

CITY OF MERCED

"Gateway to Yosemite"



DROUGHT AND WATER CONSERVATION ADVISORY/AD HOC COMMITTEE

AGENDA

Merced Civic Center
Third Floor Conference Room

678 W. 18th Street
Wednesday, April 22, 2014
3:30 p.m.

- A. **CALL TO ORDER**
- B. **ATTENDANCE**

POLICY RELATED ITEMS

- C. **DISCUSSION OF COMMITTEE MEMBERS' QUALIFICATIONS**
(3 volunteering council members and up to 4 voluntary public members)
- D. **SELECTION OF CHAIRPERSON**

DROUGHT AND WATER CONSERVATION RELATED ITEMS (Public Works Department)

- E. **GOVERNOR EXECUTIVE ORDERS**
- F. **STATE WATER RESOURCES CONTROL BOARD SCHEDULE**
- G. **STATE WATER RESOURCES CONTROL DRAFT REGULATIONS**
- H. **WATER PRODUCTION REPORT AND WELL DEPTHS**

I. **CUSTOMER CLASS USAGE AND CITY RANKING**

BUSINESS

J. **PARKS OPERATIONS**

K. **CONSERVATION MEASURES AND INCENTIVES**

ADJOURNMENT:

L. **SET DATE FOR NEXT MEETING**

E. Governor Brown's Executive Orders

On April 1, 2015, Governor Brown renewed 2014 emergency regulations, and issued additional drought executive orders directing the State Water Board to implement mandatory water restrictions and prohibitions to reduce statewide water use by 25% through February 28, 2016. The city's water shortage ordinance complied with the 2014 emergency regulations and the city ordinance will need to be updated to include:

- Prohibition from irrigating turf or ornamental landscapes during and 48 hours following measurable precipitation.
- Restaurants and other food service establishments can serve water to customers only upon request.
- Operators of hotels and motels must provide guests with the option of choosing not to have towels and linens laundered daily; notice of this option must be prominently displayed.
- Additional water supplier reporting and enforcement requirements.

The Governor's mandate for the Water Board to adopt restrictions and prohibition regulations by May 6, 2015, also requires water suppliers with high per capita use achieve proportionally greater reductions than 25%. Based on this requirement, the Water Board expects Merced to achieve a reduction of 36%.

The executive order directs the State Water Resources Control Board Water Board to adopt emergency regulations to reduce statewide water use by 25% through February 28, 2016. Among other regulations the Water Board may adopt to achieve 25% reduction, the executive order mandates the Water Board regulations:

- Impose restrictions to require that commercial, industrial, and institutional properties, such as campuses, golf courses, and cemeteries, immediately implement water efficiency measures to reduce potable water usage in an amount consistent with the reduction targets.
- Prohibit of irrigation with potable water of ornamental turf on public street medians.
- Prohibit irrigation with potable water outside of newly constructed homes and buildings that is not delivered by drip or microspray systems.

- Direct urban water suppliers to develop rate structures and other pricing mechanisms, including but not limited to surcharges, fees, and penalties, to maximize water conservation consistent with statewide water restrictions. The Water Board is directed to adopt emergency regulations, as it deems necessary, pursuant to Water Code section 1058.5 to implement this directive. The Water Board is further directed to work with state agencies and water suppliers to identify mechanisms that would encourage and facilitate the adoption of rate structures and other pricing mechanisms that promote water conservation.
- Require urban water suppliers to provide monthly information on water usage, conservation, and enforcement on a permanent basis.

Full text of Executive Order B-29-15 may be found at http://gov.ca.gov/docs/4.1.15_Executive_Order.pdf

F. STATE WATER RESOURCES CONTROL BOARD SCHEDULE

Below is the schedule to adopt state emergency draught and water conservation regulations as posted in various places on the Water Board’s website as of April 21, 2015.



State Water Board Drought Year Water Actions

Proposed Emergency Conservation Regulation Schedule

The State Water Board is committed to expedited development of the requirements to implement the Governor's directive for Californians to reduce water use by 25%. The proposed schedule below is for the development of emergency regulations to implement both the new prohibitions and restrictions on water use as well as the 25% statewide reduction in potable urban water use contained in the April 1, 2015 Executive Order.

- Governor issues Drought Executive Order - **April 1, 2015**

- Notice announcing release of draft regulatory framework and request for public comment - **April 7, 2015**

- Notice announcing release of draft regulations for informal public comment - **April 17, 2015**

- Emergency rulemaking formal notice - **April 28, 2015**

- Board hearing and adoption - **May 5 or 6, 2015**

(Update 4/2/15)

The schedule may also be found at:

http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/executive_order_schedule.shtml

Another Water Board Fact Sheet reveals additional scheduling information as follows:

- Formal Notice of Proposed Rulemaking and written comment period - **April 28, 2015**
- Board hearing and adoption - **May 5-6, 2015**
- Office of Administrative Law approval - **May 15, 2015**
- Specific prohibitions become effective - **May 15, 2015**
- First (June) report on water production and other conservation measures due - **July 15, 2015**

The Fact Sheet may also be found at:

http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/docs/emergency_regulations/general_information.pdf

Final public comment on the emergency regulation can be made at the Board meeting on May 5, 2015. The specific prohibitions in the emergency regulation will take effect immediately upon approval by the Office of Administrative Law. Urban water suppliers will be expected to begin implementing measures to meet their mandatory reduction targets by June 1, 2015 to ensure maximum conservation during the summer months.

G. DRAFT STATE WATER BOARD EMERGENCY REGULATION

Attached is the draft proposed drought and water conservation emergency regulation text as posted on Water Board's website as of April 21, 2015. The text may also be found at:

http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/docs/emergency_regulations/draft_emergency_regs.pdf

PROPOSED TEXT OF EMERGENCY REGULATION

Article 22.5. Drought Emergency Water Conservation.

Sec. 863. Findings of Drought Emergency.

(a) The State Water Resources Control Board finds as follows:

(1) On January 17, 2014, the Governor issued a proclamation of a state of emergency under the California Emergency Services Act based on drought conditions;

(2) On April 25, 2014, the Governor issued a proclamation of a continued state of emergency under the California Emergency Services Act based on continued drought conditions;

(3) On April 1, 2015, the Governor issued an Executive Order that, in part, directs the State Board to impose restrictions on water suppliers to achieve a statewide 25 percent reduction in potable urban usage through February 28, 2016; require commercial, industrial, and institutional users to implement water efficiency measures; prohibit irrigation with potable water of ornamental turf in public street medians; and prohibit irrigation with potable water outside newly constructed homes and buildings that is not delivered by drip or microspray systems;

~~(34)~~ The drought conditions that formed the basis of the Governor's emergency proclamations continue to exist;

~~(45)~~ The present year is critically dry and has been immediately preceded by two or more consecutive below normal, dry, or critically dry years; and

~~(56)~~ The drought conditions will likely continue for the foreseeable future and additional action by both the State Water Resources Control Board and local water suppliers will likely be necessary to prevent waste and unreasonable use of water and to further promote conservation.

Authority: Section 1058.5, Water Code.

References: Sections 102, 104 and 105, Water Code.

Sec. 864. End-User Requirements in Promotion of Water Conservation.

(a) To prevent the waste and unreasonable use of water and to promote water conservation, each of the following actions is prohibited, except where necessary to address an immediate health and safety need or to comply with a term or condition in a permit issued by a state or federal agency:

(1) The application of potable water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures;

(2) The use of a hose that dispenses potable water to wash a motor vehicle, except where the hose is fitted with a shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use;

(3) The application of potable water to driveways and sidewalks; and

(4) The use of potable water in a fountain or other decorative water feature, except where the water is part of a recirculating system;

(5) The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall; ~~and~~

(6) The serving of drinking water other than upon request in eating or drinking establishments, including but not limited to restaurants, hotels, cafes, cafeterias, bars, or other public places where food or drink are served and/or purchased-;

(7) The irrigation with potable water of ornamental turf on public street medians;
and

(8) The irrigation with potable water outside of newly constructed homes and buildings that is not delivered by drip or microspray systems.

(b) To promote water conservation, operators of hotels and motels shall provide guests with the option of choosing not to have towels and linens laundered daily. The hotel or motel shall prominently display notice of this option in each guestroom using clear and easily understood language.

(c) Immediately upon this subdivision taking effect, all commercial, industrial and institutional properties not served by a water supplier meeting the requirements of Water Code section 10617 or section 350 shall either:

(1) Limit outdoor irrigation of ornamental landscapes or turf with potable water to no more than two days per week; or

(2) Reduce potable water usage by 25 percent for the months of June 2015 through February 2016 as compared to the amount used for the same months in 2013.

(ed) The taking of any action prohibited in subdivision (a) or the failure to take any action required in subdivisions (b) or (c), in addition to any other applicable civil or criminal penalties, is an infraction, punishable by a fine of up to five hundred dollars (\$500) for each day in which the violation occurs.

Authority: Section 1058.5, Water Code.

References: Sections 102, 104, ~~and~~ 105, 350, and 10617, Water Code.

Sec. 865. Mandatory Actions by Water Suppliers.

(a) The term "urban water supplier," when used in this section, refers to a supplier that meets the definition set forth in Water Code section 10617, except it does not refer to suppliers when they are functioning solely in a wholesale capacity, but does apply to suppliers when they are functioning in a retail capacity.

~~(b)(1) To promote water conservation, each urban water supplier shall implement all requirements and actions of the stage of its water shortage contingency plan that imposes includes mandatory restrictions on the number of days that outdoor irrigation of ornamental landscapes or turf with potable water is allowed, or shall amend its water shortage contingency plan to include mandatory restrictions on the number of days that outdoor irrigation of ornamental landscapes or turf with potable water is allowed and implement these restrictions within forty five (45) days. Urban water suppliers with approved alternate plans as described in subdivision (b)(2) are exempted from this requirement.~~

~~(2) An urban water supplier may submit a request to the Executive Director for approval of an alternate plan that includes allocation based rate structures that satisfies the requirements of chapter 3.4 (commencing with section 370) of division 1 of the Water~~

~~Code, and the Executive Director may approve such an alternate plan upon determining that the rate structure, in conjunction with other measures, achieves a level of conservation that would be superior to that achieved by implementing limitations on outdoor irrigation of ornamental landscapes or turf with potable water by the persons it serves to no more than two days per week.~~

~~————(c) To promote water conservation, each urban water supplier that does not have a water shortage contingency plan that restricts the number of days that outdoor irrigation of ornamental landscapes and turf with potable water is allowed, or has been notified by the Department of Water Resources that its water shortage contingency plan does not meet the requirements of Water Code section 10632 shall, within forty five (45) days, limit outdoor irrigation of ornamental landscapes or turf with potable water by the persons it serves to no more than two days per week.~~

(db) In furtherance of the promotion of water conservation each urban water supplier shall:

(1) Provide prompt notice to a customer whenever the supplier obtains information that indicates that a leak may exist within the end-users exclusive control.

(2) Prepare and submit to the State Water Resources Control Board by the 15th of each month a monitoring report on forms provided by the Board. The monitoring report shall include the amount of potable water the urban water supplier produced, including water provided by a wholesaler, in the preceding calendar month and shall compare that amount to the amount produced in the same calendar month in 2013. The monitoring report shall specify the population served by the urban water supplier, the percentage of water produced that is used for the residential sector, descriptive statistics on water conservation compliance and enforcement efforts, ~~and~~ the number of days that outdoor irrigation is allowed, monthly commercial sector use, monthly industrial sector use, and monthly institutional sector use. The monitoring report shall also estimate the gallons of water per person per day used by the residential customers it serves.

(c)(1) To prevent the waste and unreasonable use of water and to meet the requirements of the Governor's April 1, 2015 Executive Order, each urban water supplier shall reduce its total potable water production by the percentage identified as its conservation standard in this subdivision. Each urban water supplier's conservation standard considers its service area's relative per capita water usage.

(2) Each urban water supplier whose source of supply does not include groundwater or water imported from outside the hydrologic region and that received average annual precipitation in 2014 may, notwithstanding its average July-September 2014 R-GPCD, submit for Executive Director approval a request to reduce its total water usage by 4 percent for each month as compared to the amount used in the same month in 2013. Any such request shall be accompanied by information showing that the supplier's sources of supply do not include groundwater or water imported from outside the hydrologic region and that the supplier's service area received average annual precipitation in 2014.

(3) Each urban water supplier whose average July-September 2014 R-GPCD was less than 65 shall reduce its total water usage by 8 percent for each month as compared to the amount used in the same month in 2013.

(4) Each urban water supplier whose average July-September 2014 R-GPCD was between 65 and 79.9 shall reduce its total water usage by 12 percent for each month as compared to the amount used in the same month in 2013.

(5) Each urban water supplier whose average July-September 2014 R-GPCD was between 80 and 94.9 shall reduce its total water usage by 16 percent for each month as compared to the amount used in the same month in 2013.

(6) Each urban water supplier whose average July-September 2014 R-GPCD was between 95 and 109.9 shall reduce its total water usage by 20 percent for each month as compared to the amount used in the same month in 2013.

(7) Each urban water supplier whose average July-September 2014 R-GPCD was between 110 and 129.9 shall reduce its total water usage by 24 percent for each month as compared to the amount used in the same month in 2013.

(8) Each urban water supplier whose average July-September 2014 R-GPCD was between 130 and 169.9 shall reduce its total water usage by 28 percent for each month as compared to the amount used in the same month in 2013.

(9) Each urban water supplier whose average July-September 2014 R-GPCD was between 170 and 214.9 shall reduce its total water usage by 32 percent for each month as compared to the amount used in the same month in 2013.

(10) Each urban water supplier whose average July-September 2014 R-GPCD was greater than 215 shall reduce its total water usage by 36 percent for each month as compared to the amount used in the same month in 2013.

(d)(1) Beginning June 1, 2015, each urban water supplier shall comply with the conservation standard specified subdivision (c).

(2) Compliance with the requirements of this subdivision shall be measured monthly and assessed on a cumulative basis.

(e) Each urban water supplier that serves 20 percent or more of its total production for commercial agricultural use meeting the definition of Government Code section 51201, subdivision (a) may subtract the amount of water supplied for commercial agricultural use from its water production total, provided that the supplier complies with the Agricultural Water Management Plan requirement of paragraph 12 of the April 1, 2015 Executive Order. Each urban water supplier that serves 20 percent or more of its total production for commercial agricultural use meeting the definition of Government Code section 51201, subdivision (a) shall certify that the agricultural uses it serves meet the definition of Government Code section 51201, subdivision (a), and shall report its total water production pursuant to subdivision (b)(2), identifying the total amount of water supplied for commercial agricultural use.

(ef)(1) To prevent waste and unreasonable use of water and to promote water conservation, each distributor of a public water supply, as defined in Water Code section 350, that is not an urban water supplier shall, ~~within forty five (45) days,~~ take one or more of the following actions:

(4A) Limit outdoor irrigation of ornamental landscapes or turf with potable water by the persons it serves to no more than two days per week; or

(2B) Implement another mandatory conservation measure or measures intended to achieve a ~~20~~25 percent reduction in water consumption by the persons it serves relative to the amount consumed in 2013.

(2) Each distributor of a public water supply, as defined in Water Code section 350, that is not an urban water supplier shall submit a report by December 15, 2015, on a form provided by the Board, that includes:

(A) Total potable water production, by month, from June through November, 2015, and total potable water production, by month, for June through November 2013; or

(B) Confirmation that the distributor limited outdoor irrigation of ornamental landscapes or turf with potable water by the persons it serves to no more than two days per week.

Authority: Section 1058.5, Water Code.

References: Sections 102, 104, 105, 350, 1846, 10617 and 10632, Water Code.

Sec. 866. Additional Conservation Tools.

(a)(1) To prevent the waste and unreasonable use of water and to promote conservation, when a water supplier does not meet its conservation standard required by section 865 the Executive Director, or his designee, may issue conservation orders requiring additional actions by the supplier to come into compliance with its conservation standard.

(2) All conservation orders issued under this article shall be subject to reconsideration under article 2 (commencing with section 1122) of chapter 4 of part 1 of division 2 of the California Water Code.

(b) The Executive Director, or his designee, may issue an informational order requiring water suppliers, or commercial, industrial or institutional properties not served by a water supplier meeting the requirements of Water Code section 10617 or section 350, to submit additional information beyond that required to be reported pursuant to the other provisions of this article. The failure to provide the information requested within 30 days or any additional time extension granted is a violation subject to civil liability of up to \$500 per day for each day the violation continues pursuant to Water Code section 1846.

Authority: Section 1058.5, Water Code.

References: Sections 100, 102, 104, 105, 174, 186, 187, 275, 350, 1051, 1122, 1123, 1825, 1846, 10617 and 10632, Water Code.

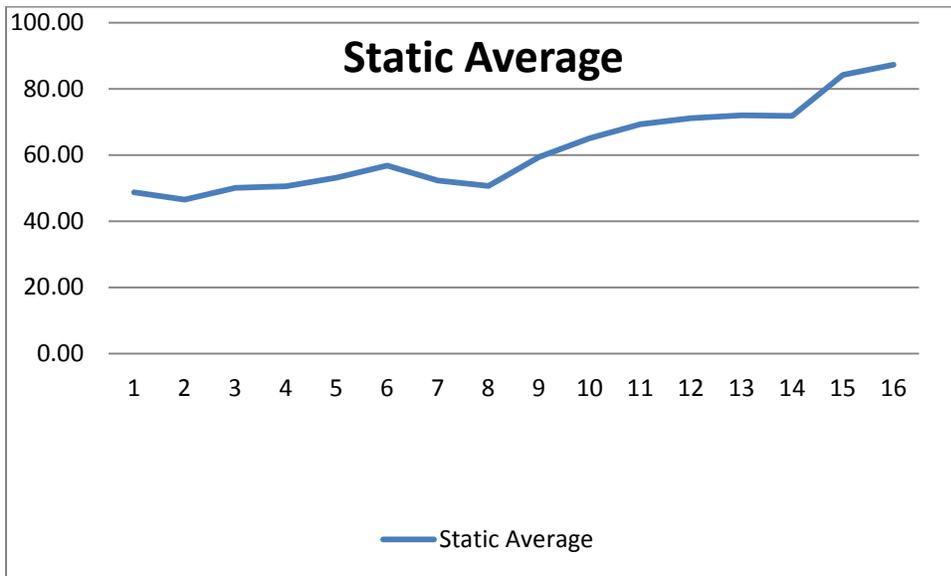
H. WATER PRODUCTION REPORT, CUSTOMER CLASS USAGE AND CITY RANKING

Water savings has increased from the previous year, as noted in this month by month table of water production in gallons:

Pumping	2013	2014	2015	increase/decrease	%
Jan	389,480,000	439,540,000	335,350,000	-54,130,000.00	-13.90%
Feb	351,680,000	353,900,000	320,840,000	-30,840,000.00	-8.77%
Mar	500,480,000	431,800,000	425,450,000	-75,030,000.00	-14.99%
Apr	642,330,000	560,090,000		-82,240,000.00	-12.80%
May	935,740,000	820,720,000		-115,020,000.00	-12.29%
Jun	1,071,990,000	990,190,000		-81,800,000.00	-7.63%
July	1,197,140,000	1,089,540,000		-107,600,000.00	-8.99%
Aug	1,155,680,000	1,034,100,000		-121,580,000.00	-10.52%
Sep	970,910,000	932,870,000		-38,040,000.00	-3.92%
Oct	781,840,000	776,570,000		-5,270,000.00	-0.67%
Nov	547,270,000	442,680,000		-104,590,000.00	-19.11%
Dec	406,140,000	350,440,000		-55,700,000.00	-13.71%

The highlighted entries between June 2014 and February 2015 were compared with 2013 to develop the state's ranking with other urban water suppliers on a per capita basis. The draft regulation assigns urban water suppliers to 9 tiers of water reduction to be achieved ranging from 8% for tier 1 to 36% for tier 9. The tier 9 36% reduction going forward will be based on 2013 water production.

Average Well depths to static groundwater for all municipal wells for the last 15 years are shown in the graph below.



Between 2000 and 2008 the average change in depth was 1.19 feet per year.

Between 2008 and 2015 the average change in depth was 3.48 feet per year.

I. CUSTOMER USAGE AND CITY RANKING

Customer class annual average usage for 2014 was as follows:

Type	Annual Usage (MG)	Percentage (%)
Metered Single Family	1,253.06	15
Metered Multi-Family	991.28	12
Metered Commercial	948.61	12
Metered Industrial	124.87	2
Metered Landscape	508.44	6
8% Loss	657.79	8
Flat Rate Single Family	3738.35	45
Total	8222.4	100

The draft regulation assigns urban water suppliers to 9 tiers of water reduction to be achieved ranging from 8% for tier 1 to 36% for tier 9. The 36% reduction going forward will be based on 2013 usage.

Supplier Name	2013 (Jun - Feb) (gallons)	2014/15 (Jun-14 - Feb-15) (gallons)	Total Water Saved (gallons)	Percent Saved (%)	Jul-Sep 2014 (GPCD)	Conservation Standard
Merced City of	6,872,130,000	6,271,910,000	600,220,000	9%	298.8	36%

Usage tiers for all public water suppliers may be found at:

http://www.swrcb.ca.gov/waterrights/water_issues/programs/drought/docs/emergency_regulations/draft_usage_tiers.pdf

J. Conservation Measures and Incentives

- Executive Order & Water Board Measures:
 - Prohibition from irrigating turf or ornamental landscapes during and 48 hours following measurable precipitation.
 - Restaurants and other food service establishments can serve water to customers only upon request.
 - Operators of hotels and motels must provide guests with the option of choosing not to have towels and linens laundered daily; notice of this option must be prominently displayed.
 - Additional water supplier reporting and enforcement requirements.
 - Impose restrictions to require that commercial, industrial, and institutional properties, such as campuses, golf courses, and cemeteries, immediately implement water efficiency measures to reduce potable water usage in an amount consistent with the reduction targets.
 - Prohibit of irrigation with potable water of ornamental turf on public street medians.
 - Prohibit irrigation with potable water outside of newly constructed homes and buildings that is not delivered by drip or microspray systems.
 - Direct urban water suppliers to develop rate structures and other pricing mechanisms, including but not limited to surcharges, fees, and penalties, to maximize water conservation consistent with statewide water restrictions. The Water Board is directed to adopt emergency regulations, as it deems necessary, pursuant to Water Code section 1058.5 to implement this directive. The Water Board is further directed to work with state agencies and water suppliers to identify mechanisms that would encourage and facilitate the adoption of rate structures and other pricing mechanisms that promote water conservation (Recent judicial action has found tiered rates to be unconstitutional).
 - Require urban water suppliers to provide monthly information on water usage, conservation, and enforcement on a permanent basis.

- Conservation Measures and Incentives
 - High Efficiency washing machine rebates at 10,000 units = 0.5% water saving per year
 - Toilets Rebates at 20,000 units = 0.05% water savings for year
 - Cash for grass rebates; 33 gallons per square foot saved annually *
1,000,000 sq ft = 0.4% water savings for the year
 - Stepped up water patrols = 0.5% water savings per year
 - Modified Fire Department hydrant testing and flushing = 1% per year
 - Reduced parks watering = 1% per year
 - Install water meters at 10,800 units = 25% water savings per year