PURPOSE

The purpose of this Drought Management Plan is:

1. to provide contingency plans to manage drought and emergency conditions,

2. to continue to meet the goal of Lake Hemet Municipal Water District to deliver a cost effective, adequate and reliable supply of high quality water to District customers,

3. to plan for periods of reduced water supply as a result of either drought or emergency interruption to available water supplies,

4. to identify critical stages of drought and their effects on Lake Hemet Municipal Water District and to recommend programs for each stage which would most effectively reduce water consumption to the available supply with the least adverse impact on the well-being of the community,

5. to identify successful public information strategies, which will motivate the community to reduce normal consumption to drought allowances.

PROJECTED WATER SUPPLIES AND DEMANDS DURING DROUGHT

Lake Hemet Municipal Water District has traditionally been able to meet most of its agricultural and domestic water demand from its surface water supplies in the San Jacinto mountains and from groundwater supplies via wells located within District boundaries. Historically, these sources have met the District needs except during peak demand periods when supplemental supply has been purchased from Eastern Municipal Water District (E.M.W.D.).

As the drought years of 1986 through 1990 progressed, Lake Hemet Municipal Water District's normal surface water supplies were reduced to zero and Well output dropped considerably. During the peak season of 1990, Lake Hemet Municipal Water District was purchasing over 60 percent of its agricultural and domestic demand from E.M.W.D. Because of reduced supplies and allocations from the Colorado River and the State Water Project, the prospect of E.M.W.D. being able to continue to meet Lake Hemet Municipal Water District's total supplemental demands is diminishing. Consequently, water supply shortfalls are possible under drought conditions. To make up the supply deficit, the following emergency drought programs would be implemented. These programs would also be effective for any future drought or water shortage period.

DROUGHT SURCHARGE

Water rates are set to recover costs during periods of normal demand and supply. During drought, fixed costs remain; fire flows must be available; leak crews must be maintained and water must be available even though conservation is encouraged. Power costs generally are higher due to higher lifts from lower groundwater tables and the need for supplemental water is increased. Water rates would be increased to cover these additional costs and to achieve water demand reductions.

DROUGHT EMERGENCY EDUCATION

A public education program aimed at residential and commercial users would be undertaken to educate the public as to the seriousness of the water shortage, the need to conserve existing supplies and ways they can conserve around their homes and businesses. Irrigation customer reviews would be necessary to insure they are maximizing conservation measures and adjust irrigation schedules to existing supply.

MANDATORY CONSERVATION PROGRAMS

In the event that a more severe or prolonged drought occurs and water supplies diminish further and the programs described above are insufficient to meet service area water demands, mandatory water use restrictions would be necessary. These measures could include restrictions on lawn watering, run-off, water main and sewer system flushing, car washing, filling of pools, spas and fountains, hosing of sidewalks and driveways and/or many other possibilities. Mandatory conservation programs would only be implemented as a third stage effort to ensure uninterrupted service to customers.

PREDICTABILITY OF SOCIAL BEHAVIOR DURING A DROUGHT

A study completed by Planning and Management Consultants, Ltd., for the Metropolitan Water District of Southern California, June 1988, CONSUMER RESPONSE TO DROUGHT says:

Fostering water conservation during drought comprises two important tasks:

1. convincing the consumers that they SHOULD conserve water,

2. providing them with information on HOW to do it.

Because of the behavioral dimension of water conservation we must rely on what is known about the decision making process of individuals especially as it relates to the theories of attitude change, persuasion, and communication. Survey research from previous droughts show that there are at least five attitudes which are associated with the consumer's water conservation during drought:

<u>Perceived seriousness of drought</u> – the drought must be believable,

<u>Social and Moral commitment</u> – appeal to a sense of making a fair contribution for the good of the group,

Perceived efficiency of conservation – citizens must believe their efforts can make a difference,

Perceived inconvenience and cost – personal cost and inconvenience must not be excessive,

Perceived equity – evidence that all members of the community are required to conserve.
These five attitudes are part of the foundation for the development of this plan. Testing of these attitudes will be a significant evaluation tool for determining the impact of various drought management programs, as well as the response to voluntary conservation.

DEMAND MANAGEMENT OPTIONS

Successful drought management techniques used by other utilities and regulatory agencies are many and varied. All of the options are carefully measured for 1.) need at specific water resource levels, 2.) projected public response, 3.) implementation convenience or inconvenience, and 4.) cost to the utility and to the public.

The options selected as most appropriate for Lake Hemet Municipal Water District are:

Public Education for Voluntary Reduction

Public education/information programs would be implemented and continued through all drought stages to make the consumer AWARE, to respond to consumer QUESTIONS and motivate the consumer to TAKE ACTION.

Leak Detection and Repair

With announcement of a drought, prompt response and repair of leaks would be important. Because of impact on public response to drought messages, as well as avoidance of water loss it is mandatory that leaks, which require District service, be repaired quickly.

Water Rates

If the drought condition continues into the second drought stage (SEVERE) because voluntary conservation measures or the reduced supplies are not keeping up with demand, then some means of rationing will become necessary. Experience in other areas of the country shows that physical rationing is very difficult to impose, is extremely costly, and is not considered to be equitable. Instead, price rationing – a drought surcharge of 10 to 50 percent - would produce the same results with more equity to the entire community. INCREASING BLOCK RATE schedules would accomplish this. During Stage II, these rates would be set at a level to offset loss and the additional costs of drought response.

An important concern raised by drought is a negative impact upon water sales as a result of successful water conservation. Unfortunately, the expenses for water treatment and distribution increase during a drought, and there are increased costs for the establishment of systems to implement enforcement of conversation measures, the development of extensive public education programs and the acquisition or development of new water supplies.

Outdoor Use Restrictions and Bans

Outdoor water-use is a significant portion of everyday consumption in the Hemet area. Water consumption normally increases as much as 80 to 100 percent during the summer months. A drought emergency will almost certainly be more serious during these months, making restrictions and bans on outdoor water use very important to the success of a drought management plan. These restrictions should be selected and used at different drought level stages to maximize conservation yet minimize the impact and inconvenience to District customers.

Xeriscape Landscaping

Although the use of low water landscapes is a definite method to convert thirsty yards to water efficient yards, it cannot be counted on as a means to immediate water use reduction once an emergency is upon us. In view of the drought cycle nature of California and exhausted new water supplies, it would be prudent to promote Xeriscape Landscaping as a continuing long-term conservation measure. With the adoption of this Drought Management Plan, the Board of Directors of Lake Hemet Municipal Water District endorse the concept of water efficient Xeriscape Landscaping, encouraging and directing that it become a part of the Districts public information and education programs.

DROUGHT STAGES

The onset of a drought period and necessary adjustments begins with precipitation deficiencies and the subsequent water resource deficiencies. As these deficiencies escalate, definite trigger points are necessary to implement public awareness programs and regulations to conserve and distribute available resources.

The trigger points or stages proposed are based on staff studies and recommendations to foresee points, which would affect water availability and water delivery within Lake Hemet Municipal Water District.

Stage 0 – Normal Operations

Stage I – Moderate shortage 5 to 10 percent

A Moderate Shortage is the first stage in drought identification and management. It will go into effect upon Resolution of the Board of Directors of Lake Hemet Municipal Water District adopting a program of Voluntary Water Conservation to reduce water use by ten percent. Stage I will be triggered when drought conditions exist, a general water shortage of 5 to 10 percent locally and/or statewide and low reserves.

The resolution calls for a voluntary 10 percent reduction in water consumption of retail users by refraining from hosing down driveways and other hard surfaces, repairing faucets, toilets and other sources of water leaks, and irrigating between 5 p.m. and 10 a.m., to minimize evaporation and to reduce peak demands in mid-afternoon. Also, over spray, runoff, and other provisions are detailed in a copy of the proposed resolution as attached, see EXHIBIT A.

It is anticipated that the District can continue to function normally with a small reduction in revenue due to these conservation measures and no rate increases will be necessary in Stage I drought conditions. Also, the District Leak and Repair Program should be accelerated at this time. Stage I programs will stay in effect until water supplies and deliveries return to normal levels or when Stage II is required.

(A Stage I resolution was adopted by Lake Hemet Municipal Water District Board of Directors on March 20, 2014.)

Stage II - Severe Shortage 10 to 20 percent

Stage II programs will go into effect when it becomes evident that the drought is continuing and supply is 10 to 20 percent less than normal demand. If there is no Lake or surface water available, the Well output is below normal and EMWD cannot supply all of our supplemental needs, then this will trigger the step up to Stage II.

The Stage II program will require an emergency water supply resolution by the Directors of Lake Hemet Municipal Water District to increase rates as a measure to force conservation and cutback consumption. It will also attempt to maintain revenue at levels consistent with operations and fixed costs, and the additional costs of conservation programs. A conservation goal of 20 percent or greater reduction of normal consumption should be set and an accelerated public education program will be required.

The District could impose tiered or block rates for water consumed in excess of a "lifeline" minimum allocation. A lifeline quantity of water is generally considered to be the minimum required for interior use. Using a basic monthly or Lifeline charge and increasing the unit charges in an increasing block rate manner, the water rates would continue to provide basic service to low-income customers, would not penalize those users already conserving, and would cause the large residential users (who are responsible for a large part of the peak load on the system) to pay a higher price for the water they use. Increasing block rate charges penalize customers who waste water but also provide strong incentive to conserve because the additional increments of water use become more expensive.

The exact rate increases will be determined at the time of the Stage II emergency, and it will be imperative that an appeal and review process be incorporated into the emergency rate structure to deal with any special and/or hardship situations. This rate structure will indeed force a hardship situation on some users and there will have to be adjustments made. The appeal and review process can be arranged by any final decisions made be the District General Manager.

Stage II rates will stay in effect until water deliveries are increased to Stage I levels or return to normal, or the rates will continue into Stage III.

Stage III – Extreme Shortage 20 to 30 percent

The next level of drought management will be required when EMWD Supplemental water deliveries are cut back further causing a 20 to 30 percent shortage on demand. An emergency situation involving the groundwater aquifers, which prevents or limits further pumping could also trigger a Stage III Shortage.

When it becomes evident that Stage III is required, the Board of Directors of Lake Hemet Municipal Water District should consider and pass an emergency ordinance(s) restricting certain water uses and banning all forms of waste. Enclosed, as Exhibit B is a list of suggested water use restrictions that could be utilized to meet the Stage III requirements. District staff could recommend, and the Board of Directors decide, which measures would be most appropriate and meet the goals of Stage III based on prevailing conditions at the time. A system of enforcement and penalties would be required to regulate the restrictions to assure a fair and equal use of water resources. Citations and fines would be established in cooperation with the Municipal Court and citations will be issued by Lake Hemet Municipal Water District Rangers.

The role of public information and education would have to continue at a vigorous pace to keep the public aware and informed of all aspects of the emergency. Their awareness and actions or reactions will determine the successful ability of the District to cope with this level of drought.

It is recognized by Lake Hemet Municipal Water District that a shortage of over 20 percent in the water supply will begin to affect the economic balance within our community. Businesses and jobs that require heavy water use will be affected immediately. It is not the intention of Lake Hemet Municipal Water District to force an economic hardship on any person or business. However, it is the District's responsibility to manage the available water supply on a fair and equitable basis. Some adjustments may be necessary and the appeal and review procedures established in Stage II should be expanded to cover the Stage III restrictions.

Stage III programs will stay in effect until conditions permit returning to Stage II or lower, or continue when Stage IV becomes necessary.

(A Stage III resolution was adopted by Lake Hemet Municipal Water District Board of Directors on August 20, 2014.)

Stage IV – Critical Shortage over 30 percent

Should EMWD cut supplemental water deliveries even further or institute a rationing program creating shortages greater than 30 percent, Lake Hemet Municipal Water District would move into a Stage IV, Critical Shortage. Also, any situation involving surface water supplies, groundwater pumping or wholesale deliveries that create over a 30 percent shortage would force a Stage IV situation.

Stage IV will require the District to increase its emergency rate structure (in effect from Stage II) to higher price levels to further promote water use reductions. Using all the criteria selected when Stage II rates were imposed and considering all new conditions brought about by the continuing drought and lower water supplies, new higher block rate schedules will be computed and implemented.

It will be necessary to review the water use restrictions in effect and add any additional restrictions and bans as necessary. Also, the penalties and fines should be raised to make the existing restrictions work more effectively.

PUBLIC INFORMATION AND EDUCATION PROGRAMS

A great deal of water conservation activity is currently focused on public information and education both from Lake Hemet Municipal Water District and from other larger districts that overlap into our area. During a drought, existing public information programs will become primary vehicles for working with the community to gain either voluntary or mandatory compliance. The most important goal of the public education program is to establish reliable communication with all public sectors, to provide timely information on the status of the drought and interpret any restrictions clearly. Secondly, to make available all conservation ideas and methods for use in homes and businesses.

Media – Regular news releases, distributions of "how-to" information, as well as direct, honest and available communication with the media would be vital to maximize their continuing support. Public service advertising would be utilized to the extent possible; however, it might become necessary to gain attention of the public by purchasing newspaper ads, radio, and/or T.V. (cable) advertising.

Printed Materials – In addition to the printed "how-to" materials currently used in the water conservation effort, new materials specific to drought survival will be produced and distributed.

Youth Education – By expanding the youth education and school programs, Lake Hemet Municipal Water District would be demonstrating assurance of its ability to lead the citizens through the crisis and would be maximizing the opportunities presented through the schools to communicate with families, communities and neighborhoods.

COOPERATIVE EFFORTS WITH OTHER VALLEY AGENCIES

Since the Hemet-San Jacinto Valley is served by four water agencies – Lake Hemet Municipal Water District, EMWD, City of Hemet and the City of San Jacinto – it would be appropriate and beneficial for all to have a cooperative drought planning effort. Although it is not feasible that one plan can be applicable to all agencies, it is appropriate that all the agencies share planning methods and programs and particularly in the public education arena to ensure the community benefits equitably from available media opportunities and messages.

CONCLUSIONS AND IMPLEMENTATION

It is the goal of Lake Hemet Municipal Water District to deliver a cost effective, adequate, and reliable supply of high quality water to its customers. To assure this supply, it is important to make contingency plans for responding to drought conditions and for the management and distribution of water during an emergency.

This drought contingency plan anticipates resource shortages in advance of an emergency and establishes criteria for action at each stage of the drought or shortage. Implementation of this plan will have the least negative impact possible on the customers and the economy during a drought. It outlines management options and education programs, which will dispense the hardships equitably and seeks to maximize the resources from limited drought supplies.

This plan will be adopted by the Board of Directors of Lake Hemet Municipal Water District and implemented by District Staff when the Board determines that the various stages can be

identified. This plan shall also be amended as the Board determines is applicable and circumstances warrant.

(EXHIBIT A)

RESOLUTION NO. _____

RESOLUTION OF THE BOARD OF DIRECTORS OF LAKE HEMET MUNICIPAL WATER DISTRICT ADOPTING A PROGRAM OF VOLUNTARY WATER CONSERVATION TO REDUCE WATER USE BY TEN PERCENT

WHEREAS, the territory within Lake Hemet Municipal Water District (the "District") is within the boundaries of the Metropolitan Water District of Southern California (MWD) and the District is empowered to provide water and wastewater service within its boundaries; and

WHEREAS, it appears California has entered the _____ year of below-normal water supplies, with actual shortages already being experienced in some areas of the State and potential shortages being projected for other areas, including MWD's service area: and

WHEREAS, MWD has requested the assistance and cooperation of the nearly 20 million people within its service area to voluntarily reduce their water use by ten percent; and

WHEREAS, the adoption of voluntary conservation measures by water service purveying entities will provide the basis and framework for effective public support; and

WHEREAS, the District has always encouraged and supported voluntary water conservation measures and continues to do so; and

WHEREAS, the District has the power and authority to adopt and enforce water conservation measures within its boundaries pursuant to Water Code Section 375 through 377 and 71600 through 71644.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Lake Hemet Municipal Water District as follows:

Section 1. Findings. The Board of Directors finds:

a) A potential serious statewide water supply shortage exists as the result of several years of inadequate precipitation, and the conservation and protection of local and imported water supplies against wasteful and unreasonable uses are necessary and in the best interests of the public and water users within the District's service area.

b) Reducing water use by an average of at least ten percent could be achieved by compliance with reasonable voluntary conservation measures by all water users within the District, without adversely affecting the economy or the quality of life.

c) Among other things, the following water-use reducing measures should be taken by all water users within the District's service area with a goal of reducing individual water uses by at least ten percent.

Section 2. Retail Water Users Program. Retail water users are urged to:

a) Refrain from hosing down driveways and other hard surfaces, except for health or sanitary reasons, and to use a broom or blower instead.

b) Repair faucets, toilets, pipes and other potential sources of water leaks.

c) Irrigate lawns and landscape only before 10:00 a.m. or after 5:00 p.m., and adjust automatic time clocks accordingly.

d) Adjust and operate all landscape irrigation systems in a manner, which will maximize irrigation efficiency and avoid overwatering of hardscape and resulting runoff.

e) Turn off decorative fountains unless they are equipped with a recycling system.

f) Install plumbing fixtures with low-flow devices, except where high-flow fixtures are required for health and/or sanitary reason.

g) Where possible, install pool and spa covers to minimize water loss due to evaporation.

h) Refrain from allowing hoses to run while washing vehicles, and instead use a bucket or a hose with an automatic shutoff valve.

i) When installing new landscaping, plant lowwater demand trees and plants, and avoid large turf areas.

Section 3. Agricultural/Commercial/Industrial Water Users.

Agricultural/commercial/indudustrial water users who use water as part of their operations are encouraged to incorporate, where possible, the above suggestions. In addition, agricultural customers are requested to consult with the staff of the Resource Conservation District for their area for appropriate water conservation measures and to implement them as soon as possible. Commercial and industrial users are encouraged to contact their associations for water conservation related assistance specific to their operations.

Section 4. Implementation. The General Manager is directed to implement the water conservation measures proposed in this resolution by:

a) Immediately renewing efforts to assure application and use of all appropriate water conservation measures for all District operations and facilities;

b) Notifying all retail water users of the conservation measures recommended by this resolution and requesting their assistance and cooperation in conserving water;

c) Making information brochures available to the public and taking steps to inform the public of the availability of such information; and

d) Promoting and encouraging water conservation by all appropriate means.

Section 5. Monitoring. The General Manager is directed to monitor the results of the voluntary program provided for herein, with the understanding that if the voluntary measures do not achieve the goal of a ten percent reduction of water use or if the drought worsens or if MWD finds it necessary to implement mandatory water supply restrictions it may be necessary for the Board of Directors to consider adoption of a mandatory water conservation program. The General Manager and legal counsel are directed to prepare a contingency program for such an occurrence for consideration by the Board of Directors if and when appropriate.

ADOPTED THIS ____ day _____.

_____
President of the Board of Directors

ATTEST:

_____
Assistant Secretary
of the Board of Directors

(EXHIBIT B)

SUGGESTED WATER USE RESTRICTIONS FOR STAGE III

PROHIBIT:

1. No person shall cause any water to flow away from property owned, occupied or controlled by such person, in any gutter, ditch, or in any other manner over the surface of the ground so as to constitute water waste runoff.

2. No water shall be used to wash down sidewalks, driveways or parking areas, except to alleviate immediate fire or sanitation hazard.

3. No person shall cause or allow any water to be wasted due to sub-standard, leaky or faulty water fixtures or water-using distribution devices.

4. Water from fire hydrants shall not be used for any purpose other then to fight fires or for other activities where such use is immediately necessary to maintain the health, safety and welfare of the residents of the District.

RESTRICT:

1. Landscape irrigation will only be allowed on odd or even days according to the last digit of the property location address. Landscape irrigation will only be allowed during the hours of 5 p.m. to 9 a.m. (restricted between 9 a.m. and 5 p.m.)

2. The washing of autos, boats, trailers or building only from a hand bucket, or hose equipped with a positive shut off device, and then only for quick rinses.

3. No water shall be used to clean, fill or maintain levels in decorative fountains, ponds, lakes or other similar aesthetic structures unless such water is part of a recycling system or with the use of reclaimed wastewater.

4. Water will not be used for the flushing of sewer lines and the flushing of water mains will not be allowed, except for immediate health and safety reasons or by special written permission by the General Manager.

Other Possible Restrictions:

1. landscape irrigation by a drip system or by bucket

2. street washing

3. construction water use

4. new water service connections

5. filling of pools and spas or wading pools

6. restrict turf irrigation

7. serving of drinking water in restaurants except by request

8. restrict new landscape unless Xeriscape

(EXHIBIT C)

PROPOSED DROUGHT CONTINGENCY PLAN

Stage 0	**NORMAL OPERATIONS**	
Stage I	**MODERATE**	5 to 10 Percent Water Shortage
	Trigger:	Drought Conditions, General Water Shortage locally and/or Statewide, low reserves.
	Resolution:	Ask for 10 percent Voluntary Conservation District Leak and Repair Program-accelerate. Public Education.
Stage II	**SEVERE**	10 to 20 Percent Water Shortage
	Trigger:	When evident that supply becomes less than demand (Safe Yield). Reserve supplies severely low and EMWD cannot supply all our supplemental needs. Low Well output, no Lake or Surface Water available.
	Resolution:	Emergency rate increase to force conservation.
Stage III	**EXTREME**	20 to 30 Percent Water Shortage
	Trigger:	Drought Continues, Reserve Supply very critical, EMWD (MWD) cuts supplemental supplies further.
	Ordinances:	Water Use Restrictions & Bans with enforcement program.
Stage IV	**CRITICAL**	30 Percent Water Shortage
	Trigger:	Well output very low or non-existent, EMWD (MWD) cuts supply lower (Rationed).
	Resolution:	Increase Emergency Rate Structure. Additional Water Use Restrictions and Bans as needed, Increase Fines and Penalties.

Mailing Address: P.O. Box 5039, Hemet, CA 92544-0039
26385 Fairview Avenue, Hemet, CA
Phone: 951/658-3241 Fax 951/766-7031
www.lhmwd.org

WATER CONSERVATION AND RESOURCES DIVISION

Drought Management Plan

Originally adopted by the Board of Directors
January 2, 1991