

# **CITY OF LAS VEGAS DROUGHT CONTINGENCY AND EMERGENCY RESPONSE PLAN**

## **I. Purpose**

To establish actions necessary to reduce water consumption during times of emergency water shortage for the City of Las Vegas.

## **II. Background**

The City operates and maintains a surface water system that is heavily reliant on surface water from the Gallinas River. The heavy reliance on surface water and limited storage capability makes the City particularly vulnerable to loss of supply, due to extended drought periods that impact flow on the Gallinas River. The surface water supply is augmented by a small amount of ground water (Taylor Well #4).

The Response Plan is intended to increase conservation beyond the City's water conservation ordinance, through the enactment of more stringent measures needed to extend the existing limited water supplies.

## **III. Authority**

The City Manager is authorized to declare a water shortage and take appropriate response actions subject to Section No. 17-1-26 IX of the water ordinance. In the City Manager's absence, the Utilities Director will assume this role. The City Manager shall be notified when a water shortage is expected, whereby he/she may implement temporary actions which will remain in effect until removed by the City Manager. Temporary actions include but are not limited to water shortage – conservation stages described in the water ordinance.

Should other emergency situations occur such as line breaks, contamination, mechanical failures, natural disasters or similar emergencies, the City Manager may also consider implementing additional temporary measures. However, the City Manager does maintain the right to implement the plan at any time.

The City Council is charged with adopting enabling ordinances that will allow the City to quickly respond to extreme water shortage.

## **IV. Notification**

The following notification methods will be used to inform City employees and customers of a water shortage declaration:

- Employee and customer e-mail notices,

- Posted Notices at municipal buildings,
- Mailed Notices in utility bills,
- Notices in the Las Vegas Optic,
- Public service announcements released to local radio and cable television stations
- Postings on the City website as appropriate.

## V. Response Actions

Subject to the availability of funds from increased water rates or State/Federal grants, the City is and will be taking numerous system improvement actions toward preventing the need to ever invoke Stages 5-10. Those Stages 5-10 are designed to preserve our precious remaining water supply if/when water storage becomes extraordinarily low, and groundwater is insufficient, and the outlook for river water availability is bleak. Their purpose is to avoid, or at least defer, our running out of deliverable water.

The implementation of water shortage stages is based on remaining water storage levels. Routine water conservation measures and water shortage stages 1-4 are described in the water conservation ordinance. This response plan is intended to describe additional emergency stages (5-10).

Remaining Storage			Demand Reduction Action	
Million Gallons	Acre Feet	%	Stage	Description
325.9	1000	100	0	Routine water conservation measures in effect to balance demands with limited supplies and production capabilities. Water users are encouraged to reduce their water use and improve water use efficiency; however, no penalties apply for noncompliance.
293.4	900	90	1-3	Water supply conditions indicate significantly lower than the seasonal norm and water shortage conditions are expected to persist. Water users must abide by required water use reduction and efficiency measures; penalties apply for noncompliance.
260.7	800	80	1-3	Water supplies are substantially diminished and pose an imminent threat to human health or environmental integrity. Water users must abide by required water use reduction and efficiency measures; penalties apply for noncompliance.
228.1	700	70	4	Severe water supply problems due to continued decrease in resource availability, City staff will propose emergency pricing for water use.
195.5	600	60	5	Multi Agency Coordination Group: Identify solutions to address current water emergency; Aggressive Public Awareness Campaign w/Water Conservation focus; Identify Critical Infrastructure / Major Water Users.
162.9	500	50	6	Identify Additional Resource Needs, Develop Shut Off Contingency, and Identify Water Distribution Sites.
130.3	400	40	7	Implement Consumption Limits for Water Uses in Defined Categories (ie residential limit of 4000 gal/mo. or 44gpcd for 3+ households; non residential = 10% reduction over historical use), Implement Emergency Water Rates (1.5x)
97.8	300	30	8	Implement Consumption Limits for Water Uses in Defined Categories (ie

				residential limit of 3000 gal/mo. or 33gpcd for 3+ households; non residential = 25% reduction over historical use), Implement Emergency Water Rates (2x)
65.2	200	20	9	Implement Consumption Limits for Water Uses in Defined Categories (ie residential limit of 2000 gal/mo. or 22gpcd for 3+ households; non residential = 50% reduction over historical use), Implement Emergency Water Rates (2.5x)
32.6	100	10	10	Implement Emergency Water Shut off for non-essential services

**Stage 5 Actions:**

- **Multi agency coordination group (MAC)**, Organize MAC involving agencies like the Office of State Engineers, USDA, Corp of Engineer, NM Environmental Department, Local Bureau of Reclamation, NM Department of Homeland Security/ Emergency Management, San Miguel County governing body representative, as well as the City of Las Vegas governing body representatives, and any other related agencies toward organizing a planning committee toward legal aspects, emergency construction permitting, water rights, and any other identified concerns toward addressing the water emergency
- **Public Awareness Campaign (PAC)**, Develop and implement an aggressive PAC toward water conservation, utilizing the City of Las Vegas Utilities Conservation Officers, to include any Public Information Officers available within the governing jurisdiction and resources that may be obtained through the New Mexico department of Homeland security/ Emergency Management in order to inform the citizens of the seriousness of the emergency and attempt to educate and receive their cooperation toward conservation.
- **Critical Infrastructure**, Identify the critical infrastructure and major water users within the communities and conduct planning meetings to review or develop contingency plans toward water usage and conservation, suggest and assist with water audits to these identified facilities in order to minimize water usage. This can be done through the following entities, City of Las Vegas Utilities department, San Miguel County/ Las Vegas Office of Emergency Management, and local NM Environmental department.

**Stage 6 Actions:**

- **New Taps**, No activation of new water taps for the duration of the emergency. Prohibit issuance of certificates of occupancy for new construction for duration of emergency.
- **Fire Response**, The Fire Department shall make an effort to use foam or other types of additives in combination with water to minimize the amount of water needed for fire operations whenever practical. The use of effluent may be considered when there is no eminent threat to life or property. The Fire Chief may determine based on conditions to include the general safety of the public, first responders and the availability of water, when and if to limit its operations to external protective suppression. **Emergency Water Pricing**, Continue emergency water pricing. Consider additional premium above a set limit of water consumption.
- **Removal of Service**, The termination of service for any violation of the water conservation plan after the third offense.

- **Project Delays**, Large commercial customers are asked to delay projects consuming large quantities of water where possible.
- **Additional Measures**, The City Manager will have the authority to implement additional conservation measures on commercial and industrial customers **including, but not limited** to, percentage reductions of consumption, requiring that high water consumption equipment be shut down, etc.
- **Violator Listing**, A list of the names and addresses of those charged with violations of the Water Conservation Ordinance will be available for public inspection at City Hall.

### **Stage 7-9 Actions:**

The goal for stages 7-9 is to impose mandatory reduction in the use of water for all purposes and mandatory restriction on non-essential usage, to preserve remaining supplies throughout water shortages. Meter readers will need to read meters on a weekly basis and provide warnings to customers who are on target to exceed their monthly limit. Customers who exceed their limit will be shut off.

### Residential Customers

For the months of April, May and June 2011, the average inside City limit residential customer usage was 4000 gallons per month. Outside City limit usage averaged 4600 gallons per month. Based on 4000 gallons and the average 3 person household sizes in Las Vegas, a single person would use 44 gallons per person per day (gpcd). 4000 gallons per mo. is a conservative number considering the average pre-drought residential usage was 4500 gallons per mo.

The 4000 gallon total usage limit would be extended for customers who can demonstrate that they have a household size greater in size than the average. The Utility Director will review and approve on a case by case basis.

Emergency water rates would be implemented at 1.5 times the adopted rate schedule for customers who use greater than 1000 gallons.

Stages 8 and 9 include limits of 3000 gallons/mo. (33gpcd and 2x the adopted rate) and 2000 gallons /mo. (22gpcd and 2.5x the adopted rate) respectively. Stage 7 and 8 will not be implemented until the month following the day that the remaining storage levels reach action levels and will revert back in the same fashion.

### Commercial Customers

Commercial “Non Residential” users will be required to reduce use by 10% of the previous calendar year’s average monthly usage. After a one month grace period, emergency water rates would be implemented at 1.5 times the adopted rate schedule. The City may set higher than 10% required water conservation limit for customers that use greater than 1,000 gallons of water per month.

Stages 8 and 9 include 25% and 50% reductions in water usage and 2x for stage 7 and 2.5x the adopted rate for stage 8. Stage 7 and 8 will not be implemented until the month following the day that the remaining storage levels reach action levels and will revert back in the same fashion.

**Stage 10 Actions:**

Stage 10 represents 10% remaining storage. At this point, adequate water system volume and pressure must be maintained for fire protection. All non essential water users will be shut off until storage levels reach 20% remaining storage. Emergency water filling stations will be setup throughout the City so that customers can use limited amounts of water for sanitary and cooking purposes.

**VI. Enforcement**

The provisions of the Water Shortage Action Plan will be enforced by the City of Las Vegas. Violators may be reported by either calling Utility Department at 505-454-3832 or by contacting the Police Department at 425-7504.

Penalties for non compliance with stages 6-10 include written warnings up to termination of service. A written warning is optional and will depend on the severity of the prohibited activity and water shortage emergency.

Fines may be assessed individually for each occurrence, for any type of prohibited activity. The schedule of fines will follow the schedule developed for the water conservation section 17-1-26 of the existing water ordinance.

**VII. Public Comment**

Customers will have multiple opportunities to comment on the provisions of the Water Shortage Action Plan. First, a draft plan will be published in the Las Vegas Daily Optic and on the City of Las Vegas website. A public hearing will be scheduled so that comments may be made. All subsequent revisions to the draft plan will be published at least 30 days prior to an adoption vote by City Council.

**VIII. Variance Protocols**

Written requests for water use variance or hardship case waivers as outlined in water conservation section 17-1-26, X. E. may be submitted to the City's Utilities Director at 905 12<sup>th</sup> Street. All written requests will be reviewed by the City Manager and/or Director of Utilities Services. A decision to approve or deny individual variance requests or hardship case waivers will be determined within two weeks of submittal after careful consideration of the following criteria: impact on water demand, expected duration, alternative source options, social and economic importance, job retention, purpose (i.e. necessary use of drinking water) and the prevention of structural damage.

## **IX. Return to Normal Conditions**

Should significant rainfall or snowfall occur to safely provide sufficient water to meet demand causing conditions to drop below an emergency stage, the Utilities Director shall issue a public notice declaring the related water shortage resolved and the termination of related water restrictions.

## **X. Revision**

The Water Shortage Action Plan will be reviewed and revised as needed to adapt to new circumstances affecting water supply and demand, following implementation of emergency restrictions, and at a minimum of every year. The City of Las Vegas Director of Utilities is responsible for initiating all subsequent revisions.