basis. When funding is available, SCV Water replaces outdated pipelines, reservoirs, wells, and buildings as part of its CIP.

SCV Water will apply for mitigation grants as the opportunities become available from federal, state, and local agencies each year. SCV Water will consider all mitigation items during the annual budget workshops, conducted each spring.

SECTION 7. Plan Maintenance

7.1. Monitoring, Evaluating, and Updating the Plan

The General Manager or his/her assignee will evaluate the plan on an annual basis and consider whether new hazards have emerged, community vulnerability has changed, and goals and objectives are still relevant to current conditions. The LHMP will be reviewed as part of the annual budget process in the spring of each year. The General Manager or his/her designee will ensure the LHMP is reviewed annually, and any items that have been mitigated will be removed from the LHMP. At that time, staff and elected Board of Directors will review funding and capital improvement projects in the next fiscal year's budget. Annually, the General Manager or his/her assignee and the Board of Directors will review funding and determine the projects to be included in the next fiscal year's CIP budget. The General Manager or their assignee will include the LHMP in all budget workshops and grant planning meetings. This will allow open discussion, evaluation, and assessment of the LHMP to achieve goals, allowing the addition and removal of mitigated items.

The General Manager or his/her designee and Environmental Health and Safety Department will lead a full review of the LHMP beginning 1.5 years before the LHMP expiration date. At this time, progress in reaching mitigation goals, assessment of new and existing hazards, development of new mitigation strategies and goals will be addressed by the Planning Team that will include the General Manager or his/her assignee. The consumers within the boundaries of Santa Clarita Valley Water Agency and SCV Water's personnel will be asked to participate in the update process.

7.2. Implementation Through Existing Programs

Once CalOES and FEMA approve the LHMP, SCV Water will incorporate the LHMP into capital improvement projects, capital replacement programs, building design, and any updates or repairs to the water distribution system. SCV Water will submit a Notice of Intent to the State of California to help facilitate opportunities in obtaining FEMA and State funding to mitigate hazards within the service area. The General Manager or his/her designee will be responsible for implementing the LHMP and ensuring the LHMP recommended goals and objectives are met. The General Manager or his/her designee will be liable to place the LHMP on SCV Water's website and incorporate the LHMP into the annual budget workshops. The General Manager or his/her designee will verify that the LHMP is updated on a 5-year cycle. In order to ensure ample time to obtain CalOES and FEMA approval of the LHMP and to apply for grant funding, SCV Water needs to start the update of the LHMP 18 months prior to the expiration of this LHMP.

7.3. Continued Public Involvement

The approved LHMP will be posted on SCV Water's website with contact information in the spring of each year at the SCV Water's Board of Directors budget workshop. The General Manager or his/her appointee is responsible for ensuring the LHMP is brought before the Board of Directors each year. Public comments will be taken regarding the LHMP, and projects that could be included in the next year's budget will be considered. As new facilities are incorporated

into SCV Water, the LHMP will be updated to include new facilities and new hazards, if warranted. When the LHMP needs updating, a public engagement process will be utilized to review and coincide with the document's changes. It is the General Manager or his/her designee's responsibility to ensure the LHMP is reviewed annually, as well as, ensuring the LHMP is updated every 5 years.

SECTION 8. Appendices

Appendix A: SCV Water LHMP Meeting Matrices
Appendix B: SCV Water Hazard Survey Results
Appendix C: Public Outreach of LHMP
Appendix D: Public Comments

Appendix A: SCV Water LHMP Meeting Matrices

Planning Team Meeting Matrix								
Planning Team		**Meeting Dates**						
Name	**Organization**	**2/16/21**	**3/17/21**	**5/26/21**	**7/15/21**	**11/29/22**	**3/3/22**	**5/17/22**
Sudi Shoja	ESS (Consultant)	x	x	x	x	x	x	x
Gary Sturdivan	ESS (Consultant)		x	x	x	x	x	x
James Klueber	ESS (Consultant)	x	x	x	x	x	x	x
Cheryl Fowler	SCVWA	x	x	x	x	x	x	x
Jose Diaz	SCVWA	x	x	x	x	x	x	
Kathie Martin	SCVWA	x	x		x	x	x	
Keith Abercrombie	SCVWA	x	x		x	x	x	x
Mark Passamani	SCVWA	x	x			x		
Mike Alvord	SCVWA		x		x	x	x	x
Steven Cole	SCVWA	x	x	x	x	x	x	x

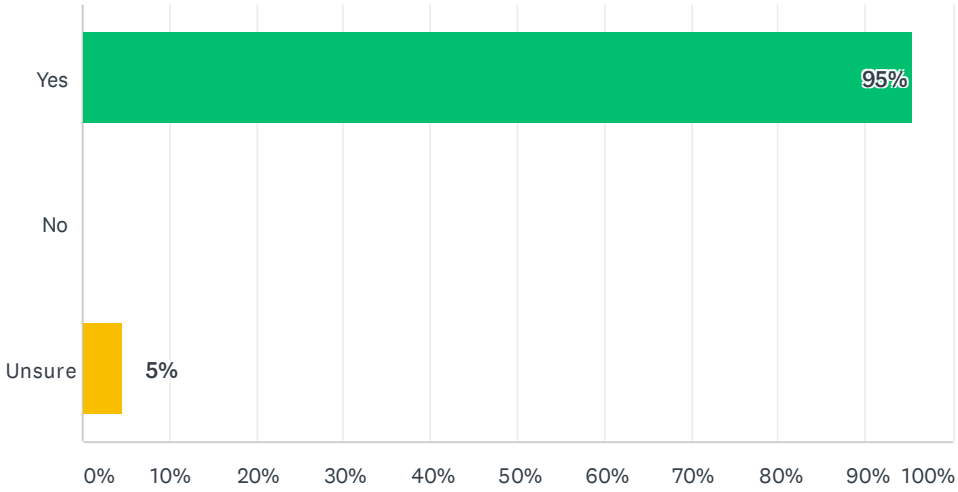
Stakeholder Meeting Matrix		
Stakeholder Representatives		**Meeting Date**
Name	**Organization**	**5/26/21**
Jennifer Barrick	Los Angeles Dept. of Water and Power (LADWP)	N/A
Enrique Gomez	LADWP	x
Francisco Becerra	Metropolitan Water District of Southern California (MWD)	N/A
Steven Nichols	California Department of Water Resources (DWR)	N/A
Chi P Diep	California State Water Resources Control Board Division of Drinking Water (SWRCB DDW)	x
Shu-Fang Orr	SWRCB DDW	x
Raymond Tremblay	Los Angeles County Sanitation District (LACSD)	N/A
Stephanie Olague	LACSD	x
Russ Bryden	LA County Dept of Public Works	N/A
Jerrid McKenna	City of Santa Clarita	N/A
LACFD Public Relations Rep.	Los Angeles County Fire Department	N/A
LAC OEM Public Relations Rep.	LA County Office of Emergency Management	N/A
Gary Sturdivan	ESS (Consultant)	x
James Klueber	ESS (Consultant)	x
Cheryl Fowler	SCVWA	x
Jose Diaz	SCVWA	x
Mike Alvord	SCVWA	x

Symbol	Description
x	Attended virtual meeting.
N/A	Contacted via email but did not attend virtual meeting.

Appendix B: SCV Water Hazard Survey Results

Q1 Are you within the SCV Water Service Area?

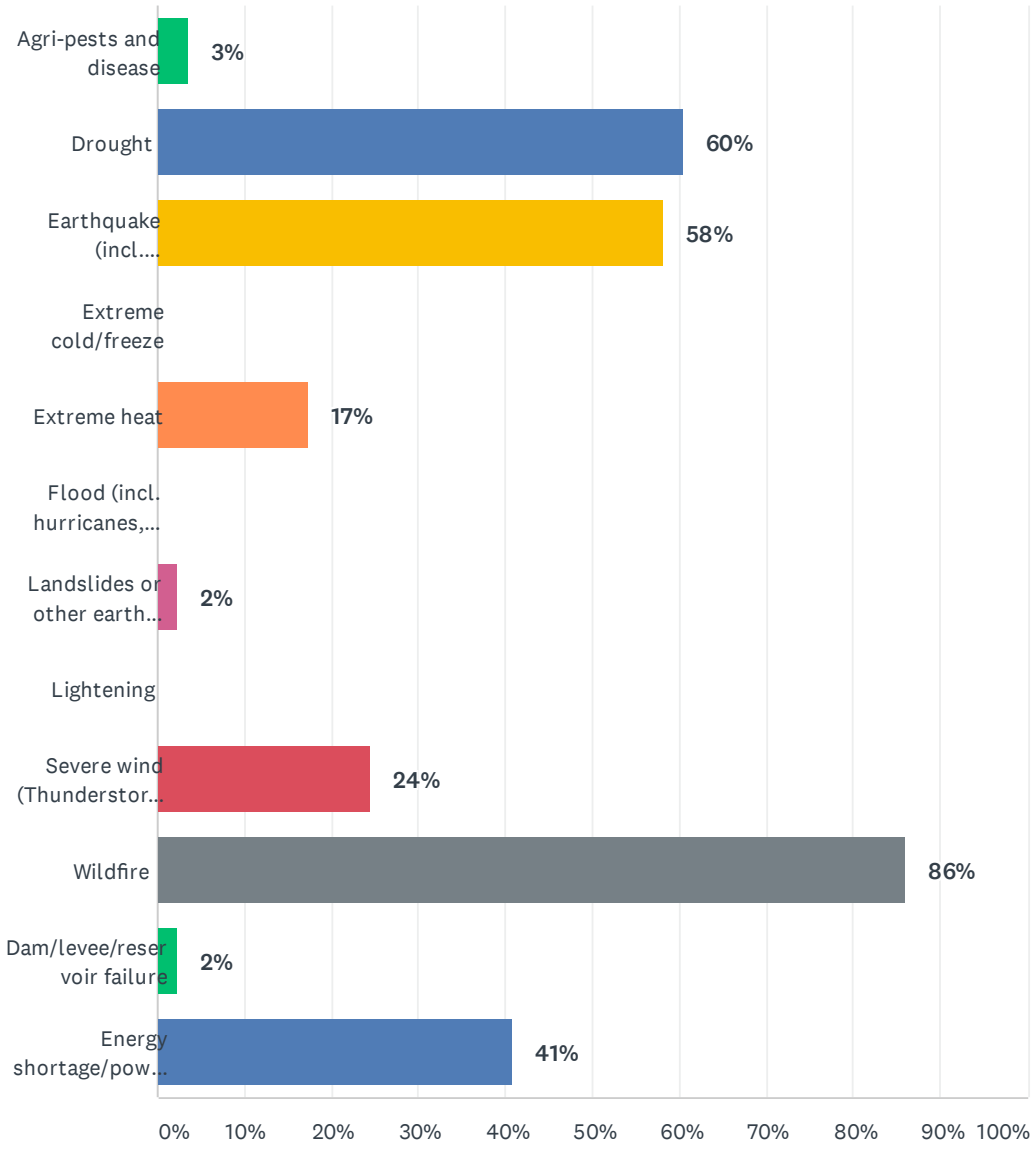
Answered: 86 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	95%	82
No	0%	0
Unsure	5%	4
TOTAL		86

Q2 Please select the TOP THREE hazards you think are the greatest threat to your community

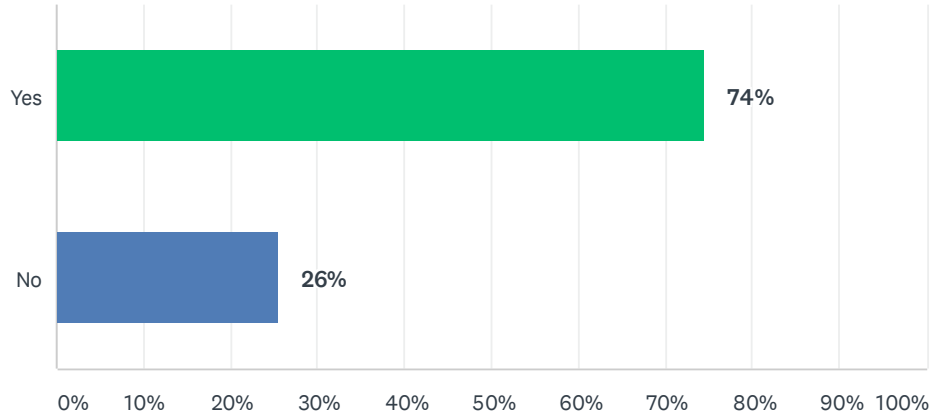
Answered: 86 Skipped: 0



ANSWER CHOICES	RESPONSES	
Agri-pests and disease	3%	3
Drought	60%	52
Earthquake (incl. liquefaction)	58%	50
Extreme cold/freeze	0%	0
Extreme heat	17%	15
Flood (incl. hurricanes, tropical storms)	0%	0
Landslides or other earth movements	2%	2
Lightening	0%	0
Severe wind (Thunderstorm, Santa Ana, dust storm)	24%	21
Wildfire	86%	74
Dam/levee/reservoir failure	2%	2
Energy shortage/power failure	41%	35
Total Respondents: 86		

Q3 Have you ever experienced or been impacted by a disaster?

Answered: 86 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	74%	64
No	26%	22
TOTAL		86

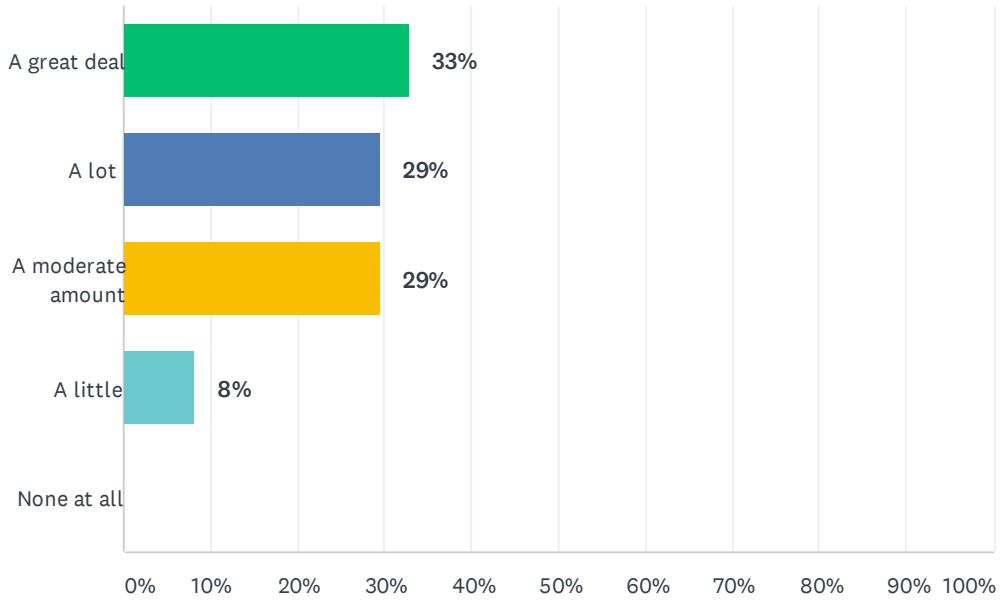
#	IF YES, PLEASE EXPLAIN.	DATE
1	1994 Northridge Earthquake	5/14/2021 11:36 PM
2	High winds caused my power to be shut off. Fires made me evacuate.	5/14/2021 2:41 PM
3	Evacuation from Tick Fire	5/14/2021 6:53 AM
4	Wildfire , earthquake and power outages and high winds,	5/14/2021 1:15 AM
5	Earthquake damage	5/14/2021 12:38 AM
6	Voluntary evacuations during fires.	5/13/2021 11:21 PM
7	Wildfire	5/13/2021 6:16 PM
8	Wild fire	5/13/2021 2:16 PM
9	canyon country House burned to the ground in 2007 “Buckweed Fire “	5/13/2021 1:40 PM
10	I have been evacuated 2 times due to wild fire	5/13/2021 12:32 PM
11	We have been evacuated due to wildfire. We have had our power shut off due to strong winds. We have had to conserve water due to drought.	5/13/2021 11:31 AM
12	NORTHRIDGE earthquake damaged our home and we lost water and power.	5/13/2021 5:23 AM
13	Earthquake	5/12/2021 9:48 PM
14	Earthquake of 94	5/12/2021 9:12 PM
15	Northridge Earthquake - temporarily displaced while home needed repairs- yellow tagged	5/12/2021 9:01 PM
16	I lived in Saugus during the 94 earthquake	5/12/2021 7:51 PM
17	94 earthquake	5/12/2021 7:29 PM
18	Northridge earthquake, many SCV fires.	5/12/2021 4:36 PM

19	94 earthquake, fires	5/12/2021 12:20 PM
20	Sand Fire evacuation	5/12/2021 11:53 AM
21	Tornado hit our home in Michigan and did a lot of damage	5/12/2021 11:22 AM
22	1994 Earrthquake	5/12/2021 9:27 AM
23	3 Earthquakes	5/12/2021 9:22 AM
24	Northridge earthquake, wild fire	5/12/2021 8:38 AM
25	Lived here all my life. Been through an earthquake or two. Seen the drought and fires	5/12/2021 7:21 AM
26	1994 earthquake. No power or water or gas	5/12/2021 6:32 AM
27	Earthquake and fire	5/12/2021 6:02 AM
28	I lived in Iran in the 70's and went through an earthquake.	5/11/2021 8:43 PM
29	North ridge earthquake impacted our lives in many ways	5/11/2021 8:33 PM
30	1992 Northridge earthquake.	5/11/2021 7:00 PM
31	Energy power outages	5/11/2021 5:23 PM
32	Wildfires and 1994 earthquake	5/11/2021 3:58 PM
33	Lived in Northridge for the 94 quake. Red tagged both home and work.	5/11/2021 3:42 PM
34	Have been displaced from home due to wildfires. This is happening increasingly and at least 2x year and we've only lived here for 4 years.	5/11/2021 1:56 PM
35	Earthquakes, hurricanes	5/11/2021 10:45 AM
36	1994 earthquake, 2003 fire storm, 2016 sand canyon fire, 2019 tick fire	5/11/2021 9:31 AM
37	Northridge Earthquake Fire	5/11/2021 8:48 AM
38	Evacuated several times for fires.	5/11/2021 6:27 AM
39	Fire - had to evacuate Earthquake - some structure damage and loss of household items Wind - loss of trees, damage to structures from falling trees	5/11/2021 5:32 AM
40	Wildfires	5/11/2021 1:10 AM
41	Extreme cold snaps, blizzards and ice storms.	5/11/2021 12:10 AM
42	Been through two major earthquakes	5/10/2021 9:43 PM
43	1994 earthquake	5/10/2021 8:51 PM
44	1994 Earthquake	5/10/2021 8:27 PM
45	Wildfires, earthquakes	5/10/2021 7:51 PM
46	Our home caught on fire in the 2019 Tick Fire in Canyon Country. The entire ordeal was terrifying and we're still recovering from it.	5/10/2021 5:33 PM
47	Brush fire	5/10/2021 3:34 PM
48	Wild fires and earthquakes	5/10/2021 11:27 AM
49	North ridge EQ	5/10/2021 10:28 AM
50	1971 Sylmar earthquake and 1994 Northridge earthquake.	5/10/2021 8:46 AM
51	Wildfire evacuation. Sylmar earthquake. Northridge earthquake.	5/10/2021 8:06 AM
52	Wild fires in sand cyn	5/6/2021 8:42 AM
53	Have had to evacuate due to fires & experienced power shut off to mitigate wildfires	5/6/2021 6:23 AM
54	1994 Northridge Earthquake, 2020 pandemic [contracting the virus],	5/5/2021 2:50 PM
55	1994 earthquake. Major highways down.	5/5/2021 1:10 PM

56	Earthquakes, wildfires	5/5/2021 12:57 PM
57	earthquake	5/5/2021 12:27 PM
58	1971 and 1994 EQ	5/5/2021 10:10 AM
59	Northridge Quake. Infrastructure damage affected commute to work.	5/5/2021 9:53 AM
60	1994 earthquake	5/5/2021 9:17 AM
61	Fire in our community and we were evacuated.	5/4/2021 8:57 AM
62	Earthquakes, wildfires	5/3/2021 12:41 PM
63	Earthquakes, wildfires, drought	4/29/2021 9:15 AM
64	Earthquake	4/29/2021 8:15 AM

Q4 How concerned are you about the possibility of your community being impacted by a future disaster?

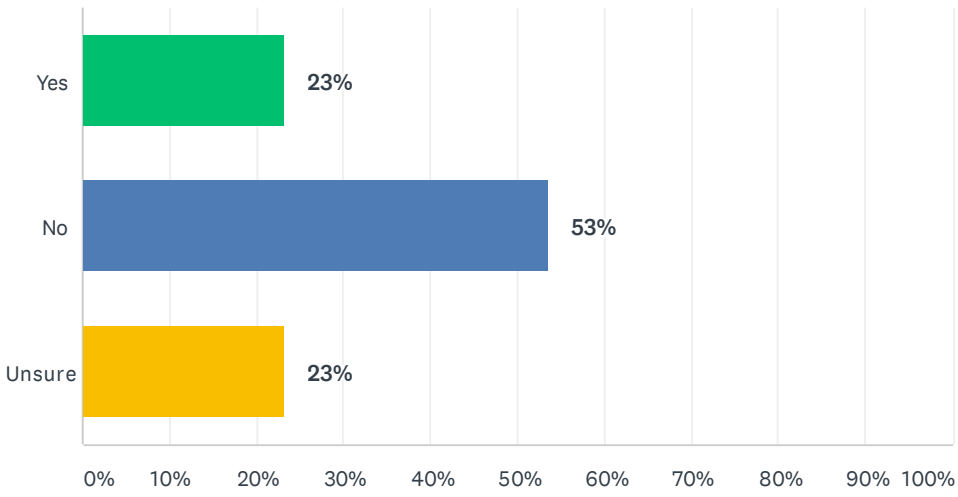
Answered: 85 Skipped: 1



ANSWER CHOICES	RESPONSES	
A great deal	33%	28
A lot	29%	25
A moderate amount	29%	25
A little	8%	7
None at all	0%	0
TOTAL		85

Q5 Does your home carry insurance for flooding?

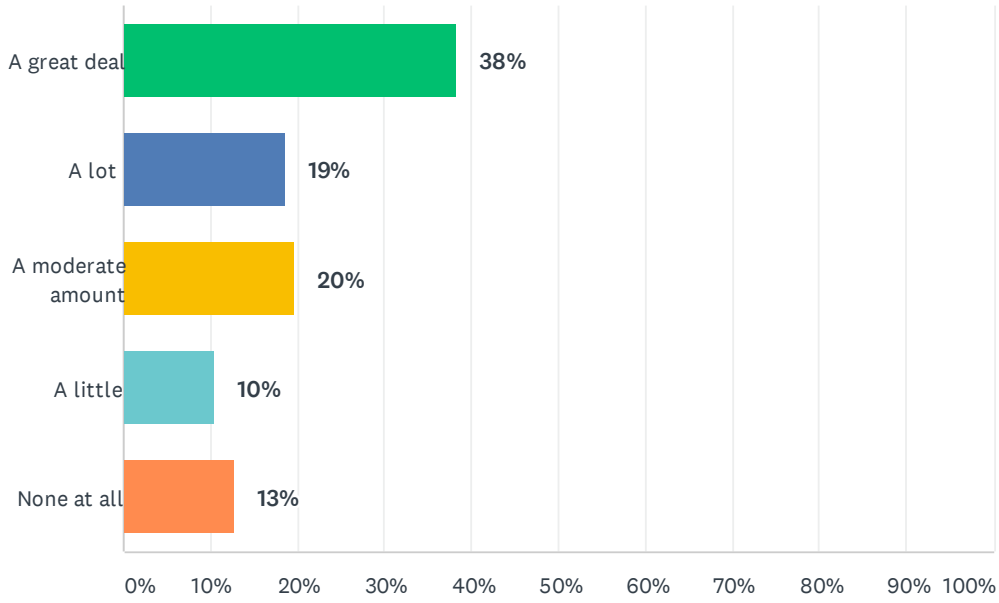
Answered: 86 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	23%	20
No	53%	46
Unsure	23%	20
TOTAL		86

Q6 How concerned are you about the possibility of your community being impacted by climate change?

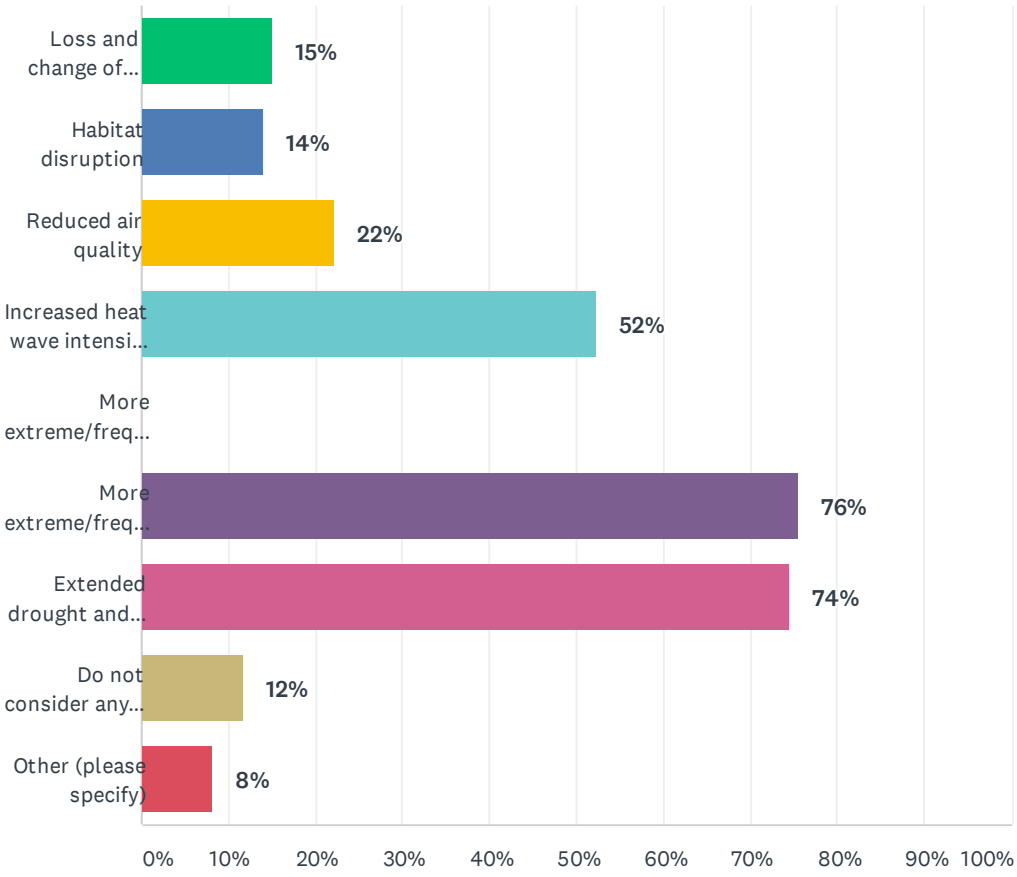
Answered: 86 Skipped: 0



ANSWER CHOICES	RESPONSES	
A great deal	38%	33
A lot	19%	16
A moderate amount	20%	17
A little	10%	9
None at all	13%	11
TOTAL		86

Q7 Which aspects of climate change are the TOP THREE highest threats to your community, in your opinion?

Answered: 86 Skipped: 0



ANSWER CHOICES	RESPONSES	
Loss and change of vegetation	15%	13
Habitat disruption	14%	12
Reduced air quality	22%	19
Increased heat wave intensity and frequency	52%	45
More extreme/frequent rainfall events (more flooding)	0%	0
More extreme/frequent wildfire events	76%	65
Extended drought and water shortage	74%	64
Do not consider any aspects of climate change to be a threat	12%	10
Other (please specify)	8%	7
Total Respondents: 86		

#	OTHER (PLEASE SPECIFY)	DATE

1	Be proactive..ie excess vegetation removal. Less Sierra Club intervention	5/12/2021 9:22 AM
2	Power shut offs when it’s windy and hot. Should not happen	5/11/2021 8:33 PM
3	Disruption of utility services	5/11/2021 6:27 AM
4	Not worried about this	5/11/2021 1:09 AM
5	Failure of CA to properly secure water supplies and clear dead vegetation.	5/10/2021 11:27 AM
6	Political/agency reaction resulting in absurd regulatory over reach.	5/5/2021 12:57 PM
7	RADICAL thinking regarding climate change	5/5/2021 10:10 AM

Q8 In your opinion, what is SCV Water currently doing that should be continued to reduce or eliminate the risk of future hazard/climate change impacts? (The next question will ask what else they COULD they be doing)

Answered: 73 Skipped: 13

#	RESPONSES	DATE
1	Continue to improve its system infrastructure to ensure water delivery to customers and to first responders.	5/14/2021 11:36 PM
2	I have no idea. I rent an apartment where water is included.	5/14/2021 2:41 PM
3	I have no idea	5/14/2021 6:53 AM
4	I don’t know.	5/14/2021 1:15 AM
5	Classes/ seminars on low water landscaping, gardening etc	5/14/2021 12:38 AM
6	I don’t know.	5/13/2021 11:21 PM
7	We need more community gardens and a botanical garden. The more people appreciate the earth- the more they will short climate changing policies.	5/13/2021 6:16 PM
8	Have no idea what you are currently doing	5/13/2021 2:16 PM
9	No idea	5/13/2021 2:16 PM
10	Not limit water so hillsides can be watered regularly	5/13/2021 1:40 PM
11	I don’t know	5/13/2021 12:32 PM
12	Don’t know	5/13/2021 5:23 AM
13	Not sure	5/12/2021 10:49 PM
14	Incentives for removal of grass from residential areas and not allow new housing to plant water sucking grass	5/12/2021 9:12 PM
15	Unsure	5/12/2021 9:01 PM
16	?	5/12/2021 7:51 PM
17	Not sure	5/12/2021 7:29 PM
18	???	5/12/2021 4:36 PM
19	Not sure	5/12/2021 2:37 PM
20	Lobby CA government to stop dumping millions of gallons of fresh water into the ocean!!!!	5/12/2021 12:20 PM
21	Stop power outages in summer	5/12/2021 11:53 AM
22	Taking action against all of the new developments in the works in SCV	5/12/2021 11:22 AM
23	I don’t know what you are currently doing.	5/12/2021 9:27 AM
24	More water conveyances perhaps..curtail home expansions	5/12/2021 9:22 AM
25	Promoting native plants	5/12/2021 8:38 AM
26	To be honest I don’t know	5/12/2021 7:26 AM
27	Conservation	5/12/2021 7:21 AM
28	Not aware or evident that SCV Water is doing anything	5/12/2021 6:02 AM
29	I believe we have weather patterns that occur naturally and we are in a dry/ heat cycle. I also	5/11/2021 8:33 PM

	believe that countries like China and India are enormous contributors to planet pollution and the US should not plunge into extreme changes so quickly to stop our fossil fuel dependence solely	
30	Nothing	5/11/2021 7:00 PM
31	I am not sure.	5/11/2021 6:21 PM
32	I don’t know	5/11/2021 5:08 PM
33	Don’t lnow	5/11/2021 4:10 PM
34	no opinion	5/11/2021 3:58 PM
35	No way to collect rainfall when we DO have it.	5/11/2021 3:42 PM
36	I really don't know and need to educate myself on what you're already doing.	5/11/2021 1:56 PM
37	Don’t know what you are doing	5/11/2021 10:45 AM
38	Nothing	5/11/2021 9:31 AM
39	Unaware of anything that SCV Water is doing to reduce these risks.	5/11/2021 9:26 AM
40	Not sure	5/11/2021 8:48 AM
41	Unknown	5/11/2021 8:02 AM
42	Provide essentials for homeowners to conserve water in their homes	5/11/2021 7:50 AM
43	Promote water conservation and push to change unfair irrigation policies	5/11/2021 6:27 AM
44	Unsure	5/11/2021 5:32 AM
45	I have no idea	5/11/2021 1:10 AM
46	Idk	5/11/2021 1:09 AM
47	Nothing to my knowledge...how would we know abt this?	5/11/2021 12:10 AM
48	I don’t know	5/10/2021 9:43 PM
49	Not sure	5/10/2021 8:51 PM
50	I don't know what you do other than supply us with water.	5/10/2021 8:03 PM
51	Unaware of anything	5/10/2021 7:51 PM
52	I do not know if anything they are doing to help.	5/10/2021 6:10 PM
53	Not really sure...	5/10/2021 5:33 PM
54	Unsure	5/10/2021 11:27 AM
55	Continue to develop storage capacity and be very active w/ City/County Planning commissions on issues related to water usage(lawns, landscaping, etc)	5/10/2021 10:28 AM
56	There is nothing they can do.	5/10/2021 8:46 AM
57	I have no idea what they are doing to mitigate any of this.	5/10/2021 8:06 AM
58	Not sure	5/6/2021 8:42 AM
59	Community education, gardening classes	5/6/2021 6:23 AM
60	cleaning wells	5/5/2021 2:50 PM
61	I don’t know	5/5/2021 1:10 PM
62	Have no idea.	5/5/2021 12:57 PM
63	plan for drought	5/5/2021 12:27 PM
64	Trying to make more potable water available.	5/5/2021 10:23 AM
65	don't know what SCV Water is doing other than normal maintenance and supplying h2o to new	5/5/2021 10:10 AM

	building sites	
66	Not sure	5/5/2021 9:53 AM
67	Ground water clean up	5/5/2021 9:17 AM
68	I think they are doing a great job at securing our water supply. As long as they keep securing our water I think we will be safe	5/4/2021 8:57 AM
69	no idea	5/3/2021 4:39 PM
70	I am not aware of what SCV Water is doing to eliminate risk.	5/3/2021 12:41 PM
71	Prepare system and storage for earthquake impacts.	5/1/2021 12:16 PM
72	augment water banking programs, participate in the Delta tunnel project, invest in local groundwater recharge	4/29/2021 9:15 AM
73	unsure	4/29/2021 8:15 AM

Q9 In your opinion, what else could SCV Water be doing to reduce or eliminate the risk of future hazard/climate change impacts?

Answered: 69 Skipped: 17

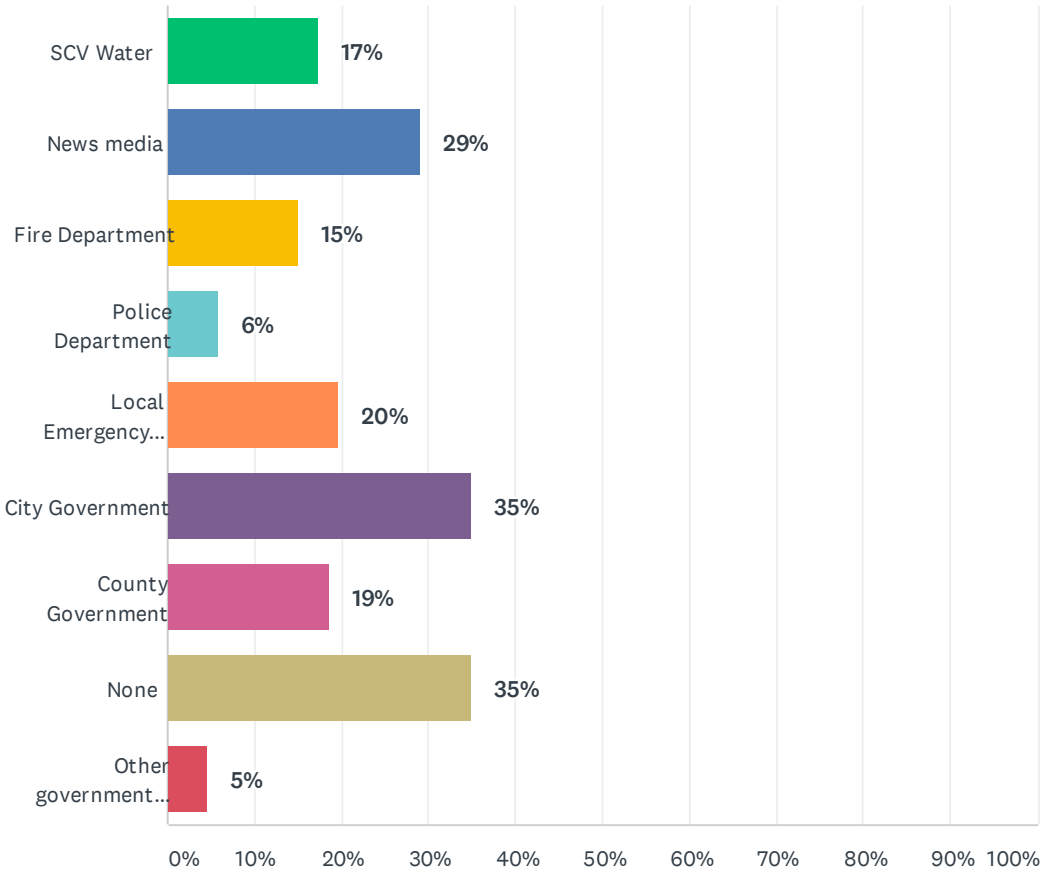
#	RESPONSES	DATE
1	Protect is water treatment and delivery system from malicious ransomware.	5/14/2021 11:36 PM
2	No clue.	5/14/2021 2:41 PM
3	I have no idea what a water can do specifically but water rationing seems like a likely next step	5/14/2021 6:53 AM
4	Not sure.	5/14/2021 1:15 AM
5	Improve/ update infrastructure, have back up systems in place for large scale disasters/ power failures. Water is our most critical resource.	5/14/2021 12:38 AM
6	I don’t know.	5/13/2021 11:21 PM
7	Rain harvesting at every home.	5/13/2021 6:16 PM
8	You should encourage 1. Encourage gov. Officials to cit back on the number of approved housing developments 2. Encourage redevelopment to a more density rich housing to avoid excessive water usage while still allowing for an increase in housing. 3 recycle water instead of letting it run to the ocean. 4 In every neighborhood have a few homes "win" a landscaping makeover in a water sustainability fire retardant style. Nearby home owners can then have the plans for free and purchase materials for a discount. 5Have Smokey the Bear yell at SCE for starting forest fires.	5/13/2021 2:16 PM
9	no idea, I would need to educate myself more.	5/13/2021 2:16 PM
10	Not sure	5/13/2021 1:40 PM
11	Reusable water investment	5/13/2021 12:32 PM
12	Don’t know	5/13/2021 5:23 AM
13	Use of reusable energy solar, wind power, etc	5/12/2021 10:49 PM
14	Water desalination plant	5/12/2021 9:12 PM
15	Stop expanding	5/12/2021 9:01 PM
16	?	5/12/2021 7:51 PM
17	Not sure yet	5/12/2021 7:29 PM
18	???	5/12/2021 4:36 PM
19	Not sure	5/12/2021 2:37 PM
20	Stop the fresh water dumping into the ocean!!!!	5/12/2021 12:20 PM
21	Prioritize upgrading infrastructure	5/12/2021 11:53 AM
22	Replacing main water lines BEFORE they break. A local phone number posted throughout the community to report broken or excessive irrigation/sprinklers.	5/12/2021 9:27 AM
23	Be up front in actual concerns..less political incentives	5/12/2021 9:22 AM
24	Continue promoting native plants, reduce water use, store water safely	5/12/2021 8:38 AM
25	Help families use recycled water from their homes to water lawns	5/12/2021 7:26 AM
26	Conservation, stop building more houses.	5/12/2021 7:21 AM

27	Stop raising customer bills for water. I pay more for water then gas and sometimes electric. I do my part to conserve water. City huge waster of water . See it everyday	5/12/2021 6:02 AM
28	Maintain and upgrade current infrastructure	5/11/2021 8:33 PM
29	Increase potable water storage. Consider direct potable reuse. Minimize reliance on imported water.	5/11/2021 7:00 PM
30	Choose greener equipment and sustainable suppliers.	5/11/2021 6:21 PM
31	Give incentives for people to collect their own water, plant California native plants that are more drought tolerant and resistant to fire, plant more native trees, educate consumers about water conservation, work with the city to stop/curb so much new build (uses too much water that we don't have), etc	5/11/2021 5:08 PM
32	Lobby to stop future growth of the community.	5/11/2021 4:10 PM
33	build more water storage if new housing projects continue at the rate they are.	5/11/2021 3:58 PM
34	I need to educate myself further. Our water supply is important and I'm just digging into this as a local issue. I am concerned with fluoride being put in our water supply as one aspect of my own research.	5/11/2021 1:56 PM
35	Stop government approval of massive new housing development when you claim we are always in a drought	5/11/2021 10:45 AM
36	Tell the city there is not enough water supply to continue building new homes. Improve infrastructure.	5/11/2021 9:31 AM
37	Help plant more drought resistant plants, clear brush from hillsides	5/11/2021 9:26 AM
38	Not sure	5/11/2021 8:48 AM
39	Water storage increase	5/11/2021 8:02 AM
40	Provide homeowners with resources on how the community could help	5/11/2021 7:50 AM
41	Be a voice when community outgrows it's water resources to stop overbuilding	5/11/2021 6:27 AM
42	Unsure	5/11/2021 5:32 AM
43	I'm not informed enough to answer	5/11/2021 1:10 AM
44	Nothing	5/11/2021 1:09 AM
45	Future hazards ... figure out the top three and create a plan with the city. When it comes to climate change that's a tough one...we say reduce electricity use in the summer yet push for people to purchase cars that need to be plugged in and charged with electricity...doesn't make much sense now does it	5/11/2021 12:10 AM
46	I don't know	5/10/2021 9:43 PM
47	Not sure	5/10/2021 8:51 PM
48	I don't know	5/10/2021 8:03 PM
49	Stop restricting usage to current residents….why aren't you restricting usage with new dwelling/apartments developements?	5/10/2021 7:51 PM
50	Be part of prohibiting future growth and building of more dwellings. If water, wind and electric are an issue stop building. Do not tell me to conserve but continue to build. Our city only cares about their pocketbooks not the people who live here. It's time those that provide services take a stand. But then I would guess all you care about us money too.	5/10/2021 6:10 PM
51	I'm not sure what fits within the scope of your control or influence.	5/10/2021 5:33 PM
52	Unsure	5/10/2021 11:27 AM
53	STORAGE DEVELOPMENT….no new reservoirs in CA since early 1970's	5/10/2021 10:28 AM
54	Nothing.	5/10/2021 8:46 AM
55	Not sure	5/6/2021 8:42 AM

56	developing and improving groundwater supplies for the SCV	5/5/2021 2:50 PM
57	Find a way to capture more rain water.	5/5/2021 1:10 PM
58	Oh I’m sure you’ll dream up of something.	5/5/2021 12:57 PM
59	keep informing the community	5/5/2021 12:27 PM
60	Increase water reserves.	5/5/2021 10:23 AM
61	water storage	5/5/2021 10:10 AM
62	Chemical contamination attack on open aquaducts and lakes. How to contain spread.	5/5/2021 9:53 AM
63	increase use of grey water	5/5/2021 9:17 AM
64	Maybe impose water restrictions to help with the drought. Conserve!	5/4/2021 8:57 AM
65	storage and infrastructure improvements - actively trying to get community acceptance of climate change dangers and the importance of taking real steps to reduce human factors	5/3/2021 4:39 PM
66	Create and share a climate action plan. Create and share a hazard mitigation plan. Stop signing off on additional large development projects if you’re asking current customer to cut back on water use.	5/3/2021 12:41 PM
67	Prepare system and storage for earthquake impacts.	5/1/2021 12:16 PM
68	permanent mandatory conservation measures	4/29/2021 9:15 AM
69	unsure	4/29/2021 8:15 AM

Q10 What offices or agencies do you contact for information about reducing your risks to hazards or climate change in your area?

Answered: 86 Skipped: 0



ANSWER CHOICES	RESPONSES	
SCV Water	17%	15
News media	29%	25
Fire Department	15%	13
Police Department	6%	5
Local Emergency Management	20%	17
City Government	35%	30
County Government	19%	16
None	35%	30
Other government office or agency. Please specify.	5%	4
Total Respondents: 86		

#	OTHER GOVERNMENT OFFICE OR AGENCY. PLEASE SPECIFY.	DATE

1	Environment California	5/13/2021 6:16 PM
2	NOAA	5/12/2021 2:46 PM
3	None	5/12/2021 12:20 PM
4	I'm remiss in this	5/12/2021 9:22 AM

Q11 This survey may be completed anonymously. However if you choose to provide contact information we will be able to follow up with you to learn more about your ideas or concerns.

Answered: 17 Skipped: 69

ANSWER CHOICES	RESPONSES	
Name	94%	16
Company	0%	0
Address	76%	13
Address 2	0%	0
City/Town	76%	13
State/Province	0%	0
ZIP/Postal Code	100%	17
Country	0%	0
Email Address	88%	15
Phone Number	53%	9

#	NAME	DATE
[redacted]		

#	COMPANY	DATE
	There are no responses.	

#	ADDRESS	DATE
[redacted]		

#	CITY/TOWN	DATE
1	Canyon Country	5/14/2021 2:41 PM
2	Canyon Country	5/14/2021 6:53 AM
3	Stevenson Ranch	5/13/2021 11:21 PM
4	Saugus	5/13/2021 6:16 PM
5	Santa Clarita	5/13/2021 5:23 AM
6	Valencia	5/12/2021 7:29 PM
7	Saugus	5/12/2021 12:20 PM
8	VALENCIA	5/11/2021 9:26 AM
9	Canyon Country	5/11/2021 1:10 AM
10	Newhall	5/10/2021 6:10 PM
11	Santa Clarita	5/10/2021 2:17 PM
12	Canyon Country	5/5/2021 10:10 AM
13	Valencia	5/5/2021 9:17 AM

#	STATE/PROVINCE	DATE
	There are no responses.	

#	ZIP/POSTAL CODE	DATE
1	91351	5/14/2021 2:41 PM
2	91387	5/14/2021 6:53 AM
3	91381	5/13/2021 11:21 PM
4	91350	5/13/2021 6:16 PM
5	91350	5/13/2021 5:23 AM
6	91350	5/12/2021 9:48 PM

7	91355	5/12/2021 7:29 PM
8	91350	5/12/2021 12:20 PM
9	91350	5/11/2021 5:08 PM
10	91354	5/11/2021 9:26 AM
11	92351	5/11/2021 1:10 AM
12	91387	5/11/2021 1:09 AM
13	91355	5/10/2021 8:51 PM
14	91321	5/10/2021 6:10 PM
15	91350	5/10/2021 2:17 PM
16	91387	5/5/2021 10:10 AM
17	91355	5/5/2021 9:17 AM

#	COUNTRY	DATE
	There are no responses.	

#	EMAIL ADDRESS	DATE
[redacted]		

#	PHONE NUMBER	DATE
[redacted]		

[redacted]

Appendix C: Public Outreach of LHMP

SCV Water - Valencia Division
24631 Avenue Rockefeller
Valencia, CA 91355
(661) 294-0828

Account Number	[redacted]
Total Amount Due	$ 45.45
Current Charges Due	05/21/2021

Manage and pay your account at yourSCVwater.com

Name [redacted]
Bill Period 04/02/2021 - 05/04/2021
Location Address [redacted]

Days This Period 32
Invoice Date 05/12/2021
Invoice # [redacted]
Cycle 35

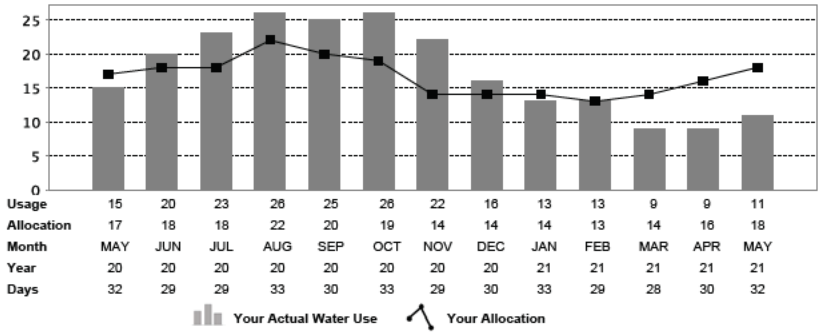
Meter	Prior Read	Current Read	Current Usage
[redacted]	1085	1096	11

Units	Outdoor Allocation	Indoor Allocation	Total Allocation	Total Usage	Last Year Usage
CCF	9	9	18	11	15
Gallons	7,017	6,838	13,464	8,228	11,220

Your Water Use Was: Efficient **Gallons Used per Day:** 257

Assigned Landscaped Area in SF 1,685

YOUR WATER USAGE HISTORY IN CCF



Usage	15	20	23	26	25	26	22	16	13	13	9	9	11
Allocation	17	18	18	22	20	19	14	14	14	13	14	16	18
Month	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
Year	20	20	20	20	20	20	20	20	21	21	21	21	21
Days	32	29	29	33	30	33	29	30	33	29	28	30	32

Your Actual Water Use Your Allocation

Outdoor irrigation allocations are calculated using local real-time weather and your assigned landscaped area. For a complete explanation go to conserve.yourSCVwater.com or call us at 661-294-0828.

General Water Usage Detail

Efficiency Rating	% Of Allocation	Price Per Unit	Billed Usage	Cost of Usage
Super Efficient	100% of Indoor	1.839	9	$ 16.55
Efficient	100% of Outdoor	1.839	2	3.68
Inefficient	101-150%	0.000	0	0.00
Excessive	151-200%	0.000	0	0.00
Wasteful	Over 200%	0.000	0	0.00
Total: General Water Usage Charge			11	$ 20.23

Recent Activity

Prior Balance	$	41.77
Payments		-41.77
Balance Forward	$	**0.00**

Current Charges

3/4 INCH RES METER	$	25.22
GENERAL WATER USAGE CHG		20.23
Total Current Charges	$	**45.45**

Balance Forward	Current Charges	Current Charges Due		Total Amount Due
$0.00	**$45.45**	**05/21/21**	$	**45.45**

Important Messages

We need your input! SCV Water is preparing a Local Hazard Mitigation Plan (LHMP) with assistance from its consultant, Engineering Solutions Services. This plan will identify the potential natural hazards affecting our service area and how to mitigate their impacts on the agency and its customers. Once approved by FEMA, the LHMP will allow SCV Water to request funding from FEMA and the State of California to mitigate the effects of these natural hazards. We invite your participation in the process. Learn more and access a brief survey by visiting www.yourSCVwater.com/LHMP.

Go Green with paperless e-billing service and sign up for recurring Direct Payment at yourSCVwater.com

Payment Coupon

Remit this portion with your payment.

SCV Water - Valencia Division
24631 Avenue Rockefeller
Valencia, CA 91355
(661) 294-0828

Account Number [redacted]
Invoice Date 05/12/2021
Location Address [redacted]
Current Billing Period 04/02/2021 - 05/04/2021

Balance Foward Due Now	Current Charges Due	Current Charges	Total Balance Due
$0.00	05/21/2021	$45.45	**$45.45**

☐ **To change mailing address, check here and fill out back**

Automatic Payment Of **$ 45.45** will be deducted on 06/02/2021 DO NOT MAIL.

[redacted]

SCV Water - Valencia Division
PO Box 515106
Los Angeles, CA 90051-5106

0000268413000000000000004545000045452

If you choose to pay in person or wish to visit our office, here is our location.
A night drop box is available after business hours.

SCV Water - Valencia Division
24631 Avenue Rockefeller
Valencia, CA 91355
(661) 294-0828
OFFICE HOURS: MONDAY - THURSDAY 7:30 AM - 5:30 PM
& ALTERNATING FRIDAYS 7:30 AM - 4:30 PM
CLOSED SATURDAY, SUNDAY, HOLIDAYS & ALTERNATING FRIDAYS Visit our website at: yourSCVwater.com

ADDITIONAL INFORMATION

This bill is due and payable ten (10) days from when the bill is generated. A Late Fee will be applied to the current balance if payment is not received in our office within 45 days from the date of the bill. Customers who have not paid their water bill within 60 days after the due date will be subject to termination of their water service.

If you have a question about an initial bill or dispute the amount charged, you must contact SCV Water in writing within ten (10) days after your receipt of the bill.

Attention Seniors and Disabled Customers:
SCV Water - Valencia Division can mail a copy of our discontinuance or other notices to the third party you designate. If you are a senior (62 or older) or disabled person and wish more information about this program, please contact our Customer Care Department at the number listed below.

TO OBTAIN INFORMATION ON THE CONTINUANCE OF SERVICE OR ARRANGEMENTS FOR A PAYMENT PLAN, CALL (661) 294-0828 AND ASK FOR CUSTOMER CARE.

Important: Please mark box on the front if making changes or comments below.
To close your account, please call our office two (2) business days prior to date needed.

New Billing Address

Address: _____

Apartment or Suite Number: _____

City: _____

State: _____ Zip Code: _____

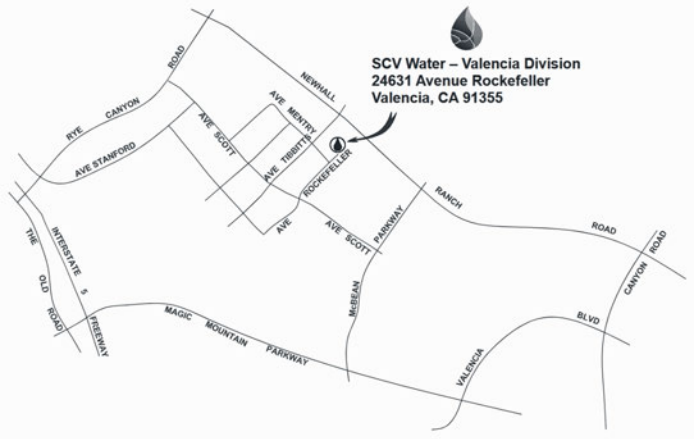
Home Phone: (_____) _____

Business Phone: (_____) _____

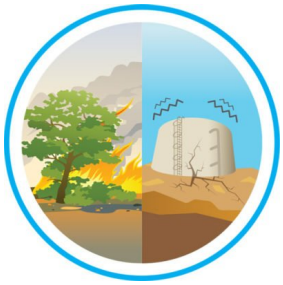
Comments: _____

_____

_____



LOCAL HAZARD MITIGATION PLAN



SCV Water is in a planning process to become better prepared for natural disasters, and your participation is important to us! We invite you to assist in the development of a Local Hazard Mitigation Plan (LHMP). This plan will identify the potential natural hazards affecting our service area. When complete, it will provide a comprehensive approach on how to manage these hazards and mitigate their impacts on the agency and its customers.

TELL US WHAT YOU THINK!

We encourage you to share your opinions and participate in the mitigation planning process through a brief survey. The information you provide will help us better understand your

TAKE THE SURVEY

Please help us by completing this survey

by May 22, 2021.

hazard concerns and identify mitigation activities that should help reduce the impact of future hazard events.

If you have any questions regarding the LHMP process or this survey, contact Kathie Martin, (SCV Water) at 661-513-1265 or **kmartin@scvwa.org**. You can also send your comments directly to our consultant, Gary Sturdivan, at **Gary@EngineeringSolutionsServices.net**.

SCV WATER

27234 Bouquet Canyon Rd
Santa Clarita, CA 91350-2173

(661) 297-1600

GET SOCIAL

SCV WATER – NEWHALL

Click here for Customer Care

24631 Avenue Rockefeller
Valencia, CA 91355-3907

(661) 294-0828

Phone Payments: (844) 350-4354

ccare_nwd@scvwa.org

SCV WATER – SANTA CLARITA

Click here for Customer Care

24631 Avenue Rockefeller
Valencia, CA 91355-3907

(661) 294-0828

Phone Payments: (844) 317-1856

ccare_scwd@scvwa.org

SCV WATER – VALENCIA

Click here for Customer Care

24631 Avenue Rockefeller
Valencia, CA 91355-3907

(661) 294-0828

Phone Payments: (844) 350-4354

ccare_vwd@scvwa.org

Office Hours: Monday - Thursday 7:30am - 5:30pm and alternating Fridays 7:30am-4:30pm
Click here to view calendar for Friday office hours

PLANNING EFFORTS & PROJECTS DASHBOARD

SCV WATER PLANNING EFFORTS & PROJECTS

WATER FOR TODAY & TOMORROW

SCV Water is undertaking multiple planning efforts to effectively manage the water supply for our customers, ensuring they have access to reliable water today and tomorrow. These efforts, part of a multi-year process, will advance several regional water plans and programs that enhance water reliability, quality, environmental sustainability, and delivery.

Public participation and involvement are critical to our success. To keep the public informed and engaged as we develop and

UPCOMING MEETINGS & EVENTS

- **GROUNDWATER SUSTAINABILITY PLAN PUBLIC WORKSHOP**

  June 2 @ 4:00 pm - 6:00 pm

  |Recurring Event **(See all)**

  One event on March 10, 2021 at 4:00 pm

  One event on June 2, 2021 at 4:00 pm

manage our water resources, SCV Water has created this easy to navigate online dashboard. The one-stop communication tool provides information about each effort, including public participation events and a place to sign up to receive additional information.

Click on an icon below to learn more about a specific project or planning effort.

One event on August 25, 2021 at 4:00 pm

- **GROUNDWATER SUSTAINABILITY AGENCY BOARD MEETING**

  July 5 @ 4:00 pm - 6:00 pm

- **GROUNDWATER SUSTAINABILITY PLAN PUBLIC WORKSHOP**

  August 25 @ 4:00 pm - 6:00 pm

  Recurring Event **(See all)**

  One event on March 10, 2021 at 4:00 pm

  One event on June 2, 2021 at 4:00 pm

  One event on August 25, 2021 at 4:00 pm

Groundwater Sustainability Plan

PFAS Treatment

Rate Case Planning

Recycled Water Planning

Urban Water Management Plan

Water Shortage Contingency Plan

Hazard Mitigation Plan

JOIN OUR EMAIL LIST TO STAY UP TO DATE

Sign up to receive updates on these projects, including opportunities for providing input.

Email (required) *

First Name

Last Name

Zip Code

Example: 91355

Sign up

By submitting this form, you are consenting to receive marketing emails from: SCV Water, 27234 Bouquet Canyon Road, Santa Clarita, CA, 91350, https://yourscvwater.com/. You can revoke your consent to receive emails at any time by using the SafeUnsubscribe® link, found at the bottom of every email. **Emails are serviced by Constant Contact**

SCV WATER | SCV WATER – NEWHALL | SCV WATER – SANTA CLARITA | SCV WATER – VALENCIA

27234 Bouquet Canyon Rd
Santa Clarita, CA 91350-2173

(661) 297-1600

GET SOCIAL

Click here for Customer Care

24631 Avenue Rockefeller
Valencia, CA 91355-3907

(661) 294-0828

Phone Payments: (844) 350-4354

ccare_nwd@scvwa.org

Click here for Customer Care

24631 Avenue Rockefeller
Valencia, CA 91355-3907

(661) 294-0828

Phone Payments: (844) 317-1856

ccare_scwd@scvwa.org

Click here for Customer Care

24631 Avenue Rockefeller
Valencia, CA 91355-3907

(661) 294-0828

Phone Payments: (844) 350-4354

ccare_vwd@scvwa.org

Office Hours: Monday - Thursday 7:30am - 5:30pm and alternating Fridays 7:30am-4:30pm
Click here to view calendar for Friday office hours

26521 Summit Circle, Santa Clarita, CA 91350-3049

(661) 297-1600 | yourSCVwater.com

NEWS RELEASE
DATE: April 29, 2022
FOR IMMEDIATE RELEASE

SCV Water Releases Draft Hazard Mitigation Plan for Public Comment

Plan identifies potential natural hazards and effective mitigation plans

SCV Water has prepared a draft Local Hazard Mitigation Plan (LHMP), with the assistance of its consultant Engineering Solutions Services. The LHMP provides a comprehensive approach on how to proactively manage natural hazards and mitigate their impacts on the Agency, customers and the community.

The process began in May 2021 with a community survey, seeking input on how to address potential natural disasters such as drought, earthquakes and wildfires affecting the SCV Water service area. Community feedback helped to develop the LHMP, which is now available for review and comment.

“Keeping our customers’ water flowing during and after a disaster is a top priority for our team,” said SCV Water General Manager Matt Stone. “We appreciate the customer feedback we have received so far and encourage review of the draft plan.”

Once approved by the Federal Emergency Management Agency (FEMA), the LHMP will allow SCV Water to request funding from FEMA to help implement projects designed to mitigate the effects of these natural hazards. Examples of projects include seismic retrofit of water storage tanks, provide generators at all critical booster stations and well sites, and increase water-pumping capabilities.

The Draft LHMP is available for review at yourSCVwater.com/lhmp. Comments can be submitted through May 30 to James Klueber, Engineering Solutions Services, via email at james@engineeringsolutionsservices.net, or by phone at (619) 572-7404.

###

About SCV Water:
The Santa Clarita Valley Water Agency (SCV Water) is a full-service regional water agency located in the Santa Clarita Valley. SCV Water provides water service to approximately 75,000 business and residential customers. SCV Water was formed on January 1, 2018, when local water suppliers combined into one integrated, regional water provider. More information can be found at www.yourSCVwater.com.

For more information, please contact:
Kathie Martin
Communications Manager
SCV Water
kmartin@scvwa.org

26521 Summit Circle, Santa Clarita, CA 91350-3049

(661) 297-1600 | yourSCVwater.com

NEWS RELEASE
DATE: May 18, 2021
FOR IMMEDIATE RELEASE

SCV Water Seeks Community Input on Identifying and Preparing for Natural Disasters

SANTA CLARITA – SCV Water invites community members to provide input on potential natural disaster concerns, such as drought, earthquakes and wildfires, affecting its service area. This community feedback will assist the Agency in developing a Local Hazard Mitigation Plan (LHMP), which will provide a comprehensive approach on how to proactively manage natural hazards and mitigate their impacts on the Agency, customers and the community.

"Keeping our customers' water flowing during and after a disaster, is a top priority for our team," said SCV Water General Manager Matt Stone. "We encourage our customers to share meaningful feedback that will help us better understand their concerns and identify strategies that will reduce the future impacts in the Santa Clarita Valley."

The short, nine-question survey should take respondents less than five minutes to complete. The deadline for community input is Saturday, May 22. To take the survey or learn more about the LHMP customers can:

- Visit yourSCVwater.com/LHMP
- Contact SCV Water's Communications Manager Kathie Martin at 661-513-1265 or kmartin@scvwa.org
- Send comments to SCV Water's LHMP consultant Gary Sturdivan at gary@engineeringsolutionsservices.net

Survey results will inform development of the Local Hazard Mitigation Plan. The draft plan will be released for public review and comment, after which the SCV Water Board will consider it for adoption.

About SCV Water:
The Santa Clarita Valley Water Agency (SCV Water) is a full-service regional water agency located in the Santa Clarita Valley. SCV Water provides water service to approximately 74,000 business and residential customers. It was formed on January 1, 2018, when local water suppliers combined into one integrated, regional water provider. More information can be found at www.yourSCVwater.com

For more information, please contact:

Kathie Martin
Communications Manager
SCV Water
kmartin@scvwa.org

Gmail

James Klueber <james@engineeringsolutionsservices.net>

Santa Clarita Valley Water Agency: DRAFT Local Hazard Mitigation Plan for Stakeholder Comment

James Klueber <james@engineeringsolutionsservices.net> Tue, Apr 26, 2022 at 10:53 AM
To: "Barrick, Jennifer" <Jennifer.barrick@ladwp.com>, Enrique.Gomez@ladwp.com, fbecerra@mwdh20.com, Steven.nichols@water.ca.gov, "Diep, Chi P.@Waterboards" <Chi.Diep@waterboards.ca.gov>, "Orr, Shu-Fang@Waterboards" <Shu-Fang.Orr@waterboards.ca.gov>, rtremblay@lacsd.org, "Olague, Stephanie" <stephanieolague@lacsd.org>, RBRYDEN@pw.lacounty.gov, JMCKENNA@santa-clarita.com
Cc: Cheryl Fowler <cfowler@scvwa.org>, Sudi Shoja <Sudi@engineeringsolutionsservices.net>, Kathie Martin <kmartin@scvwa.org>

Dear SCV Water Stakeholders,

Each of you included in this email were invited to participate and/or participated in a meeting on May 26, 2021 with the Santa Clarita Valley Water Agency (SCV Water) regarding the identification of hazards within their service area as part of their Local Hazard Mitigation Plan (LHMP) development process. Attached to this email is a copy of the Draft LHMP that SCV Water developed with Engineering Solutions Services based on your input. This draft will be released on SCV Water's website for public comment shortly but we wanted to reach out directly to you since you (or your Agency's representative) provided input on this LHMP during the May 26 meeting. Please let me know if you have any questions or comments on this LHMP.

Thanks,

--
James Klueber
Engineering Solutions Services
[redacted]

SCVWA Full LHMP - FINAL 20220425.pdf
3772K

SHARE:

Join Our Email List

May 2021

IN THIS ISSUE

SCV Water Awarded Quarter of a Million Dollar Cal OES Grant

Award will fund new generator for critical facility.

SCV Water has received a nearly $250,000 California Special Districts Association Public Safety Power Shutoff program allocation from the California Governor's Office of Emergency Services (Cal OES). The allocation will be used to help fund the installation of a permanent generator at the Earl Schmidt Filtration Plant (ESFP). The addition of this second generator brings the facility up to 100 percent operational capacity in the event of a power outage.

"We are thankful to receive this grant from Cal OES," said SCV Water's General Manager Matt Stone. "These funds will purchase a new, permanent generator to keep the Earl Schmidt Filtration Plant running at full capacity, which is crucial in times of emergency."

Read more

Local Hazard Mitigation Plan Underway

We need your help!

SCV Water is in a planning process to become better prepared for natural disasters, and your participation is important to us!

We invite you to assist in the development of a Local Hazard Mitigation Plan (LHMP). This plan will identify the potential natural hazards affecting our service area. When complete, it will provide a comprehensive approach on how to manage these hazards and mitigate their impacts on the agency and its customers.

Tell us what you think!
We encourage you to share your opinions and participate in the mitigation planning process through a brief survey. The information you provide will help us better understand your hazard concerns and identify mitigation activities that should help reduce the impact of future hazard events.

Please help us by completing this survey by May 22, 2021.
https://www.surveymonkey.com/r/SCVWater-LHMP

To learn more, visit https://yourscvwater.com/lhmp/.

SCV Groundwater Sustainability Agency Seeks Advisory Committee Members

The Santa Clarita Valley Groundwater Sustainability Agency (SCV-GSA) is seeking qualified candidates for three openings on its Stakeholder Advisory Committee.

The Committee provides the SCV-GSA with insight and expertise on various social, cultural and economic issues impacting groundwater management in the Santa Clarita Valley.

The Committee advises the SCV-GSA board on decisions and policy such as sustainable management criteria and implementation.

Read more

SCV Water Considers Operations Costs and Revenue in Proposing New Rates

As part of its commitment to transparency and public outreach, SCV Water recently sent information to customers about potential rate changes over the next five years and the reasons behind them.

The SCV Water Board of Directors will hold a public hearing on June 15 at 6:30 p.m. Customers are encouraged to attend and ask questions about the proposed rates. The water agency has made an Independent Ratepayer Advocate available to review the rates and address customer concerns.

The suggested rates are based on an analysis of the agency's cost of operations and the revenue necessary for maintaining current service levels. Two main factors are driving the proposed rates: the need to build PFAS treatment facilities and the effort to transition SCV Water's three retail divisions into a single rate plan for all customers.

SCV Water has already constructed one of the first PFAS treatment facilities in California and three more systems will be up and running in the next 24 months. PFAS are a group of man made chemicals that are prevalent in the environment and were commonly used in industrial and consumer products such as cookware and carpet to repel grease, moisture, oil, water and stains.

New technology has allowed PFAS to be detected at minute levels and State water regulators have also set new notification and action levels for the substances. As a result, SCV Water has had to close some wells and pursue treatment options to maintain supply reliability – an issue faced by numerous water providers across California.

The second element of the proposed rate changes is a re-evaluation of rates for the agency's retail divisions – Santa Clarita, Newhall and Valencia, which all have their own rate tables. The division rates were established before SCV Water began operating as a new agency in January 2018 and do not reflect the current cost of providing service.

Under the recommended rates, there will be a single rate table for all SCV Water customers that includes the Fixed Charge based on meter size and the Water Use Charge tied to consumption. The only division-specific difference remaining would be the debt that each division brought with it when SCV Water was created. That legacy debt will be broken out separately and paid only by customers in that division.

Customers who want more information, the reasoning behind the proposed rates, and information on community meetings and the public hearing, can find it online at **yourSCVwater.com/rateplanning**.

SCV Water is Here to HELP
Rebates up to $750*

SCV Water is offering its HELP Rebate (Healthy & Efficient Landscape Programs) to residents, businesses, large landscapes and homeowners' associations.

Rebates available up to $750* per account
(*excluding taxes, labor, and non-qualifying devices)

Decide which option works best for you ... or use a combination of both!

- **Option #1:** Convert spray to drip irrigation. Get $0.50/sq ft to convert spray irrigation to drip. Drip irrigation works best for shrubs, flowers, and other non-turf applications.
- **Option #2:** Install high-efficiency nozzles and pressure regulators. Get the following rebates: 100% for HE nozzles, 75% for master pressure regulation, and $10 per pressure regulating body, when you replace your old spray sprinklers with high efficiency equipment to make your irrigation system lean, mean and green!

For more information, click **here.**

Social Media Spotlight

Now that spring is in fully swing, make sure you are watering your lawn according to the season!

- Days Per Week: 3
- Start Times Per Day: 3
- Minutes Per Station: 5
- Total Minutes Per Day: 15
- Total Minutes Per Week: 45

For more conservation tips, **visit.**

Join the conversation on any of the social media platforms below. Be sure to "like" or "follow us" so you don't miss anything!

Resources & Useful Links

- **SCV's Hottest Plant Guide**
- **Steps to Lawn Replacement**
- **Landscape Inspiration and Information**
- **COVID-19 Update**
- **Agency Calendar**
- **Garden Class Schedule and Sign Ups**
- **School Education Programs**
- **Kid's Corner**

Visit us at yourSCVwater.com

SCV WATER

27234 Bouquet Canyon Rd
Santa Clarita, CA 91350
yourSCVwater.com
(661) 297-1600

DON'T MISS Zonta Club Of Santa Clarita To Host Women In Service Luncheon

Home » Santa Clarita News » Environment » SCV Water Releases Draft Hazard Mitigation Plan For Public Comment

Jamie Araki/KHTS News

SCV Water Releases Draft Hazard Mitigation Plan For Public Comment

Posted by: KHTS Newsroom in Environment, Santa Clarita Latest News April 30, 2022 - 10:27 am 0 275 Views

In an effort to identify potential natural hazards and manage effective mitigation plans, SCV Water has released a Hazard Mitigation Plan (LHMP) draft for public comment.

With the assistance of its consultant Engineering Solutions Services, SCV Water has prepared a drafted plan to proact ...y, and the community.

The process began in May 2021 with a community survey, seeking input on how to address potential natural disasters ...se

"Keeping our customers' water flowing during and after a disaster is a top priority for our team," said SCV Water General Manager Matt Stone. "We appreciate the customer feedback we hav so far and encourage review of the draft plan."

Once approved by the Federal Emergency Management Agency (FEMA), the LHMP would allow SCV Water to request funding from FEMA to help implement projects designed to mitigate th these natural hazards, according to SCV Water officials.

Examples of projects include seismic retrofit of water storage tanks, provide generators at all critical booster stations and well sites, and increase water-pumping capabilities, according to of

The Draft LHMP is available for review here. Comments can be submitted through May 30 to James Klueber, Engineering Solutions Services, via email at james@engineeringsolutionsservices

SCV Water Releases Draft Hazard Mitigation Plan For Public Comment

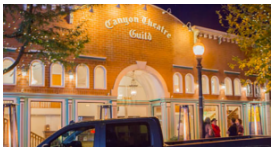
Tagged with: MITIGATION PLAN PUBLIC COMMENT SANTA CLARITA LATEST NEWS SANTA CLARITA NEWS SANTA CLARITA

Previous:
Antelope Valley Fair Date Announced For Summer Of 2022

May 2, 2022 - 12:33 pm

Know Someone Dealing With Addiction? Action Family Counseling Can Help With That

May 2, 2022 - 8:15 am



Canyon Theater Guild Holding Open Call For OLIVER!

May 1, 2022 - 1:21 pm

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Weather
Santa Clarita CA
Sunny
68°F

Calendar

Today in S.C.V. History

May 2
1884 - McCoy & Everette Pyle discover important Tataviam Indian artifacts in Bowers Cave (Val Verde) [story]

SCV Water Ramps Up Water Restrictions as Severe Drought Intensifies

Press Release | Saturday, Apr 30, 2022

The Santa Clarita Valley Water Agency Board of Directors voted Tuesday to move into Stage 2 of its Water Shortage Contingency Plan.

The move comes as California and the SCV continue to face a severe drought with no end in sight.

“Despite planning for dry times, this drought has become so severe that we are having to dip into our banked water supplies,” said SCV Wate Manager Matt Stone. “Moving to Stage 2 will place new water restrictions in place to eliminate water waste and ensure we have enough wate needs of our community.”

Stage 2 Explained

Stage 2 includes the same restrictions as Stage 1 and adds additional water savings measures.

Customers are requested to voluntarily reduce their water by up to 20%. This information is available at Drought Ready SCV.

New watering requirements effective with Stage 2 include:

— Limits watering to three days per week. Odd addresses will water on Monday, Wednesday and Friday. Even addresses water on Tuesday, T Sunday.

— No watering on Saturdays.

— Limits watering station run times. Maximum of two five-minute cycles per station per watering day, 10 minutes maximum.

— Limits Watering times of day, morning and evening watering. May to October watering is allowed midnight to 9 a.m. and/or 8 p.m. to mid is allowed midnight to 10 a.m. and/or 6 p.m. to midnight.

The following actions are also prohibited, as established in Phase 1, declared in November 2021:

— Allowing runoff onto non-irrigated areas when irrigating with drinking water.

— Using hoses with no shutoff nozzles to wash cars.

— Using drinking water to wash sidewalks, driveways and hardscapes.

— Irrigating outdoors during and within 48 hours following precipitation of a quarter inch or more.

— The irrigation with drinking water of ornamental turf on public street medians.

Rebates and Resources

SCV Water offers many financial rebates and other incentives to help customers increase water use efficiency, including:

— Turf conversion rebates.

— Irrigation system efficiency upgrade rebates including smart irrigation controllers, high-efficiency sprinkler nozzles, pressure regulating de

— Free home drought-ready check-ups.

— Online WaterSMART Workshop, gardening classes and other resources.

A quick 10-minute inspection of the sprinkler system can save considerable water. For homes businesses, and landscapes, set timers to meet the new watering days and duration and repair any leaks or overspray. Then inside, check for leaks in toilets and other fixtures.

Click here to learn more about rebates.

Learn More

SCV Water is hosting a Virtual Drought Forum on May 10 at 6 p.m., where attendees will hear from the experts about drought status, water supply and conservation measures, as well as be able to ask us questions.

Customers can register here for the Virtual Drought Forum.

Customers can also report suspected water waste here.

Neighboring Agencies

Also, this week, Metropolitan Water District announced a Water Shortage Emergency for six million customers, cutting watering to one day a Water customers. Those affected customers are served by a higher proportion of imported state water, which has been drastically impacted by conditions.

In a statement from SCV Water it was reported that the SCV also relies on imported state water for a portion of its supply, "but in addition ha water supply stored underground in Kern County in wet years. Still, as the drought enters its third year, we are also asking our customers to c to meet demand should the drought continue. Every drop saved this year is one we can use next year."

SCV Water provides water service to approximately 75,000 business and residential customers in the SCV. It was formed on Jan. 1, 2018, wh into one integrated, regional water provider. More information can be found at Your SCV Water.

Comment On This Story
COMMENT POLICY: We welcome comments from individuals and businesses. All comments are moderated. Comments are subject to reje or in poor taste.
REAL NAMES ONLY: All posters must use their real individual or business name. This applies equally to Twitter account holders who use

4 Comments

1. *Jody* says:
Sunday, May 1, 2022 at

How about requiring developers to limit the number of homes built by 20, 30, or 50%, and allow existing homeowners who have been l here for decades to continue to water our lawns to maintain property values and quality of life, as opposed to being punished so that ten built and supply them with our water?

Reply

2. *Ricky Tyrrell* says:
Sunday, May 1, 2022 at

We need to do yhe same for all parks and golf courses

Reply

3. *Keith Laurin* says:
Sunday, May 1, 2022 at

What happens to those who have back yard pools where 500 to 1000 s of water has to be replenished each month due to evaporat that. In the past, I've cut back to a point my yard turns brown in the summer. I don't like the idea, my water savings is going for someo

Reply

4. *SCV* says:
Sunday, May 1, 2022 at

Stope building homes and businesses in SCV!!

Reply

Name (required):

Email (required):

Leave a Comment

Website:

Add Comment

Latest Additions to SCVNews.com

[Filming in Santa Clarita Includes 10 Productions]
The city of Santa Clarita's Film Office released the 10 productions currently filming in the Santa Clarita Valley for the week of Monday, May 2 - Sunday, May 8.

[SCV Boys & Girls Club Member Named 2022 L.A. County Youth of the Year]
Boys & Girls Club of Santa Clarita Valley announces Hailu Waithaka as the 2022 Youth of the Year **and** Los Angeles County Boys & Girls Clubs Youth of the Year.

[Santa Clarita Mayor's Monthly Message – May 2022]
This month, I challenge you to get where you need to go in Santa Clarita on two wheels.

[May 4: Hart District Governing Board Regular Meeting]
The regular meeting of the William S. Hart Union High School District's Governing Board will take place Wednesday, May 4, beginning with a closed session at 5 p.m., followed immediately by open session at 7 p.m.

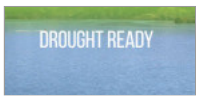
[May 11: Volunteers Sought for Dagger Flat Trail Reconstruction]
Volunteers are sought to help clean up and help in the reconstruction of the Dagger Flat Trail near Bear Divide in Sand Canyon. No experience required. A work party is scheduled for Wednesday, May 11, at 8 a.m.

[Santa Clarita Celebrates 36th Community Park]
As the third-largest city in Los Angeles County, I find it admirable that we, in Santa Clarita, continue to prioritize the importance of open space, nature and parks. These outdoor spaces are amazing for our health as noted in our One Story Once City book – "The Nature Fix."

[Today in SCV History (May 2)]
1884 - McCoy & Everette Pyle discover important Tataviam Indian artifacts in Bowers Cave (Val Verde) [story]

[Today in SCV History (May 1)]
1927: First major competition at new Baker Ranch Rodeo (later Saugus Speedway). Overflow crowd more than fills 18,000-seat arena. Entire SCV population was ~3,000 [story]

[SCV Water Ramps Up Water Restrictions as Severe Drought Intensifies]
The Santa Clarita Valley Water Agency Board of Directors voted Tuesday to move into Stage 2 of its Water Shortage Contingency Plan.



[Today in SCV History (April 30)]
1973 - Watergate figure H.R. "Bob" Haldeman, a former CalArts board member, resigns from Nixon White House [link]

[Henry Mayo Nurses Ratify New Three-year Agreement]
California Nurses Association/National Nurses United announced registered nurses at Henry Mayo Newhall Hospital in Valencia, ratified a new three-year collective bargaining agreement on April 26.

[Friday COVID Roundup: County Trending Higher, 2,550 New Positive Cases]
The Los Angeles County Department of Public Health confirmed four new deaths throughout L.A. County, 2,550 new cases countywide, with 98 new cases in the Santa Clarita Valley. This new data brings Los Angeles County death totals to 31,959, county case totals to 2,872,203 and Santa Clarita Valley case totals to 73,816, with 470 total SCV deaths from COVID-19 since March of 2020.

[May 7-8: CTG Holds]

[April 29-30: CalArts]

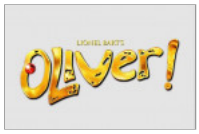
[Wilk's Legislation to]

[Santa Clarita Seeks]

[Canyons Softball]

[May 7: SCV Jigsaw]

[Open Auditions for Musical 'Oliver!']
The Canyon Theatre Guild will hold open auditions Saturday, May 7 and Sunday, May 8 for performers of all ages for the upcoming show, Lionel Bart's "Oliver!"



[Presents 'The Great Gatsby' on Stage]
The California Institute of the Arts School of Theater will present the stage play "The Great Gatsby," based on the F. Scott Fitzgerald novel of the same name, Friday April 29 through Saturday, April 30 at 8 p.m., along with a matinee at 2 p.m. on Saturday.

[Add Transparency to State Contracting Fails]
Senate Bill 1367, part of Senate Republican Leader Scott Wilk's legislative package calling for accountability, transparency and integrity in the state government's procurement process, failed to pass the Senate Governmental Organization Committee because the majority of Democrats refused to vote on it.

[Part-time Graffiti Workers]
Santa Clarita is looking to hire part-time Graffiti Workers in the Community Preservation Division. This position will help staff remove graffiti throughout the community, input data regarding graffiti incidents and conduct inventory checks.

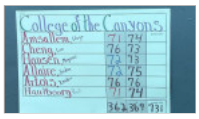
[Clinches Playoff Berth with 10-4 Win Over Antelope Valley]
No. 20 College of the Canyons softball closed out the regular season in winning fashion on Tuesday, April 26 posting a 10-4 conference win over Antelope Valley College at Whitten Field to clinch a postseason berth for a ninth straight season.

[Puzzle Swap at Valencia Town Center Parking Lot]
The Santa Clarita Valley Jigsaw Puzzle Group will hold a puzzle swap/trade/buy/sell event on May 7 10 a.m. to noon at the Westfield Valencia Town Center parking lot on the Sears side, just off Citrus Street.

[April 29-May 2: Weekend Closure of I-210 to SR-118 Connector in Pacoima]
The California Department of Transportation has announced an extended weekend closure of the westbound Interstate 210 to westbound State Route 118 connector in the San Fernando Valley for paving work.

[I-5 Corridor Improvements Include Landscaping Work]
I-5 corridor improvements continue from Buena Vista Street to State Route 134 in the San Fernando Valley.

[Cougars Men's Golf Play Way to 11th Consecutive WSC Championship]
College of the Canyons played its way to an 11th consecutive Western State Conference Championship on Monday, as the Cougars had three players tie for second place at the 36-hole conference finals at Alisal River Golf Course.



[SCV Water Releases Draft Hazard Mitigation Plan for Public Comment]
The Santa Clarita Valley Water Agency has prepared a draft Local Hazard Mitigation Plan with the assistance of its consultant Engineering Solutions Services. The plan provides a comprehensive approach on how to proactively manage natural hazards and mitigate their impacts on the Agency, customers and the community.

[Today in SCV History (April 29)]
2002 - LASD Deputy David March, Canyon grad & Saugus resident, murdered during traffic stop [story]

[ARTree Announces Free Upcoming Events]
ARTree Community Arts Center in Old Town Newhall announced its upcoming free events. Click links below for more information.

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Santa Clarita, Calif. 91321
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FAX: 661-290-2536

Click here for the Mobile Site

Operating Hours
Monday - Thursday: 10:00 AM to 6:00 PM
Friday: By Appointment Only

Email: info@scvtv.com

Appendix D: Public Comments

There were no public comments received. The emails below detail the comments received from the SCV Water Board Meeting on May 17, 2022.

Gmail

James Klueber <james@engineeringsolutionsservices.net>

FW: Agenda Item 8 LHMP Questions/Comments

Mike Alvord <malvord@scvwa.org> Wed, May 18, 2022 at 10:14 AM
To: james klueber <james@engineeringsolutionsservices.net>, Gary Sturdivan <gsturdivan@me.com>, Sudi Shoja <Sudi@engineeringsolutionsservices.net>
Cc: Steve Cole <scole@scvwa.org>, Keith Abercrombie <kabercrombie@scvwa.org>, Cheryl Fowler <cfowler@scvwa.org>

Good morning James,

Here is a follow up email we received from Director Gutzeit.

We will also be forwarding you questions and comments we received from other Board members last night.

Kind regards,

Mike

Michael Alvord, Director of Operations & Maintenance

Santa Clarita Valley Water Agency

Treatment, Distribution, Operations & Maintenance Department

661-702-4429

From: Maria Gutzeit <mgutzeit@scvwa.org>
Sent: Tuesday, May 17, 2022 1:56 PM
To: Mike Alvord <malvord@scvwa.org>
Cc: Matt Stone <mstone@scvwa.org>; Steve Cole <scole@scvwa.org>; Keith Abercrombie <kabercrombie@scvwa.org>; Cheryl Fowler <cfowler@scvwa.org>
Subject: Re: Agenda Item 8 LHMP Questions/Comments

Thanks Mike and group:

Two other related questions/comments:

p. 19 refers to Natural Hazards in the last paragraph

Should contaminated groundwater OR regulatory requirments that make groundwater or other water unavailable be considered a hazard? If not, perhaps that is what electrical shortages were not considered.

p.22- onward Earthquakes

I notice this also talks about local impacts and not statewide impacts. If we are supposed to cover impacts that would affect us, I believe earthquake in the delta or south would be more damaging than a local earthquake.

However, I understand if we are restricted to local assets vs. overall impact to our operation.

Per your comments below….if we are sticking to local we should show local not statewide drought maps. If we are going statewide, we should include statewide earthquake impacts. Seems we should be consistent but I'm not clear what the scope it since it is a bit of both in the test.

Thanks.

Maria Gutzeit, Director

[redacted]

www.yourscvwater.com

On May 17, 2022, at 1:01 PM, Mike Alvord <malvord@scvwa.org> wrote:

Good afternoon Director Guitzeit,

I am the main contact primarily because I was our Agency's project lead and point of contact. However, I think Steve and Keith will be presenting tonight and Cheryl Fowler was an integral part of the project as well as others. See below for my responses to your questions. I will have to defer to our consultant regarding a lot of your drought questions and comments, but I tried addressing some of them.

We will take all your comments and questions as well as any other questions and comments from the Board and confer with our consultant.

Kind regards,

Mike

Michael Alvord, Director of Operations & Maintenance

Santa Clarita Valley Water Agency

Treatment, Distribution, Operations & Maintenance Department

661-702-4429

[Quoted text hidden]

Gmail

James Klueber <james@engineeringsolutionsservices.net>

LHMP comments from Board of Directors 05/17/2022

Keith Abercrombie <kabercrombie@scvwa.org> Wed, May 18, 2022 at 2:33 PM
To: james klueber <james@engineeringsolutionsservices.net>, Gary Sturdivan <gsturdivan@me.com>, Sudi Shoja <Sudi@engineeringsolutionsservices.net>
Cc: Steve Cole <scole@scvwa.org>, Cheryl Fowler <cfowler@scvwa.org>

James,

Below are the items raised by various board members during last night's meeting (5/17/2022) that Mike and I have cobbled together. At the end I've also listed a couple of other 'edits' that should be made to the Plan.

BJ Atkins

1. List and/or show what facilities are vulnerable to each hazard.
2. In the Sections regarding ..Hazard Vulnerability Analysis.. such as 4.4.1, 4.4.2, 4.4.3, 4.4.4, 4.4.5, 4.4.6 to the extent that less than 100% affected, wants explanation of what is affected. Similar to item 1 above. Not sure if all facilities or just description of areas and facilities therein?

Maria Gutzeit

1. Have a more consistent look and presentation to the document. For example, overlay facilities on all hazard maps.
2. Be clearer on the focus and intent of the plan. What should be and should not be included in the plan
3. Recognizes that it says report to address only 'Natural' hazards, but would like this emphasized more so it is clearly understood and not missed
4. In Section 4.3.3 there is a statement that reads "*Drought is now one of the main concerns in California, as the State has been in a drought period for the last eight years."* 8 years is incorrect I believe, especially since we subsequently state that *Gov. Brown declared an official end to the drought on April 7, 2017.*

Kathye Armitage

1. Why are the solar panels not listed as vulnerable. Especially because of the damage occurred by recent winds. (Table 2, Section 1.6)
2. Why are fire and climate change ranked as 2. (Table 9) My thoughts and recollection of our discussions…
    a. Fire – because it is limited to only specific areas and not the entire service area.
    b. Climate – because we have a robust water portfolio.
3. Climate change should be discussed in the present tense and not future tense.
4. Can we apply for dam protection/safety funding
5. Why isn't Climate Change and Wildfires rated "highly likely" instead of 'likely' in Table 10 (Screening Assessment Matrix).
6. Table 18 and others, why isn't "*Communication equipment interoperable with the County"* HIGH vs MEDIUM

Raised at Board Meeting but not sure which Director Raised the issue

1. Probably Kathye, but not sure – regarding Dam Inundation – question as to whether or not we can advocate for Dam Repairs, etc. through this Plan? This question is likely part of same issue as Item 4 under Kathye above.

OTHER

1. Table 5, Section 2.2 – Heading should be '2022' instead of '2021' and the 2nd line of table "Vacancy" should be replaced with "Maria Gutzeit"
2. {Note for SCVWATER staff - the Board (Kathye) wants to see the public comments, etc at some point. I presume when we go back to them for Adoption of the Plan.}

Keith Abercrombie

Chief Operating Officer

Santa Clarita Valley Water Agency

Direct: (661) 388-4934

Fax: (661) 259-3574

kabercrombie@scvwa.org