
WATER SHORTAGE CONTINGENCY PLAN

Salt Lake City Department of Public Utilities

Last Modified June 2003

SECTION I: DECLARATION OF POLICY, PURPOSE, AND INTENT

In order to conserve the available water supply and protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety, and at the same time minimize the adverse impacts of water supply shortages or other water supply emergency conditions, the Salt Lake City Department of Public Utilities (Public Utilities) hereby adopts the following Plan to address water shortages brought about by drought, service interruption, or other emergency or event.

This Plan is intended as a supplement to the Water Conservation Master Plan. For information pertaining to Public Utilities long-term water conservation plans and measures, as well as support information on water conservation, consult the appropriate section of the Water Conservation Master Plan.

SECTION II: LEGAL AUTHORITY

This Plan is adopted by Public Utilities pursuant to the direction of the City Council contained in Section 17.16.092, Salt Lake City Code (hereafter referred to as the Ordinance).

SECTION III: APPLICATION

The provisions of this Plan shall apply to all persons, customers, and property utilizing water provided by Public Utilities.

SECTION IV: DEFINITIONS

For the purposes of this Plan, the following definitions shall apply:

Acre feet (AF): A quantity of volume of water that covers one acre to a depth of one foot; equal to 43,560 cubic feet or 325,851 gallons.

Average Annual Demand: 105,000 AF as measured from supply to conduit.

Average Annual Supply: 126,900 AF, as of January 1, 2003. In 2005, Salt Lake City's average annual supply will increase by 4000 AF per year for five years as a result of additional Central Utah Project water, increasing the average annual supply by 20,000 AF in 2008.

Best Management Practices (BMPs): Applicable Best Management Practices for a particular industry (see Appendices for examples).

Conservation: Those practices, techniques, and technologies that reduce the consumption of water, reduce the loss or waste of water, improve efficiency in the use of water, or increase the recycling and reuse of water so that a supply is conserved and made available for future or alternative uses.

Culinary Water: See Municipal and Industrial Water.

Customer: Any person, company, corporation, partnership, association, organization, or other legal entity using water supplied by Public Utilities through system connections, or legal or contractual agreement.

Director: Shall mean the Director of Salt Lake City Department of Public Utilities, or his or her designee.

Even number address: Street addresses ending in 0, 2, 4, 6, or 8 and locations without addresses.

Hearing Officer: Shall mean the Director of Salt Lake City Department of Public Utilities or such other employee of Public Utilities as the Director shall designate from time to time.

Hearing Review Panel: A panel designated by the Salt Lake City Council and comprised of three (3) current members of the Public Utilities Advisory Committee.

Industrial water use: The use of water in processes designed to convert materials of lower value into forms having greater usability and value.

Landscape irrigation use: Water used for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including lawns, gardens, golf courses, parks, rights-of-way, medians, and park strips.

Municipal and Industrial Water (M&I): Water treated by Public Utilities specifically to meet Safe Drinking Water Standards as defined by the Safe Drinking Water Act. For the purpose of this Plan, M&I water is divided into the following categories: 1) *domestic use* is that water which is used in private residences, apartment houses, etc., for drinking, bathing, cleaning, landscape sprinkling, sanitary, and other purposes; 2) *commercial and industrial use* is that water used by commercial establishments and industries; and 3) *public use* includes water required for use in parks, public golf courses, civic buildings, schools, hospitals, and churches.

Odd numbered address: Street addresses ending in 1, 3, 5, 7, or 9.

Ordinance: Ordinance adopted by Salt Lake City Council, enacting Section 17.16.092 of the Salt Lake City Code, authorizing the adoption of the Plan.

Positive Pressure Nozzle: A spring-loaded nozzle attached to the end of a hose that requires positive pressure to maintain water flow.

Projected Demand: The estimated water demand at any given point in time (stated as a percentage of the average annual demand or as total gallons per day).

Projected Supply: The anticipated supply at any given point in time (stated as a percentage of the average annual supply or as total gallons per day).

Public Utilities: Salt Lake City Department of Public Utilities

Reclaimed Water: Wastewater treated by Public Utilities to levels appropriate for irrigation and industrial uses

Response Plan: Shall mean the Water Shortage Response Summary, an attachment to the Plan which identifies each Water Shortage Stage and the specific calls to action, both voluntary and restricted. This Response Summary is to be updated as the Plan is updated.

SECTION V: CRITERIA FOR INITIATION AND TERMINATION OF WATER SHORTAGE STAGES

Monitoring

All relevant components of the Salt Lake City water system will be monitored to ensure timely response to water situations by the Director. Public Utilities will monitor supply, treatment and distribution system, demand trends, and potential constraints, for the purpose of identifying potential shortages. The Director shall determine when conditions warrant initiation or termination of each stage of the Plan, that is, when specified triggers are reached.

Initiation of Water Shortage Stage

Meeting or exceeding one or more trigger conditions will be sufficient cause to initiate a corresponding Water Shortage Stage. However, the Director can decide that a stage not be initiated under these circumstances. The decision may be influenced by factors that include, but are not limited to, the time of year, weather conditions, anticipation of replenished water supplies, or anticipation that facilities will be placed on-line to meet water demand. The Director shall make a recommendation to initiate a stage or a stage change to the Mayor, who will make the final determination in accordance with the Ordinance.

It is not incumbent on the Director to implement lower steps before higher ones. If the Director judges the situation to warrant it, he can declare a higher stage of water shortage response at any time. All measures contained in the Plan for lower levels of response automatically come into action at that point.

Termination of Water Shortage Stage

Termination of the Plan stage will be announced when the trigger conditions that initiated the drought measures have subsided and the shortage no longer exists, by the determination of the Director.

Upon terminating a stage, it is not incumbent on the Director to implement the stage immediately lower. If the Director does not designate a Plan stage, then the next lower stage becomes active.

SECTION VI: NOTIFICATION AND EDUCATION

The Director shall notify the public of the initiation of the applicable Plan stage and corresponding conservation measures, or the termination of a Plan stage and corresponding conservation measures, by one or more of the following means:

- Publication of notices in a newspaper of general circulation
- Direct mail to each customer on the utility bill, as a bill insert, and/or as a special mailing
- Public service announcements
- Signs posted in public places
- Take-home fliers at schools
- Public meetings/community council meetings
- Public Utilities Water Conservation website
- Salt Lake City municipal website

Customer Agency Notification:

The Director shall endeavor to notify directly the following individuals and entities:

Salt Lake City Council
Public Utilities Advisory Committee
Fire Chief(s)
City and/or County Emergency Management Coordinator(s)
Salt Lake City Department of Public Services
State Disaster District / Department of Public Safety
Critical water users, i.e. hospitals

Additionally, Public Utilities will periodically provide customers and customer agencies with information about the Plan, including information about water conditions under which each stage of the Plan is to be initiated or terminated, the response measures to be implemented in each stage, as well as any Plan updates.

The success of any water conservation program in achieving short term and immediate water conservation targets as might be required under a water shortage is dependant on Public Utilities' ability to convey to the community the water-supply situation, the expected

response actions, and clear and measurable targets. The Response Summary and Appendices have been developed to enhance public understanding of water supply levels, response actions, and restrictions.

SECTION VII: STAGES AND RESPONSES

This Plan provides for five Water Shortage stages and responses of increasing severity, as progressively more serious conditions warrant. The triggering criteria described are based on the projected percentage of water available from a number of sources, including, but not limited to snow pack, soil moisture, surface water, ground water, stored water, and spot market water. Degrees of flexibility have been built into this Plan to allow for timely adjustments at all levels of planning and implementation.

Key elements of a successful demand management program are that the resources and hardships are shared as equitably as possible, and that customers are kept informed about the status of the shortage.

The five stages are characterized as follows:

- **STAGE 1—ADVISORY Stage:** the public is informed as early as meaningful data are available that a possible shortage may occur.
- **STAGE 2—MILD Stage:** this stage is initiated if supply conditions worsen and relies on voluntary cooperation and support of water customers to meet target consumption goals. During this stage, specific voluntary actions are suggested for all customers, and specific mandatory actions are identified for municipal customers, including parks, golf courses, schools, and other government facilities.
- **STAGE 3—MODERATE Stage:** this stage is to be initiated if the Mild Stage does not result in the reduction needed, or circumstances warrant its initiation as specified in Section V: Initiation. This stage increases the prohibition or limitation of certain actions and relies on both voluntary and mandatory actions.
- **STAGE 4—SEVERE Stage:** this stage is to be initiated if the Moderate Stage does not result in the reduction needed, or circumstances warrant its initiation as specified in Section V: Initiation. The Severe Stage has increasingly stringent prohibitions and limits on certain actions, including certain mandatory actions for residential and commercial customers.

- **STAGE 5—CRITICAL Stage:** this stage addresses the most critical need for demand reduction and increases the number of restricted water uses and mandatory actions. This could be used as a stage of a progressive situation, such as a drought of increasing severity, or to address an immediate crisis, such as a facility failure.

STAGE 1—ADVISORY

The **ADVISORY STAGE** is intended to increase the community’s awareness of the potential for future water shortages. Under this stage, conservation efforts which are on-going will receive additional emphasis, and measures not pursued during normal water supply times because they are not cost-effective will be re-evaluated.

The **ADVISORY STAGE** triggers an increase in public education and information to assist all customers impacted by the shortage in order that those customers better understand the state of the water shortage condition and the need for voluntary action.

Trigger

- Total reservoir storage is not projected to be at standard operating capacity on or near April 1, due to exceptionally low snow pack, precipitation and/or lack of carryover storage from the previous year
- Total reservoir storage and predicted inflows are significantly below historical normal for the current time of year, and supply modeling indicates that expected demands may not be met if current trend continues or worsens
- Other water supplies are projected to be below standard operating capacity or historic levels

Objectives

- To prepare Public Utilities, the City, relevant agencies, and water customers for a potential water shortage thereby allowing all parties adequate time for planning and coordination
- To undertake supply management actions that forestall or minimize the need for later, more stringent supply or demand management actions
- To minimize the waste of water through carelessness, either intentional or accidental

STAGE 2—MILD

The conservation measures in this stage are focused on specific voluntary actions. However, some prohibitions on water waste are enforced with fines and/or flow restrictors or disconnection.

Trigger

- Supply levels identified in the ADVISORY STAGE have not improved
- Demand levels indicate the need for a more systematic response to manage the situation
- Water supply levels are projected to be eighty (80) percent of the Average Annual Supply.

Response

As outlined in the Response Summary.

Target: Achieve a five (5) percent reduction in total daily water use or Average Annual Demand.

Objectives:

- To maintain or reduce demand to meet target consumption levels by customer voluntary actions
- To forestall or minimize the need for later, more stringent actions
- To minimize disruption to customers' lives and businesses while meeting target consumption goals
- To maintain the highest water quality standards throughout the shortage

Termination of Stage

The Director may rescinded STAGE 2 of the Plan when the conditions listed as triggering events have ceased to exist for such a period as deemed appropriate and reasonable. Upon termination of Stage 2, the ADVISORY STAGE becomes active unless otherwise stated.

STAGE 3—MODERATE

Demand reduction responses are voluntary, with the exception of Park, Golf, and other Government facilities, having some mandatory response actions.

Trigger

The Director would approve progression to this stage if the goals established in the preceding stage have not been met and additional action is needed. The specific voluntary restrictions imposed during the MODERATE STAGE would be determined based on the season of year, targeted demand levels, and other considerations.

- Projected water supply is seventy (70) percent of the Average Annual Supply
- Supply levels identified in the MILD STAGE have not improved
- Demand levels indicate the need for a more systematic response to manage the situation

Response

As outlined in the Response Summary.

Target

Achieve a fifteen (15) percent reduction in total daily demand or Average Annual Demand.

Objectives

- To achieve targeted consumption reduction goals by restricting defined water uses
- To ensure that adequate water supply will be available for the duration of the situation to protect public health and safety and to balance the need for stream flows
- To minimize the disruption to customers' lives and businesses while meeting target consumption goals
- To maintain the highest water quality standards throughout the shortage

- To promote equity amongst water customers by establishing clear restrictions that affect all customers

Termination of Stage

The Director may rescind STAGE 3 of the Plan when the conditions listed as triggering events have ceased to exist for such a period as deemed appropriate and reasonable.

STAGE 4—SEVERE

Some elements of STAGE 4 will become mandatory and be enforced, in addition to elements under previous stages. Such elements may include mandatory curtailments of water for certain types of non-essential use.

Trigger

The Director would approve progression to this stage if the goals established in the MODERATE STAGE have not been met and additional action is needed. Increasingly stringent water restrictions may be established and enforced.

- Projected water supply is sixty (60) percent of the Average Annual Supply.
- Supply levels identified in the MODERATE STAGE have not improved
- Demand levels indicate the need for a more systematic response to manage the situation, including restricted or prohibited water uses

Response

As outlined in the Response Summary.

Target

Achieve a twenty-five (25) percent reduction in total daily water use or Average Annual Demand.

Objectives

- To achieve targeted consumption reduction goals by restricting defined water uses

- To ensure that adequate water supply will be available for the duration of the situation to protect public health and safety and to balance the need for stream flows
- To minimize the disruption to customers' lives and businesses while meeting target consumption goals
- To maintain the highest water quality standards throughout the shortage
- To promote equity amongst water customers by establishing clear restrictions that affect all customers

Termination of Stage

The Director may rescinded STAGE 4 of the Plan when the conditions listed as triggering events have ceased to exist for such a period as deemed appropriate and reasonable.

STAGE 5—CRITICAL

Elements under STAGE 5 are mandatory, unless otherwise stated.

Trigger

The Director would approve progression to this stage if the goals established in the SEVERE STAGE have not been met and additional action is needed. Increasingly stringent water restrictions may be established and enforced.

- Major water line breaks, or pump or system failures, which cause unprecedented loss of capability to provide water service
- Natural or man-made contamination of the water supply source(s)
- Supply levels identified in the SEVERE STAGE have not improved
- A projected water supply of fifty (50) percent of the Average Annual Supply

Response

As outlined in the Response Summary.

Target

Achieve a thirty-five (35) percent reduction in total daily water use.

Objectives

- To achieve targeted consumption reduction goals by restricting defined water uses
- To ensure that adequate water supply will be available for the duration of the situation to protect public health and safety and to balance the need for stream flows
- To minimize the disruption to customers' lives and businesses while meeting target consumption goals
- To maintain the highest water quality standards throughout the shortage
- To promote equity amongst water customers by establishing clear restrictions that affect all customers

Termination of Stage

The Director or his or her designee may rescind STAGE 4 of the Plan when the conditions listed as triggering events have ceased to exist for such a period as deemed appropriate and reasonable by the Director.

SECTION VIII: ENFORCEMENT

Provisions of the Plan and Response Summary shall be enforced as indicated in the Ordinance.

Penalties for violation of any portion of the Plan are defined in the Ordinance. A civil fine for a customer's first violation shall be imposed only after the issuance of a written warning to such customer. Any civil fine based on a violation susceptible to corrective action shall be imposed only after failure by the customer to take such corrective action within a reasonable period of time, as determined by the Director, taking into account the nature of the action needed and the anticipated cost. The time allowed will vary with the nature of the violation; for

instance, corrective measures can be taken more quickly for a violation of time-of-day restrictions than can be taken for a system repair or a pump retrofit for a fountain.

Subsequent violations will result in a formal violation notice, a fine, and/or water service shut off. Notification of a violation shall be as set forth in the Ordinance.

Customers violating any portion of the Plan as defined by Public Utilities shall be assessed a fine according to the following schedule. The violation level shall be based upon violation history for the preceding twelve (12) months.

The fines for a violation and each subsequent violation are as follows:

1st Violation \$ 100

2nd Violation \$ 250

3rd Violation \$ 500

4th Violation \$ 1000

5th Violation Flow restrictor or interruption of service until corrective action is taken and previous fines paid in full

If a service is disconnected, Public Utilities may assess and collect a fee before service is restored. That fee is in addition to other fines or charges imposed under a particular water shortage response measure.

Any customer subject to a civil fine shall be notified by the Director, in writing, of the date, nature, and circumstances of the violation, which notification shall be delivered by certified mail no more than 15 calendar days after the date of occurrence of the violation. The notice shall advise the customer of his/her right to protest the fine to the Director, or his or her designee, within ten business days after receipt of the notice. Any determination by the Director or designee may be appealed to the Water Shortage Appeals Panel, as established in the Ordinance. All decisions of the Water Shortage Appeals Panel shall be final.

The Director may grant written variances to persons who apply, on forms supplied by Public Utilities, for usage of water not in compliance with the Plan or for relief from a fine. Variances may be granted if it is found that such water use is necessary to prevent an emergency condition relating to health or safety, extreme economic hardship, or essential government services such as police, fire, and similar emergency services. Variances may also be considered for customers under irrigation targets who have already made every reasonable effort to reduce water use.

Monies collected from fines are not considered rates for the production of water revenue. Those monies will be placed in a special fund, to be administered by Public Utilities, and will be used for, but not limited to, meeting the expenses of enforcement of restrictions under this Plan,

producing educational materials relating to water conservation, promoting information related to the Plan, or augmenting water supplies.

SECTION IX: LIMITED EXEMPTION FOR RECLAIMED WATER

The Director may exempt certain uses and users of Reclaimed Water from any or all of the water use restriction requirements contained in this Plan. Users must apply for exemption on forms supplied by Public Utilities. Only the use of Reclaimed Water may be exempted from the provisions of the Plan. Users of both Reclaimed Water and M&I Water will not be exempt from restrictions on the use of M&I Water, and must comply with restrictions in effect during all stages of the Plan.

The Director, in the interest of equity and community acceptance of such exemption on the use of Reclaimed Water during a declared drought, water shortage, or other water emergency, may require exempt users to clearly post notices to the effect that the water being used is not from the public drinking water supply, and that the use conforms to restrictions in force at the time. Failure to make such posting in a timely fashion may, at the discretion of the Director, result in loss of exemption from the provisions of this Plan.

LeRoy W. Hooton, Director, Department Public Utilities

Date