SUBJECT: Culinary Water Supply/Shortage and Drought Management Conservation Plan

POLICY NO.: 10.88  APPROVED BY: Water and Power Board

EFFECTIVE DATE: 11/07/00

METHOD OF APPROVAL: Water and Power Approved by City Council February 1, 2001

POLICY:
It shall be the policy of the City to implement the procedures and restrictions outlined herein under four stages of culinary water resource shortage that may occur in the St. George area.

PURPOSE AND OBJECTIVE:
This culinary water shortage and drought management plan is intended to establish measures for essential conservation of water resources and to provide for equitable distribution of limited water supplies, in order to balance demand and limited available supplies and to assure that sufficient water is available to preserve public health and safety within the City of St. George.

PROCEDURES AND RESPONSIBILITIES:
The City shall encourage wise use of water and conservation of all water resources on an on-going basis.

If a culinary water shortage or drought is expected, the City will implement the attached four-stage shortage of culinary water conservation management plan. The implementation will be under the approval and direction of the City Council and City Manager. The City Staff (City department heads and City Manager) shall meet on a regular basis to discuss the drought conditions and ensure all City departments are doing their part to comply, enforce and encourage the outlined water conservation measures,

The following shortage or drought indicators will be used to decide what stage or level should be implemented

STAGE 1:
- If total culinary supply (wells, springs, or Quail Creek Water Treatment Plant) exceeds the total daily demand by only 2% to 3% (i.e.: water tanks cannot recover).
• Water resources are reduced by 2% to 3% due to equipment failure or lack of supply.

STAGE 2:
• Total culinary water resources are reduced by 5% of peak capacity due to equipment failure or any other loss.
• Total culinary demand exceeds supply by 1% to 3% and Stage 1 restrictions fail to meet goals.

STAGE 3:
• Total culinary water resources are reduced by 10% of peak capacity due to equipment failure or any other loss.
• Total culinary water demand exceeds supply by 5% and Stage 2 restrictions fail to meet goals.

STAGE 4:
• Total culinary water resources are reduced by 25% of peak capacity due to equipment failure or any other loss.
• Total culinary water demand exceeds supply by 10% and Stage 3 restrictions fail to meet goals.

MANAGEMENT PLAN

STAGE 1: Voluntary Restrictions on nonessential water use

• Estimated reduction goal – 2% to 3% of peak use.
• Procedure: Publish attached news release in local newspaper, on the web site and have radio stations announce the release.

News Release:
The City of St. George and surrounding areas are currently experiencing a shortage of water supply. The supply cannot meet the current demands. The City adopted a water shortage drought management plan on February 1, 2001. This plan involves four stages of water conservation/reduction. Due to the current conditions, the City has decided to implement Stage 1 of this plan. Stage 1 involves voluntary restrictions on non-essential water use. This stage requests that all City, County, State and Federal organizations also follow these criteria. All citizens are to conserve water wherever possible (inside and outside) and suggest the following as guidelines for water conservation efforts.
INSIDE:

- Fix dripping and leaking faucets and toilets. A leak in the toilet can waste more than 100 gallons of water a day.
- Don't let the water run while shaving. Filling the sink basin when shaving uses 1 gallon of water, letting the water run uses 5–10 gallons.
- Don't flush the toilet unnecessarily. Water saving toilets use 1.6 gallons of water, standard toilets use 5 to 7 gallons of water each time it's flushed.
- Take shorter showers or fill bathtub only part way. Long showers waste 5 to 10 gallons of water every minute.
- Don't run the water while brushing teeth. Turning the water off while brushing your teeth can save 1.5 to 3.5 gallons of water. I Don't run the tap to make water hot or cold.
- Keep a bottle of drinking water in the refrigerator so you don't have to run the tap to get a cool drink of water.
- Wash only full loads of dishes and laundry. A dishwasher uses approximately 25 gallons of water, a washing machine uses 30-35 gallons of water per cycle.
- Install water-saving plumbing fixtures. A water saving showerhead can save 1.5 gallons of water per minute.
- Wash fruits and vegetables in a basin instead of under running water.

OUTSIDE:

- Raise your lawn mower cutting height. Longer grass needs less water.
- Don't plant any new grass or sod.
- Don't fill swimming pools. If possible, cover the swimming pool an uncovered pool will loose 900 - 3,000 gallons of water per month to evaporation, a covered pool losses 300 -1,000 gallons a month.
- Use mulch around shrubs and garden plants to save soil moisture.
- Don't wash cars or wash at a facility that recycles water. Washing the car with the hose running uses 100-200 gallons of water.
- Sweep sidewalks and steps rather than hosing.
- Water lawns & gardens every 3 or 4 days, to linch deep. Deep watering encourages deep root growth. If the water is running off, turn off the sprinkler,
let the water soak in and start watering again. A typical sprinkler system uses 20 gallons of water every minute.

- Avoid watering on windy days or midday when the evaporation rate is the highest. Water after 7:00PM
- Keep fire hydrants closed.
- Adjust sprinklers to not spray road or sidewalk.
- Repair leaks in hoses, pipes, faucets and connections.

If the implementation of these voluntary restrictions does not reduce the water demand enough to meet the supply, the City will have to go to Stage 2, 3 or 4 of the drought shortage of culinary water and drought management plan, which involves mandatory restrictions.

**STAGE 2: Mandatory restrictions on nonessential water use**

Estimated reduction goal - 5% to 10% of peak use.

**Procedure:** By authority of the City Manager and the City Council, the following water conservation measures along with those of Stage 1 will be implemented.

- Snow Canyon Compact members will be cut back to their exact percentage allocation of the water being produced from Snow Canyon Well System.
- All parks currently on culinary water will be allowed to water every three days at a reduced level of demand.
- Residential and commercial users will be allowed to water outside areas based on odd/even concept. (If the address is even or odd will determine the day of watering.)
- Use of water for noncommercial car washing, streets washing, or driveway washing will not be allowed.
- Use of water for ornamental fountains, waterfalls, or reflection pools will not be allowed.
- During this stage the approval of any new developments will be delayed until the conservation restrictions are lifted.

**Enforcement:**

If any person or entity violates these restrictions, citations could be issued, or the City may elect to remove the water service from the property.
STAGE 3: Mandatory restriction on all culinary water uses

Estimated reduction goal – 10% to 25% of peak use.

Procedure: By authority of the City Manager and the City Council, the following water conservation measures will be implemented:

- The use of fire hydrants for purposes other than fire protection will not be allowed for use by municipal departments, contractors and all others.
- Water use for the following non-essential uses will not be allowed:
  - Non-commercial washing of automobiles and trucks.
  - The washing of streets, driveways, and sidewalks.
  - Ornamental water use including, but not limited to fountains, artificial waterfalls and reflecting pools.
  - The use of water to fill and top off swimming pools, hot tubs, etc.
- Users will be allowed 75% of use levels for the same month of the preceding year. All users will reduce demand by 25%.

Enforcement:
If any person or entity violates these restrictions, citations could be issued, or the City may elect to remove the water service from the property.

The utility billing department will monitor usage by using triggers and computer alarms for notification.

Exemptions or Variance:

1. If compliance with the non-essential use of water restrictions would result in extraordinary hardship upon a water user, the water user may apply for an exemption or variance. For purposes of this section, extraordinary hardship means a permanent damage to property or other personal or economic loss, which is substantially more severe than the sacrifices borne by other water users subject to the nonessential use of water restrictions.

2. A person or business entity believing he suffers an extraordinary hardship and desiring to be wholly or partially exempt from the restrictions on the non-essential use of water shall submit a written request with full
documentation supporting the need for the requested relief to the City. The application shall contain information specifying:

a. The nature of the hardship claimed and reasons for the requested exemption or variance.

b. The efforts taken by the applicant to conserve water and extent to the applicant without extraordinary hardship may reduce water use.

3. The City shall advise the applicant of its decision regarding the application. An exemption or variance will be granted only to the extent necessary to relieve extraordinary hardship.

**STAGE 4: Water rationing plan for all available culinary water resources**

Estimated reduction goal – 25% to 60% of peak use.

**Procedure:** By the authority of the City Manager and City Council, the following water rationing plan will be implemented:

**A. General:**

It is imperative that water customers within the city of St. George area achieve an immediate and further reduction in the water use in order to extend existing water supplies and, at the same time, assure that sufficient water is available to preserve the public health and sanitation, and provide fire protection service.

The objective of this Local Water Rationing Plan is to effect an immediate 25 percent reduction in water usage. Should drought conditions continue, further reductions in usage may be required. If it is necessary to implement further reductions, this Plan will be modified to reduce the levels. It is the City Water and Power Department's responsibility to continually monitor on-hand quantities to determine if amendments are required.

The Plan provides for equitable reductions in water usage on the part of each water customer. The success of this Plan depends on the cooperation of all water customers.

During this stage the approval of any new building permits will be delayed until the conservation restrictions are lifted.
B. **Prohibited non-essential water uses:**

The following water uses are declared non-essential and will not be allowed within the City of St. George:

- The watering of lawns.
- The watering of outdoor gardens, landscaped areas, trees, shrubs, and other outdoor plants, except by means of a bucket, pail, or handheld hose equipped with an automatic shut-off nozzle between the hours of 5:00 p.m. and 9:00 a.m.
- The watering of golf course fairways with culinary water.
- The non-commercial washing of automobiles and trucks.
- The washing of streets, driveways, and sidewalks.
- The serving of water in restaurants, clubs or eating-places unless specifically requested by the individual.
- Ornamental water use including, but not limited to, fountains artificial waterfalls, and reflecting pools,
- The use of water for flushing sewers or hydrants by municipalities or any public or private individual or entity except as deemed necessary and approved in the interest of public health or safety by the City.
- The use of fire hydrants by the Fire Department for testing fire apparatus and for Fire Department drills, except as deemed necessary in the interest of public safety and specifically approved by the City.
- The use of fire hydrants by City Street Department, contractors and all others, except as necessary for fire fighting or protection purposes.
- The use of water to fill and top off swimming pools, hot tubs, etc.

C. **Water use restrictions for all water customers:**

Customers include residential, commercial, industrial, institutional, public and all other users, with the exception of hospitals and health care facilities.

- Water customers shall reduce their water usage by a minimum of 25 percent of use levels for the same quarter of the preceding year.
- It is the primary responsibility of each water customer to meet its mandated water use reduction goal in whatever manner possible.
- The City will establish a water allotment for each water customer, based upon a required 25 percent reduction of water usage from the rate of water used by the customer in the same quarter of the preceding year or the last recorded use level if no meter readings record the rate of the customer's use in the same quarter of the preceding year.
- Each water user shall provide access to the City personnel for purposes of meter reading and monitoring of compliance with this Plan. The City shall make all reasonable efforts to contact customers to arrange for access.

D. **Water use restrictions for hospital and health care facilities:**

Hospitals and health care facilities shall comply with all restrictions imposed on water customers as may be applicable to each individual institution, to the extent compliance will not endanger the health of the patients or residents of the institution.

Each hospital and health care facility shall survey its water usage patterns and requirements and implement such additional conservation measures as may be possible without endangering the health of patients or residents to achieve a 25 percent reduction in the institution's water usage. The level of conservation arrived at will be recommended to the City for billing and record. The established level that does not endanger the health of the patients will be provided to the City for record.

**Enforcement:**

If any person or entity violates these restrictions, citations could be issued or the City may elect to remove the water service from the property.

The utility billing department will monitor usage by using triggers and computer alarms for notification.

**Exemptions or variance:**

If compliance with the non-essential use of water restrictions would result in extraordinary hardship upon a water user, the water user may apply for an exemption or variance. For purposes of this section, extraordinary hardship means a permanent damage to property or other personal or economic loss, which is substantially more severe than the sacrifices borne by other water users subject to the nonessential use of water restrictions.

A person or business entity believing he suffers an extraordinary hardship and desiring to be wholly or partially exempt from the restrictions on nonessential
use of water shall submit a written request with full documentation supporting the need for the requested relief to the City.

The application shall contain information specifying:

- The nature of the hardship claimed and reason for the requested exemption or variance.
- The efforts taken by the applicant to conserve water and extent to which water use may be reduced by the applicant without extraordinary hardship.
- The City shall advise the applicant of its decision regarding the application. An exemption or variance will be granted only to the extent necessary to relieve extraordinary hardship.