

Draft

2025

Water Shortage Contingency Plan

June 2026

WATER SHORTAGE CONTINGENCY PLAN

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In compliance with California Water Code (CWC) Section 10632, Santa Clara Valley Water District (Valley Water) developed this Water Shortage Contingency Plan (WSCP) as part of its Urban Water Management Plan (UWMP). The WSCP establishes Valley Water's actions and procedures for addressing water shortages due to droughts and other emergencies. This plan is part of contingency planning that improves preparedness for droughts and other impacts on water supplies. The WSCP utilizes applicable information from Valley Water's drought response plan to the extent practicable.

As a wholesale water agency, Valley Water developed this WSCP in accordance with CWC requirements for the wholesale agencies. This WSCP describes Valley Water's Annual Water Supply and Demand Assessment (Annual Assessment) procedures, response actions that align with the six standard water shortage levels, as well as planning for natural disasters. The WSCP also summarizes drought-related revenue impacts, and Valley Water's communication protocol and legal authority to respond to water shortages. Where applicable, Valley Water's actions during the recent 2020-2022 drought are summarized for reference.

The WSCP was developed in consistence with Valley Water's water shortage management objectives:

- To minimize the economic, social, and environmental hardship to the community caused by water shortages.
- To establish water use reduction targets and work closely with retailers and cities in developing efficient and effective demand reduction measures during water shortages that concentrate on eliminating non-essential uses first.
- To maintain and safeguard essential water supplies for public health and safety needs, including during acute catastrophic events.

Valley Water's WSCP is included as Appendix E to its 2025 UWMP. However, this WSCP is created separately from Valley Water's 2025 UWMP and can be amended, as needed, without amending the UWMP.

SECTION 1. WATER SUPPLY RELIABILITY ASSESMENT

Valley Water manages a complex and integrated water system to meet existing and future needs of Santa Clara County. Valley Water has access to several supply sources including imported water, local surface water, groundwater, and recycled water. Valley Water's supply sources are highly integrated to provide flexibility in the raw water system for its overall conjunctive use strategy. Valley Water's basic water supply strategy to compensate for supply variability is to store excess wet year supplies in the groundwater subbasins, local reservoirs, San Luis Reservoir, and Semitropic Groundwater Bank, then to draw on these stored supplies during dry years to help meet demands.

As part of the 2025 UWMP, Valley Water completed its water supply reliability assessment for the next 25 years. The assessment indicates that with Valley Water's existing and planned sources of supply as well as continued investment in demand management, Valley Water will be able to meet countywide demands through 2050 under normal and single dry year conditions for

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all demand years. Under five consecutive dry year conditions, Valley Water's diverse water supplies are sufficient to meet demands for most of the planning period, with less than 10% of supply gaps in the last two years of the modeled drought in some years. The supply gaps are within Valley Water's level of service goal, which is to meet 100% demand during normal years and at least 80% demand during droughts. Those gaps will be addressed through the combination of supply augmentation from transfer and exchange and water use reductions.

In addition, Valley Water also conducted a Drought Risk Assessment for a near-term five-year drought per CWC requirements. The Drought Risk Assessment indicates that if a five-year drought were to occur under existing conditions, Valley Water's existing supply is sufficient to meet expected demands for the first three years. During the last two years of this near-term drought, however, estimates of projected water supply and use reveal that there could be a possible shortfall of 14,600 acre-feet (AF) in 2029 and 25,000 AF in 2030. These shortfalls are largely attributed to assumed low imported water supply as occurred during the two most recent severe droughts in the last 10 years. If such shortfalls were to happen, Valley Water will implement the WSCP actions including calling for water use reduction and augmenting supplies with supplemental sources such as water transfers and exchanges, to meet potential shortage. See Chapter 7 of Valley Water's UWMP for details of the water service reliability assessment in various year types and the Drought Risk Assessment.

Valley Water maintains diverse water supply sources to meet countywide demands. Hydrologic variability, climate change, and environmental regulations can have a significant impact on Valley Water's water supply sources. Surface water, both imported and local, is subject to hydrologic variability and environmental regulations. Groundwater supply is largely constrained by hydrologic variability, operational storage capacity, and groundwater quality. Climate change may impact both surface water and groundwater. Future recycled and purified water deliveries could be impacted by infrastructure capacity and availability of recycled water. Hydrologic variability, various climate change scenarios, and regulatory risk are incorporated in Valley Water's long-range planning including this plan. The findings from both the water service reliability assessment and the Drought Risk Assessment demonstrate that Valley Water is able to mitigate these challenges through a combination of conjunctive management of its water system, past and planned investment in supply and storage projects, as well as water conservation and demand management.

SECTION 2. ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

Beginning in 2022, Valley Water has submitted the Annual Assessment by July 1 each year in compliance with CWC Section 10632.1. The Annual Assessment is a near-term water supply reliability analysis that determines whether a water shortage may occur for next year and any shortage stage response actions in addressing any perceived shortage.

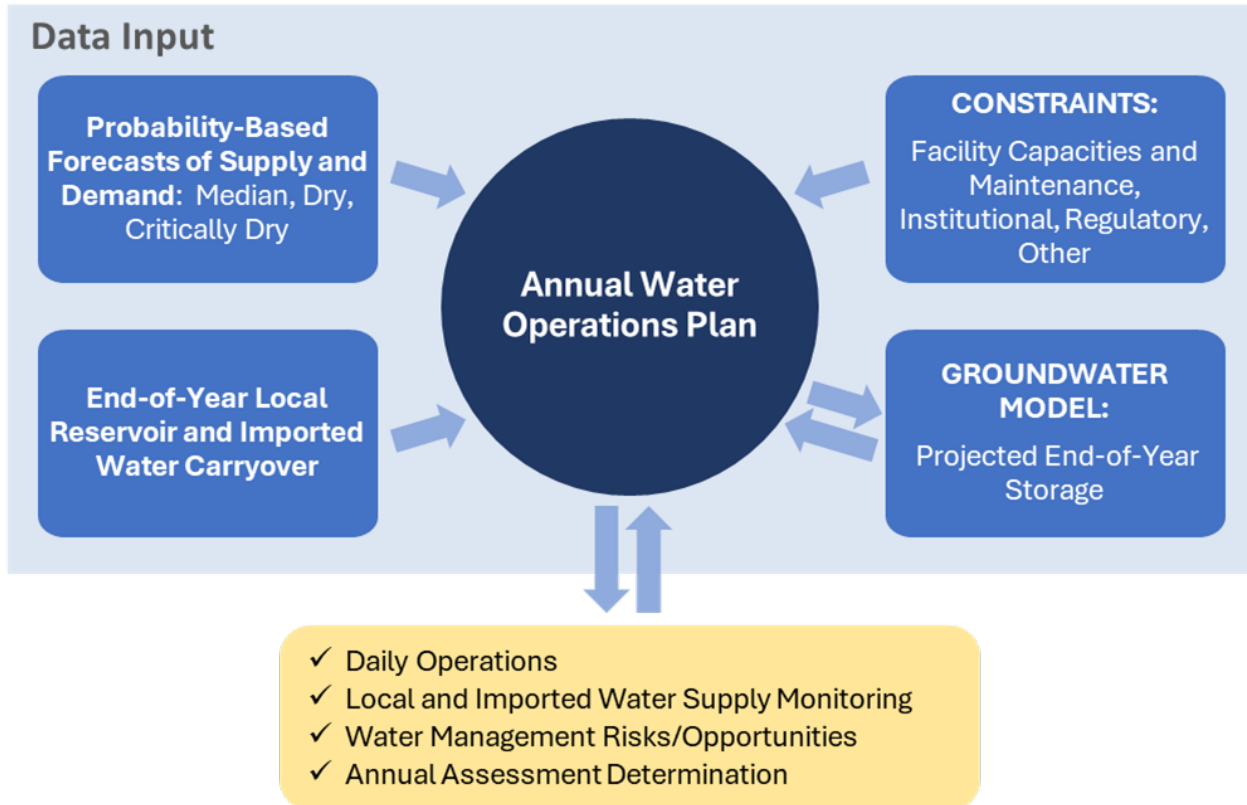
The Annual Assessment is based on Valley Water's long-established water supply operations planning that is an ongoing process throughout the year. The operations planning involves assessing water supply and demand to evaluate water service reliability for the current year and a broad range of hydrologic conditions for next year. These analyses are used to guide Valley Water's operation and water resources management within its service area to meet demands and adjust to changing conditions throughout the year.

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2.1 Steps and Timeline of Annual Operations Planning

Annual water supply operations planning begins each September for the upcoming year and considers water year scenarios that span from wet to very dry. Operations planning serves as the basis for daily operational decisions consistent with the annual strategy to manage water supplies and reserves. The elements of annual water supply operations planning is depicted in Figure 1.

Figure 1. Annual Water Operations Planning



Water supply operations planning is dynamic, and information on rainfall data, imported water allocations, water supply projections, availability of supplemental supplies, and facility capacities are updated at least monthly to reflect current conditions. The projection of water supplies through the end of the year is based on assumed median conditions (50% exceedance), dry conditions (90% exceedance), and in some cases, critically dry conditions (99% exceedance). As assumptions and projections are updated throughout the year, Valley Water continues to update its end-of-year groundwater storage projections.

The state of the groundwater basins is reported monthly through a Groundwater Conditions Report (<https://www.valleywater.org/your-water/where-your-water-comes-from/groundwater/groundwater-monitoring>) and Water Tracker (<https://www.valleywater.org/your-water/water-supply-planning/monthly-water-tracker>). The Groundwater Conditions Report and Water Tracker contain a description and quantification of available water supplies including local reservoirs, imported water, treated water, recycled water, conserved water, and groundwater data, such as recent managed recharge, pumping, and storage trends. The annual water supply

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operations planning process together with the monthly reports are how Valley Water tracks and reports its annual water supply, demands, and overall water supply reliability.

Staff provides the Valley Water Board of Directors (Board) updates on available water supplies, groundwater storage projections, and water demand projections as needed throughout the year and at least once a year, typically in April. Updates are also provided to Valley Water's retailer committee and subcommittee at least quarterly. By June, Valley Water staff takes information and analysis from the operation planning for current year and subsequent dry year to complete the Annual Assessment. The Annual Assessment will include a recommendation if WSCP actions are needed.

Through its long-term practice, Valley Water has determined that projected end-of-year groundwater storage as well as surface water availability serve as the best indicators of potential water shortages and early warning signal, therefore Valley Water uses them to determine a potential water supply shortage. The recommendation on WSCP actions will be based on the water storage stages presented in Section 3. The Annual Assessment will be brought to the Board for their information as part of the regular water supply update. If WSCP actions are recommended based on shortage stages, the Board will be asked to decide on taking water shortage actions. The Annual Assessment will then be provided to the State by July 1. Figure 2 provides general timeline and the decision-making process.

Figure 2. Annual Assessment Decision-Making Process



After the Annual Assessment determination is done, the operation planning will continue throughout the year to monitor emerging supply and demand conditions and guide system operations, and response actions in the event of a water shortage or emergencies.

2.2 Demand Projection

The Annual Assessment is required to use unconstrained demand, which is defined as

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expected water use before any projected shortage response actions may be taken, while considering impacts associated with factors such as weather and anticipated growth. To calculate unconstrained demand, Valley Water uses the best available information to date, typically including the previous year’s demands as well as consideration of current water use patterns and other factors impacting demands. This data-driven approach ensures that demand projections reflect both recent conditions and expected near-term trends under baseline conditions, without the influence of conservation mandates that may be implemented during water shortage conditions or supply restrictions.

Valley Water begins the estimation by gathering detailed demand data from its water retailers. Valley Water retailers submit their three-year demand forecasts for treated water within their contracts by October 15th, which serve as the foundation for demand forecasting. Valley Water also collects information on retailer demand for supplies from the San Francisco Public Utilities Commission (SFPUC), based on projected wholesale deliveries to SFPUC customers in Santa Clara County. In addition, demands for groundwater and recycled water are estimated from previous year and historical patterns. The demand projection also considers additional factors, such as historical demand trends, weather patterns, and ongoing water conservation program implementation.

2.3 Supply Assessment

Water supply operations planning considers all of Valley Water’s water supply system and sources, including imported water (deliveries, banking, sales, transfers, exchanges, carry-over), local surface water reservoirs, local water supply diversions, groundwater recharge systems, groundwater storage, and recycled water. It also includes SFPUC supply to eight Valley Water retailers. A summary of available water resources is provided in Table 1. Chapter 6 of the UWMP provides more information on each of Valley Water’s sources of supply.

Table 1. Water Supply Sources

Source	Description
Central Valley Project (CVP)	Contract for 152,500 acre-feet per year (AFY). Actual allocations are typically only a portion of the full contract amount and are based on availability of water supplies after meeting regulations to protect the environment, water quality, and other factors.
State Water Project (SWP)	Contract for 100,000 AFY. Actual allocations are typically only a portion of the full contract amount and are based on availability of water supplies after meeting regulations to protect the environment, water quality, and other factors.
Local Surface Water	Valley Water has water rights to capture and use up to 223,000 AFY at its reservoirs and percolation pond diversion structures. Currently, 53,000 AFY are used for water supply on average. This is expected to increase to an average of 83,000 AFY by 2040. The total volume used depends on rainfall and demands.
Local Reservoirs	Valley Water operates 10 reservoirs in the County with a total (unrestricted) storage capacity of approximately 166,000 AF that capture runoff from the watershed for release through the year to recharge the groundwater basins. However, several Valley Water reservoirs are operating under mandatory

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	seismic restrictions and at present, Valley Water has only a total of 62,996 AF of storage available for storing water in all of its reservoirs. Water captured at a few reservoirs can also be sent to Valley Water’s water treatment plants. Valley Water’s largest reservoir, Anderson Dam (89,000 AF), is currently undergoing a seismic retrofit and is not able to provide storage. Valley Water expects the retrofit project to be completed by 2035.
Natural Groundwater Recharge	Approximately 61,000 AF of precipitation and other natural flows are directly recharged to the groundwater basins in an average year. This amount varies with hydrologic conditions. Natural recharge differs from Valley Water’s managed recharge program where precipitation is captured in reservoirs and purposely released for recharge in ponds and along managed creeks.
Groundwater Storage	As the County’s Groundwater Sustainability Agency, Valley Water manages the Santa Clara and Llagas subbasins and strives to maintain adequate storage in wet and average years to ensure water supply reliability during dry periods or shortages. The estimated operational storage capacity of these groundwater subbasins is 548,000 AF.
Semitropic Groundwater Bank	Valley Water has invested in 350,000 AF of out-of-county water storage capacity in Semitropic Groundwater Bank. Water is delivered to the groundwater bank when surplus supplies are available and withdrawn when supplies are limited. Valley Water’s contract allows withdrawals between approximately 31,000 to 78,000 AF of banked water per year, depending on SWP allocation (larger withdrawals are permitted during larger allocation years).
Recycled Water	Recycled water is produced by the County’s four wastewater treatment plants for various non-drinking water (non-potable) purposes. In addition, Valley Water provides advanced treated purified water to South Bay Water Recycling to improve the quality of the non-potable supply. Recycled water use is projected to increase from approximately 15,000 AFY in 2025 to approximately 28,000 AFY by 2050.
SFPUC	SFPUC’s Regional Water System provides water to some cities in the northern part of the County. On average about 55,000 AF is delivered to the County each year.

Many factors and events affect water supply availability in any given year. To evaluate water supply conditions each year, Valley Water uses information on anticipated CVP and SWP allocations for imported supply, precipitation in local watersheds to estimate reservoir inflow and natural groundwater recharge, and groundwater storage for groundwater availability. In addition, the determination of projected available water supply also considers supplies from SFPUC, carryover storage, and out-of-county storage.

2.4 Infrastructure Considerations

The Annual Assessment incorporates any infrastructure considerations that may impact system operations and water supply reliability, including planned facility outages due to maintenance or upgrades, construction of capital improvement projects, and adding new supplies. Throughout each year and based on its Asset Management programs, Valley Water carries out regular maintenance and upgrades of its facilities. The associated shutdowns are planned and

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coordinated within Valley Water’s business areas and reflected in the operations planning and the Annual Assessment. Because of operational flexibility of Valley Water’s interconnected water system, Valley Water is able to continue its water service with planned disruptions.

In addition, seismic risk assessment is discussed in Section 4.5. In the event of an infrastructure issue that may impact Valley Water’s capability to convey, treat, or distribute water during the current year, the issue would be documented and its impact reflected in the Annual Assessment and its operations.

SECTION 3. SHORTAGE LEVELS

Pursuant to California Water Code Section 10632(a)(3), the WSCP must include six standard water shortage levels that correspond to progressively increasing ranges of shortage conditions of up to 10%, 20%, 30%, 40%, and 50% shortages and greater than 50% shortage compared to the normal reliability condition (Table 2). As outlined in Section 2.1, Valley Water’s shortage levels are determined based on projected end-of-year groundwater storage and surface water (imported and local) availability. The shortage stages also include catastrophic interruption of water supplies due to earthquakes and other emergency events.

Table 2. Six Standard Shortage Stages

Shortage Stage	Stage Title	Water Shortage
1	Alert	<=10%
2	Warning	10-20%
3	Severe	20 – 30%
4	Critical	30 - 40%
5	Extreme	40 - 50%
6	Emergency	>50%

- Stage 1 is the alert stage that is meant to warn the public that current water use is tapping groundwater reserves. This stage is triggered when local groundwater and/or reservoir storage is projected to drop below normal stage and/or surface water supplies are reduced.
- Stage 2 is the warning stage. Shortage conditions continue to progress, requiring the initiation of drought response actions and close coordination with retailers and cities to encourage enacting of water use restrictions.
- Stage 3 is the severe stage. Shortage conditions are worsening, requiring close coordination with retailers and cities to encourage increase of enforcement activities.
- Stage 4 represents critical conditions. This is typically the most severe stage in a multi-year drought. This stage is triggered when groundwater storage and expected surface water deliveries are projected to fall below the lower threshold of Stage 3.

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- Stage 5 and 6 are for extreme and emergency situations. These stages are meant to address an immediate crisis such as a major infrastructure failure when water supply may only be available to meet health and safety needs. Stage 5 or 6 can also be triggered in a deep drought when groundwater basin and reservoir storage levels are projected to be dangerously low.

The WSCP establishes procedures for shortage levels, the actual implementation of a water shortage level, however, needs to consider additional factors, including proactively declaring a shortage to allow time for behavior changes to achieve water use reduction, customer response to the current level, and available response actions.

SECTION 4. SHORTAGE RESPONSE ACTIONS

During droughts or shortages, Valley Water considers all available tools to minimize their impact. Valley Water’s shortage response actions broadly fall into four categories – supply augmentation, demand reduction, operational changes, and mandatory prohibitions against specific water use practices. These actions are consistent with CWC’s required reporting for the WSCP.

Valley Water’s level of service goal is to meet 100% demand during normal years and at least 80% demand during droughts. Valley Water’s drought response actions aim to achieve this service goal and minimize shortage impacts on the community. Based on lessons learned from the 2012-2016 and 2020-2022 droughts, Valley Water updated the actions that it may take in response to a declaration of a water shortage. Table 3 provides a summary of Valley Water’s shortage response actions for each stage. Because each drought is different, it is important to keep flexibility within each drought stage for when to implement each drought response action. This allows Valley Water to identify and implement the actions that will provide the most benefit for the specific drought conditions. The determination of specific actions at each shortage level will be based on the evaluation of cost, timing, supply availability, storage conditions, and other factors.

Table 3. Water Shortage Response Actions

Stage	Water Shortage	Response Actions
1 – Alert	<=10%	<ul style="list-style-type: none"> • 0-10% from demand reduction • 0-10% met by Storage
2 – Warning	10-20%	<ul style="list-style-type: none"> • 0-20% from demand reduction • 0-20% met by Storage • Supply augmentation • Operational changes

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3 – Severe	20-30%	<ul style="list-style-type: none"> • 0-20% from demand reduction • 0-30% met by Storage • Supply augmentation • Operational changes
4 – Critical	30-40%	<ul style="list-style-type: none"> • 0-20% from demand reduction • 0-40% met by Storage • Supply augmentation • Operational changes
5 – Extreme	40-50%	<ul style="list-style-type: none"> • ≥20% from demand reduction • 0-50% met by Storage • Supply augmentation • Operational changes
6 – Emergency	> 50%	<ul style="list-style-type: none"> • ≥20% from demand reduction • 0-50% met by Storage • Supply augmentation • Operational changes

4.1 Water Supply from Storage and Augmentation

Valley Water maintains high local groundwater storage in normal and wet years through a comprehensive managed recharge program and by providing treated water in lieu of groundwater pumping. Excess wet year water supplies are also stored in the Semitropic Groundwater Bank, and Valley Water can carryover imported supplies in some years in San Luis Reservoir. During a dry year, Valley Water can use these stored supplies without having to call on the public to reduce demands. During an extended drought, Valley Water would need to pursue additional water shortage actions. Valley Water uses a combination of options to bring in additional water supplies to support local demands, including:

- Recovery and import of Valley Water’s supplies stored in groundwater banking and exchange programs.
- Use of existing multi-year agreements between Valley Water and other water agencies that provide options to call on pre-negotiated transfer/exchange water.
- Collaboration with water agencies that have available resources to develop and implement agreements for the transfer/exchange of water to Valley Water.
- Participation in pooled water transfer programs with other SWP and CVP contractors.

The quantities of water available through these options are variable and depend on hydrology, pumping capacity, environmental restrictions, and demands from other agencies. These

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supplemental supplies help Valley Water mitigate the impact of droughts. During 2020-2022 drought, Valley Water received return water from the Semitropic Groundwater Bank and purchased approximately 100,000 AF of additional water supplies through transfers and exchanges. Valley Water also secured CVP Public Health and Safety water supplies. These supplemental supplies helped mitigate the impact of severely low imported water allocations and reduced storage in Valley Water's largest reservoir (Anderson) that was ordered to remain at deadpool.

4.2 Demand Reduction

When Valley Water's Board calls for water use reductions, cities and retailers consider implementing their WSCP actions to achieve the necessary water use reductions. Actions to achieve the desired shortage response may be different for each city/water retailer depending on their service area composition (commercial, industrial, residential) and source of water supplies. However, Valley Water makes efforts for drought response actions to be common to as many cities/water retailers as possible. This provides for more consistent implementation and messaging.

Reducing water consumption during a water shortage is generally achieved through increased education leading to behavioral changes (e.g., shutting off the water while brushing one's teeth) and water use restrictions (e.g., yard irrigation limited to specific days of the week). These water savings are considered short-term water use reductions and are distinct from long-term and ongoing conservation programs described in Chapter 9 of Valley Water's UWMP.

The response to the 2020 to 2022 drought illustrates how Valley Water, cities, the County, and retailers coordinate to reduce water use during water shortages. On June 9, 2021, the Board adopted Valley Water Resolution 21-68 which declared a Water Shortage Emergency Condition pursuant to California Water Code §350 and called for mandatory water use reduction of 15% from 2019 water use. To address the emergency, Valley Water implemented several response actions, including expanding public outreach campaigns to promote conservation, working with water retailers and municipalities to implement water use restrictions, transforming a water waste educational program into a new water waste enforcement program, increasing conservation rebate rates, and developing new conservation programs, in addition to augmenting supplies by securing emergency supplies of imported water. To assist the retailers, cities, and the County achieve the water use reduction targets, Valley Water:

- Increased rebates for water-efficient landscape conversions.
- Deployed an online ordering system for conservation educational materials and high-efficiency plumbing equipment like showerheads.
- Passed a resolution to call for and enforce no more than 2 days of irrigation per week for ornamental lawns and prohibit excessive runoff, midday irrigation, and irrigation after rainfall.
- Increased staffing to support water conservation programs during a period of rapidly increasing interest from customers.
- Developed several multimedia water conservation outreach campaigns to promote water savings.

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- Adopted the State's ban against watering CII non-functional turf.
- Encouraged participation in conservation programs through direct mail letters, including promoting water-efficient landscape conversions, irrigation hardware upgrades, graywater laundry to landscape systems, and certain commercial fixtures.
- Reduced the amount of treated water that it supplied to retailers.

Valley Water and retailers coordinated very closely during the drought, holding regular meetings and exchanging information on water supply conditions, operations, and actions/messaging to achieve water use reduction. All retailers took actions to implement water use reduction requirements, and many adopted a coordinated maximum two day per week watering schedule. Together these actions achieved a 7% demand reduction over this drought.

After the drought officially ended in early 2023, the Valley Water Board passed a Resolution calling for Conservation as a Way of Life in Santa Clara County to continue to promote water conservation. The Board also passed an ordinance which established a set of countywide permanent water waste prohibitions and enforcement procedures during drought and non-drought times.

The WSCP was developed in accordance with 2025 Urban Water Management Plan guidebook. It provides general guidance on recommended actions to address water supply shortages. Valley Water continuously seeks to improve its water shortage planning efforts, which may be reflected in future refinements to this WSCP. Under extraordinary circumstances and/or rapidly changing water supply conditions, Valley Water may need to undertake water conservation measures that are stricter than those set forth in this WSCP.

4.3 Operational Changes

Valley Water's extensive and integrated water supply system and diversified portfolio of water supplies provide operational flexibility and opportunities that can be leveraged during droughts. During shortage conditions, Valley Water may employ the following operational changes to minimize shortage:

- Determine operational modifications to minimize reservoir water quality degradation, as needed.
- Implement mandatory reductions in its contracts that deliver treated water to its retailers.
- Increase monitoring of groundwater levels to reduce subsidence potential.
- Coordinate with retailers to reduce pumping in areas most susceptible to subsidence.
- Allow treated water contracts with retailers to be adjusted to avoid penalizing retailers for not taking contract amounts and supporting the use of groundwater and SFPUC for blending, if necessary.
- Leverage opportunities to perform maintenance on dry groundwater percolation ponds.
- Call on Valley Water facilities and water retailers to research ability to lower system pressure.

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- Consider additional actions needed to protect groundwater, including potential use of Sustainable Groundwater Management Act (SGMA) authorities to limit pumping.

The implementation of any operational changes will depend on the shortage stages. For example, Valley Water may reduce retailer treated water contracts at stage 3. While Valley Water has never used its SGMA and other legal authorities to limit groundwater pumping, it has the legal authority to do this. Valley Water's operating plans, groundwater management plans, and emergency response plans consider these types of operational changes in the event of water shortages or catastrophic events.

4.4 Water Waste Prohibitions

During 2020-2022 drought, in response to drought conditions and the desire to implement a more robust enforcement approach, Valley Water's Board adopted Ordinance No. 22-02 in May 2022. Ordinance No. 22-02 outlined water waste prohibitions with an escalating enforcement procedure that authorized the issuance of fines for repeated violations during drought conditions; during non-drought conditions, enforcement procedures revert to an educational approach. After the State of California's emergency regulation banning irrigation of non-functional turf on CII sites was adopted in June 2022, Valley Water amended Ordinance No. 22-02 to reinforce this ban within the County. In June 2023, Valley Water further amended Ordinance No. 22-02 and established permanent water-use prohibitions by adopting Ordinance No. 23-02, which permanently banned the use of potable water in irrigating non-functional turf on CII properties during declared drought emergencies. Along with Ordinance No 23-02, Valley Water's Board also adopted Resolution No. 23-52, Calling for Water Conservation as a Way of Life in Santa Clara County. Resolution No. 23-52 establishes guiding principles intended to guide Valley Water's efforts towards making water conservation a way of life in Santa Clara County. By adhering to these guiding principles, Valley Water seeks to lead local community's efforts for promoting long-term water conservation. The Ordinance No. 23-02 and Resolution No. 23-52 are included in Appendix F of the UWMP.

4.5 Catastrophic Interruption Planning

This section describes planning that Valley Water has undertaken to prepare for catastrophic interruption of water supplies during a disaster.

Infrastructure Reliability Plan

Valley Water completed its first Infrastructure Reliability Plan (IRP) in 2005 and updated it in 2016. The IRP analyzes several outage scenarios for Valley Water's system, including an earthquake, extreme storm, Delta outage, and power outage. Valley Water and retailers agreed on a reliability target during an emergency that Valley Water should be able to restore treated water deliveries to meet the equivalent of a winter month's demand (i.e., February) within 30 days after a major disaster event. Modeling and analyses estimated service restoration time of Valley Water's existing system for minimum winter demands in each of the outage scenarios.

The worst-case outage scenario was a magnitude 7.9 earthquake on the San Andreas fault, which would result in an estimated 30-day outage time before Valley Water can provide minimum treated water demands to retailers. In the Delta outage scenario, modeling

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demonstrated Valley Water can continue limited service (at an assumed 20% demand reduction) for a 24-month period with no imported water supplies if it occurred in a normal hydrologic year and started with normal groundwater supplies. In a regional power outage, Valley Water can operate facilities on backup fuel storage for an estimated 3 to 10 days or longer given regular external fuel deliveries.

The 2016 IRP recommends efficient and targeted opportunities to improve system reliability and performance by either shortening Valley Water system outage time following an event or strengthening retailer capability to withstand Valley Water system outages. Important concepts that were incorporated into the identification of project opportunities and the analysis methodology are:

1. *Incorporate recent operational knowledge:* Planned and unplanned maintenance outages of Valley Water pipelines and treatment plants have allowed retailers to learn how to operate their systems without Valley Water treated water supplies. Retailers have operated with Valley Water treated water supply interruptions for up to eight weeks in some cases.
2. *Account for backup supply redundancy:* Most retailer service areas have adequate groundwater pumping capacity to serve as a backup to treated water deliveries and may not require large investments in additional reliability.
3. *Consider raw water and treated water system interdependencies:* Strengthening Valley Water's treated water pipeline system alone may not dramatically improve reliability in scenarios where raw water pipelines fail. The opposite also applies, as strengthening Valley Water's raw water pipeline system alone may not dramatically improve reliability in cases where treated water pipelines fail. Strengthening key portions of both the raw and treated water pipeline systems is needed to provide improved reliability. These improvements are being planned and recommended through the development of a distribution system master plan.
4. *Leverage existing investments:* Where possible and beneficial, leveraging existing assets is preferred, as Valley Water, retailers, and SFPUC have made significant investments in increasing system reliability and operational flexibility since the 2005 IRP.
5. *Favor frequently used assets:* Assets that can be used more frequently to enhance daily operations or periodic maintenance operations are preferred over assets that would be designated as standby for infrequent use only during major emergencies.
6. *Address specific vulnerable areas:* There are specific retailer service areas that are more vulnerable to outages of Valley Water treated water or managed recharge. Focusing on localized solutions to improve reliability in these specific areas may be more effective, with lower costs, than major infrastructure improvements.

Ultimately, Valley Water and retailers determined that targeting specific vulnerable areas for improvement will effectively address identified reliability needs. A total of 20 projects are identified in the 2016 IRP to improve reliability in these specific areas. Some projects were identified for retailer implementation, some for Valley Water implementation, and others for joint implementation. Valley Water has been working to complete the identified projects since 2016.

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Local Hazard Mitigation Plan

Valley Water's Local Hazard Mitigation Plan (LHMP) identifies capabilities, resources, information, and strategies for building resilience and reducing physical and social vulnerabilities to disasters including earthquake, drought, flood, dam and levee failure, and others. It also coordinates mitigation actions, providing essential guidance for Valley Water to reduce its vulnerability to disasters.

In 2017, Valley Water developed the LHMP to be consistent with current legislation, conditions, and best available science. This ensures that hazards are accurately profiled; policies are consistent with current Valley Water standards and relevant federal, state, or regional regulations; and Valley Water has an updated LHMP consistent with Federal Emergency Management Agency (FEMA) Emergency Response Plan (ERP) requirements. The 2017 LHMP also includes strategies to reduce vulnerability to disaster through education and outreach programs, foster the development of partnerships, and implement risk reduction activities.

In 2023, Valley Water's Hazard Mitigation Plan transitioned under the County's Multi-Jurisdictional Hazard Mitigation Plan. Multi-jurisdictional hazard mitigation planning is an effective process for building partnerships among communities that face common hazard risks, leading to shared solutions. Hazard mitigation plans are prepared and adopted by communities to identify, assess, and reduce long-term risks to life and property from hazard events such as earthquakes. Effective mitigation planning can help break the cycle of disaster damage, reconstruction, and repetitive losses. The current Santa Clara County Multi-Jurisdictional Hazard Mitigation Plan was approved by FEMA in February 2024, and is available at <https://www.valleywater.org/flooding-safety/local-hazard-mitigation-plan>.

Emergency Operations Center

Valley Water finalized the updated Emergency Operations Plan (EOP) in 2025. Valley Water's EOP establishes the framework for coordinated response and recovery during emergencies and disasters. The plan defines roles, responsibilities, and operational procedures to ensure effective activation and management of the Emergency Operations Center (EOC).

The EOC serves as the central location for coordination, communication, and decision-making during incidents that impact Valley Water's facilities, infrastructure, or service delivery. Through the EOC, Valley Water coordinates with Santa Clara County, local jurisdictions, state and federal agencies, and other partners to support life safety, protect critical infrastructure, maintain essential water and flood protection services, and provide timely, accurate information to the public during emergencies.

Emergency operations are conducted in alignment with the Standardized Emergency Management System (SEMS), the National Incident Management System (NIMS), and applicable local, state, and federal requirements. These coordinated efforts help ensure Valley Water can effectively respond to emergencies while supporting the public, critical infrastructure and impacted communities through communication, situational awareness, and service continuity. During any emergency, Valley Water continues the primary missions of providing clean, safe water and flood protection to the people of Santa Clara County. Valley Water maintains a full-time professional emergency management staff trained and equipped to respond quickly to support Valley Water's EOC and field responders. To ensure rapid response and continuous readiness, Valley Water's Office of Emergency Services (OES) maintains 24

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hours a day, seven days a week on-call staffing. OES staff are available at all times to monitor incidents, coordinate notifications, support EOC activation, and facilitate timely communication and operational coordination. These efforts help maintain situational awareness, reduce misinformation, and support impacted communities throughout the incident lifecycle.

Milpitas Intertie

During an emergency, in addition to retailers relying on groundwater and their own supplies, Valley Water has a 40-million gallon per day intertie with the SFPUC located in the City of Milpitas, which allows the SFPUC and the East Pipeline systems to exchange water during emergencies and planned maintenance.

Treatment Plant and Pipeline Shutdown Notification

Valley Water has emergency plans to cover the shutdown of pipelines and plant processes due to earthquakes, fire, or other disturbances to water quality or delivery. Efficient communication with Valley Water's retailers is imperative in the case of an emergency, so Valley Water utilizes the Rapid Notification Plan to ensure prompt notification of emergencies that impact treated water deliveries to retailers. The Rapid Notification Plan is implemented in the event of any water quality or plant failure, a reduction in service, or a startup/shutdown condition.

4.6 Delta-Conveyed Supply Interruption Planning

Valley Water relies on imported water from the Sacramento-San Joaquin Delta (Delta) for about 40% of its annual supply. The interruption of Delta-conveyed supply will pose significant risks to Valley Water's water supply reliability. In the event of an outage in the Delta, a strategy was developed between the Department of Water Resources (DWR), the Army Corps of Engineers (Corps), Bureau of Reclamation, California Office of Emergency Services (Cal OES), and the State Water Contractors to provide water supply protections that would enable resumption of at least partial deliveries from the Delta in less than six months.

Valley Water analyzed the impacts of a six-month Delta outage to determine the effect on service. The analysis assumed that all local infrastructure remains intact, as an earthquake or flood in the Delta is unlikely to badly damage local infrastructure. The analysis also assumed normal hydrologic conditions and starting storage conditions, rather than stacking disaster upon disaster (earthquake plus drought, etc.), access to SFPUC supplies, and implementation of water use reductions of 20%. The impacts of such an outage are largely operational as retailers would be required to use groundwater instead of their usual treated water supplies and Valley Water would actively manage the groundwater recharge program to meet countywide needs. Even with increased pumping, groundwater storage is estimated to remain in the normal (Stage 1) range. Thus, the impacts of a six-month Delta outage are manageable, assuming a normal starting position. Valley Water would potentially need to call for more aggressive water use reductions if a Delta outage were to occur during or immediately following a drought.

The Delta Flood Emergency Management Plan (DWR, 2018) provides strategies for responses to Delta levee failures, including earthquake-induced numerous levee failures during dry conditions with multiple flooded islands and extensive saltwater intrusion, resulting in curtailment of export operations. Under these severe conditions, an emergency freshwater pathway would be established from the central Delta along Middle River and Victoria Canal to the export pumps in the south Delta. The plan includes the pre-positioning of emergency construction materials at

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stockpile and warehouse sites in the Delta, and development of tactical modeling tools (DWR Emergency Response Tool) to predict levee repair logistics, timelines of levee repair, and suitable water quality to restore exports. Using pre-positioned materials, multiple earthquake-generated levee breaches and levee slumping along the freshwater pathway can be repaired in less than six months. Significant improvements to the central and south Delta levee systems along the emergency freshwater pathway began in 2010 and are continuing. Continued efforts under analysis strive to mitigate not only flood and earthquake risk but also address future sea-level rise risk.

SECTION 5. COMMUNICATION PROTOCOLS

When the Valley Water Board calls for short-term water use reduction actions under the WSCP, the cities and water retailers consider implementation of their WSCP actions to achieve the necessary shortage response. Clear, consistent, and effective communication with the cities, retailers, and the public is essential to achieving desired results.

Communication strategies include:

- Clear explanations to the public of the WSCP stages and triggers through multi-media venues and multiple languages.
- Early and continuous coordination with retailers regarding response actions, use of groundwater versus treated water, and treated water quality concerns.
- Hosting regular meetings and drought summits with retailers and elected officials to develop coordinated response actions such as drought ordinances and enforcement of a day per week irrigation schedules or alternative means of compliance with comparable water savings (e.g., enforcing reductions of irrigation water-use budgets).
- Providing a straightforward methodology for water use reporting by retailers.
- Working with the agricultural community on water conservation methods.

Valley Water provides communications to stakeholders with various frequencies depending on the WSCP stages. Valley Water’s communication protocol is summarized in Table 4.

Table 4. Valley Water’s Communication Protocol Under the WSCP Stages

Stage	Water Shortage	Communication Strategies
1 – Alert	<=10%	<p>Ongoing public outreach aimed toward achieving long-term water conservation targets.</p> <p>Monthly meetings with retailers to discuss water supply issues.</p> <p>Monthly Groundwater Conditions Report and Water Tracker posted on website.</p> <p>Updates to the Board, Committees, and retailers on preparation</p>

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Stage	Water Shortage	Communication Strategies
		<p>for drought messaging.</p> <p>Increase educational outreach to Commercial, Industrial, and Institutional properties including schools to highlight behavioral and programmatic actions to save water.</p>
2 – Warning	10 - 20%	<p>All Stage 1 communications.</p> <p>Increase frequency of drought coordination meetings with retailers, if necessary</p> <p>Coordinate with cities, County, and retailers to prepare for the potential of a worsening drought.</p> <p>Extensive public outreach to specific user groups such as residential, businesses, large landscapers, and agriculture to support behavioral change of water users.</p> <p>Work with the press to disseminate drought messages.</p>
3 – Severe	20 – 30%	<p>All communications above and expand as necessary.</p> <p>Monthly coordination with cities, County, and retailers to discuss conditions and to enact ordinances and review the progress on water use restrictions.</p> <p>Monthly updates to the Board on water supplies and demands.</p>
4 – Critical	30 – 40%	<p>All communications above and expand as necessary.</p> <p>Outreach expanded further to support significant behavioral change of water users.</p> <p>Weekly meetings with cities, County, and retailers to discuss conditions and update enforcement of ordinances and water use restrictions.</p> <p>Workshops and summits with retailers, elected officials, and other water user groups.</p> <p>Activation of the Emergency Operations Center.</p> <p>Coordination with local, state, and federal emergency agencies.</p>
5 – Extreme	40 – 50%	<p>All communications above and expand as necessary.</p> <p>Weekly meetings with cities and retailers on shortage conditions</p>

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Stage	Water Shortage	Communication Strategies
		and response. Expanded coordination with local, state, and federal emergency agencies. Weekly updates to the press and public on conditions.
6 – Emergency	> 50%	All communications above and expand as necessary.

SECTION 6. LEGAL AUTHORITIES

This section describes Valley Water’s Legal Authorities as required by Water Code § 10632(a)(7). Valley Water will coordinate with any city or the County to which it provides water supply services for the possible proclamation of a local emergency under California Government Code, California Emergency Services Act (Article 2, Section 8558).

6.1 Statutory Authority

Water Code Sections 350 and 375 et seq.

Sections 375 *et seq.* and 350 *et seq.* of the Water Code authorize Valley Water, a wholesale urban water supplier and special district, to, upon appropriate factual findings, implement a water conservation program and/or declare a water shortage emergency by resolution or ordinance and adopt and enforce related conservation measures. If appropriate, Valley Water can reduce the amount of treated water it supplies to local retailers and/or impose water reduction measures.

Santa Clara Valley Water District Act

One source of statutory authority that empowers Valley Water to implement or enforce water shortage response actions is its District Act (The Santa Clara Valley Water District Act, Chapter 1405 of Statutes 1951 of the State of California, Water Code Appendix, Chapter 60). Sections 4 and 5 of the District Act grant Valley Water power to conserve waters within its jurisdiction (as well as import and distribute water) and “prevent the waste or diminution of the water supply in the district.”

Valley Water charges a groundwater extraction fee on reported extractions and requires major groundwater pumpers to meter their wells and report extractions on either a monthly, semi-annual, or annual basis.

Statutory Groundwater Sustainability Agency Powers

In addition to the District Act and Water Code §§ 350 and 375 *et seq.*, Valley Water is the designated Groundwater Sustainability Agency (GSA) for the Santa Clara and Llagas groundwater subbasins under the SGMA and has a DWR-approved Alternative to a Groundwater Sustainability Plan (GSP) in place for managing these subbasins.

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Although Valley Water does not currently restrict groundwater pumping or impose extraction allocations upon owners or operators of groundwater extraction facilities and is not planning to do so, it has the power to do so, if necessary (See Water Code § 10726.4(a)). In February 2018, the Board adopted Resolution 18-04, which describes Valley Water's procedure in responding to worsening groundwater basin conditions, including the steps that Valley Water would take in coordination with stakeholders prior to implementing SGMA authorities to regulate pumping.

6.2 Contractual Authority

In addition to its statutory authority, Valley Water has contractual authority to reduce the amount of potable, treated water it provides to its retail customers.

Article C, Section 4(c) of Valley Water's standard-form treated water contract with its retailers provides that, if the Board passes a resolution providing for a reduction in water use by more than 10%, it shall reduce the amount of potable treated water it provides to retailers by this same amount, minus 10%. Thus, for example, if the Board calls for a 35% reduction in water use during a drought, Valley Water will reduce treated water deliveries to its retailers by 25% (a call for a 25% reduction would result in a 15% reduction in treated water supplies, etc.).

Additionally, under Valley Water's standard-form treated water contract, retailers may purchase "non-contract" water above their monthly purchase commitment when additional supplies are available. In the past, in conjunction with a resolution reducing contractual treated water supplies, while Valley Water has continued to allow retailers to purchase "non-contract" treated water, it has increased the price of such "non-contract" water to discourage overuse. Valley Water has the authority to eliminate non-contract water sales altogether if necessary.

Although Valley Water's contractual authority relates only to treated water deliveries, not to groundwater extraction, the contracts give Valley Water the ability to adjust treated water pricing to incentivize the use of either treated water or groundwater by its water retailer customers, depending on what best supports local water supply needs and operations.

SECTION 7. FINANCIAL CONSEQUENCES OF WSCP

Under a water shortage scenario, Valley Water expenses are anticipated to increase due to actions to augment water supply and encourage demand reduction. At the same time, revenue would decrease because of a reduction in water sales. The financial implications of droughts can be significant for Valley Water. During droughts, Valley Water's operation expenses tend to increase, resulting from increased coordination, external communication and public outreach activities, and staffing associated with managing the drought response. The cost of water, particularly supplemental imported supplies, can also increase. The increased cost of water and overall operations combined with decreased revenue run the risk of impacting water rates in subsequent years following drought. To mitigate these financial risks, Valley Water has implemented several key measures which include building and utilizing reserves, seeking grant funding, leveraging existing conservation programs and funding, and implementing drought-specific financial tracking. Table 5 outlines financial consequences and anticipated mitigation actions for each shortage stage.

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Table 5. Valley Water’s Financial Consequences and Anticipated Mitigation Actions for Each WSCP Stage

Stage	Stage Title	Water Shortage	Financial Consequences	Anticipated Mitigation Actions
1	Alert	<=10%	Potential increase in operating and maintenance (O&M) expenses and mild to moderate reduction in revenue.	Identify supplemental funding options and reductions to O&M expenses.
2	Warning	10 – 20%	Moderate to significant increase to O&M expenses and decrease in revenue.	Stage 1 actions plus identify supplement(s) to water rate revenue (likely incremental rate adjustment) and deferral of capital expenditures; use of reserves if necessary.
3	Severe	20 – 30%	Significant increase to O&M expenses and decrease in revenue. Valley Water likely to pursue supplemental water purchases.	Stage 2 actions plus use of reserves.
4	Critical	30 – 40%	Significant increases to O&M expenses and significant decreases in revenue. Valley Water likely to pursue supplemental water purchases.	Stage 3 plus short-term O&M budget deferrals.
5	Extreme	40 – 50%	Likely a greater degree of Stage 4.	Stage 4 plus operations limited to core business only.
6	Emergency	>50%	Likely a greater degree of Stage 5.	Stage 5 plus operations limited to core business only.

During past droughts, increased expenses and reduced revenue put upward pressure on future water rates. Valley Water incurred significant costs - around \$79 Million, from actions taken in response to the previous drought (2020 to 2022) and water charges were increased to cover those costs. To minimize rate impacts, Valley Water maintains supplemental funds in its financial reserves to help pay for increased expenditures to remedy shortages. The Fiscal Year (FY) 2025-2026 budget for the supplemental water supply reserve was \$8.6 Million and is projected to grow to roughly \$21.7 Million by FY 2035-2036. The minimum for this reserve is 20% of the annual water purchase budget. The Board may adjust its adopted groundwater production charges midway through the fiscal year, which provides an opportunity to react to unanticipated changes in expenditures or revenues in a timely fashion. Following a drought and

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the use of the supplemental water supply reserve, funds need to be replenished in subsequent years through groundwater production and other water charges.

Historically, the financial strategies identified above have been sufficient for addressing the financial risks associated with drought. However, future uncertainties, in particular climate change and the cost of imported water, could compound financial risks and must be continually monitored and managed. Valley Water may consider the following additional strategies to further balance future financial risks associated with drought:

- Explicitly consider climate change (e.g., more frequent, more intense drought events) when determining reserve building strategies and goals.
- Continue planning and evaluation of mitigation actions, in particular local supply projects that may reduce the need for expensive water purchases and transfers.
- Evaluate the feasibility of optimizing the volume of supplemental imported supplies purchased considering water supply shortage risk and cost.

Valley Water adopts water charges annually. In times of drought or water shortages, the annual rate-setting process allows Valley Water to be nimble and mitigate financial consequences in a timely manner.

SECTION 8. WSCP REFINEMENT PROCEDURES

This WSCP is an independent document from the UWMP and may be updated separately at any time. Amendments to this WSCP outside of the UWMP five-year update process will be brought to the Water Supply and Demand Management Committee meetings for public review and comment and to the Board for a public hearing and approval. Valley Water will provide notice to its retailers, cities, and County, and publish this notice on its website, at the start of an amendment process to provide the public with an opportunity to participate. Notice will also be provided to retailers, cities, and County at least 30 days prior to a public hearing before the Board that includes the time and place of the hearing. Amendments approved by the Board will be provided to retailers, cities, County, DWR, and the California State Library within 30 days of approval.

SECTION 9. PLAN ADOPTION, SUBMITTAL, AND AVAILABILITY

Valley Water's Board set the time and place for the WSCP public hearing for June 9, 2026. Valley Water notified the water retailers, the cities and County of Santa Clara on May 6, 2026, of the time and place of the public hearing. The draft WSCP was posted on Valley Water's website (<https://www.valleywater.org/your-water/water-supply-planning/urban-water-management-plan>) for public review on May 6, 2026. The public hearing notice was published on San Jose Post-Record on May 13, 2026, and May 20, 2026 and additionally on Morgan Hill Times and Gilroy Dispatch on May 15, 2026. Documentation of noticing of the public hearing is included in Appendix G of the UWMP.

Valley Water's Board held the public hearing on June 9, 2026, and adopted the WSCP on June 9, 2026. The final WSCP will be posted on Valley Water's website within 30 days of adoption. Paper copies will be made available at the same time the WSCP is posted on the website for

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public review during normal business hours, and sent to the California State Library.

Within 30 days of Board adoption and prior to July 1, 2026, the adopted WSCP will be submitted electronically to DWR via its Water Use Efficiency data online submittal portal (WUEdata). Electronic copies of the WSCP will also be provided to the cities and County within 30 days of adoption.



Valley Water

Clean Water • Healthy Environment • Flood Protection

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