



WATER SHORTAGE CONTINGENCY PLAN

CRESCENTA VALLEY WATER DISTRICT



JUNE 2021



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Crescenta Valley Water District

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ACRONYMS

AF	acre-feet
AWIA	America’s Water Infrastructure Act of 2018
cfs	Cubic feet per second
CVWD	Crescenta Valley Water District
CWC	California Water Code
DRA	Drought Risk Assessment
DWR	California Department of Water Resources
EOC	Emergency Operation Center
ERP	Emergency Response Plan
FMWD	Foothill Municipal Water District
FY	Fiscal Year
GW	Groundwater
ICS	Incident Command System
IRP	Integrated Resource Plan
LADWP	Los Angeles Department of Water and Power
LCID	La Cañada Irrigation District
LHMP	Local Hazard Mitigation Plan
MWD	Metropolitan Water District of Southern California
NIMS	National Incident Management System
RRA	Risk and Resilience Assessment
SCADA	Supervisory Control and Data Acquisition
SEMS	Standardized Emergency Management System
SWP	State Water Project
ULARA	Upper Los Angeles River Area
UWMP	Urban Water Management Plan
WARN	Water Agency Response Network
WSAP	Water Supply Allocation Plan
WSCP	Water Shortage Contingency Plan
WSDM	Water Surplus and Drought Management Plan



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1. OVERVIEW

Water supplies may be interrupted or reduced significantly in a number of ways, including droughts, earthquakes, and power outages, which hinder a water agency's ability to effectively deliver water. The ability to manage water supplies in times of drought or other emergencies is an important part of water resources management for a community.

Recent water supply challenges throughout the American Southwest and the State of California have resulted in the development of a number of policy actions that water agencies would implement in the event of a water shortage. In Southern California, the development of such policies has occurred at both the wholesale and retail level. This section addresses elements related to the urban water supplier's Water Shortage Contingency Plan (WSCP) describing new and existing policies that Metropolitan Water District of Southern California (MWD), Foothill Municipal Water District (FMWD), and Crescenta Valley Water District (CVWD) have in place to respond to water supply shortages, including a catastrophic interruption and greater than a 50 percent reduction in water supply.

2. WATER SUPPLY RELIABILITY ANALYSIS

2.1 WATER SERVICE RELIABILITY ASSESSMENT

Southern California is expected to experience an increase in regional demands in the years 2025 through 2045 as a result of population growth. Although increases in demand are expected, future demands are effectively limited due to the requirements of SBx7-7. It can be reasonably expected that the majority of agencies have met or were near their compliance targets for 2020 and will continue to meet, or will soon meet, their per-capita usage limit in the future.

The data in the MWD 2020 Urban Water Management Plan (UWMP) shows supply reliability projections for average and single dry years and is important to effectively project and analyze supply and demand over the next 25 years for many regional agencies. Projected supplies during single and multiple dry year scenarios indicate MWD's projected supply will exceed its projected single dry year demands in all years. Likewise, for average years, MWD supply exceeds projected demands for all years. Due to the semi-arid nature of CVWD's climate and as a result of past drought conditions, CVWD is vulnerable to water shortages due to its climatic environment and seasonally hot summer months. Section 3 of CVWD's 2020 UWMP describes the water availability during single and multiple dry

year scenarios. **Tables 1, 2, and 3** summarize the supply and demand comparisons, in acre feet (AF), during normal, single-dry year, and multiple dry year, respectively. As shown, CVWD is capable of providing a reliable supply of water to meet the future demands.

Table 1: Normal Year Supply & Demand Comparison (AF)

	2025	2030	2035	2040	2045
Supply totals	5,748	5,748	5,748	5,748	5,748
Demand totals	3,979	4,041	4,105	4,170	4,236
Difference	1,769	1,707	1,643	1,578	1,512

Table 2: Single Dry Year Supply & Demand Comparison (AF)

	2025	2030	2035	2040	2045
Supply totals	5,748	5,748	5,748	5,748	5,748
Demand totals	4,412	4,481	4,552	4,624	4,697
Difference	1,336	1,267	1,196	1,124	1,051

Table 3: Multiple Dry Year Supply & Demand Comparison (AF)

		2025	2030	2035	2040	2045
First year	Supply totals	5,748	5,748	5,748	5,748	5,748
	Demand totals	4,531	4,603	4,676	4,749	4,824
	Difference	1,217	1,145	1,072	999	924
Second year	Supply totals	5,748	5,748	5,748	5,748	5,748
	Demand totals	4,781	4,857	4,933	5,011	5,090
	Difference	967	891	815	737	658
Third year	Supply totals	5,748	5,748	5,748	5,748	5,748
	Demand totals	4,836	4,912	4,989	5,068	5,148
	Difference	912	836	759	680	600
Fourth year	Supply totals	5,748	5,748	5,748	5,748	5,748
	Demand totals	4,565	4,637	4,710	4,785	4,860
	Difference	1,183	1,111	1,038	963	888
Fifth year	Supply totals	5,748	5,748	5,748	5,748	5,748
	Demand totals	3,789	3,849	3,910	3,972	4,034
	Difference	1,959	1,899	1,838	1,776	1,714



2.2 FIVE-YEAR DROUGHT RISK ASSESSMENT

During a five-year drought, CVWD may import water to meet demands in excess of its adjudicated pumping right of 3,294 AFY as necessary. Imported water supplies, like groundwater (GW), are subject to demand increases and reduced supplies during dry years; however, MWD modeling in its 2020 UWMP results in 100 percent reliability for full-service demands through the year 2045 for all climatic conditions. Based on the conditions described above, CVWD anticipates the ability to meet water demand for all climatic conditions for the near future.

A Drought Risk Assessment (DRA) was conducted over a 5-year period examining the reliability of CVWD's water supplies. **Table 4** shows the results of the analysis. The analysis was done utilizing the State of California's Department of Water Resources' (DWR) DRA Planning Tool to determine supply and demand projections, and to analyze CVWD's vulnerability to droughts. The tool also allows water purveyors to utilize potential water usage saving or supply augmentation methods to mitigate supply shortfalls. These water usages saving methods (restrictions) are further discussed in the WSCP. As shown, CVWD is capable to meet the projected demands based on the estimated water supplies during drought conditions without the need for WSCP stage implementation and supply augmentation.

Table 4: Five-Year Drought Risk Assessment (AF)

	2021	2022	2023	2024	2025
Total Water Use	3,929	3,942	3,954	3,966	3,979
Total Supplies	5,741	5,745	5,748	5,748	5,748
Surplus/Shortfall w/o WSCP Action	1,812	1,803	1,794	1,782	1,769
Planned WSCP Actions (Use Reduction and Supply Augmentation)					
Supply Augmentation Benefit from WSCP Response	0	0	0	0	0
Use Reduction Savings Benefit from WSCP Response	0	0	0	0	0
Revised Surplus/Shortfall	1,812	1,803	1,794	1,782	1,769
Resulting % Use Reduction from WSCP Action	0%	0%	0%	0%	0%

Response to a future drought would follow the water use efficiency mandates of CVWD's Water Conservation Program along with implementation of the appropriate stage of regional plans, such as MWD's Water Surplus Drought Management (WSDM) Plan as described in **Section 4.1** of this WSCP.

3. ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

Under California Water Code (CWC) Section 10632(a)(2), beginning by July 1, 2022, each urban water supplier is required to prepare their annual water supply and demand assessment (Annual Assessment) and submit an Annual Water Shortage Assessment Report to DWR. The Annual Water Shortage Assessment Report will be due by July 1 of every year, as required by CWC Section 10632.1.

This section outlines CVWD's procedures used in conducting an Annual Assessment, including the following: 1) written decision-making process for determining water supply reliability; and 2) key data inputs and assessment methodology for evaluating the water supply reliability for the current year and one dry year.

3.1 DECISION-MAKING PROCESS

CVWD's Annual Assessment will be mostly based on daily recorded water production and supply figures, which are reported to the General Manager on a daily basis throughout the year. Water consumption is monitored regularly through the metering of all CVWD service connections in its distribution system. To determine its water supply reliability and actual reductions in water use during declared water shortages or emergencies, CVWD can rely on its daily records as well as the CVWD Water Production Reports including the monthly totals. These periodical analyses are used by CVWD to manage resources to meet projected demands and adjust to changing conditions (i.e., precipitation) throughout the year.

Starting in 2022, CVWD staff will submit and present a finalized Annual Water Shortage Assessment Report to the Board of Directors for approval by June each year. CVWD staff will also present determination of recommended water shortage response actions deemed appropriate as a result of the Annual Assessment. Following approval, CVWD staff will submit the approved Annual Water Shortage Assessment Report to DWR by July 1 of every year. The functional procedures for the decision-making process are depicted in the following timeline shown in **Figure 1**.

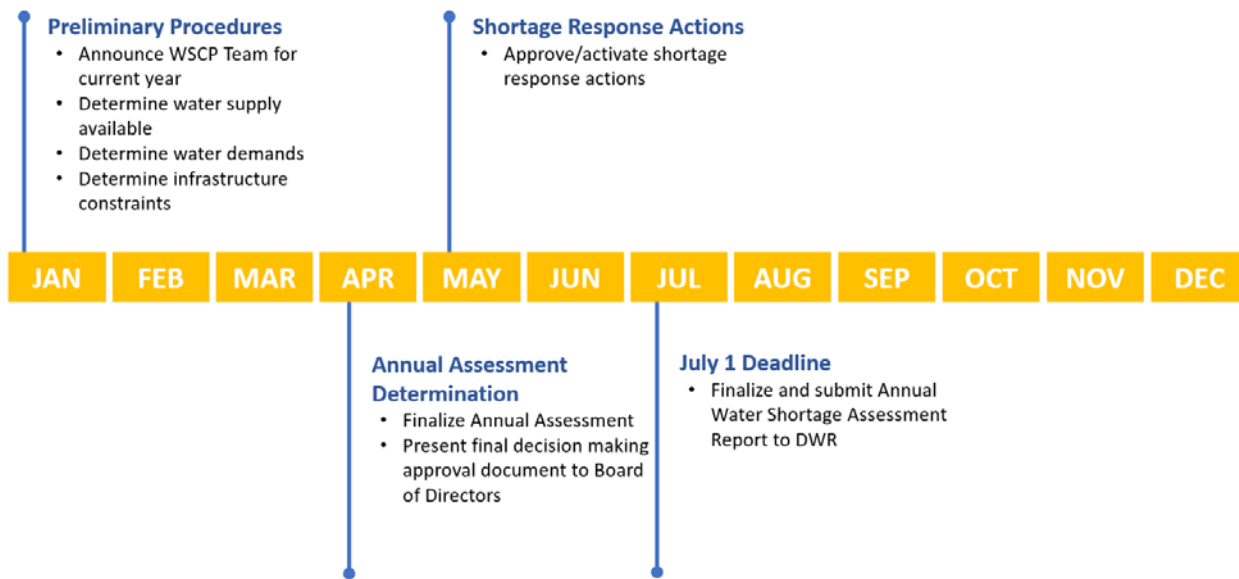


Figure 1: Sample Annual Assessment Decision-Making Process Timeline

3.2 KEY DATA INPUTS AND ASSESSMENT METHODOLOGY

This section defines the key data inputs and assessment methodology used to evaluate the water supply reliability for the anticipated conditions for the current year and for one dry year that follows. The Annual Assessment determination will focus on the current year unconstrained demand, infrastructure constraints, and total water supply availability. Moreover, the Annual Assessment will consider the current year's weather, population growth, policies in place that will impact demands, and other influencing factors. The current year available supply will incorporate the hydrological regulatory conditions for the current year and following dry year.

LOCALLY APPLICABLE EVALUATION CRITERIA

The locally applicable evaluation criteria that will be consistently relied on for each Annual Assessment include the following:

- 1) Assumed unconstrained demand (i.e., demand without any conservation measures) for current year and one dry year
- 2) Assumed total water supply availability for current year and one dry year
- 3) Existing infrastructure capabilities and plausible constraints
 - Any known issues with the water facilities (including water quality conditions limiting local sources)
 - Planned power outages for operation and maintenance

- New construction and repairs
- Environmental mitigation measures
- Other constraints that may affect near-term water supply reliability

WATER SUPPLY SOURCES DESCRIPTION AND QUANTIFICATION

As part of the Annual Assessment, the total available water supply evaluation criteria will comprise of CVWD's water supply sources as shown and quantified in **Tables 5 and 6**.

Table 5: CVWD Water Supplies in 2020 (AF)

Water Supply	Additional Detail on Water Supply	2020		
		Actual Volume	Water Quality	Total Right or Safe Yield
Purchased or Imported Water	from FMWD	2,141	Drinking Water	2,154
Groundwater (not desalinated)	CVWD Wells	1,933	Drinking Water	3,294
Groundwater (not desalinated)	Well #16 (GWP)	142	Drinking Water	500
Total		4,216		5,948

Table 6: Projected CVWD Water Supplies (AF)

Water Supply	Additional Detail on Water Supply	Projected Water Supplies				
		2025	2030	2035	2040	2045
Purchased or Imported Water	MWD via FMWD	2,154	2,154	2,154	2,154	2,154
Groundwater (not desalinated)	CVWD Wells	3,294	3,294	3,294	3,294	3,294
Groundwater (not desalinated)	Well #16 (GWP)	300	300	300	300	300
Total		5,748	5,748	5,748	5,748	5,748

Imported Water Purchases

CVWD receives its imported water supply from MWD through their wholesaler FMWD. Supply from MWD originates from the Colorado River and the Sacramento-San Joaquin River Delta in Northern California. Currently, CVWD supply is comprised of 48 percent imported water and is projected to be able to have access of its full Tier 1 limit supply with FMWD of 2,154 AF as shown in **Table 6**.

Groundwater Supply

CVWD utilizes groundwater from the Verdugo Groundwater Basin. CVWD draws from this groundwater through 12 of its wells which fulfills 52 percent of its total supply. CVWD's current safe yield of the Basin is 3,294 AFY as shown in **Table 6**. Furthermore, CVWD has agreements with GWP to produce additional groundwater through Well #16 to obtain an additional 300 AFY. Groundwater supplies within the Verdugo Basin have remained stable throughout the recent drought during 2012 – 2016. As a result, groundwater production rights within the basin will continue to remain the same into the future until otherwise mandated for reduction by the Upper Los Angeles River Area (ULARA) Watermaster.

4. SHORTAGE STAGES AND SHORTAGE RESPONSE ACTIONS

4.1 MWD STAGES OF ACTION

WATER SURPLUS & DROUGHT MANAGEMENT PLAN (WSDM)

CVWD works in conjunction with FMWD and MWD to implement conservation measures within the framework of MWD's Water Shortage and Drought Management (WSDM) Plan. The WSDM Plan was developed in 1999 by MWD with assistance and input from its member agencies. The plan addresses both surplus and shortage contingencies. MWD's WSDM Plan documents the stages of action that it would undertake in response to a water supply shortage. FMWD's water supply shortage stages reflect MWD's WSDM Plan.

The WSDM Plan guiding principle is to minimize adverse impacts of water shortage. The plan guides the operations of water resources (local resources, Colorado River, State Water Project (SWP), and regional storage) to ensure regional reliability. It identifies the expected sequence of resource management actions MWD will take during surpluses and shortages of water to minimize the probability of severe shortages, which require curtailment of full-service demands. Mandatory allocations are avoided to the extent practical; however, in the event of an extreme shortage, an allocation plan will be implemented.



Figure 2: Severe Droughts Highlight the Importance of Conservation Ordinances (Lake Oroville in 2014)

In addition to its WSDM Plan, MWD developed a Water Supply Allocation Plan (WSAP), which provides a standardized methodology for allocation of supplies during times of extreme shortage (Stage 7 in MWD's WSDM Plan). During a shortage, CVWD's imported water supplies will be allocated based on the methodology documented in FMWD's Allocation Plan, which typically mirrors the MWD allocation plan.

MWD's WSDM and WSAP Plans help guide drought management for many agencies throughout the region.

The description of shortage stages below is from MWD's 2020 UWMP, page 2-29:

"Shortage: *Metropolitan can meet full-service demands and partially meet or fully meet interruptible demands, using stored water or water transfers as necessary.*

Severe Shortage: *Metropolitan can meet full-service demands only by using stored water, transfers, and possibly calling for extraordinary conservation.*

Extreme Shortage: *Metropolitan allocates available supply to full-service customers.*

The WSDM Plan also defines six shortage management stages to guide resource management activities. These stages are not defined merely by shortfalls in imported water supply, but also by the water balances in Metropolitan's storage programs. Thus, a 10 percent shortfall in imported supplies could be a stage one shortage if storage levels are high. If storage levels are already depleted, the same shortfall in imported supplies could potentially be defined as a more severe shortage.

When Metropolitan must make net withdrawals from storage to meet demands, it is considered to be in a shortage condition. Under most of these stages, Metropolitan is still able to meet all end-use demands for water. For shortage stages 1 through 3, Metropolitan will meet demands by withdrawing water from storage. At shortage stages 4 and 5, Metropolitan may undertake additional shortage management steps, including issuing public calls for extraordinary conservation and exercising water transfer options, or purchasing water on the open market."

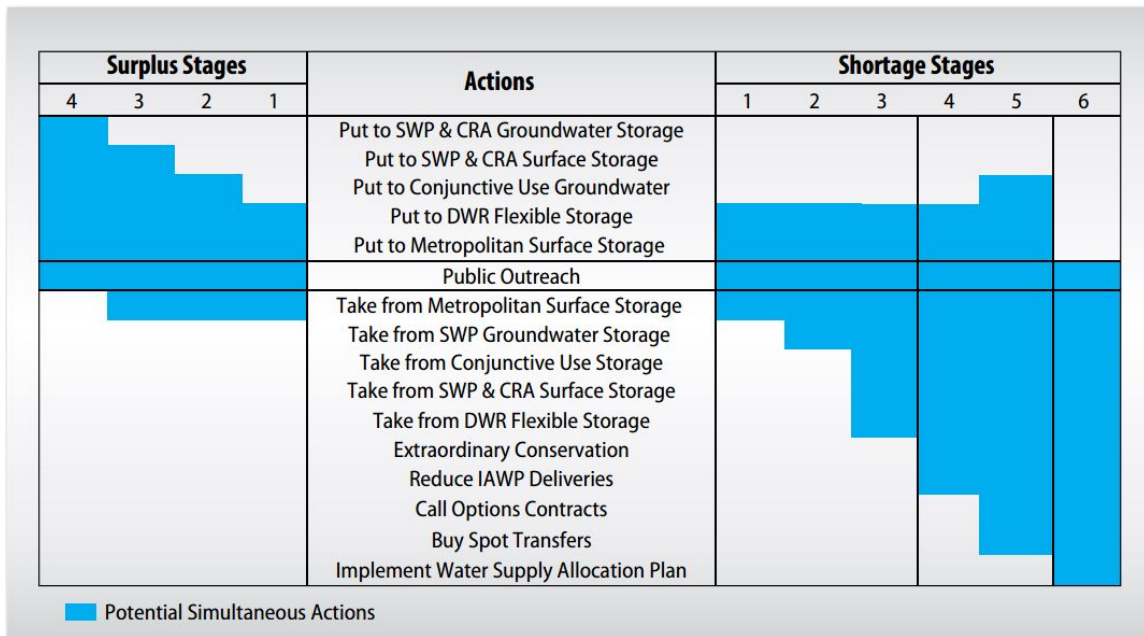


Figure 3: MWD WSDM Surplus & Drought Stages

MWD WATER SUPPLY ALLOCATION PLAN (FOR WSDM SHORTAGE STAGE 7)

In February 2008, MWD's Board of Directors adopted a WSAP, which includes a methodology for calculating supply allocations in the event that MWD enters a Shortage Stage 7 and is unable to meet the demands of its member agencies. MWD revised its WSAP in 2014 to include the following updates: new Fiscal Year (FY) 12-13 to FY 13-14 baseline, implement a Conservation Demand Hardening Adjustment, create a separate Groundwater Replenishment Allocation for applicable agencies, and replace WSAP Penalty Rates with Allocation Surcharges based on the marginal costs of turf removal. It should be noted that the WSAP is not a rationing plan. Rather, it is a pricing plan where water is allocated at regular prices and agencies that choose to take more than the allocated water pay surcharges. The surcharge pricing mechanism acts to discourage the use of water above the allocation. The WSAP uses a combination of estimated total retail demands and historical local supply production within the member agency service area to estimate the demands on MWD from each member agency in a given year. Based on a number of factors, including storage and supply conditions, MWD then determines whether it has the ability to meet these demands or will need to allocate its limited supplies among its member agencies. Thus, implicit in MWD's decision not to implement an allocation of its supplies is that, at a minimum, MWD will be able to meet the demands identified for each of the member agencies.

According to MWD's 2015 Integrated Resource Plan (IRP), the approach seeks to balance the impacts of a shortage at the retail level while maintaining equity on the wholesale level

and takes into account growth, local investments, changes in supply conditions and the demand hardening aspects of non-potable recycled water use and the implementation of conservation savings programs. The methodology attempts to allocate supplies based on an estimate of an agency's relative need for imported water using the following process:

1. Establish a baseline for total retail demands (and adjust for growth) to determine the allocation year total retail demands. (*"What are your total water demands?"*)
2. Estimate the amount of local supplies to be utilized in the allocation year and subtract from total retail demands. This is the allocation year baseline demand on MWD. (*"How much imported water do you need from MWD?"*)
3. Apply the minimum allocation percentage (per the regional shortage level) to the allocation year baseline demand and provide minor adjustments based on various criteria. (*"Restrict normal supply deliveries and provide allocation."*)

BASE PERIOD CALCULATIONS (USED TO DETERMINE WSAP REDUCTIONS)

The Base Period is calculated using data from FY 2012-13 and FY 2013-14. Base Period wholesale demands are based on the two-year average of demands on MWD during the Base Period, including full-service, seawater barrier, seasonal shift, and surface storage operating agreement demands.

Local supplies for the base period are calculated using a two-year average of groundwater production, groundwater recovery, Los Angeles Aqueduct supply, surface water production, and other imported supplies. Non-potable recycling production is not included in this calculation, which, according to MWD, is intended to address the impact of demand hardening due to recycled water use.

Total potable retail demands for the Base Period are then calculated by adding the Base Period wholesale demands on MWD and the Base Period local supplies.

WSAP ALLOCATION YEAR CALCULATIONS

The next step is to estimate water needs in an allocation year by (1) adjusting the Base Period total retail demands for population or economic growth, and (2) accounting for changes in local supplies.



Figure 4: MWD's Diamond Valley Lake (Potential Reserves for WSAP Allocations)

The Base Period retail demands are adjusted for growth using the average annual rate of population growth occurring since the two-year base period based on county-level data generated by the California Department of Finance.

Next, these growth-adjusted demands are adjusted again to account for (1) gains and losses of local supply, and (2) extraordinary increases in production over the base year. According to MWD, these adjustments are made to give a more accurate estimate of actual supplies in the allocation year, and, in turn, more accurately reflect an agency's demand for MWD supplies.

The adjustment for gains in local supplies is intended to account for planned or scheduled gains in local supply production above the Base Period, which are not due to extraordinary actions to increase water supply in the allocation year. These previously scheduled increases in supply programs (i.e., San Diego County Water Authority/Imperial Irrigation District) or local production are added to the base period local supplies. Again, new supplies from non-potable recycling projects are not counted as local supplies.

While the local agency does become more reliable with the addition of the new supplies, assuming that the new supplies are available during an allocation, the benefits of these programs are partially offset because the impact of adding the new supplies to the Base Period local supplies is to reduce an agency's dependence on MWD and thus their allocation under the WSAP.

Alternatively, only a portion of the additional supplies from what are termed “extraordinary increases in production” are added back to Allocation Year local supplies depending on the retail shortage level. Extraordinary increases in production include such efforts as purchasing transfers or mining of groundwater basins. By adding only a percentage of the yield from these supplies to Allocation Year local supplies, it has the effect of “setting aside” the majority of yield for the agency who procured the supply.

Table 7 reflects the set of percentages used in the WSAP to establish water allocations for each agency.

Table 7: Water Allocation Percentages

Regional Shortage Level	Regional Shortage Percentage	Wholesale Minimum Percentage	Maximum Retail Impact Adjustment Maximum
1	5%	92.5%	2.5%
2	10%	85.0%	5.0%
3	15%	77.5%	7.5%
4	20%	70.0%	10.0%
5	25%	62.5%	12.5%
6	30%	55.0%	15.0%
7	35%	47.5%	17.5%
8	40%	40.0%	20.0%
9	45%	32.5%	22.5%
10	50%	25.0%	25.0%

4.2 FMWD SHORTAGE STAGES OF ACTION

FMWD’s plan mirrors MWD’s plan with two exceptions. The first exception is that since FMWD does not take delivery of any Seawater Barrier water and FMWD is considered ineligible for the Replenishment Allocation, reference to those deliveries has been deleted.

The second exception is because of the way the water is allocated, without a further adjustment, total water allocated to FMWD’s member agencies will never match the total water allocated to FMWD. Thus, an adjustment has been added to prorate the difference between the amount allocated to FMWD by MWD and the initial allocation by FMWD.

Additionally, FMWD will reconcile over use and under use of member agency allocations at the same time that MWD does, typically at the end of every 12 months. Any allocation under used by agencies will be pooled together in one pot to be distributed to those agencies who over use their allocation. Any agency using that pooled

water will be charged the regular FMWD Tier 1 or Tier 2 rate for having taken the water plus 50 percent of MWD's penalty rate. Any penalties assessed would go into the Water Resource and Conservation Fund.

FMWD only assesses 50 percent of the surcharge against its retail agencies in situations where FMWD is not subject to the Allocation Surcharge from MWD. In cases where FMWD as a whole is subject to the Allocation Surcharge from MWD, member retail agencies that have over used their allocation will take on the obligation proportionally and be subject to 100 percent of the surcharge.

Supply Allocation Formula Elements

The following are the elements of the allocation formula:

Base Period Demands – A two-year average of historical water use utilizing data from FY 2012-13 and FY 2013-14. Water use is divided into three components: total retail demand, locally produced water, and imported water.

Growth Adjustment – Retail demands are adjusted for growth between the base period and the time of allocation based on county level estimates of average annual growth in population. Growth for Los Angeles County is 0.46 percent. Agencies have an option to use weighted average population and job growth instead based on an appeal process to MWD.

Local Supplies – The amount of local supplies that are planned to be utilized in an allocation year.

Extraordinary Allocation Year Local Supplies – These are previously unscheduled local water supplies to be utilized in an allocation year, including transfers, recycled water, desalination, and recovery of groundwater. This amount is credited without reduction in the Wholesale Minimum Allocation. In addition, it decreases both the Retail Impact Adjustment and the reliance on MWD.

Conservation Demand Hardening Adjustment – An adjustment is made for demand hardening due to active conservation based on GPCD. Calculation considers conservation savings, dependence on MWD and the associated Regional Shortage Level percentage.

Regional Shortage Percentage – This is the percentage of shortage between supplies and demands and will be declared by MWD's Board. **Table 7** contains the percentages used to establish water allocations for agencies.

Wholesale Minimum Allocation – This is the first step in the formula and provides the minimum imported water allocation from MWD. It is calculated as an allocation baseline demand on MWD (Base Period Demands minus Local Supplies) multiplied by the Wholesale Minimum Percentage of the associated Regional Shortage Level.

Retail Impact Adjustment – This is the maximum additional allocation an agency may receive based on impacts to retail customers. Those agencies with less local supplies would receive a higher adjustment than those agencies with more local supplies. This adjustment is calculated as a percent dependence on MWD times the allocation baseline demand on MWD multiplied by the Retail Impact Adjustment factor of the associated Regional Shortage Level.

Minimum Per-Capita Adjustment – An adjustment made should gallons per capita per day for an agency drop to 100 GPCD or lower.

Total FMWD Allocation – A preliminary allocation is provided to agencies based on calculations, which mirror MWD's WSAP. Without a further adjustment, total water allocated to FMWD's member agencies will never match the total water allocated to FMWD. Thus, an adjustment has been added to prorate the difference between the amount allocated to FMWD by MWD and the initial allocation by FMWD.

Allocation Surcharge – Previously known as WSAP Penalty Rates, an Allocation Surcharge will be in effect based on the costs to implement outdoor water use reductions through turf removal programs. The Allocation Surcharge would provide a price signal based on the marginal conservation costs incurred to reduce water use in dry and shortage years.

Conservation Plan Ordinance

FMWD's Conservation Plan (adopted April 2009; revised plan adopted June 2021) establishes a comprehensive staged water conservation program, which will encourage reduced water consumption within FMWD through conservation, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, and maximize the efficient use of water within FMWD. In June 2021, FMWD amended its Conservation Plan to conform to six standard water shortage levels as required by CWC Section 10632(a)(3)(A) and to better align with long-term water use goals. Along with permanent water conservation requirements, FMWD's Water Conservation Plan consists of six stages, which are described in **Table 8**, to respond to a reduction in potable water available to FMWD for distribution to its customers. Stage 1 conservation requirements are in effect at all times unless a mandatory conservation stage has been implemented by the Board of Directors.



4.3 CVWD STAGES OF ACTION

CVWD has adopted a Water Conservation Program. The purpose of this program is to provide water conservation regulations, in a phased approach, to minimize the effect of a shortage of water supplies on the customers of CVWD during various critical stages of a water shortage. Along with permanent water conservation requirements, CVWD's Water Conservation Program consists of six stages, as shown in **Table 8**, to respond to a reduction in potable water available to CVWD for distribution to its customers with Phase 1 conservation requirements in effect at all times unless a mandatory conservation stage has been implemented by CVWD Board of Directors.

Table 8: Water Supply Shortage Stages and Conditions – Rationing Stages

Stage No.	Water Supply Conditions	% Shortage
Phase 1 - Color Code "Blue"	Standard Water Conservation. FMWD can meet all Member Agency demands. Voluntary water conservation applies.	Up to 10%
Phase 2 - Color Code "Green"	Increased Water Conservation. Some supplies have been impacted, and consumers should increase efforts to conserve.	10% to 20%
Phase 3 - Color Code "Yellow"	Extraordinary Water Conservation. MWD is withdrawing water from most of its storage programs to meet demands. Extraordinary conservation is called for from consumers.	20% to 30%
Phase 4 - Color Code "Orange"	Allocation. MWD has implemented its allocation plan to its member agencies. Thus, supplies are limited.	30% to 40%
Phase 5 - Color Code "Red"	Critical. Water supplies are reduced drastically.	40% to 50%
Phase 6 - Color Code "Purple"	Emergency. Water supplies are only available for health and safety needs.	Greater than 50%

4.4 PROHIBITIONS

CVWD's Water Conservation Plan promotes the efficient use of water, reduce or eliminate water waste, complement CVWD's Water Quality regulations and urban runoff reduction efforts, and enable implementation of CVWD's Water Shortage Contingency Measures. Prohibitions include, but are not limited to: restrictions on outdoor watering, washing of vehicles, food preparation establishments, repairing of leaks and other malfunctions, swimming pools, decorative water features, construction activities, and water service provisions, which can be found in **Table 9**.

Table 9: Mandatory Prohibitions

Examples of Prohibitions	Stage When Prohibition Becomes Mandatory
Hose washing of sidewalks, walkways, driveways, or parking areas, tennis courts, patios, porches or other paved areas shall not be permitted. Exception: Flammable or other dangerous substances may be disposed of by direct hose flushing by public safety officers for the benefit of public health and safety. Businesses or schools required to hose down public eating areas will be provided with access to a water broom.	Phase 1 - Color Code "Blue"
Use of water for any purpose which results in overspray, excessive runoff onto hardscapes, driveways, streets, adjacent lands or into gutters shall not be permitted.	Phase 1 - Color Code "Blue"
Water used to clean, fill or maintain levels in decorative fountains or similar structures must be part of a recirculation system.	Phase 1 - Color Code "Blue"
Leaks from any facility both inside and outside of a customer's premises must be repaired within seventy-two hours after the customer is notified of, or discovers the leak. Failure to affect the repair of any leak shall subject said customer to all penalties provided herein for waste of water.	Phase 1 - Color Code "Blue"
No watering, sprinkling or irrigating shall take place between the hours of nine a.m. (9:00AM) and five p.m. (5:00PM) in any landscaped or vegetated areas, including, but not limited to, golf courses, parks, cemeteries and school areas landscaped with, but not limited to, grass, lawn, groundcover, shrubbery, annual and perennial plants, crops, trees, and California-friendly plantings. With the exception of drip irrigation systems or weather based irrigation controllers, residential timers shall not run for more than a total of 10 minutes per station.	Phase 1 - Color Code "Blue"
Hand watering of non-turf areas is allowed using a hose with a positive shut-off nozzle or watering can within the allowable times as specified above.	Phase 1 - Color Code "Blue"
No watering, sprinkling or irrigating shall take place in any landscaped or vegetated areas on days when the wind is blowing causing overspray. No irrigation or watering of turf or ornamental-landscapes during and 48 hours following measurable precipitation.	Phase 1 - Color Code "Blue"
The washing of commercial and non-commercial privately owned automobiles, trucks, trailers, motor-homes, boats, buses, airplanes and other types of vehicles is restricted to use of a hand-held bucket and quick rinses using a hose with a positive shut-off nozzle. Exceptions: the use of wash water which is on the immediate premises of a commercial car wash or commercial service station; where health, safety and welfare of the public is contingent upon frequent vehicle cleaning, such as garbage trucks and vehicles which transport food and perishables.	Phase 1 - Color Code "Blue"



Examples of Prohibitions	Stage When Prohibition Becomes Mandatory
Owners of outdoor swimming pools, wading pools or spas, when these are not in use, are requested to use covers to minimize the evaporation of water.	Phase 1 - Color Code "Blue"
Water for construction purposes including but not limited to de-brushing of vacant land, compaction of fills and pads, trench backfill and other construction uses, shall be used in an efficient manner which will not result in runoff.	Phase 1 - Color Code "Blue"
The use of potable water from fire hydrants shall be limited to firefighting related activities or other activities immediately necessary to maintain the health, safety, and welfare of the residents of the city.	Phase 1 - Color Code "Blue"
No restaurant, hotel, café, cafeteria or other public place where food is sold, served or offered for sale, shall serve drinking water to any customer unless expressly requested by a customer.	Phase 1 - Color Code "Blue"
Hotels, motels, and other commercial lodging establishments are requested to post notices informing their guests about CVWD's water conservation policy and urging guests to conserve water. Water conservation notices will be provided by CVWD.	Phase 1 - Color Code "Blue"
Hotels, motels and other commercial lodgings are requested to post notices giving their guests the option of not laundering towels and linens daily.	Phase 1 - Color Code "Blue"
Where applicable, restaurants must utilize water conserving nozzles.	Phase 1 - Color Code "Blue"
Watering Days: Odd/Even assigned days	Phase 2 - Color Code "Green"
Watering Days: Tuesday, Thursday, Saturday	Phase 3 - Color Code "Yellow"
Residential and commercial landscape irrigation is limited to no more than two (2) days per week on Tuesday and Saturday. Exempt are public areas owned or operated by School Districts or public use areas greater than 4,000 square feet.	Phase 4 - Color Code "Orange"
The filling, refilling or adding of water to indoor and outdoor pools, wading pools, or spas is prohibited. Exemptions: Commercial Repairs mandated by the Federal Virginia Graeme Baker Act, or adding water for the prevention of equipment failure is permissible, however, the District strongly urges that a cover be used to prevent evaporation and thereby reducing the frequency of refilling.	Phase 4 - Color Code "Orange"
The use of water to clean, maintain, fill, or refill decorative fountains or similar structures is prohibited. Exemptions: Adding water for the prevention of equipment failure is permissible.	Phase 4 - Color Code "Orange"
Vehicle washing is restricted to the use of a hand-held bucket and quick rinses using a hose with a positive shut-off nozzle.	Phase 4 - Color Code "Orange"

Examples of Prohibitions	Stage When Prohibition Becomes Mandatory
Fix leaks within 48 hours.	Phase 4 - Color Code "Orange"
1 day limit per week year-round irrigation.	Phase 5 - Color Code "Red"
All outdoor water use is prohibited.	Phase 6 - Color Code "Purple"
Fix any leaks within 24 hours.	Phase 6 - Color Code "Purple"

4.5 CONSUMPTION REDUCTION METHODS

Methods to reduce the use of potable water exist in all Water Shortage Levels are listed in **Table 10**.

Table 10: Consumption Reduction Methods

Consumption Reduction Methods	Stage When Method Takes Effect	Projected Reduction (%)
Phase 1 Conservation Measures	"Blue"	Up to 10%
Phase 2 Conservation Measures	"Green"	10% to 20%
Phase 3 Conservation Measures	"Yellow"	20% to 30%
Phase 4 Conservation Measures	"Orange"	30% to 40%
Phase 5 Conservation Measures	"Red"	40% to 50%
Phase 6 Conservation Measures	"Purple"	>50%

4.6 CATASTROPHIC SUPPLY INTERRUPTION

Given the great distances imported water supplies travel to reach the FMWD service area, the region is vulnerable to interruptions along hundreds of miles of aqueducts, pipelines and other facilities associated with delivering the supplies to the region. Additionally, this water is distributed to customers through an intricate network of pipes and water mains that are susceptible to damage from earthquakes and other disasters, natural or otherwise.

MWD

MWD has comprehensive plans for stages of actions it would undertake to address a catastrophic interruption in water supplies through its WSDM and WSAP Plans. MWD also developed an Emergency Storage Objective to mitigate potential interruption in water

supplies resulting from catastrophic occurrences within the Southern California region, including seismic events along the San Andreas Fault. In addition, MWD is working with the state to implement a comprehensive improvement plan to address catastrophic occurrences that could occur outside of the Southern California region, such as a probable maximum seismic event in the Delta, which could cause levee failure and disruption of SWP deliveries.

In July 2019, MWD's Board adopted amendments to their Administrative Code allowing deliveries of member agency water supplies in MWD's system during an emergency. With these enabled deliveries, MWD's member agencies will be able to deliver their water through MWD's system under specific emergency conditions. Emergency deliveries using a portion of MWD's system can only be made if MWD is unable to make deliveries to a member agency due to physical damage to its system resulting from a natural disaster or other emergency, and there are no alternatives.

CVWD

For a sudden or catastrophic water supply interruption, CVWD has developed an Emergency Preparedness and Disaster Response Plan, as required by the State Water Resource Control Board, and an Emergency Response Plan (ERP) to ensure the most effective use of its resources for the benefit and protection of facilities and employees, in addition to the preservation of a reliable water supply for its customers.

Power Outage – In the event of a power outage, CVWD maintains five emergency standby power generators. One of the emergency generators is stationary and dedicated to power water supply wells and the auxiliary equipment at the Glenwood Nitrate Operations Center. Four emergency generators are portable and are mounted on trailers. They can be mobilized to any pump station for movement of water out of a reservoir into a higher pressure zone. Each pump station site is equipped with emergency power receptacles and transfer switches, which allow personnel to hook up the portable generators. The fourth generator is located at CVWD's Administrative Office. CVWD also has Universal Power Supply systems on the computer systems at the Administrative Office, the Supervisory Control and Data Acquisition (SCADA) systems at the Glenwood Nitrate Operations Facility and at booster station at well sites. In addition, FMWD operates standby emergency generators, which could be used by CVWD.

Water Outage – In the event of a water outage, CVWD has the ability to receive water from the City of Glendale, La Cañada Irrigation District, and Los Angeles Department of Water and Power (LADWP) through emergency water supply interconnections.

City of Glendale Emergency Interconnection:

- Glendale/CVWD emergency interconnection was installed in 2004 and allows for CVWD to receive up to 5.0 cubic feet per second (cfs) from Glendale.
- Glendale and CVWD also have an agreement for emergency hydrant-to-hydrant interconnections that allows CVWD to take water from Glendale or for Glendale to take water from CVWD.

La Cañada Irrigation District (LCID) Interconnection:

- CVWD has an interconnection with LCID that allows CVWD to take water from LCID into CVWD's Zone 3.
- LCID has two interconnections with CVWD that allows LCID to take water from CVWD into LCID westerly zones.

LADWP Interconnection:

- CVWD to receive up to 2.2 cfs or 1.9 MGD from LADWP, which will provide an emergency water supply to FMWD through a metered connection.
- LADWP to receive up to 2.2 cfs from CVWD through a booster pump system that will provide LADWP water in emergency situations.

CVWD is an active member of the southern region of the statewide Water Agency Response Network (WARN), a mutual aid coalition of water departments and agencies which allows for coordination of resources during disasters or catastrophic events.

Supplemental Water Supplies – Supplemental water supplies to help offset future shortages due to drought would be available through FMWD via MWD and their WSDM. The WSDM is referenced in FMWD's 2020 UWMP and described in detail in MWD's 2020 UWMP.

Preparation actions for possible catastrophes are summarized in **Table 11**.

Table 11: Preparation Actions for Catastrophe

Possible Catastrophe	Preparation Actions
Regional Power Outage	• Emergency Preparedness and Disaster Response Plan • Standby Emergency Power Generators • Interconnections with nearby agencies • Water Agency Response Network Membership • Supplemental Water Supplies
Earthquake	
Supply Contamination	
Terrorist Act which Interrupts Service	
Other(s)	

4.7 SEISMIC RISK ASSESSMENT AND MITIGATION PLAN

INTRODUCTION

Earthquakes can vary significantly in magnitude and the amount of damage caused. Major earthquakes can cause loss of electrical power, damage to CVWD’s structures and equipment, disruption of service, and injuries to staff. This section provides a description of CVWD’s procedures (i.e., response and mitigation) after an earthquake event.

As mandated in CWC Section 10632.5, beginning January 1, 2020, water suppliers are required to include a seismic risk assessment and mitigation plan as part of their WSCP to assess the vulnerability of each of the various facilities of their water system and mitigate those vulnerabilities. If an urban water supplier does not have a seismic risk assessment and mitigation plan, the urban water supplier may instead, per CWC Section 10632.5(c), include a local hazard mitigation plan (LHMP) or a multi-hazard mitigation plan. This requirement is satisfied by the incorporation of elements and analyses from CVWD’s Risk and Resilience Assessment (RRA), ERP, and seismic evaluation as well as the 2019 County of Los Angeles All-Hazards Mitigation Plan (attached as **Appendix B**). The complete RRA and ERP documents are not presented within this plan due to the highly confidential nature of the reports. Although CVWD does not currently have a seismic risk assessment and mitigation plan, CVWD applied for a planning grant in March 2019 and was awarded funding by the Federal Emergency Management Agency in April 2020 to complete an LHMP.

CVWD LHMP

During the LHMP process, residents and officials from neighboring agencies will be asked to contribute by sharing local knowledge of the area’s vulnerability to hazards and by suggesting ways CVWD can mitigate disasters. CVWD also formed a Steering Committee made up of local stakeholders, who oversaw the plan’s development and outreach. The committee met on a monthly basis for approximately seven months and meetings were open to the public. The LHMP process was started in late 2020, with a seismic evaluation, and is expected to be completed by the Fall of 2021.



Figure 5: The Five Phases of Emergency Management

LHMP Goals and Objectives

The six goals of CVWD's LHMP are listed below:

1. Protect life and property
2. Maintain continuity of essential water and sewer services
3. Increase public awareness of the risk of loss of water/sewer service
4. Facilitate partnerships with recognized stakeholders within the Crescenta Valley and implement a coordination plan between the stakeholders
5. Protect local water supply sources
6. Protect against environmental consequences caused by water and sewer system failure initiated by natural hazards

The CVWD Steering Committee members identified the following plan objectives:

- Implement activities that assist in protecting lives by making CVWD's infrastructure, critical facilities, and other properties more resistant to natural hazards
- Protect water quality and supply
- Properly address aging infrastructure issues to reduce/minimize future hazards and disasters
- Raise awareness and communicate to the Crescenta Valley Community about the risks to CVWD assets
- Leverage grant funding and low interest loan programs to implement hazard mitigation capital projects
- Establish policies to ensure mitigation projects are prioritized for critical facilities, services, and infrastructure
- Create, rehabilitate, enhance, and preserve local ecosystems to serve as natural hazard mitigation functions

SEISMOLOGY OF WATER FACILITIES & VULNERABILITY

According to the maps provided on the California Office of Emergency Services' online planning tool (My Plan) and the California Geological Survey's online earthquake hazards zone application (EQ Zapp), no portion of the CVWD system is crossed by a known fault line as shown in **Figure 6**. Furthermore, based on the CVWD seismic evaluation, none of CVWD's pipelines, wells, booster pump stations, reservoirs, or other water facilities are located in areas containing soft, fine grained soils, which amplify the earthquake energy during an earthquake. All water facilities are located in areas of very dense and stiff soil.

Therefore, there are no CVWD potable water structures with an extremely high risk of earthquake damage. There are, however, areas with increased risk due to landslides, liquefaction, and some CVWD facilities that are more susceptible to earthquake damage than other facilities.

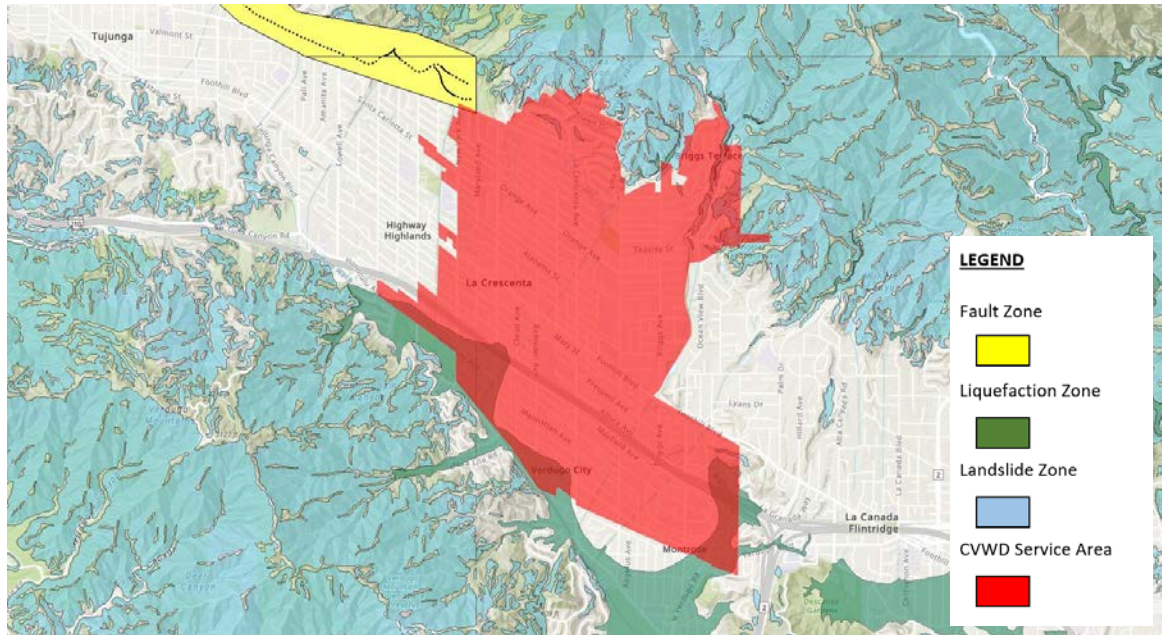


Figure 6: Seismic Hazards within CVWD Service Area (California Geological Survey)

An earthquake is caused by the shifting of tectonic plates beneath the Earth's surface. Ground shaking from moving geologic plates collapses buildings and bridges, and sometimes triggers landslides, avalanches, flash floods, fires and tsunamis. The strong ground motion of earthquakes has the potential to cause a great deal of damage to drinking water and wastewater utilities, particularly since most utility components are constructed from inflexible materials (i.e., concrete, metal pipes). Earthquakes create many cascading and secondary impacts that may include, but are not limited to:

- Structural damage to facility infrastructure and equipment
- Water tank damage or collapse
- Water source transmission line realignment or damage
- Damage to distribution lines due to shifting ground and soil liquefaction, resulting in potential water loss, water service interruptions, low pressure, contamination and sinkholes and/or large pools of water throughout the service area
- Loss of power and communication infrastructure
- Restricted access to facilities due to debris and damage to roadways

Additional seismic risks will be further described in the CVWD LHMP.

ERP – EARTHQUAKE EMERGENCY RESPONSE

CVWD is currently updating its ERP to replace its existing ERP by December 31, 2021 in order to meet the requirements of America’s Water Infrastructure Act of 2018 (AWIA). The ERP provides CVWD staff with the necessary information, strategies, procedures, and mitigation actions to address earthquake emergencies. CVWD’s ERP policies are intended to guide disaster management planners and emergency responders, and to provide a consistently high level of preparedness at all the facilities.

Per the ERP, after a major earthquake, the Emergency Operations Center (EOC) will be activated if potential or significant damage has occurred in CVWD’s service area, and the situation cannot be handled by routine public safety response or immediate mutual aid assistance. The General Manager shall assess the situation and establish the incident command post as necessary. In the event of an emergency, CVWD personnel will be required to inspect all water facilities for apparent signs of damage or abnormal conditions and conserve the existing water supply in the reservoirs from loss through water line breaks in the distribution system.

CVWD SEISMIC EVALUATION

As part of the LHMP preparation process, CVWD performed a seismic evaluation in 2020 involving seismological and geological investigations of the CVWD service area that was used to evaluate the susceptibility of the water system to damage following an earthquake. The purposes of the seismic evaluation were as follows:

- Determine the probability of damage to potable water structures and identify the expected functionality of essential features of the system after a major earthquake in the service area.
- Identify the amount of potable water structures located in high hazard areas (i.e., liquefaction zones, soft soils, landslide risk zones).
- Protect human life against earthquake hazard as it affects the existing water system.

Figures 7 and 8 show some of the results of the seismic evaluation regarding the potential for damage due to the impacts of a major earthquake event. The evaluation used the aftermath of the 1994 Northridge earthquake as a basis.

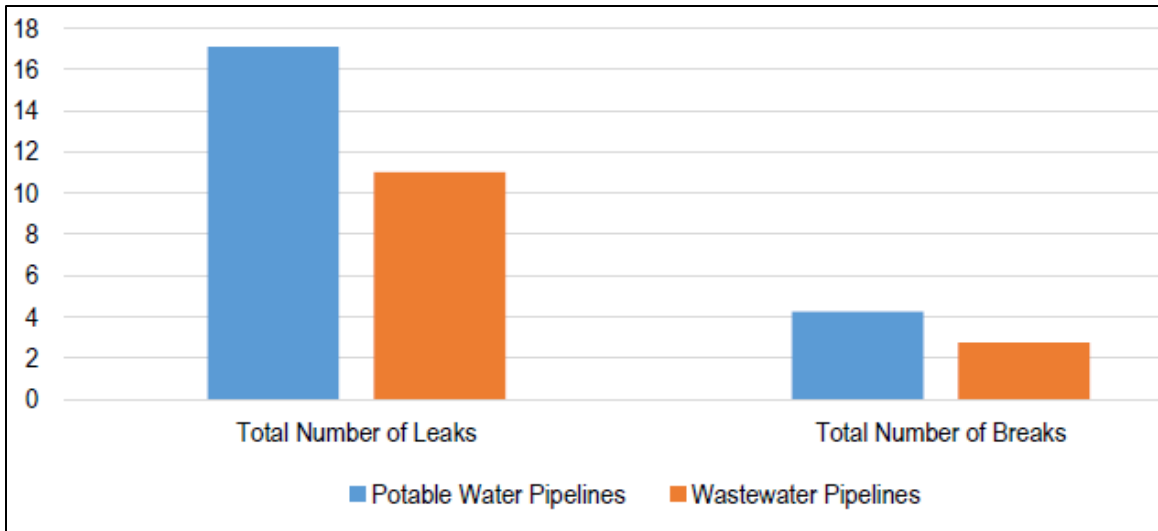


Figure 7: Pipeline Repairs Required after a Magnitude 6.9 Event (2020 Seismic Evaluation)

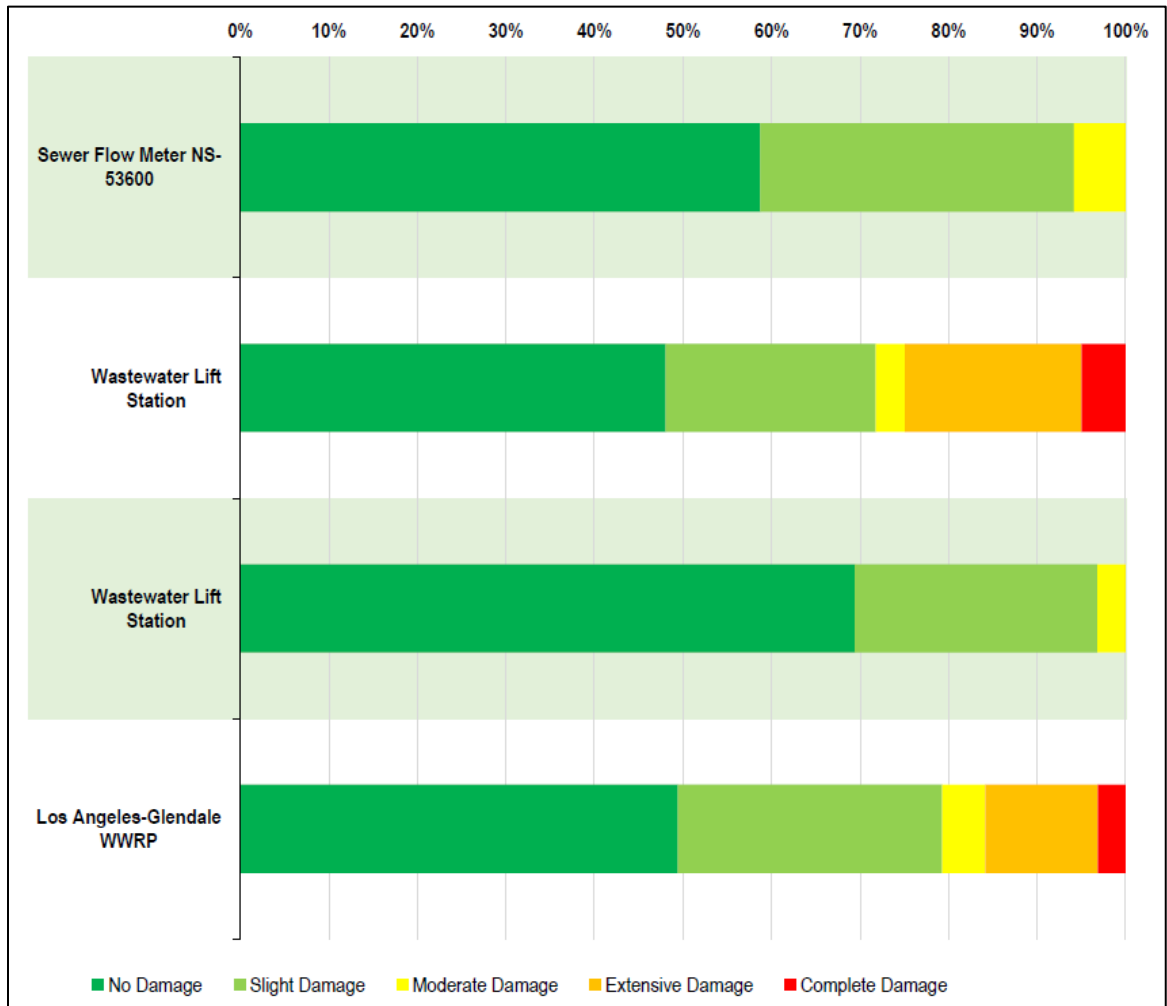


Figure 8: Probability of Damage to Facilities from a Magnitude 6.9 Event (2020 Seismic Evaluation)

MITIGATION ACTIONS

Hazard mitigation may occur during any phase of a threat, emergency, or disaster. Mitigation can and may take place during the preparedness (before), response (during), and recovery (after) phases. The process of hazard mitigation involves evaluating a hazard's impact and identifying and implementing actions to minimize or eliminate the impact.

As part of the LHMP planning process and risk assessment, CVWD's Core Planning Team developed a mitigation action plan, consisting of pre-mitigation projects, to present how CVWD can reduce the risk and vulnerability of people, property, infrastructure, natural and cultural resources, and economic impacts to future disaster losses, including earthquake events. Emphasis was placed on both existing and future development.

Pre-mitigation projects to mitigate earthquake events may include, but are not limited to, the following:

- New Portable Emergency Electrical Generators – four (4) new portable generators to be staged at Booster Pump Station sites to move water to higher elevations.
- New Seismic Sensors & Valve Actuators on Reservoir Inlet/Outlet Valves (4 sites) to close valve and save water.
- Emergency Preparedness Education Site and Water Refilling Station at Rosemont Reservoir.

Specific seismic mitigation actions/measures will be further described in the CVWD LHMP.

5. COMMUNICATION PROTOCOLS

5.1 INTRODUCTION

CVWD's communication protocol includes the various channels that CVWD will utilize to convey critical messages regarding water shortage allocations and voluntary and mandatory actions. The goal of CVWD is to provide more public outreach to help increase awareness of water shortages. A strong communication strategy and a common understanding on the water supply situation and necessary actions between CVWD and its customers, the public, elected officials, and other key stakeholders are essential should the WSCP need to be activated. How the water shortage messages are addressed to the public are described in this communication protocol. The communication protocol will be in place prior to a water supply shortage and be initiated in Stage 2 Increased Voluntary Conservation. Activation of the communication protocol will continue through all

subsequent water shortage stages. CVWD will ensure outreach efforts are reaching key audiences as needed.

It is important to communicate to its customers the following when urgent conservation is needed:

- Which shortage stage is being implemented;
- What response actions are triggered to save water;
- Why water needs to be saved; and
- What actions CVWD is taking to respond to the water supply situation.

5.2 COORDINATION

The goal of CVWD's outreach plans during dry periods and water shortages is to maintain effective coordination with key audiences. In order to maintain reliability in this communication, CVWD will work closely with the Board of Directors. During dry periods or other times of limited supply, the frequency and extent of coordination will increase to ensure outreach tactics are consistent with the changing needs of CVWD and its customers. In addition to collaboration with its wholesaler, FMWD, CVWD will seek opportunities with outside organizations and agencies to complement its own outreach.

5.3 COMMUNICATION GOALS

Communication objectives during an existing or anticipated water shortage condition include the following:

- Motivate key audiences (i.e., customers) to increase conservation in following any voluntary or mandatory actions called for at the current stage of the WSCP.
- Raise awareness of the drought, regulations, or other conditions affecting water sources and supplies.
- Educate customers, key stakeholders, elected officials, and the general public about water supply reliability, water quality, and water delivery.
- Prepare customers for any potential escalation of the supply shortage stages.

5.4 COMMUNICATION PROTOCOL FOR CURRENT OR PREDICTED SHORTAGE

A current or predicted shortage, as determined by CVWD's Annual Assessment, will be addressed to the public and its customers upon submittal of the Annual Water Shortage Assessment Report to DWR by July 1 of every year. This notice may be conducted by CVWD's website, signage in front of the CVWD office, and wholesale agency coordination.

5.5 COMMUNICATION PROTOCOL FOR SHORTAGE RESPONSE ACTIONS TRIGGERED OR ANTICIPATED TO BE TRIGGERED

CVWD's customers and public will be notified about any triggered or anticipated to be triggered shortage response actions. CVWD monitors and measures the projected supply and demand for water by its customers monthly and recommends the stage of conservation required to the Board of Directors. After Stage 3, 4, 5 or 6 is declared, and at each regular board meeting, the Board of Directors will consider a report by the General Manager concerning the then current water supply status. The Board will change the stage designation as appropriate; however, unless it is an emergency, the Board will not impose mandatory measures without first conducting a duly-noticed public hearing pursuant to Water Code Sections 350 et seq., or 375 et seq. The appropriate stage of water conservation and the shortage response action triggered by the stage is then declared in a public notification posted on CVWD's website and published in a daily newspaper.

5.6 OTHER RELEVANT COMMUNICATION PROTOCOLS

To reduce water use consumption during any water shortage stage, CVWD will increase its public education and outreach efforts to build awareness of needed actions from the public. Moreover, CVWD will regularly revise its outreach campaign to reflect current supply conditions. Key communication strategies and associated water shortage stage implementation are listed below:

- Promote available water assistance resources for vulnerable populations; specialized outreach for impacted industries (Stages 3 and 4).
- Keep stakeholders aware of conditions (all Stages).
- Proclaim stage change to key stakeholders and the general public (all Stages).
- Conduct meetings with elected officials and other key civic and business leaders (Stage 2).
- Encourage reduced optional outdoor use through outreach (Stages 3 and 4).

CVWD may implement these communication strategies through its newsletters, website, and social media platforms to reflect supply conditions. In addition, CVWD may conduct news briefings or other media outlets (i.e., TV, radio, newspapers) to announce changes in supply conditions.

5.7 CRISIS COMMUNICATION PROTOCOL

In the event of a catastrophic supply interruption due to a natural disaster or damage to CVWD's facilities, CVWD will implement communication procedures in accordance with

local, regional, state, and federal emergency response guidelines as outlined in its ERP. Depending upon the severity of the emergency and potential damage to CVWD's facilities, CVWD may determine that it is necessary to utilize the Standardized Emergency Management System (SEMS) response and the Incident Command System (ICS). Public information and crisis communication are an integral part of the ICS structure. National Incident Management System (NIMS), SEMS, and ICS have been integrated into the ERP. It provides for a strategic response by all employees and assigns specific responsibilities in the event the plan is activated.

When an incident occurs, the General Manager (Emergency Response Manager), District Engineer (Emergency Operations Center Manager) and the Operations Manager (Field Crew Supervisor) will go to the designated EOC and begin implementation of CVWD procedures and employ appropriate strategies from the shortage stages in **Table 8**.

Crisis communication efforts will concentrate on providing information to the public and external audiences. Furthermore, outreach messaging will reflect emergency conditions and the need to focus on health and public safety. CVWD will keep the Board of Directors informed of incident status and coordinate with public health officials.

CVWD will maintain communication with FMWD and its customers. Situation status reporting will be conducted during each operational shift during an event. In addition, CVWD may also authorize release of public information to news media to announce conditions and explain needed action. Finally, CVWD will ensure ongoing coordination with emergency response services with daily advisories or alerts as needed.

6. COMPLIANCE AND ENFORCEMENT

The District will use all means at its disposal to communicate compliance with its WSCP, including, but not limited to:

- Direct mailings
- Billing messages
- Website posts
- Press releases
- Social media posts
- Newspaper advertisements
- Speaker groups
- Waste of water reporting

6.1 PENALTIES OR CHARGES

Any customer who violates provisions of CVWD's Water Conservation Plan Ordinance by either excess use of water or by specific violation of one or more of the applicable water use restrictions for a particular mandatory conservation stage may be cited by CVWD and

may be subject to written notices, surcharges, fines, flow restrictions, service disconnection, and/or service termination, which are detailed in **Table 12**.

Table 12: Penalties and Charges

Penalties or Charges	Stage When Penalty Takes Effect
Written Notice (Warning)	First Violation (Any Phase)
Written Notice with Description of Penalties	Second Violation (Any Phase)
Flow restrictors (installation: \$150, removal: \$100) for a period of not less than 48 hours	Third Violation (Any Phase)
Flow restrictors (installation: \$200, removal: \$150) for a period of not less than one week OR Discontinuation of water service	Flagrant Disregard of ordinance or Multiple Violations (Any Phase)

For any violations subsequent to the second violation, if the penalty assessed is, or includes the installation of a flow-restrictor or the discontinuance of water service to the customer for any period of time, notice of the fact of the violation will be delivered 15 working days before the penalty is to be enacted, in the following manner:

- Personal delivery of written notice to the customer at their residence or place of business and obtain their signature of delivery.
- Return receipt delivery to customer at their residence or place of business.

All notices will contain, in addition to the facts of the violation, a statement of the possible penalties for the present violation for which the notice was written and each subsequent violation, a statement of the anticipated date of the penalty, if any, will be enacted for the present violation, and a statement informing the customer of the customer's right to a hearing on the violation.

6.2 APPEAL REGARDING VIOLATIONS

Any customer against whom a restriction or limitation is levied has the right to a hearing and a right to appeal to the Board of Directors. Written request from customer to the District must be received within 15 working days of the date of notification of the violation. Before the hearing can be scheduled, all existing plumbing fixtures in the structure must be retrofitted exclusively with water-conserving plumbing fixtures including low flush or high efficiency toilets, low flow showerheads, and aerators. A water audit will be used to verify installation.

Enactments of the appropriate penalty will be deferred until the appeal is resolved.



If the appeal decision is not in favor of the customer, the determined penalty will be enacted within 10 days after the customer is advised of the decision in writing through certified mail, return receipt requested.

7. LEGAL AUTHORITIES

Under California law, including CWC Chapter 3 (commencing with Section 350) of Division 1, Parts 2.55 and 2.6 of Division 6, Division 13, and Article X, Section 2 of the California Constitution, the CVWD Board is authorized to implement the water shortage response actions outlined in this section. In all water shortage cases, shortage response actions to be implemented will be at the discretion of the CVWD Board and will be based on an assessment of the supply shortage, customer response, and need for demand reductions.

It is noted that upon proclamation by the Governor of a state of emergency under the California Emergency Services Act, Chapter 7 (commencing with Section 8550) of Division 1 of Title 2 of the Government Code, based on drought conditions, the state will defer to implementation of locally adopted water shortage contingency plans to the extent practicable. CVWD will coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code.

8. FINANCIAL CONSEQUENCES OF WSCP IMPLEMENTATION

CVWD has established a target reserve of funds within its annual budget to address the issue of lost revenue during a water shortage or drought situation. CVWD has an established reserve level that includes a 25 percent rate stabilization fund, which can offset short-term loss of revenue. The total target reserve level consists of \$1,000,000, 3 months of operations and maintenance costs (less the cost of imported water) and 25 percent of expected rate revenue. In the case of a long-term water shortage or drought situation, CVWD has instituted a tiered rate structure on its customers to offset the loss of revenue that will occur. Such measures are listed in **Tables 13** and **14**.

Table 13: Proposed Measures to Overcome Revenue Impacts

Name of Measures
Reserve Funds
Rate Stabilization Fund
Rate Structure Adjustment

Table 14: Proposed Measures to Overcome Expenditure Impacts

Name of Measures
Obtain Alternative Sources of Funding
Defer Certain Expenditures

9. MONITORING AND REPORTING

9.1 REDUCTION MEASURING MECHANISM

Under normal water supply conditions, potable water production figures are recorded daily. Water Production totals are reported to the General Manager and the Management staff on a daily basis and monthly totals are incorporated into CVWD's Water Production Report.

During any declared water shortage emergency, the General Manager and the Management staff will compare the daily water production to a maximum water supply capacity and a targeted daily production to see if the reduction goals are being met. Those daily updates will be forwarded to CVWD's Board of Directors semi-monthly. Corrective action may be taken by the CVWD Board of Directors if reduction goals are not met.

During local water shortage emergencies due to a natural disaster, production figures will be monitored daily by the General Manager and the Management staff. Reports will be provided to the CVWD Board of Directors as necessary. Water use Monitoring Mechanisms are listed in **Table 15**.

Table 15: Water Use Monitoring Mechanisms

Mechanisms for Determining Actual Reductions	Type of Data Expected
Daily Records	Potable water production figures

10. SPECIAL WATER FEATURE DISTINCTION

As required under CWC 10632(b), water features that are not pools or spas must be analyzed and defined separately from pools and spas in the WSCP. Non-pool or non-spa water features may use recycled water, whereas, for health and safety considerations, pools and spas must use potable water. Although CVWD does not currently use recycled water and does not have the ability to use recycled water due to a lack of infrastructure, CVWD would use non-potable water for non-pool water features if and when recycled water supply ever becomes available to CVWD. Furthermore, the WSCP requires potable water recirculation for fountains and decorative water features.

11. WSCP ADOPTION AND REFINEMENT PROCEDURES

11.1 WSCP PUBLIC NOTICE AND ADOPTION

To encourage broad community participation in the WSCP preparation process, CVWD provided 60-day notification letters to agencies within CVWD's service area. Copies of the draft WSCP were made available for public review at the CVWD office prior to the public hearing. Shortly before the public hearing, a two-week and a one-week notice was published in the local press alerting the public of the public hearing. At a subsequent board meeting following the public hearing, CVWD's final WSCP was approved and adopted by its Board of Directors on June 8, 2021. **Appendix A** contains the Board resolution adopting the WSCP. The final plan was submitted to DWR within 30 days of Board adoption and includes all information necessary to meet the requirements of CWC Section 10632.

By July 1, 2021, CVWD's approved WSCP was filed with DWR. Also by July 1, 2021, CVWD's plan was submitted to the California State Library, County of Los Angeles, and cities within its service area. CVWD will make the plan available for public review no later than 30 days after filing with DWR.

11.2 WSCP REFINEMENT PROCEDURES

This section discusses the process for reviewing and updating the WSCP to ensure it remains actively used, relevant and appropriate to the community, and consistent with applicable state and local requirements. It is vital that CVWD's WSCP remain up to date so as to best ensure shortage risk tolerance is adequate, appropriate water shortage mitigation strategies are implemented as needed, proper procedures for water efficient practices are in place for the community, and better alignment with long-term water use goals.

The CVWD Core Planning Team is responsible for maintaining this plan and updating it as needed. The Director of Engineering and the Regulatory and Public Affairs Manager are the primary CVWD staff members who will carry out this process, under the direction of the General Manager or other appropriate staff member. The General Manager, or their designee, will serve as the WSCP project manager and will coordinate maintenance of the plan, conduct the formal review process, and direct the plan updates. The project manager will assign tasks, which may include collecting data, developing new or updated water shortage mitigation measures, updating sections of the plan, and presenting the plan to others.



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