

Drought Committee Meeting

Agenda

November 2, 2017

10:00 a.m. - Meiners Oaks Water District Office

Right to be heard: Members of the public have a right to address the Board directly on any item of interest to the public that is within the subject matter jurisdiction of the Board, provided that no action shall be taken on any item not appearing on the agenda unless the action is otherwise authorized by subdivision (b) of Section 54954.2.

Please Note: If you have comments on a specific agenda item(s), please fill out a comment card and return it to the Board Secretary. The Board President will call on you for your comments at the appropriate time, either before or during the Board's consideration of that item.

A. Discussion Items:

1. Review Allocation and Rate Program Draft (ARP)

B. Adjourn



MEINERS OAKS WATER DISTRICT

Allocation and Rate Program (ARP)

PUBLIC REVIEW DRAFT

April 8, 2017

Adopted by the MOWD Board on _____

Background and Introduction

In 2016, MOWD implemented an allocation/rate program based partly on historical water use. Historical water use for customers was based on their average water use during the pre-drought period of 2010-2012. Each customer is assigned a reduced monthly allocation depending on the stage of drought – for example, a 30% reduction in Stage 3. Those who exceed their allocation each month are charged a \$1/unit over-allocation charge for the amount of water used exceeding their allocations. No seasonal variation in water allocation was incorporated into the program.

Since implementing the 2016 MOWD allocation/rate program, we have determined that the program should be modified to better achieve our water conservation goals and to become more consistent with measures implemented by other local agencies. Several reasons for modifying our allocation/rate program are briefly summarized below:

- 1) Our reliance on historical water use “grandfathered” in some customers who were using far more water than necessary. Those who used too much water from 2010-2012 should not be rewarded with higher allocations than they actually need.

- 2) Some people who have been conserving water conscientiously have been paying over-allocation charges in one or two summer months. Applying more water to plants in the hot summer months does not constitute “waste.” We would rather encourage water misers than penalize them.
- 3) Casitas MWD has recently increased its conservation penalty (over-allocation charge) from \$1 to \$5 per unit, and it may go higher in future stages of drought. We must pass this on to our customers when necessary. However, when it was only \$1, we considered it to be an “incentive,” whereas at \$5 it is truly a “penalty.” As a penalty, we must be certain that everyone who pays it is really using too much water.
- 4) We are negotiating a Memorandum of Understanding with Casitas MWD for purchasing water from them. The current draft MOU requires us to adopt measures equivalent to the Casitas WEAP. Such measures have been incorporated into this revised allocation/rate program.
- 5) When we developed our historical approach, Lake Casitas was over 50% of capacity and Casitas MWD was in Stage 1. Now that we are in Stage 3, we need a program that will be more effective if the drought worsens, and as we approach Stage 5.
- 6) As irrigation practices change and properties change ownership, the 2010-2012 historical water-use averages become less significant. It is preferable to develop a program that will remain valid for many years, during both dry and wet periods.

Casitas MWD’s Water Efficiency and Allocation Program (WEAP)

In June of 2015, Casitas MWD adopted its WEAP, which is posted on their website. Many of those measures have been incorporated into the Allocation and Rate Program (ARP) presented herein.

It is not MOWD’s intention to adopt the WEAP verbatim. Instead, we will adopt those measures that are applicable to and appropriate for our customers. For example, Casitas MWD has individual agreements with their agricultural customers, which specify annual allocations. MOWD has no such agreements. Thus we must depart from the WEAP for agricultural allocations.

As State regulations change and as Casitas MWD modifies its WEAP in the future, MOWD will decide on a case-by-case basis which of those new regulations and modifications to adopt into its ARP.

The Casitas WEAP relies on definitions of “essential” and “non-essential” water uses. Because the definition of essential water use is somewhat arbitrary and subject to regulation, we have substituted the terms “indoor” water use and “outdoor” water use.

Comparing WEAP and Historical Allocations

Before developing this ARP, we did a comparison of historically-based allocations and the Casitas WEAP allocations for a random sampling of customers. The results of our comparison are briefly summarized below:

- 1) Those who are conserving the most water within MOWD would receive a higher allocation from the WEAP than from MOWD's 2016 allocations. Would the WEAP encourage them to waste water? Probably not, since both the historical and WEAP allocations exceed the amount of water they are actually using.
- 2) Most of those customers who are using large amounts of water would receive less allocation from the WEAP. This result was a big surprise. We expected that most of the higher water users have large lots, orchards, and intense landscaping. Instead, we found that most of the higher water users lack justification for the water they were using. Some people with 1/5 acre lots were using 30 units per month, pre-drought. Those are the customers we want our ARP to focus on: those who are using more water than they need; and that is where the WEAP allocations work best.

We looked at the water conservation achieved in 2016 by the customers in our random sample. Again, we found some unexpected results:

- 1) The lowest 1/3 of our residential customers with a 3/4" meter averaged 81 units per year before the drought. We did not expect much conservation from people who were using such low amounts of water. Yet a high fraction of them reduced their annual demand to 35 units. This shows the amounts of conservation that is achievable, and will give us hope if the drought worsens.
- 2) In every category of water use, most people have conserved water, but those reductions were offset by a few customers who used even more water than before the drought. In fact, a few higher water users significantly negate the efforts of the vast majority who are conserving. Those higher water users are the ones targeted in this ARP.

Summary of Potential MOWD Allocation/Rate Program

MOWD will not adopt Casitas MWD's WEAP; instead we would adopt our own Allocation/Rate Program based partly on the WEAP, as follows:

- 1) Assign new customer "baseline allocations" using features of the Casitas WEAP:
 - An "indoor portion" of 10 units/mo per residence (7 units/mo for 2nd homes etc.)
 - An "outdoor portion" based on irrigable area of the property.
 - There is a 2 acre limit on irrigation allocation for residences.
 - Most commercial and agricultural baseline allocations would not change.
 - Allocations would be based on historical use during 2010-2012.
 - Some Ag allocations would be reduced if they used more than 2.5 AF/acre/yr.
 - Ag use would be considered to be "outdoor use."
 - Commercial meters would be assigned 10 units/month as their "indoor portion."
- 2) Reduced allocations during drought stages:
 - The indoor portion of the baseline allocation (10 units/month) would not be reduced.
 - The outdoor portion would be reduced 30% in Stage 3, 40% in Stage 4, etc.
 - We will follow Casitas MWD's lead on drought measures, as appropriate.
- 3) Seasonal variations of water use would be allowed:
 - Residences would be allowed higher water use in the summer using a given formula.
 - Commercial/agriculture would manage their own seasonal use.
 - Water use exceeding monthly or annual limits would be subject to a Conservation Penalty.
- 4) New rate classes: (Examples only -- actual rates will depend on the adopted budget)

Indoor water use	\$2.00/unit	
Outdoor water use	\$3.00/unit	
Conservation penalty		
When MOWD wells operational	\$2.50/unit	(additional charge)
When taking Casitas water	\$5.00/unit	(additional charge)
Meters with annual allocations	pro-rata	(additional charge)

These rate classes are based on the cost of delivering water -- see a later page.
- 5) We will continue our waiver program -- see a later page.
 - Few, if any, changes would be needed to the waivers we've already heard.

MOWD reserves the right to assign baseline allocations to individual customers based on actual audits of their water needs, on a case by case basis.

MOWD Annual Base Allocations

MOWD's Base Allocations represent a reasonable amount of water use in the absence of drought conditions. Base Allocations are derived from elements of Casitas MWD's WEAP.

Residential meters:

Each meter will be assigned a base allocation that includes an "indoor portion" and an "outdoor portion."

Indoor portion: Each customer will receive a monthly allocation for indoor water use:

Single family homes	10 units/month
Multiple-family dwelling units	7 units/month per dwelling unit
Mobile home parks	7 units/month per mobile home
Granny flats and second homes under 2,000 SF	7 units/month
Second/additional homes over 2,000 SF	10 units/month

Outdoor portion: Each customer will receive an annual allocation based on square footage (SF) of irrigable area up to 2 acres, calculated as follows:

First 5,000 SF	15 gallons per SF
Next 10,000 SF	10 gallons per SF
Next 71,684 SF	3 gallons per SF
Over 86,684 SF total	No additional allocation

Irrigable Area: Each residential customer's annual irrigation water allocation shall be based on an irrigable area calculated as follows: From the total area of the customer's parcel(s) served by a meter, subtract out the areas of permanent facilities such as houses, garages, carports, patios, brickwork, sheds, driveways, sidewalks, horse corrals, pools, fountains, gravel parking areas, etc.

Irrigable area shall be limited to the contiguous lots of a single owner.

Commercial and Agricultural Meters:

Annual baseline allocations for these meters shall be based on the average annual historical demand from 2010 through 2012. Agricultural meters will not be assigned an indoor portion. Commercial meters will be assigned an indoor portion of 10 units/month. Their annual outdoor use will be their historical usage less 120 units/yr.

Regardless of historical use, agricultural baseline allocations shall not exceed 2.5 AF/acre of applied water per year.

Future second dwellings: An additional allocation of 7 or 10 units/month would be offset by reducing the irrigable area, taken from the first 5,000 SF of irrigated area. No additional allocation will be provided for outdoor use for second dwellings.

Reduced Allocations During Droughts

During declared droughts, each customer will be assigned a reduced allocation based on his/her baseline allocation, as follows:

Reductions During Drought Stages					
Stage	1	2	3	4	5
Reduction	None*	20%	30%	40%	50%

* Voluntary 20% reductions in effect.

These reductions may be subject to any drought-related adjustments made by Casitas MWD.

Residential

The indoor portion of baseline allocations will normally not be reduced during a drought. The outdoor portion will be reduced during various drought stages as provided in the table.

Commercial Customers

The indoor portion of their baseline allocations (10 units/month) will normally not be reduced during a drought. The remainder of their allocation – based on historical use – is considered to be outdoor use and will be reduced during various drought stages as provided in the table.

Agricultural Customers

All agricultural water use is considered to be outdoor use for the purpose of this allocation/rate program. To calculate reduced allocations during drought stages, total baseline allocations will be reduced in accordance with the table.

Allowance for Seasonal Variations in Customers' Demands

Residential Water Use

The indoor portion of residential allocations shall be taken at a uniform rate each month, as assigned. Since this water is intended to be used inside the home, no increased use in the summertime is necessary. No carryover amount will be allowed from month to month.

The outdoor portion of residential reduced allocations will be distributed among months to allow varying seasonal water use, as follows:

Monthly Irrigation Allowance – Percentage of Irrigation Portion of Reduced Allocation

Month	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
% of Annual Irrigation Allocation	17	17	13	5	5	5	2	2	2	10	10	12

Monthly water use exceeding the sum of the indoor portion and the seasonal monthly outdoor allowance will be subject to the conservation penalty.

Commercial and Agricultural Customers

Commercial and agricultural customers will be responsible for managing their own seasonal variations in water use, and for staying within their annual limits. They will be provided with a reduced allocation each year based on the drought stage then in effect. For this purpose a year will begin on July 1 and end on June 30 of the following year. Once a customer's cumulative usage exceeds his/her reduced allocation for that year, all subsequent water use during that year shall be subject to the Conservation Penalty. This cycle will be restarted each July 1.

Commercial and Agricultural customers will be billed for their Conservation Penalty in the July or August following the July 1 – June 30 allocation period. These customers will be advised of their cumulative usage during the year to assist them with managing their use.

Financial Justification for Higher Rates for Non-Essential Water Use

Our proposed allocation/rate structure will assign higher rates for outdoor uses of water, than for indoor uses of water. This is easy to justify for financial reasons:

Indoor uses of water primarily occur within the home or business, and include drinking, food preparation, dish washing, bathing, flushing toilets, laundry and similar activities. These water uses do not vary substantially throughout the year. It is more efficient, and less costly, for MOWD to deliver water at a constant rate throughout the year.

Irrigation, on the other hand, is the primary outdoor water use within MOWD, both for residences and agriculture. Irrigation requires more water in a few summer months than during the rest of the year. On a unit basis, it is more costly to construct and operate facilities that are used at capacity only a few months of the year.

For example, the indoor water use for the 1250 homes (10 units per month each) and 512 secondary dwellings (7 units per month each) within MOWD can be supplied by a mean flow of 275 gpm throughout the year. Supplying that same annual amount of water to agriculture or to landscaping would require a mean flow of 560 gpm during the peak month of August. More flow means more well capacity, larger pipelines, and even more daily-regulation tank storage. Overall, it is more costly to supply irrigation/agricultural water on peak than to supply indoor water uses that vary little throughout the year.

This is why we are justified in charging a rate for outdoor water uses that is up to 2.04 times the rate for indoor water uses, based on the seasonal variations in demands experienced in our area.

Our historical trends show that even commercial customers have demands that vary throughout the year. They are irrigating landscaping like residential customers.

Economic Justice Issues

A guiding principle in our *Drought Contingency Plan* is that

“Water is a necessity of life and we should ensure that those who can most afford it do not take essential water away from those less able to afford it.”

The question is, can we utilize elements of the Casitas WEAP and implement a rate structure that better satisfies this principle?

Perhaps the most important element of the WEAP is that it creates a privileged class of water use: “indoor uses”. Each primary residence would receive the same 10 units of water per month for that type of use. A small house on a 1/6 acre parcel would receive the same indoor allocation as a 6,000 square-foot mansion on 5 acres.

Under our prior allocation method, small water users, whose water use is already dedicated for indoor uses, are squeezed down further in a drought – down to 7.5 units/month in Stage 5. While larger water users can reduce their irrigation to sustain indoor uses, smaller water users don’t have that option. Under the WEAP, indoor uses of water are not reduced during drought stages. This provision helps everyone, but primarily the smaller customers, compared to our current method.

Unlike indoor uses of water, outdoor uses would be reduced during drought stages. Those with large lots and orchards will have their allocations reduced at a greater proportion than smaller water users. As the lake approaches empty, it may be that only indoor uses of water will be allowed. That would be a great equalizer: large homes would receive the same allocation as small homes.

Most important, implementing two classes of water (indoor and outdoor) allows us to charge rates more closely related to the cost of delivering water. Smaller customers have demands that vary less during the year. In a sense, they have been subsidizing the delivery capacity required by larger customers only a few months of the year. Having two rate classes is fairer to our smaller water users.

Finally, the 2 acre limit on irrigation allocation is progressive. No single family needs more than 2 acres of irrigated landscaping during a severe drought.

Overall, our new proposed allocation/rate program appears to be better for our smaller customers. Having a more equitable allocation program also justifies more stringent penalties for those who exceed their allocations.

Waiver Program

See the current version of MOWD's *Drought Contingency Plan* for a description of the waiver program and process. Additional details will be developed for possible adoption by the Board.

Seasonal Allocation Overview Residential Only

Base allocations for single family homes equal 120 units/year which is not subject to mandatory drought reductions. Non-essential outdoor water will be calculated and added to the total amount of allocated water to that property which, would be subject to mandatory drought reductions. Seasonal variations for residential properties only could look as follows;

Example:

If a customer had a base of 10 units/month for indoor use and 20 units/month for non-essential outdoor use, totaling 30 units/month.

Calculation: Outdoor base 240 units/year multiplied by the monthly percentage plus the indoor base equals monthly allocation.

Stage 1

Voluntary 20% Reductions only

Indoor base = 10

Outdoor base = 240

July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June
17%	17%	13%	05%	05%	05%	02%	02%	02%	10%	10%	12%
51 units	51 units	42 units	22 units	22 units	22 units	15 units	15 units	15 units	34 units	34 units	39 units

Stage 2

20% Mandatory Drought Reduction

Indoor base = 10

Outdoor base = 192

July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June
17%	17%	13%	05%	05%	05%	02%	02%	02%	10%	10%	12%
43 units	43 units	35 units	20 units	20 units	20 units	14 units	14 units	14 units	29 units	29 units	33 units

Stage 3

30% Mandatory Drought Reduction

Indoor base = 10

Outdoor base = 168

July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June
17%	17%	13%	05%	05%	05%	02%	02%	02%	10%	10%	12%
39 units	39 units	32 units	18 units	18 units	18 units	13 units	13 units	13 units	27 units	27 units	30 units

Stage 4

40% Mandatory Drought Reductions

Indoor base = 10

Outdoor base = 144

July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June
17%	17%	13%	05%	05%	05%	02%	02%	02%	10%	10%	12%
34 units	34 units	29 units	17 units	17 units	17 units	13 units	13 units	13 units	24 units	24 units	27 units

Stage 5

50% Mandatory Drought Reductions

Indoor base = 10

Outdoor base = 120

July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June
17%	17%	13%	05%	05%	05%	02%	02%	02%	10%	10%	12%
30 units	30 units	26 units	16 units	16 units	16 units	12 units	12 units	12 units	22 units	22 units	24 units