

# Water Shortage Contingency Plan

Diablo Water District

June 2021





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- Attachment A Regulation No. 8, Water-Use Efficiency
- Attachment B Regulation No. 9, Drought Emergency Regulation
- Attachment C Emergency Plan of Diablo Water District

## List of Abbreviations

Board	Board of Directors
CCCHMP	Contra Costa County Hazard Mitigation Plan
CCWD	Contra Costa Water District
CVP	Central Valley Project
CWC	California Water Code
District	Diablo Water District
DWD	Diablo Water District
gpcd	gallons per capita per day
gpf	gallon per flush
gpm	gallons per minute
m	meter
MG	million gallons
Reclamation	U.S. Bureau of Reclamation
UWMP	Urban Water Management Plan
WSCP	Water Shortage Contingency Plan
WTP	Water Treatment Plant

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# Section 1

## Introduction

Diablo Water District (DWD or the District) relies on various water supply sources to meet customer needs. These sources of supply include surface water supplied by the Contra Costa Water District (CCWD) and local groundwater. More frequent and longer-lasting dry periods, regulatory constraints, and seismic risks that can result in water delivery system outages are causing stress on water supply reliability for DWD's customers. As such, DWD must be prepared to take reasonable actions to balance water demands with limited water supplies. This Water Shortage Contingency Plan (WSCP) outlines a set of actions that DWD can take in the event of a declared water supply shortage or emergency.

DWD encourages its residents to always use water wisely, as outlined in DWD Regulation No. 8, Water-Use Efficiency, included as Attachment A. Regulation No. 9, Drought Emergency Regulation, is included as Attachment B. During past droughts, the Drought Emergency Regulation has served as an effective tool in reducing water use.

In 2018, two long-term water conservation bills, Senate Bill 606 and Assembly Bill 1668, were signed into law by Governor Jerry Brown. The two bills amended portions of the California Water Code (CWC) including §10632, which is related to water shortage contingency planning. Among other changes, the amended CWC requires agencies to incorporate an annual water supply and demand assessment under its Urban Water Management Plan (UWMP). It also specifies the adoption of six standard water shortage levels. This WSCP discusses the DWD's compliance with new regulations, as outlined in §10632 (a)(2) and §10632.1 of the CWC.

The purpose of the WSCP is to be prepared to impose temporary demand reductions in case available supply falls below the planned levels discussed in the UWMP. Supplies may be reduced below planned levels due to such causes as extreme (worst case) drought conditions, unplanned outages of water supply facilities due to earthquakes or other major disasters, prolonged power outages, or any other catastrophic loss of supply.

### 1.1 Water Shortage Levels

DWD has six standard water shortage levels as summarized in Table 1-1.

**Table 1-1 DWD Water Shortage Levels**

Water Shortage Level	Target Reduction in Water Demand
Level 1: Minor Shortage	Up to 10%
Level 2: Moderate Shortage	Up to 20%
Level 3: Significant Shortage	Up to 30%
Level 4: Severe Shortage	Up to 40%
Level 5: Critical Shortage	Up to 50%
Level 6: Extreme Shortage	Greater than 50%

When a regional water supply shortage is declared by CCWD, they will assign allocation to their raw water customers including DWD. DWD will then evaluate CCWD's allocation, along with other water supply options, to determine whether to declare a shortage. This annual assessment of supply conditions, as outlined in Section 2, Annual Water Demand and Supply Assessment, will determine the appropriate water shortage level. Water shortage levels also apply to catastrophic interruption of water supplies, including but not limited to, earthquakes, facility outages, major power outages, major water quality events, acts of terrorism, or other emergency events. For an expanded discuss of catastrophic water supply interruptions, refer to Section 8, Catastrophic Supply Interruption Planning.

DWD's General Manager can recommend one of six water shortage response levels to the Board of Directors (Board) for official declaration. The Board can also terminate a water shortage level, based on the General Manager's recommendation. The process for notifying and declaring water shortage levels is explained in more detail in Section 10, Communication Protocol.



## Section 2

# 2020 UWMP Water Supply Reliability Assessment

In accordance with CWC §10632(a), the water supply reliability analysis from the 2020 UWMP is provided here.

## 2.1 Service Area Reliability Assessment

To determine the overall service area reliability in compliance with CWC §10635(a), DWD incorporated data from CCWD regarding its supply reliability and historical groundwater availability to determine overall supply reliability to year 2040 under different hydrologic conditions. Tables 2-1, 2-2, and 2-3 tabulate the service reliability assessment for average year, single dry year, and multiple dry year conditions, respectively. No water shortages are anticipated as demands are met by the available supplies under all hydrologic scenarios.

**Table 2-1 Water Supply and Demand Comparison for a Normal Year Hydrologic Condition**

Supply / Demand (Million Gallons [MG])	2025	2030	2035	2040
CCWD <sup>1</sup>	2,738	2,738	2,738	3,650
DWD Groundwater <sup>2</sup>	1,000	1,373	1,745	1,745
<b>Total Supply</b>	<b>3,738</b>	<b>4,111</b>	<b>4,483</b>	<b>5,395</b>
<b>Total Demand</b>	<b>2,580</b>	<b>3,260</b>	<b>3,920</b>	<b>4,580</b>
Surplus/(Deficit) <sup>3</sup>	1,158	851	563	815
Surplus/(Deficit) as % of Supply	31%	21%	13%	15%
Surplus/(Deficit) as % of Demand	45%	26%	14%	18%

<sup>1</sup>Based on supply available from CCWD shown in UWMP Table 4-1, applying reliability factors shown in UWMP Table 5-1.

<sup>2</sup>Based on supply available from groundwater shown in UWMP Table 5-2.

<sup>3</sup>Total supply minus total demand.

**Table 2-2 Water Supply and Demand Comparison for a Single Dry Year Hydrologic Condition**

Supply / Demand (MG)	2025	2030	2035	2040
CCWD <sup>1</sup>	2,738	2,738	2,738	3,650
DWD Groundwater <sup>2</sup>	1,000	2,008	2,555	2,555
<b>Total Supply</b>	<b>3,738</b>	<b>4,746</b>	<b>5,293</b>	<b>6,205</b>
<b>Total Demand</b>	<b>2,580</b>	<b>3,260</b>	<b>3,920</b>	<b>4,580</b>
Surplus/(Deficit) <sup>3</sup>	1,158	1,486	1,373	1,625
Surplus/(Deficit) as % of Supply	31%	31%	26%	26%
Surplus/(Deficit) as % of Demand	45%	46%	35%	35%

<sup>1</sup>Based on supply available from CCWD shown in UWMP Table 4-1, applying reliability factors shown in UWMP Table 5-1.

<sup>2</sup>Based on supply available from groundwater shown in UWMP Table 5-2. Hardness water quality targets that limit groundwater use during normal conditions may be suspended by the DWD Board if DWD declares a drought. Groundwater volumes presented here also assume installation of wellhead treatment at the Stonecreek Well to allow for full well production.

<sup>3</sup>Total supply minus total demand.

Table 2-3 Water Supply and Demand Comparison for a Multiple-Dry Year Hydrologic Condition

Year	Supply / Demand (MG)	2025	2030	2035	2040
First Year of Drought	CCWD <sup>1</sup>	2,738	2,738	2,738	3,650
	DWD Groundwater <sup>2</sup>	1,460	2,008	2,555	2,555
	<b>Total Supply</b>	<b>4,198</b>	<b>4,746</b>	<b>5,293</b>	<b>6,205</b>
	<b>Total Demand</b>	<b>2,580</b>	<b>3,260</b>	<b>3,920</b>	<b>4,580</b>
	Surplus/(Deficit) <sup>3</sup>	1,618	1,486	1,373	1,625
	Surplus/(Deficit) as % of Supply	39%	31%	26%	26%
	Surplus/(Deficit) as % of Demand	63%	46%	35%	35%
Second Year of Drought	CCWD <sup>1</sup>	2,738	2,738	2,738	3,650
	DWD Groundwater <sup>2</sup>	1,460	2,008	2,555	2,555
	<b>Total Supply</b>	<b>4,198</b>	<b>4,746</b>	<b>5,293</b>	<b>6,205</b>
	<b>Total Demand</b>	<b>2,580</b>	<b>3,260</b>	<b>3,920</b>	<b>4,580</b>
	Surplus/(Deficit) <sup>3</sup>	1,618	1,486	1,373	1,625
	Surplus/(Deficit) as % of Supply	39%	31%	26%	26%
	Surplus/(Deficit) as % of Demand	63%	46%	35%	35%
Third Year of Drought	CCWD <sup>1</sup>	2,601	2,601	2,601	3,285
	DWD Groundwater <sup>2</sup>	1,460	2,008	2,555	2,555
	<b>Total Supply</b>	<b>4,061</b>	<b>4,609</b>	<b>5,156</b>	<b>5,840</b>
	<b>Total Demand</b>	<b>2,580</b>	<b>3,260</b>	<b>3,920</b>	<b>4,580</b>
	Surplus/(Deficit) <sup>3</sup>	1,481	1,349	1,236	1,260
	Surplus/(Deficit) as % of Supply	36%	29%	24%	22%
	Surplus/(Deficit) as % of Demand	57%	41%	32%	28%
Fourth Year of Drought	CCWD <sup>1</sup>	2,464	2,464	2,464	3,103
	DWD Groundwater <sup>2</sup>	1,460	2,008	2,555	2,555
	<b>Total Supply</b>	<b>3,924</b>	<b>4,472</b>	<b>5,019</b>	<b>5,658</b>
	<b>Total Demand</b>	<b>2,580</b>	<b>3,260</b>	<b>3,920</b>	<b>4,580</b>
	Surplus/(Deficit) <sup>3</sup>	1,344	1,212	1,099	1,078
	Surplus/(Deficit) as % of Supply	34%	27%	22%	19%
	Surplus/(Deficit) as % of Demand	52%	37%	28%	24%
Fifth Year of Drought	CCWD <sup>1</sup>	2,327	2,327	2,327	3,103
	DWD Groundwater <sup>2</sup>	1,460	2,008	2,555	2,555
	<b>Total Supply</b>	<b>3,787</b>	<b>4,335</b>	<b>4,882</b>	<b>5,658</b>
	<b>Total Demand</b>	<b>2,580</b>	<b>3,260</b>	<b>3,920</b>	<b>4,580</b>
	Surplus/(Deficit) <sup>3</sup>	1,207	1,075	962	1,078
	Surplus/(Deficit) as % of Supply	32%	25%	20%	19%
	Surplus/(Deficit) as % of Demand	47%	33%	25%	24%

<sup>1</sup> Based on supply available from CCWD shown in UWMP Table 4-1, applying reliability factors shown in UWMP Table 5-1.

<sup>2</sup> Based on supply available from groundwater shown in UWMP Table 5-2. Hardness water quality targets that limit groundwater use during normal conditions may be suspended by the DWD Board if DWD declares a drought. Groundwater volumes presented here also assume installation of wellhead treatment at the Stonecreek Well to allow for full well production.

<sup>3</sup> Total supply minus total demand.

## 2.2 Drought Risk Assessment

This section summarizes the development of a drought risk assessment in compliance with CWC §10635(b), which includes a summary of the anticipated DWD water demands and supplies over the five-year period of 2021 to 2025 in Table 2-4.

**Table 2-4 5-year Drought Risk Assessment Summary**

Supply / Demand (MG)	2021	2022	2023	2024	2025
CCWD <sup>1</sup>	2,464	2,464	2,341	2,218	2,095
DWD Groundwater <sup>2</sup>	650	650	1,460	1,460	1,460
<b>Total Supply</b>	<b>3,114</b>	<b>3,114</b>	<b>3,801</b>	<b>3,678</b>	<b>3,555</b>
<b>Total Demand</b>	<b>2,200</b>	<b>2,295</b>	<b>2,390</b>	<b>2,485</b>	<b>2,580</b>
Surplus/(Deficit) <sup>3</sup>	914	819	1,411	1,193	975
Surplus/(Deficit) as % of Supply	29%	26%	37%	32%	27%
Surplus/(Deficit) as % of Demand	42%	36%	59%	48%	38%

<sup>1</sup>Based on supply available from CCWD shown in UWMP Table 4-1, applying reliability factors shown in UWMP Table 5-1.

<sup>2</sup>Assumes increased groundwater production in Years 1 and 2 with hardness limit still in place. In Years 3 through 5, wellhead treatment will have been installed, and in a declared drought, the Board may suspend the hardness water quality target that limits groundwater use.

<sup>3</sup>Total supply minus total demand.

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## Section 3

# Annual Water Demand and Supply Assessment

The new CWC §10632(a)(2) requires that urban water suppliers conduct an annual water supply and demand assessment (Annual Assessment) starting in 2022. This chapter describes the procedures used to: (1) conduct the Annual Assessment; and (2) prepare and submit an Annual Assessment Report to the State. In addition, this chapter outlines key inputs to conduct the Annual Assessment, the decision-making process for determining water supply reliability, and the ability/flexibility for DWD to use shortage response actions not included in the WSCP, as applicable.

When a regional water supply shortage is declared by CCWD, they will assign allocation to their raw water customers including DWD. DWD will then evaluate CCWD's allocation, along with other water supply options, to determine whether to declare any foreseen water shortage level based on the results of the Annual Assessment, which will then be included in the Annual Assessment Report submitted to the state. The evaluation is conducted by DWD to determine if a shortage declaration is needed and at what level. The Annual Assessment Report will document any anticipated shortage, any triggered shortage response actions, associated compliance and enforcement actions, and communication actions. More information on shortage response actions is included in Section 5, Shortage Response Actions. Reasonable alternative actions can be used to address identified water shortages, if descriptions of alternative actions are submitted with the Annual Assessment Report.

This WSCP identifies key inputs and methodology needed to evaluate DWD's annual assessment of water demand and supplies to help determine water shortage levels.

### 3.1 Key Input: Anticipated Water Demand

The Annual Assessment will use DWD's latest demand forecast (adjusted by previous year active consumption) which considers unconstrained demand, weather, population growth, and other influencing factors for the current and following years. Estimates of passive and active water conservation programs that DWD provides will also be noted and considered in assessment of water demand.

### 3.2 Key Input: Assessment of Water Supplies

Under a non-emergency condition, DWD performs an annual evaluation of all its water supply sources. DWD will evaluate the current year available supply and one dry year available supply in its Annual Assessment. The available water supply evaluation will consider hydrological and regulatory conditions. The methodology for determining the available supply from each water source is as follows:

- Local Sources:
  - *Groundwater*. Determine last year's groundwater production and any potential reduction in production for coming year
- Imported Sources:
  - *Purchased Imported Water from CCWD*. Assess imported water supplies from CCWD based on recent hydrologic conditions and forecasted assessment under a dry year

DWD relies primarily on CCWD to evaluate regional supply and demand and to evaluate water shortage levels. CCWD's water supply reliability goal is to meet 100 percent of demand in normal years and at least 85 percent of demand during a drought condition in which persistent dry weather conditions leads to water-related problems such as water supply shortages. CCWD implements a water reduction stage if a water supply shortfall is forecasted for the upcoming year. CCWD's estimate of the supply shortfall is only a rough estimate, even as late in the water year as March.

CCWD's water supply contract with the U.S. Bureau of Reclamation (Reclamation) includes criteria to determine CCWD's annual water allotment based on CCWD's historical use. Reclamation's Central Valley Project (CVP) Municipal and Industrial Water Shortage Policy defines historical use as the average quantity of CVP water put to beneficial use within the service area during the last three years of water deliveries, unconstrained by the availability of CVP water. Reclamation allows for adjustments to the calculation of historical use based on growth, certain conservation measures, or the use of non-CVP water supplies to meet demands. The level of supply shortfall from the CVP is expressed as a percent of the normally occurring demand that would need to be reduced to meet the available supplies. CCWD's available supplies other than CVP water include transfers from East Contra Costa Irrigation District and other dry-year purchases. This percent reduction is matched to the total reduction goals shown below to select the appropriate stage.

- Stage I: Supply reduction up to 10%
- Stage II: Supply reduction 10-20%
- Stage III: Supply reduction 20-40%
- Stage IV: Supply reduction 40-50%

CCWD acknowledges that retail agencies, including DWD, will independently adopt retail-level actions to manage potential water supply shortages. However, the DWD's WSCP uses the CCWD's WSCP as a key input with added detail for DWD-owned supplies and facilities. DWD's WSCP does not include a reassessment of regional emergency supply but it does assess the resulting shortage to the DWD, specifically, from a declared regional shortage by CCWD.

### 3.3 Key Input: Existing Water Supply Infrastructure

DWD is required to describe the methodology for identifying existing water supply infrastructure capabilities and potential constraints. DWD's existing water supply infrastructure is continuously assessed by Operations staff. Existing water supply infrastructure includes District-owned infrastructure, the Randall-Bold Water Treatment Plant (WTP) jointly owned with CCWD, and CCWD-owned imported water infrastructure. District-owned infrastructure includes groundwater wells, the Blending Facility, storage tanks, distribution system pipelines, chemical feed facilities, and pump stations. CCWD-owned infrastructure includes regional raw water conveyance pipelines and canals.

DWD will evaluate existing facility capacities and any constraints for the current year and for one dry year. District-owned infrastructure constraints can include planned shut-downs due to maintenance, construction impacts, water quality impacts, and unplanned outages due to earthquakes or other emergency conditions. Once constraints have been identified, DWD will determine whether the total quantified water supply should be adjusted to account for these constraints. DWD will also coordinate with CCWD to evaluate regional infrastructure constraints to determine how they would impact available DWD water supplies.

### 3.4 Decision-Making Process

This section describes the decision-making process that DWD will use each year to determine, and subsequently report to the State, its water supply reliability. The decision will also result in DWD, if conditions warrant, declaring a water shortage level and corresponding phases of actions. Steps in the decision-making process are listed below.

1. CCWD announces member agency allocation determination for current year.
2. CCWD determines carryover (and emergency storage apportionments if under emergency).
3. DWD determines DWD groundwater supply available.
4. DWD determines total supply available – inclusive of imported water supply.
5. DWD determines any infrastructure constraints (including water quality conditions limiting local sources).
6. DWD determines expected demand.
7. DWD compares supply and demand and makes a determination of the water supply reliability for the current year and one dry year.
8. DWD prepares and submits Annual Assessment Report to the State. DWD will coordinate with CCWD on submittal of the report by July 1.

## 3.5 Reasonable Alternative Actions

As stated in the regulations, an urban water supplier shall follow, where feasible and appropriate, the prescribed procedures and implement determined shortage response actions in this WSCP, as identified in the CWC subdivision (a) of §10632, or reasonable alternative actions, if descriptions of the alternative actions are submitted with the Annual Assessment Report pursuant to CWC §10632.1. Should DWD like to include reasonable alternative actions, the Annual Assessment Report will describe identified reasonable alternative actions (shortage response actions in addition to what was identified in Section 5, Shortage Response Actions).



## Section 4

# Penalties, Charges, and Other Enforcement of Prohibitions

California law prohibits waste and unreasonable use of water, even when no shortage response actions are in effect. Regulation No. 8, Water-Use Efficiency, requires DWD customers to take all reasonable action to prevent wasting water. The Regulation prohibits all water waste and defines violations and recommended conservation measures.

If DWD finds that any of the prohibited uses of water are not being complied with, it shall notify the customer at whose premises the breach occurs. If the customer fails to take prompt and reasonable action to halt the breach after written notice, DWD may, at the discretion of the General Manager or designee, fine the customer \$25 after a second notification; \$50 after a third notification; \$100 and install a flow restrictor after a fourth notification; and potentially termination of service if the unreasonable use or waste continues.

Terminating a customer's water service is not taken lightly and would occur only when other enforcement measures have not been effective. DWD would consider extenuating circumstances as part of a decision regarding appropriate remedies.

Written applications for exceptions to or waivers of any provision of these penalties shall be received and may be granted in any case where the restriction might create a hazard to the health and safety of any individual or the public, or would cause an undue and unavoidable hardship, including but not limited to adverse economic impacts such as loss of production or jobs. Denial of an application may be appealed in writing to the Appeals Committee appointed by the Board.

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## Section 5

# Shortage Response Actions

Per CWC §10632 (a)(4), DWD has developed a list of possible supply shortage mitigation tools. The four types of locally appropriate “shortage response actions” as defined by regulations are:

- Supply augmentation
- Demand reduction actions,
- Operational changes, and
- Mandatory water use prohibitions (in addition to state-mandated prohibitions).

Shortage response actions included in this WSCP are a mix of prohibitions on end uses, consumption reduction methods, supply augmentation, and operational change measures.

The California Department of Water Resources defines prohibitions on end uses as measures to address areas that are the responsibility of end users, such as a broken sprinkler or leaking faucet. Consumption reduction methods are actions invoked by a water agency to reduce consumption, such as expanding public information campaigns and offering water use surveys. Supply augmentation is defined as any action designed to increase the existing supply availability such as the use of emergency storage or acquiring additional transfer water. Operational changes are defined as actions taken by a water agency to change the way in which existing supplies are used within its service area. Examples of operational change include eliminating hydrant flushing and street cleaning.

## 5.1 Permanent Water Waste Prohibitions

Permanent water waste prohibitions are always in effect in DWD's water service area. These prohibited uses, defined in DWD Regulation No. 8, Water-Use Efficiency, are intended to promote water conservation even during years of normal or above normal precipitation. All permanent water waste prohibitions target end uses and are included as shortage response actions under Water Shortage Level 1.

The following are the restrictions under Regulation No. 8:

- Periodically examine all plumbing systems to detect any leaks and repair leaks immediately upon detection.
- Prevent water from running off premises into street gutters.
- Install flow restrictors or replace all showerheads to limit flow to not more than 1.8 gallons per minute (gpm).
- Replace toilets that use more than 1.6 gallons per flush (gpf) with those that use 1.28 gpf or less.

- Install aerators or laminar flow devices on residential kitchen faucets to reduce maximum flow to 1.8 gpm, non-residential kitchen faucets to 1.5 gpm, residential bathroom faucets to 1.2 gpm, and non-residential bathroom faucets to 0.4 gpm.
- Minimize the amount of turf used in landscape areas and use drought-tolerant (low water-using) plants.

## 5.2 Shortage Response Actions

In addition to permanent water waste prohibitions, which are always in effect, there are different types of response actions that can be implemented by DWD in the event of a supply shortage. These response measures represent a “toolbox” with a range of actions that can be used in combination, depending on the severity and duration of the shortage.

DWD employs numerous shortage response actions to mitigate water shortages during drought conditions or catastrophic events. Some of these response actions are detailed in Regulation No. 9, Drought Emergency Regulation, while others go beyond the regulations. As specific drought response levels are implemented, DWD will closely monitor projected available supply and demand per the Annual Assessment. Depending on these projections, the shortage response actions would either be implemented or expanded to appropriately respond to shortages.

The combination of shortage response actions associated with each water shortage level considered the estimate of the extent to which the supply gap was reduced. The first two water shortage levels focus on unobtrusive actions to delay reductions to rate-payer quality of life. Shortage response actions from previous levels are assumed to remain in effect as the water shortage level increases. The mix of shortage response actions in any given level is designed to produce an additional 10 percent of demand reductions above the previous level’s reduction.

The following subsections list the combinations of shortage response actions associated with each of the six WSCP Water Shortage Levels. The categories of “high,” “medium,” or “low” are assigned to each shortage response action based on the estimated extent to which it can reduce the supply gap.

### 5.2.1 Water Shortage Level 1: Minor Shortage

Water Shortage Level 1 constitutes a consumer supply shortfall and demand reduction of up to 10 percent. Shortage response actions listed under this level include the expanded enforcement of permanent water waste prohibitions listed in Section 5.1 and provided in the DWD’s DWD Regulation No. 8, Water-Use Efficiency.

- Medium: Expanded enforcement of permanent water waste prohibitions

### 5.2.2 Water Shortage Level 2: Moderate Shortage

DWD implements a Water Shortage Level 2: Moderate shortage when there is reasonable probability of a supply shortage and when demand needs to be reduced by up to 20 percent to ensure there will be sufficient supplies to meet demands. To reduce consumption during a Moderate Shortage and all higher levels of conditions, DWD will increase its public education and outreach efforts to build awareness of voluntary water conservation practices and all permanent

water waste prohibitions. The shortage response actions under a Moderate Shortage appear below.

- Low: Eliminate unnecessary uses of water
- Low: Take immediate action to prevent any water from being wasted
- Medium: Limit outdoor watering to three days per week
- Medium: Limit the service of daily laundered towels and linens at hotels and motels unless upon request of the guest. A notice of this provision shall be prominently displayed in each bathroom.
- Medium: Prohibit the application of water to any hard surface; including but not limited to driveways, sidewalks, and asphalt.
- Medium: Prohibit serving drinking water to customers unless upon request in eating or drinking establishments, including but not limited to restaurants, hotels, cafes, cafeterias, bars, or other public places where food or drink are served and/or purchased
- Medium: Require the use of a hose to wash an automobile, boat, or trailer, except where the hose is fitted with a shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use.

### 5.2.3 Water Shortage Level 3: Significant Shortage

A Water Shortage Level 3: Significant Shortage is implemented when demand must be reduced up to 30 percent to match the projected supply shortfall. During a Significant Shortage, a new set of mandatory water conservation practices takes effect, in addition to all permanent water waste prohibitions, Level 1, and Level 2 conservation practices. A list of the Water Shortage Level 3 shortage response actions appears below.

- Low: Prohibit watering outdoor landscapes during and up to 48 hours after measurable precipitation
- Low: Prohibit washing cars at home.
- Medium: Reduce indoor water use to 55 gallons per capita per day (gpcd)
- Medium: Reduce outdoor irrigation percent to 50% of evapotranspiration
- Medium: Prohibit irrigating ornamental turf on public street medians with potable water.
- Medium: Prohibit the use of potable water for flooding new building pads prior to pouring concrete building slabs or other construction related activities that can be satisfied using non-potable water.
- Medium: Prohibit the filling, or draining and re-filling of swimming pools, unless required by Contra Costa County Health Services for commercial and community swimming pools for public health and safety reasons.

### 5.2.4 Water Shortage Level 4: Severe Shortage

Water Shortage Level 4: Severe Shortage is implemented when demand must be reduced up to 40 percent to match the projected supply shortfall. During a Severe Shortage, a new set of mandatory water conservation practices takes effect, in addition to all permanent water waste prohibitions and additional restriction practices that became mandatory under Water Shortage Level 1, Level 2, and Level 3. The list of shortage response action options available for Water Shortage Level 4 appears below.

- Low: Prohibit the use of potable water in a fountain or decorative water feature, unless the water is part of a recirculating system.
- Medium: Prohibit the use of potable water to irrigate the landscapes outside newly constructed homes or buildings.
- Medium: Reduce indoor water use to 50 gpcd.
- Medium: Prohibit watering of turf (except for parks and schools).

### 5.2.5 Water Shortage Level 5: Critical Shortage

Water Shortage Level 5: Critical Shortage is implemented when a water shortage emergency requires that demand be reduced up to 50 percent to ensure sufficient supplies. During a Critical Shortage a new set of mandatory conservation measures takes effect, in addition to all permanent water waste prohibitions are summarized below. Mandatory conservation practices imposed under Water Shortage Levels 1 through 4 remain in effect.

- Low: Require ice-pigging of new water mains, or alternate method approved by DWD, in lieu of traditional flushing methods for cleaning new water mains
- Medium: Reduce indoor water use to 45 gpcd.
- Medium: Require those installing new water mains to capture flushing water in holding tanks or other similar facility for non-potable reuse.

### 5.2.6 Water Shortage Level 6: Extreme Shortage

Water Shortage Level 6: Extreme Shortage is implemented when a water shortage emergency requires that demand be reduced greater than 50 percent to ensure sufficient supplies. During an Extreme Shortage, a new set of mandatory conservation measures takes effect, in addition to all permanent water waste prohibitions. Mandatory conservation practices that were imposed Levels 1 through 5 remain in effect. A list of available shortage response actions under Water Shortage Level 6 are summarized below.

- Low: Prohibit the planting of new lawns
- Low: Prohibit the use of water from the District's fire hydrants for other than fire protection purposes.
- Medium: Prohibit excessive water use in any one day.

- Medium: No outdoor irrigation allowed.
- Medium: Reduce indoor water use to 40 gpcd.
- High: Require the installation of water saving low flow devices in existing structures.

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## Section 6

# Determining Water Shortage Reductions

### 6.1 Monitoring and Reporting

DWD monitors how effective the combination of shortage response actions in each water shortage level is with meters. DWD meters both water supplies entering the distribution system and water consumed by individual customers. DWD can compare this meter data with water use in prior months and during non-drought years to determine if it is achieving specific percentage goals for water consumption associated with the drought response levels. If the goals are not being met, DWD can implement additional shortage response actions.

DWD is also required to report total monthly production to the State Water Resources Control Board in compliance with Governor Brown's Executive Order B-29-15 and more recently B-36-15.

### 6.2 Reevaluation and Improvement Procedures

Reevaluation and improvement procedures are used to ensure shortage risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented as needed. The WSCP will be re-evaluated at least every five years in coordination with the UWMP update or at the discretion of Board. An evaluation on the effectiveness of the water shortage response actions on demand levels will be conducted following the future implementation of the WSCP. The evaluation will compare the expected percent demand reduction against actual reductions, and shortage response actions in the WSCP will be revised appropriately. DWD will also assess the effectiveness of the communication plan so that it may be modified as appropriate in the future.

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## Section 7

# Revenue and Expenditure Impacts

When customers reduce their water consumption in response to prolonged water shortages or emergency situations, revenues for DWD's General Fund decline as a result. However, a portion of the Fund's expenditures are fixed regardless of how much water customers use. To remedy this imbalance of revenues versus expenditures, DWD may have to increase rates and/or reduce or defer capital improvements. This is necessary to meet contractual requirements of bond holders related to outstanding debt, as DWD must maintain a minimum debt service coverage ratio. Maintaining targeted debt service ratios is critical to obtaining future funding for capital projects needed to improve water system reliability and mitigate against future droughts and emergencies.

### 7.1 Water Rate Structure

DWD adopted a two-tier conservation rate structure in June 2015. The bill is based on a monthly meter base fee (which varies based on meter size) plus a fee based on the amount of water used. These two tiers, most recently updated in May 2016, apply to all customer types (except for well water used for construction, irrigation, and lake fill), where 1 unit equals 100 cubic feet:

- 0 – 8 units are billed at \$3.40 per unit; and
- Each unit used over 8 units is billed at \$3.80 per unit.

### 7.2 Use of Financial Reserves

DWD currently has monies in a contingency reserve to balance the budget if revenues fall up to 50 percent below expected levels, such as during abnormally low water use years. For example, DWD used these reserves during the El Nino winter and spring of fiscal year 1997/98 when water use was at a 10-year low.

### 7.3 Potential Revenue Reductions & Expenses Associated with Activated Shortage Response Actions

Potential revenue reductions and expenses associated with activated shortage response actions are varied depending on shortage response action. As mentioned above, customer reductions in water use consumption will result in declining revenues during a shortage. Increased enforcement and auditing of existing water waste prohibitions could increase operational expenditures. In addition, increase outreach efforts may require more staff time and resources.

Table 7-1 summarizes hypothetical reductions in revenue due to 10, 20, 30, 40, and 50 percent cutbacks in water use based on 2020 water sales and costs. The Net Revenue Loss is the difference between the reduction in revenue from lower water sales minus the savings from not having to purchase, treat, and distribute as much surface water. The revenue impact analysis assumes that the water reduction condition is in effect for an entire year, which is conservative. Up to a 50 percent reduction in water sales will be covered by the District's reserves.

**Table 7-1 Revenue Impacts from Reduction in Demand**

Percent Reduction	Normal Operations	10%	20%	30%	40%	50%
Estimate Revenue	\$13,000,000	\$11,700,000	\$10,400,000	\$9,100,000	\$7,800,000	\$6,500,000
Estimated Expenditures	\$13,000,000	\$12,550,000	\$12,100,000	\$11,650,000	\$11,200,000	\$10,750,000
Net Revenue (Deficit)	--	(\$850,000)	(\$1,700,000)	(\$2,550,000)	(\$3,400,000)	(\$4,250,000)
Reserve Funds Available	\$4,500,000	\$4,500,000	\$4,500,000	\$4,500,000	\$4,500,000	\$4,500,000
Estimated Deficiency	--	--	--	--	--	--

## 7.4 Measures to Mitigate Revenue and Expenditure Impacts During Shortages

It is not anticipated that reductions this severe will occur, as discussed in Section 2.1. However, should they occur, DWD could take any of the following actions to offset the loss in revenue:

- Defer capital and maintenance expenditures;
- Utilize funds from other District emergency reserves;
- Temporary excess use charges (such as described in the emergency water shortage ordinance);
- Water shortage rates ; or
- Short-term borrowing.

It is important to note that the above discussion on revenue impacts is hypothetical. As discussed in Section 8, the likelihood of a catastrophic long-term significant reduction in DWD supply is very low. According to CCWD's January 2021 supply analysis, any supply deficiency that may occur over a five-year period can be met by a combination of short-term water purchases by CCWD and a voluntary short-term conservation program of up to 15 percent demand reduction. In addition, DWD has a groundwater supply system in place that provides additional reliability. It is anticipated that there will be ample supply to meet DWD's demands for the next five years.

A catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster are expected to be short term. DWD has never had a measurable loss of revenue from such an event. It is difficult to determine the revenue impacts from a hypothetical catastrophic event. DWD maintains sufficient reserves to make necessary repairs as well as to make up for a portion of lost revenue.

DWD's penalty revenues would be increased because of penalties that may be imposed by DWD during a time of water shortage. The extent of the revenue increase would be based on the amount of water a customer used more than their allocation and the charge for such excess as may be established by the Board. In the case of extreme excessive use by a customer, DWD's revenues would not be enhanced since this usage pattern would most likely result in installation of a flow restrictor or disconnection of service. Additional revenues from penalties would be used to supplement reserve funds and other methods.

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## Section 8

# Catastrophic Supply Interruption Planning

A catastrophic supply interruption occurs when a disaster suddenly disrupts all or a large portion of the water available to meet the region's needs. The UWMP Act requires agencies to identify actions they will take if there is a catastrophic supply interruption, specifically including interruptions from a power outage, earthquake, or other non-drought related emergency. DWD has developed plans for catastrophic supply interruptions that include a regional power outage, earthquake, or other disaster.

Catastrophic supply interruption events are considered when determining DWD's overall water supply shortage as defined by the water shortage levels identified in Section 5. DWD does not designate a specific catastrophic supply interruption water shortage level with its own shortage response actions. Rather, the resulting shortage of a catastrophic supply interruption would contribute to DWD's total projected shortage in any given year. Shortage response actions associated with the determined water shortage level will help guide DWD's response to catastrophic supply interruptions.

## 8.1 Emergency Planning

In the event of an interruption of water supply beyond the control of DWD's staff or a local emergency declared by an adjoining city or a state of emergency declared by the Governor or his staff, DWD's Emergency Plan is put into effect. Attachment C contains a copy of the existing Emergency Plan (currently being updated by the District). This Plan addresses provisions for handling emergencies, including emergency notification procedures, operational criteria for priority uses such as firefighting, emergency operational procedures, emergency public information procedures, and related relevant procedures. The Emergency Plan is updated periodically.

DWD's Emergency Plan addresses two levels of operational emergency planning:

1. Short-Term Water Supply Outage – Duration of 72 hours or less during which water supply may fall short of desired quantity and/or pressure, such that DWD's usable storage could be reduced to 33 percent capacity before the end of approximately 72 hours. In such an event, DWD would implement the following measures:
  - In the event of a raw water outage from the Contra Costa Canal intake, request CCWD to backflow water from Contra Loma Reservoir or provide supply from Los Vaqueros Reservoir.
  - Conserve treated water by reducing and maintaining minimum pressure in system. This may require valving off Reservoir 2 outflow to reduce loss of storage.
  - Should the outage be due to broken water mains, valve off affected areas.

- Operate DWD's wells and request the Randall-Bold WTP to increase production, if needed, to maintain maximum reservoir levels.
  - Supplement with City of Antioch supply, if interconnections are available for use.
2. Long-Term Water Supply Outage - Unknown length of time when water supply may fall short of desired quantity and or pressure, such that DWD's storage could be reduced to less than 25 percent. In such an event, DWD would implement the following measures:
- Take all the steps described above for the short-term outage.
  - Maintain a minimum of 1 MG storage for fire protection if possible.
  - Contact Contra Costa County Office of Emergency Services and notify them of the water supply outage.
  - Ban use of water for all non-health and human safety uses. This may require going house to house and notifying customers.
  - Board of Directors to adopt regulations on emergency water use as discussed below.
  - Send out news bulletins periodically to keep the public updated on the problem.

A catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster are expected to be short term. DWD has never had a catastrophic event that has prevented it from being able to supply water to its customers. Catastrophic events that have occurred in the past include the Loma Prieta earthquake of 1989, the freeze of 1990, and occasional power outages that have lasted up to nine hours. DWD was unaffected by the Loma Prieta earthquake. Although water was observed to be sloshing back and forth in DWD's reservoirs, no structural failures or loss of water occurred.

During the freeze of 1990, DWD was inundated with customer calls about not having water service due to frozen pipes. DWD staff responded to the needs of the customers and continued repairs until all services were restored.

When power outages occur, DWD relies on its elevated storage to provide service to its customers. DWD also has backup gas and propane driven pumps which can be brought into service in the event of a power failure. With current standby generators, the Randall-Bold WTP does have the capability to produce water during a power failure and is able to pump water from its 5 MG underground storage reservoir at a rate of 4.2 million gallons per day with one pump running on a stand-by generator.

If DWD's surface water supply is disrupted, DWD's groundwater supply will be available for emergency firefighting or to maintain service. In addition, DWD has three emergency interties with the City of Antioch's treated water system, which could provide 1,000 gpm each.



## 8.2 Seismic Risks

DWD lies in a seismically active zone between the Pacific and North American tectonic plates. Earthquakes in the San Francisco Bay area (including DWD service area) are typically from strain energy accumulating in the region from movement of the Pacific and North American tectonic plates. Additionally, there are several local faults near the DWD service area with potential for ground shaking, especially Hayward, Calaveras North, Concord-Green Valley, Mount Diablo, and Greenville faults. The impacts of a seismic disruption are amplified due to the entire system being in an area with soils that have medium to high liquefaction potential. In a major earthquake event, the underlying soils supporting the DWD's above ground facilities and buried pipelines could shift both horizontally and vertically, causing failures at locations that experience stresses that exceed their strength. That can result in upheaval or settlement of structures, cracks or fractures in rigid support systems, separation at pipe joints, deflection at pipe joints, failures of anchors and attachments, etc.

DWD's design standards provide appurtenances and material selection that allows for some settlement potential. If properly designed for movement, the structures and pipelines can absorb the induced stresses without damage. However, in liquefying soils (where the groundwater table is high and the soil is saturated), the stresses are greatly magnified as the soil temporarily loses supporting consolidated strength effectively transforming to a liquid-like state.

DWD's pipeline designs follows the draft 2005 Seismic Guidelines for Water Pipelines drafted by the American Lifelines Alliance in a public-private partnership with the Federal Emergency Management Agency and American Society of Civil Engineers. It was not updated due to lack of funding, but it still represents a cost-effective approach to designing pipelines in highly susceptible areas for seismic and liquefaction events. Since the draft was published, new pipeline products are now offered that are designed the pipe joints to allow for significant movement in multiple locations.

In addition to seismic events, other catastrophic events that could impact DWD's buried assets include sea level rise and levee failures. The National Oceanic and Atmospheric Administration modeling projects a 1.4-meter (m) sea level rise above 1990 levels by 2100 with intermediate greenhouse gas emissions. A 100-year rainstorm event combined with a 1.4 m sea level rise scenario present the greatest risk to levees in the Delta. Under these conditions most of the Delta islands would experience levee failure and inundation, causing major property damage and water quality issues throughout the Delta.

Pipes located in saturated soil due to sea water inundation are at a higher risk of corrosion than pipes in dry soil. Any portion of pipeline in a transition zone where the surrounding condition differs from other portions along the pipeline have high corrosion potential to metallic pipe. Since this is a slowly emerging threat, DWD's system is not currently equipped to address the threat. However, DWD can monitor for sea-level rise and consider protective measures during water system planning updates and work with other agencies and groups that are attempting to establish a long-term policy or approach to addressing the threat before the impacts are felt widely.

## 8.3 Hazard Mitigation Planning

Local agencies in Contra Costa County completed a planning process to assess risks and vulnerabilities to impacts from natural hazards, developed a mitigation strategy, and created a plan for implementing, evaluating, and revising this strategy. In 2019, DWD adopted the District's jurisdictional annex of part 2, part 3, and the appendices of Volume II of the Contra Costa County Hazard Mitigation Plan (CCCHMP). The CCCHMP identified critical DWD assets and potential natural hazards, ranked those hazards, and provided an action plan to prioritize and address those hazards.

DWD will use the adopted and approved portion of the CCCHMP to guide pre and post disaster mitigation of the hazards identified and will coordinate the strategies identified in the CCCHMP with other planning programs and mechanisms under its jurisdictional authority.

## Section 9

### Legal Authorities

Under California law, including CWC Chapters 3.3 and 3.5 of Division 1, Parts 2.55 and 2.6 of Division 6, Division 13, and Article X, Section 2 of the California Constitution, DWD is authorized to implement the water shortage actions outlined in this WSCP. In all water shortage cases, shortage response actions to be implemented will be at the discretion of DWD and will be based on an assessment of the supply shortage, customer response, and need for demand reductions. When necessary, DWD shall declare a water shortage emergency, in accordance with CWC Chapter 3 (commencing with Section 350) of Division 1.

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. DWD will coordinate with the City of Oakley and Contra Costa County for possible proclamation of a local emergency, as necessary, under California Government Code, California Emergency Services Act (Article 2, Section 8558).

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## Section 10

# Communication Protocol

DWD's communication protocol includes the various channels DWD will utilize to convey critical messages regarding water shortage allocations and voluntary and mandatory actions. Public outreach programs can help increase awareness of water shortages, while customer services and workshops can encourage ratepayers to actively participate in demand reducing strategies. A strong communication plan will educate DWD ratepayers, including local leaders and the business community, on the water supply situation; what actions are proposed; what the intended achievements are; and how these actions are to be implemented. While specific types of messaging are deployed at various shortage response levels, how these messages are conveyed to the public are described per this communication protocol. The communication protocol will be in place prior to a water supply shortage and be initiated in Level 1 (Minor Shortage). Activation of the communication protocol will continue through all subsequent water shortage levels. At times, specific communities may require specialized outreach. DWD will ensure outreach efforts are reaching key audiences as needed.

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

- Specific actions needed to save water;
- How much water needs to be saved and for how long;
- Why water needs to be saved; and
- What DWD is doing to correct the supply problem or address the situation.

## 10.1 Coordination

To communicate effectively, avoid confusion, and maintain credibility, DWD will work in close coordination with the City of Oakley, Contra Costa County, and CCWD. During droughts 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 DWD and its ratepayers. DWD will seek opportunities to leverage external resources to complement its own outreach.

## 10.2 Communication Objectives

Communication objectives during the various water shortage levels of the WSCP include the following:

- Motivate water users to quickly increase conservation in ways that are consistent with any voluntary or mandatory actions called for at the current level of the WSCP.
- Raise awareness and understanding of the drought, regulatory, or other condition affecting water supplies and the need for increased conservation.

- Minimize confusion and maintain credibility of water agencies and conservation messages with an appropriate tone that avoids a “cry wolf” perception and non-compliance backlash.
- Make water users feel appreciated for existing accomplishments in improving their water-use efficiency, and for supporting regional and local investments in water supply reliability.
- Educate regional civic and business leaders, elected officials and the public that DWD has greatly improved its water supply reliability.
- Prepare customers for any potential escalation (or de-escalation) of the WSCP based on trending supply conditions.
- Ensure all stakeholders believe they are being treated fairly in relationship to other stakeholders.
- Maintain communication effectiveness by soliciting or monitoring feedback from key stakeholders and the public to update or adapt messages or communication tools.
- Exit WSCP implementation having demonstrated the effectiveness and value of conservation actions and water supply reliability investments in minimizing impacts to the customers' economy and quality of life.

### 10.3 Communication Protocol for Current or Predicted Shortage and Triggered or Anticipated to Be Triggered Shortage Response Actions

A current or predicted shortage, as determined by the Annual Assessment, will be communicated to the public upon submittal of the Annual Assessment Report in June of any given year. The General Manager may, with the concurrence of the Board, order that the appropriate phase of water conservation be implemented. The order would be made by public proclamation and be published one time only in a daily newspaper of general circulation and would become effective immediately upon such publication. The prohibited water uses for each phase shall take effect with the first full billing period commencing on or after the effective date of the public proclamation by the General Manager.

### 10.4 Protocol and Strategies for Relevant Communications

To reduce water use consumption during any water shortage level, DWD will increase its public education and outreach efforts to build awareness of needed actions from the public. In addition, DWD's outreach campaign will be regularly revised to reflect current conditions. Key communication strategies and associated water shortage level implementation are listed below. Communication strategies build from previous levels are assumed to be built upon as the Shortage Level increases.

- Announce status change to key stakeholders and the public (all Water Shortage Levels).
- Provide regular update to stakeholders and the media on conditions (all Water Shortage Levels).

- Conduct issue briefings with City of Oakley elected officials and other key civic and business leaders (Water Shortage Level 2)
- Promote available water assistance resources for vulnerable populations; specialized outreach for affected industries (Water Shortage Levels 3 and 4).
- Conduct specialized outreach to reduce discretionary outdoor use while minimizing landscape damage (Water Shortage Levels 3 and 4).
- Suspend promotion of long-term water use efficiency programs/tools to focus on imminent needs (Water Shortages Levels 5 and 6).

DWD has various means of implementing its communication strategies. DWD may update its website, monthly e-newsletters, and social media platforms to reflect conditions and convey key messaging. DWD may also coordinate with the City of Oakley and hold news conferences or other events to announce or explain changes in conditions.

In the event of a catastrophic supply interruption that requires water use to be quickly prioritized for or limited to essential public health and safety needs, DWD will immediately deploy appropriate strategies from Water Shortage Levels 1 through 6. In addition, outreach messaging will reflect emergency conditions and the need to focus on health and public safety. DWD may also consider potential joint news release/new events with City of Oakley officials and Contra Costa County public health officials or incident commanders to announce conditions and explain needed action. Finally, DWD will ensure ongoing coordination with emergency response services with daily advisories or alerts as needed.

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# Attachment A

## Regulation No. 8, Water-Use Efficiency

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# **DIABLO WATER DISTRICT**

## **REGULATION NO. 8**

### **WATER-USE EFFICIENCY**

#### **Section I. Purpose**

- A. The purpose of this regulation is to assure that all water furnished by the District is put to reasonable beneficial use, to prevent unreasonable use or waste of water, and to promote efficient use of water.

#### **Section II. Prevention of Waste or Unreasonable Use**

- A. Waste and unreasonable use is defined as the following activities:
1. Creating landscape irrigation runoff and overspray.
  2. Irrigating between the hours of 8am to 8pm.
  3. Irrigating within 48 hours of measurable rainfall (0.25” or more in a 24-hour period).
  4. Running water fountains and features that are non-recirculating.
  5. Using a hose without an automatic shut-off nozzle.
  6. Failing to fix a water leak on the customer side of the water meter.
- B. To ensure equitable treatment of all customers, the District will take a positive and proactive customer service approach to help customer resolve waste and unreasonable use actions.

C. The District shall have the right, following written notice, to impose upon any water service connection or landlord such conditions as the District determines to be necessary to prevent unreasonable use or waste of water. After each notification, the customer will be given 7 days to remedy the issue.

First written notification: Courtesy Letter - no penalty

Second written notification: Courtesy Letter - no penalty

Third written notification: \$25 penalty

Fourth written notification: \$50 penalty

Fifth written notification: \$100 penalty and installation of flow restrictor

Further actions: All users of water furnished by the District are required to take all reasonable actions to prevent the waste of water up to and including the termination of water service.

### **Section III. Indoor Water Efficiency Standards**

A. The State of California has established regulatory requirements that the District must achieve regarding indoor water-use efficiency. The following are regulated limits that the District must achieve across all customers.

- January 1, 2021: 55 gallons per capita per day
- January 1, 2025: 52.5 gallon per capita per day
- January 1, 2030: 50 gallons per capita per day

All existing users of water furnished by the District are required to take all reasonable action to upgrade fixtures to current water-use efficiency standards. All new connections shall have fixtures that meet the efficiency requirements of this section, in addition to being an EPA WaterSense labeled product. In the event that CalGreen increases the water efficiency requirements per fixture, the new increased efficiency standard will supersede those listed here.

1. Residential:

- (a) Showerhead: not to exceed 1.8 gpm.
- (b) Lavatory faucet: not to exceed 1.2 gpm.
- (c) Kitchen faucet: not to exceed 1.8 gpm.
- (d) Toilets: not to exceed 1.28 gallons per flush.
- (e) Clothes washer: energy star certified.
- (f) Dishwasher: energy star certified.

2. Non-Residential:

- (g) Showerhead: not to exceed 1.8 gpm.
- (h) Lavatory faucet: not to exceed 0.4 gpm.
- (i) Kitchen faucet: not to exceed 1.5 gpm.
- (j) Metering faucets: not to exceed 0.2 gallons per cycle.
- (k) Gravity toilets: not to exceed 1.2 gallons per flush.
- (l) Flushometer style toilets: not to exceed 1.28 gallons per flush.

(m) Clothes washer: energy star certified.

(n) Dishwasher: energy star certified.

**Section IV. Outdoor Water Efficiency Standards**

A. The State of California is creating regulatory requirements that the District must achieve regarding outdoor water-use efficiency. The following are outdoor water-use limits for potable water customers.

1. Existing Landscapes Water Budgets:

Calculation in gallons:

Evapotranspiration x Adjustment Factor x irrigated area x 0.62

(a) Adjustment Factor January 1, 2021: 70% of Evapotranspiration for irrigated areas.

(b) Adjustment Factor January 1, 2025: 65% of Evapotranspiration for irrigated areas.

(c) Adjustment Factor January 1, 2030: 60% of Evapotranspiration for irrigated areas.

2. New Landscapes:

(d) Plant selection, irrigation design, water budgets, inspections, etc. shall be in compliance with the most recent version of the State's Model Water Efficient Landscape Ordinance (MWELo).

(e) In addition to the MWELo and in support of eliminating non-functional turf, the District further

prohibits the installation of new turf in areas less than 10ft in width or length.

- (f) District will coordinate with the Association of California Water Agencies, and other trade organizations, to work with the California State Legislature to implement a state-wide, non-functional turf prohibition.
- (g) Further, the District will also work with local land use authorities to implement a non-functional turf prohibition.
- (h) All eligible products must be EPA WaterSense labeled.
- (i) The District reserves the right to be the local agency responsible for the implementation of MWELO.

**Section V. Water-Use Efficiency Measures of the District**

- A. The District shall pursue at all times a customer focused program for the efficient use of water.
- B. All water use shall be metered.
- C. Perform annual water audits compliant with state regulations.
- D. Coordinate with local school districts in providing educational information and/or programs on efficient water use.

- E. Make available at the District's office, website, social media, public library and other public places, educational materials regarding water-use efficiency and related benefits.

**Section VI. Water Rates**

- A. To encourage water-use efficiency and further discourage the waste and unreasonable use of water, the District shall utilize a cost-based, Prop 218 compliant water rate structure.



Attachment B

Regulation No. 9, Drought Emergency Regulation

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