# What are DROUGHT TRIGGERS?



FOR FIGURES

**WE GIVE SPECIAL** 

## **DROUGHT TRIGGERS** ARE THRESHOLD VALUES OF A DROUGHT INDICATOR OR INDEX THAT INITIATE OR TERMINATE RESPONSES TO DROUGHT CONDITIONS AS PART OF A DROUGHT MANAGEMENT PLAN

1. THEY ARE BASED ON DROUGHT INDICATORS

### **Popular Drought Triggers**

**Physically-Based Triggers:** Lake or Reservoir Elevation Depth to Groundwater Stream Stage or Streamflow

Index-Based Triggers: Surface Water Supply Index Palmer Drought Severity Index Percent of Normal Precipitation Standardized Precipitation Index

Triggers conserve water during drought and transition back to normal use at its end



## **DROUGHT INDICES** ARE COMPUTED NUMERICAL REPRESENTATIONS OF A DROUGHT'S INTENSITY AND ARE DROUGHT INDICATORS THEMSELVES

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What are DROUGHT TRIGGERS? (Continued)

#### 3. THEY PRIORITIZE AND RESTRICT WATER USE AS A CRITICAL PART OF A DROUGHT MANAGEMENT PLAN

A hypothetical drought management plan is shown below with actions initiated and terminated by drought triggers, which correspond with drought severity. The 'Trigger Levels' in this example could be tied to one or more drought triggers as decided by the governing authority of that area. Generally, triggered responses to drought go from voluntary to mandatory, less restrictive to more restrictive, and narrow to widespread impact on water users.

Drought Severity	Trigger Level	Restriction Level	Example Water Restrictions / Actions	Most Affected Water Users
No Drought	0	Standard Conservation	Normal Waste Eliminating Practices	None
Mild	1	Voluntary	Encouraging Car Washing or Lawn Irrigation on Specific Days of the Week; Communicating Water Saving Practices	Progressive and/or Drought Conscious Persons and Entities
Severe	2	Mandatory	Forbidding Residential Car Washing and Lawn Irrigation; Temporarily Hiked Water Cost Structure During Drought	Residential and/or Non-Essential Heavy Water Users
Extreme	3	Mandatory	Forbidding Recreational Water Use; Reducing Water Use to Permitted Withdrawals During Drought	Industrial, Commercial, and Some Essential Water Users
Exceptional	4	Mandatory	Forbidding All Non-Essential Water Uses; Imposing Major Penalties on Restriction Violators; Rationing Water Supply	All Water Users

#### 2. THE TWO MOST POPULAR EXAMPLES ARE LAKE / RESERVOIR LEVELS AND DEPTH TO GROUNDWATER



#### **DEPTH** TO GROUNDWATER

Likewise, groundwater levels measured here... correspond to similar trigger levels...



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