

CITY OF TUCSON WATER DEPARTMENT
DROUGHT PREPAREDNESS AND RESPONSE PLAN

| DROUGHT INDICATORS | DROUGHT RESPONSE STAGES and THEIR TRIGGERS | | | |
|---|---|---|---|---|
| REGIONAL INDICATORS | Stage 1: Declared by City Manager on advice of Water Director | Stage 2: Declared by City Manager on advice of Water Director | Stage 3: Declared by M&C based on recomm of City Manager (per advice of Water Director) | Stage 4: Declared by M&C based on recomm of City Manager (per advice of Water Director) |
| Colorado River - Shortages and Associated CAP Reductions Arizona Department of Water Resources Drought Stage above "Normal" | Either one or both of the following: Severe and sustained drought in the Colorado River watershed or ADMTC declares drought in Tucson's watershed. | Either one or both of the following: Secretary of Interior declares shortage on Colorado River with CAP deliveries to excess and Ag Users reduced or Local System Indicator Values* | Either one or both of the following: Continuing shortage on Colorado River with CAP deliveries to M&I users reduced; or Local System Indicator Values* | Either one or both of the following: Continued shortage on Colorado River with additional reductions in CAP deliveries to M&I users, or Local System Indicator Values* |
| LOCAL SYSTEM INDICATORS | | | | |
| Potable Production Capacity Index: a ratio of Production Capacity (how much water can be produced reliably over a 30 day period) divided by Average Demand (the peak 30 day average) | Local System Indicators are not a trigger in this stage but may be used for determination of required response actions. | One or more index numbers that are low or trending downward, in conjunction with ADMTC declared drought, could trigger elevation of a drought response stage. **Local system indicators may also be used to determine response actions. | One or more index numbers that are low or trending downward, in conjunction with ADMTC declared drought, could trigger elevation of a drought response stage. **Local system indicators may also be used to determine response actions. | One or more index numbers that are low or trending downward, in conjunction with ADMTC declared drought, could trigger elevation of a drought response stage. **Local system indicators may also be used to determine response actions. |
| Aquifer Storage Index: Groundwater levels in the aquifer as measured at selected wells and compared to groundwater levels in a particular (index) year. | | | | |
| Reclaimed Production Capacity Index: Can operational requirements be met? | | | | |
| Response Monitoring Tool: GPCD | Changes in GPCD will be used as a tool for monitoring customer reaction to response actions and may be used in conjunction with other Local System Indicators to determine needed response actions. | | | |
| Tucson Water Isolated Systems | ADMTC Declaration of Drought triggers Stage 1; Shortage on Colorado River has no impact | Local System Indicator values that are low or trending downward | Same triggers are monitored for elevation to Stage 3 | Same triggers are monitored for elevation to Stage 4 |
| Focus of Responses Actions: *See Drought Response Measures tables for specific menu of actions for each stage | Public Education and Information Focus on Drought, Operational or System Maintenance Actions and City Depts to "lead by example" by conducting water-use self-audits. | All Stage 1 actions plus mandatory city dept water reductions and voluntary customer water reductions | All Stage 1 and 2 actions plus mandatory potable water use reductions/ restrictions | All Stage 1,2, and 3 actions plus implement Ordinance 8461 with mandatory restrictions on all non-essential water uses |

*Local system indicators act as triggers only in conjunction with an ADMTC declared drought in the Tucson area.

Figure 3.2: Indicators and Triggers

CITY OF TUCSON WATER DEPARTMENT
DROUGHT PREPAREDNESS AND RESPONSE PLAN

Footnote for Figure 3.2:

Mandatory or “hard-line” triggers primarily relate to potential impacts from drought on Colorado River water availability. Sustained drought on the Colorado River will trigger Stage 1. A declaration of shortage on the River by the Secretary of the Interior will trigger Stage 2. A reduction in CAP deliveries to municipal users (including Tucson Water) will trigger Stage 3; and further reductions in deliveries will trigger Stage 4.

The Arizona Drought Monitoring Technical Committee’s (ADMTC), declaration of drought in the Tucson region, as posted on ADWR’s website and based on local climatic indicators, is a mandatory trigger as well and will trigger a Stage 1 regardless of conditions on the River. However, increased severity of drought status posted by ADWR will not be mandatory triggers for Tucson Water’s drought response stages, but will be used to implement specific public information or education related to drought.

Advisory triggers relate to drought impacts on local system indicators. These indicators must be analyzed in conjunction with the ADMTC’s declaration of drought in the Tucson region and other water conditions to determine if drought response Stages 2, 3 or 4 should be triggered. Local system indicators will not trigger a Stage 1, but may be used to implement specific response actions.