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## Water Shortage Contingency Plan

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## WATER SHORTAGE CONTINGENCY PLAN

**Law: 10632.** *The plan shall provide an urban water shortage contingency analysis that includes each of the following elements that are within the authority of the urban water supplier: (a) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50-percent reduction in water supply, and an outline of specific water supply condition which are applicable to each stage.*

### Stages and Conditions

In 2004, the District filed its Emergency Response Plan, as required by law, with the United States Environmental Protection Agency in preparation of a catastrophic water supply interruption. In the event that an emergency, which may endanger any of the District's facilities, and/or could result in danger to persons or property, District staff is authorized by the Board to take the necessary steps to protect the facilities and to maintain as safe a water supply to as many customers as possible.

Should a major emergency beyond the corrective capacities of District personnel occur, and which could result in long-term disruption of service, or require the implementation of outside agency assistance, the District's Emergency Operations Organization Plan (EOO) would be activated under direct supervision of the General Manager.

Table 14.  
Preparation Actions for a Catastrophe

Specific Action	Completed	To be Addressed
Determine what constitutes a water shortage	●	
Re-evaluate & expand Disaster Preparedness Plan policy	●	
Develop alternative water supplies	●	
Obtain additional water supplies		●
Contact and coordinate with neighboring water agencies	●	
Identify required reference manuals for response team	●	
Designate an Emergency Team Coordinator	●	
Revise existing Disaster Preparedness Plan	●	
Develop procedure manual	●	
Train employees	●	
Identify methods to communicate with the public	●	
Identify methods to communicate with the media	●	
Identify methods to coordinate with other local agencies	●	

The District's EOO would provide primary control for any major emergency as well as initiate ties with appropriate agencies, such as SDCWA, the City, the County of San Diego, and the state of California. Specific tasks have been established and assigned for general duties, power and/or communications failure, emergency chlorination, failure of imported water deliveries, structural failure, contamination, and wide-spread disruption. Dependant on the severity of the emergency, the District could enforce any Stage Alert necessary for customer water conservation under Ordinance 101.2 (see [Appendix F](#)). The District revised its EOO in 2004 and resulting actions are addressed in [Table 14](#).

In the event of declared water shortages (i.e., drought), or when a shortage declaration appears likely, the General Manager and/or the Board would determine the necessary degree of conservation staging required by its customers. The District would continue to implement BMPs where appropriate. See [Table 15](#) for the staging parameters.

Table 15.  
 Water Supply Shortage Stages

Stage	Water Supply Condition	% of Shortage
1.	Normal water use	0%
2.	District may not be able to meet all of its water demands or when SDCWA requests Stage 2 (Voluntary)	6% - 12%
3.	District may not be able to meet all of its water demands or when SDCWA requests Stage 3 (Voluntary to Mandatory)	12% - 18%
4.	District not likely to meet all water demands or when SDCWA requests Stage 4 (Voluntary to Mandatory)	18% - 24%
5.	District is unable to meet all water demands or when SDCWA requests Stage 5 (Voluntary to Mandatory)	24% - 36%
6.	District is unable to meet all water demands or when SDCWA requests Stage 6 (Mandatory)	36% - 42%
7.	District is unable to meet all water demands or when SDCWA requests Stage 7 (Mandatory)	> 42%

The District is currently reviewing its conservation ordinance including the percentage of shortages listed in the chart above. It is important to note here however that any District-enforced conservation staging is exclusively focused on localized supply shortages. Since the District depends on SDCWA for 100% of its potable water supplies, shortages on a regional basis would most likely be issued as a *Request for Compliance* from SDCWA.

In addition to Ordinance 101.2, the District participated, through a Technical Advisory Committee, in the development of SDCWA's Drought Management Plan (DMP). The DMP will provide SDCWA and its member agencies with a series of actions to take when faced

with a shortage of imported water supplies. The potential actions will help the region minimize the impacts of shortages and ensure equitable allocation of supplies. The DMP includes a drought response matrix containing actions to be taken by SDCWA at different drought stages, an allocation methodology, and a communication strategy. Once the DMP is adopted by SDCWA, the District's Board will re-examine it's ordinance in light of this DMP and make changes as necessary.

Recycled water is not subject to rationing.

### Minimum Supply Requirements for the Next Three Years

**Law:** **10632.** *The plan shall provide an urban water shortage contingency analysis that includes each of the following elements that are within the authority of the urban water supplier: (b) An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.*

Through its standing as a member agency of SDCWA, the District works with the SDCWA to insure adequate supplies to meet the needs of its customers. The District provides 25-year water demand projections to SDCWA and SDCWA maintains adequate supplies to meet those needs in normal, and single and multiple dry years.

### Catastrophic Supply Interruption Plan

**Law:** **10632.** *The plan shall provide an urban water shortage contingency analysis that includes each of the following elements that are within the authority of the urban water supplier: (c) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to a regional power outage, an earthquake, or other disaster.*

It is critical that the District set in place sources of water supplies in the event of an emergency due to earthquakes, power outages, vandalism, and terrorism. To offset potential water shortages due to these events, the District has considered the following:

**Water Exchanges** - The District currently has agreements with three neighboring water agencies for water exchanges in the event of an emergency. These exchanges would be temporary and are not considered a component of increased future supplies.

**Rationing and Reduction Goals** - As discussed earlier in this Plan, the District has adopted a seven stage rationing plan. Stage 1 is observed during normal

conditions while Stage 7 would be implemented in the worst case scenario. The rationing plan includes both voluntary and mandatory factors, both of which would depend significantly on the severity and the anticipated duration of the water supply shortage.

**Disaster Drills** - In an effort to reduce the impacts of disaster, the District regularly conducts drills on various singular/multiple disaster scenarios. Activities are monitored/reviewed, the EOO is updated, and staff is further advised, as required.

### Prohibitions, Penalties, and Consumption Reduction

**Law:** **10632.** *The plan shall provide an urban water shortage contingency analysis that includes each of the following elements that are within the authority of the urban water supplier: (d) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning. (e) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to 50-percent reduction in water supply. (f) Penalties or charges for excessive use, where applicable.*

Action	Mandatory Stage	Estimated Reduction of overall demand
No runoff of water from irrigation or drainage	Stage 1	0%
No neglecting leak repair	Stage 1	
No washing of paved areas	Stage 1	
No landscape irrigation between 8:00 AM to 5:00 PM	Stage 2	12% +
No non-essential agricultural water use	Stage 2	
No washing of vehicles without a bucket (no running water)	Stage 2	
No overfilling of pools, spas, fountains, ponds, and lakes	Stage 2	
No use of construction meters	Stage 2	
No water-truck filling	Stage 2	
No automatic serving of water in restaurants	Stage 2	
No new meter applications	Stage 4	12% +
Drought notice posted at restaurants and hotel/motels	Stage 5	6% +
No landscape irrigation sprinkler use with potable water	Stage 6	12% +
No topping off uncovered pools or spas	Stage 6	
No water for ponds, lakes, or other water bodies	Stage 6	
No irrigation of lawns	Stage 7	6% +

District ordinance does not allow the use of construction meters during times of water shortages. These water users are isolated from the system during a water shortage and new requests for construction meters are denied. Other water users are not prioritized for rationing. Instead, specific activities such as the elimination of car washing, runoff from irrigation systems, etc., are prioritized within the rationing stages. See **Tables 16**, and **17** for details on *Mandatory Prohibition & Estimated Reduction* and *Penalties & Charges*, respectively.

Table 17.  
Penalties and Charges

Violation	Violation Amount	Actions
First	None	Written notification
Second	\$200.00	None
Third	\$600.00	Flow restriction device added to customer's system
Fourth	\$1,000.00	Service termination and written notification

Penalties for non-compliance are based on the number of violations committed within the period of one year. Customers may also be subject to reimburse charges for actions resulting in additional staff time (such as the installation of a flow restriction device).

### Analysis of Revenue Impacts of Reduced Sales During Shortages

**Law:** **10632.** *The plan shall provide an urban water shortage contingency analysis that includes each of the following elements that are within the authority of the urban water*

*supplier: (g) An analysis of the impacts of each of the actions and conditions described in subdivision (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome impacts, such as the development of reserves and rate adjustment.*

Table 18.  
Impacts of Water Shortage  
on Revenue & Expenses

Impact	Effect of Impact	
	Disaster	Drought
Reduced sales	Minor to Significant	Significant
Increase in staffing cost	Minor to Significant	Moderate to Significant
Increase in operations and maintenance costs	Significant	Moderate
Increase in cost of supply & treatment	Minor to Significant	Significant

The District is currently reviewing its conservation ordinance which includes an analysis of potential revenue and expense impacts caused by a shortage of water. **Table 18** shows the potential severity of impacts on revenues and expenses

created by a disaster (short-term) versus those created by a drought (long-term). The effects and focuses of short and long-term shortages vary and are specifically unique to the exact cause of a water shortage.

**Table 19** shows the potential options for counteracting the impacts caused by a water shortage. Again, the method(s) selected to offset any impact would be determined by the Board based on the severity and anticipated duration of the shortage.

Table 19. Measures to Lessen Impacts of Water Shortage		
Measure	Effect of Measure	
	Disaster	Drought
Increase rates, fees, charges	Minor to Significant	Significant
Change tiered-pricing trigger	Minor to Significant	Moderate to Significant
Use of reserves	Significant	Significant
Evaluate and prioritize capital projects	Significant	Moderate to Significant
Apply for loans/grants	Significant	Minor

### Draft Ordinance and Use Monitoring Procedure

**Law:** **10632.** *The plan shall provide an urban water shortage contingency analysis that includes each of the following elements that are within the authority of the urban water supplier: (h) A draft water shortage contingency resolution or ordinance. (i) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency plan.*

The District’s water shortage contingency plan is included in Ordinance 101.2 and is located in this Plan as **Appendix F**. Given that a water shortage, its impacts, and the agency requesting action are so varied, the District will implement a mechanism for determining exact/actual water reduction at the time it is needed. The mechanism may include the following: daily to weekly monitoring of water distribution, more frequent reading of meters, monitoring of water waste violations, etc.