**Emergency Regulations Digest** (Gov. Code , § 11346.1, subd. (b))

**Prohibition of Activities and Mandatory Actions During Drought Emergency – Informative Digest (Emergency Regulation Digest (Gov. Code , § 11346.1, subd. (b))**

## FINDING OF EMERGENCY

The State Water Resources Control Board (State Water Board or Board) finds that an emergency exists due to severe drought conditions and that adoption of the proposed emergency regulation is necessary to address the emergency and extend and adjust current restrictions until rain and snowfall place the State in the position where the existing restrictions are no longer necessary, or could be further tempered. California continues to face significant drought resulting in severe impacts to California's water supplies and its ability to meet all of the demands for water in the State.

On January 17, 2014, Governor Edmund G. Brown, Jr. declared a drought state of emergency. On April 25, 2014, the Governor signed an Executive Order (April 2014 Proclamation) stating, among other things, "…*that severe drought conditions continue to present urgent challenges: water shortages in communities across the state, greatly increased wildfire activity, diminished water for agricultural production, degraded habitat for many fish and wildlife species, threat of saltwater contamination of large fresh water supplies conveyed through the Sacramento-San Joaquin Bay Delta, and additional water scarcity if drought conditions continue into 2015*."

On December 22, 2014, Governor Brown issued Executive Order B-28-14, which extended the suspension of the California Environmental Quality Act for certain activities contained in the January 2014 and April 2014 Proclamations, including the State Water Board adoption of emergency regulations pursuant to Water Code section 1058.5, through May 31, 2016. On March 17, 2015, the Board adopted an expanded emergency conservation regulation prohibiting certain irrigation practices, restricting certain commercial activities, and ordering all urban water suppliers to implement mandatory restrictions on outdoor irrigation. The emergency regulation orders larger urban water suppliers; i.e., those providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, excluding wholesalers; to provide monthly data on water production, enforcement, and outdoor water conservation measures being implemented.

On April 1, 2015, Governor Brown signed Executive Order B-29-15, directing the State Water Board to impose restrictions to achieve a statewide 25 percent reduction in potable urban water usage through February 2016, as compared to the amount used in 2013. The Governor instructed the State Water Board to consider the relative per capita water usage of each supplier's service area and to require those areas with high per capita use to achieve proportionally greater reductions than those with low use. The order mandates that the Governor's January 17, 2014 Proclamation, April 25, 2014 Proclamation, Executive Order B-26-14, and Executive Order B-28-14 remain in full force and effect, except as modified.

Executive Order B-29-15 also directs the State Water Board to require that commercial, industrial, and institutional properties implement water efficiency measures consistent with the reduction targets. The order instructs the State Water Board to prohibit irrigation with potable water of ornamental turf on public street medians, and to prohibit irrigation of landscapes with potable water outside newly constructed homes and buildings in a manner inconsistent with regulations or other requirements established by the California Building Standards Commission.

On November 13, 2015, Governor Brown issued Executive Order B-36-15 (EO B-36-15) calling for an extension of urban water use restrictions until October 31, 2016, should drought conditions persist through January 2016. The urban water use restrictions in effect as of May 18, 2015, expire February 13, 2016 without this extension. Additionally, this Executive Order also directs the State Water Board to consider modifying the restrictions to address uses of potable and non-potable water, as well as to incorporate insights gained from the existing restrictions.

While the state has experienced some much-needed snow and rainfall in December and January, surface storage remains at or near historic lows, precipitation has been inconsistent, and snowpack is about average as of January 15, 2016.

## Authority for Emergency Regulations

Water Code section 1058.5 grants the State Water Board the authority to adopt emergency regulations during a period when the Governor has issued a proclamation of emergency based upon drought conditions. The State Water Board may adopt regulations under such circumstances to: “prevent the waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion, of water, to promote water recycling or water conservation, to require curtailment of diversions when water is not available under the diverter’s priority of right, or in furtherance of any of the foregoing, to require reporting of diversion or use or the preparation of monitoring reports.”

Emergency regulations adopted under Water Code section 1058.5 may remain in effect for up to 270 days. Per Water Code section 1058.5, subdivision (b), any findings of emergency the State Water Board makes in connection with the adoption of an emergency regulation under the section are not subject to review by OAL.

Government Code section 11346.1, subdivision (a)(2) requires that, at least five working days prior to submission of the proposed emergency action to OAL, the adopting agency provide a notice of the proposed emergency action to every person who has filed a request for notice of regulatory action with the agency. After submission of the proposed emergency regulations to OAL, OAL shall allow interested persons five calendar days to submit comments on the proposed emergency regulations as set forth in Government Code Section 11349.6.

**Emergency Regulations Digest** (Gov. Code , § 11346.1, subd. (b))

The information contained within this finding of emergency provides the information necessary to support the State Water Board's emergency rulemaking under Water Code section 1058.5 and also meets the emergency regulation criteria of Government Code section 11346.1 and the applicable requirements of section 11346.5.

## Evidence of Emergency

The U.S. Drought Monitor as of January 12, 2016 classifies 97 percent the state of California as experiencing drought, with 88 percent designated as severe, extreme, and exceptional drought. This compares to 94 percent designated as severe, extreme, and exceptional drought a year ago on the same date. It shows slight improvement and highlights that the emergency continues.

Last year the warm and relatively dry weather conditions eliminated the snowpack in California's mountains and that led to greater reliance on already low reservoirs and groundwater. Consequently, the 2015-16 water year started with significant water deficits from which we have yet to recover, as shown below:

**Reservoirs**
Major California water reservoirs are storing far less water than they were at the same time last year. Current storage levels in key reservoirs, as of January 13, 2016, reflect this trend. Shasta Lake, California's and the Central Valley Project's (CVP) largest reservoir, is at 34 percent of its 4.5 million acre-feet (MAF) capacity (52 percent of its historical average for this date). Lake Oroville, the State Water Project's (SWP) principal reservoir, is at 30 percent of its 3.5 MAF capacity (48 percent of its historical average for this date). Folsom Reservoir is at 28 percent of its 1 MAF capacity (56 percent of average for this date). New Melones Reservoir is at 14 percent of its 2.4 MAF capacity (24 percent of average for this date). New Don Pedro Reservoir is at 36 percent of its 2 MAF capacity (54 percent of average for this date). While these levels have been and will hopefully continue to rise, significant rainfall will be needed to offset the past years of drought conditions.

**Precipitation and Snowpack**
According to the Department of Water Resources (DWR), in normal years, the snowpack supplies about 30 percent of California's water needs as it melts in the spring and early summer. As of January 13, 2016, northern portions of the state, where major reservoirs are located, percentages of precipitation and snow water content were close to or slightly above average for that date: Sacramento Region cumulative precipitation was 97 percent of average (8-Station Index) and Northern Sierra snow water content was 107 percent of average, while Central and Southern Sierra precipitation was 117 and 112 percent of average, and snow water content was 105 and 112 percent of average, respectively. While these levels are encouraging, there are still large deficits to make up.

**Groundwater**
During dry years, groundwater contributes up to 46 percent (or more) of the statewide

annual supply (DWR, www.water.ca.gov/groundwater, accessed on January 20, 2016). Even an extremely wet winter will not raise groundwater levels to pre-drought elevations after four consecutive dry years. Groundwater impacts include overdraft, loss of storage, seawater intrusion, land subsidence, depletion of interconnected surface waters, and water quality degradation. From January 2014 to November 2015 the number of households reporting water supply shortages (e.g., dry wells) doubled from 1,500 reported incidents to over 3,000 and anecdotal information suggests higher numbers.

In most years, California receives about half of its precipitation in the months of December, January and February, with much of that precipitation falling as snow in the Sierra. As noted above, while precipitation and current snow water content readings are higher than last year, the major water reservoirs are storing far less water this year than their late-December historical averages. Local, state, and federal water agencies across California continue to have limited supplies due to the drought, with few exceptions.

Entering the rainy season with a strong El Niño suggests the possibility of high precipitation. To date, high precipitation has occurred in limited regions of California. Recent predictions indicate a strong El Niño is expected to gradually weaken through spring 2016, and transition to El Niño–Southern Oscillation (ENSO)-neutral during late spring or early summer. Only a handful of large winter storms can make the difference between a wet year and a dry one, meaning we simply do not know what hydrologic conditions will exist at the end of March. It is imperative that we continue to conserve, while we monitor conditions and adapt requirements as appropriate based on water supply conditions.

## Need for the Regulation

To address the on-going severity of the drought emergency, Governor Brown issued Executive Order B-36-15 and directed the State Water Board to extend urban water use restrictions until Oct. 31, 2016, should drought conditions persist through January 2016. Immediate action is needed to prevent a lapse in the current water conservation restrictions, to meet the Governor's directive, to prevent the waste and unreasonable use of water, and to conserve remaining water supplies until existing restrictions are no longer necessary. Data collected by the State Water Board under the existing emergency regulation demonstrate that urban water conservation efforts since June 2015 have eclipsed the 25 percent statewide target, through the significant efforts of the suppliers and their customers. The May 2015 Emergency Regulation quickly and effectively allowed for implementation and enforcement of mandatory water conservation measures to help preserve the State's supplies during the ongoing drought emergency. These efforts should continue as they minimize the risk of severe supply shortages while drought conditions persist. The proposed Emergency Regulation extends and adjusts current restrictions to help prevent the waste and unreasonable use of water and promote water conservation, in a more equitable manner, during a

period when the Governor has issued a proclamation of emergency based upon drought conditions.

While the State Water Board is not, through this rulemaking, declaring any particular use or practice a waste or unreasonable use of water, it is necessary, based on the severity of the current drought conditions that all reasonable efforts be taken to prevent the waste or unreasonable use of water. As the California Supreme Court has long held, "what may be a reasonable beneficial use, where water is present in excess of all needs, would not be a reasonable beneficial use in an area of great scarcity and great need. What is a beneficial use at one time may, because of changed conditions, become a waste of water at a later time." (*Light v. State Water Resources Control Board* (2014) 226 Cal.App.4th 1463, 1479 (*Light*), quoting *Tulare Dist. v. Lindsay Strathmore Dist*. (1935) 3 Cal.2d 489, 567.) The Supreme Court has further clarified that "'although, as we have said, what is a reasonable use of water depends on the circumstances of each case, such an inquiry cannot be resolved *in vacuo* isolated from statewide considerations of transcendent importance. Paramount among these we see the ever increasing need for the conservation of water in this state, an inescapable reality of life quite apart from its express recognition in [Article X, Section 2.]'" (*Light*, *supra*, 226 Cal.App.4th at 1479, quoting *Joslin v. Marin Mun. Water Dist*. (1967) 67 Cal. 2d 132, 138.)

## Description and Effect of Proposed Regulation

The proposed Emergency Regulation would essentially extend the existing May 2015 Emergency Regulation and maintain many of the same requirements that apply currently.

Continuing requirements cover: a prohibition on certain irrigation practices; an order that all urban water suppliers, as defined, reduce their total potable water production by a defined percentage; an order that other distributors of public water supply, as defined, reduce potable water consumption; and an order for all self-supplied commercial, industrial, institutional water users to reduce potable water usage; and reporting requirements and tools to ensure compliance.

Proposed changes to the May 2015 Emergency Regulation (see Fact Sheet: *Extending the Emergency Water Conservation Regulation, January 15, 2016*) primarily focus on:

1. Credits and adjustments to urban water suppliers' conservation standards that consider the differences in climate affecting different parts of the state; growth experienced by urban areas; and significant investments that have been made by some suppliers toward creating new, local, drought-resilient sources of potable water supply.
2. Penalties for homeowners' associations or community service organizations impeding homeowners from reducing or eliminating the watering of vegetation or

lawns during a declared drought emergency, as described in existing Civil Code provisions.

3. Further defining what agricultural uses may be subtracted from a supplier's potable water production total.
4. Updates to compliance and reporting timelines.

All of these requirements are intended to safeguard urban water supplies in the event of continued drought, minimize the potential for waste and unreasonable use of water, and achieve a statewide potable water usage reduction ordered by Governor Brown. It is both reasonable and prudent to maintain urban water supplies to the maximum extent feasible to provide local agencies with the necessary flexibility to meet the health and safety needs of Californians during the drought emergency, and provide for reasonable modest equity adjustments in response to insights gained in response to stakeholder input.

California has been subject to multi-year droughts in the past. Climate science indicates that the Southwestern United States is becoming drier, increasing the likelihood of severe and prolonged droughts. Drought conditions have necessitated curtailment of surface water diversions, and many groundwater basins around the state are already in overdraft conditions that will likely worsen due to groundwater pumping this summer, if reservoirs remain low. Many water supply systems face a present or threatened risk of inadequate supply. Should drought conditions persist into 2017, more water supply systems will experience shortages, presenting a great risk to the health and safety of the people supplied by those systems. Maintaining urban water supplies through enhanced conservation will reduce the risks to health and safety, and the negative impacts to the State's economy.

Each of the specific prohibitions on water uses and other end user requirements are necessary to promote water conservation to maintain adequate supplies during the drought emergency, which cannot be done if water is being used in a wasteful or unreasonable manner. These requirements affect practices that use excessive amounts of water or where more efficient and less wasteful alternatives are available. These practices are particularly unreasonable during a drought due to the need to conserve limited water supplies to meet health and safety needs. Exceptions to meet immediate health and safety concerns or to comply with state or federal permit requirements are available, however.

A prohibition on the irrigation with potable water of ornamental turf on public street medians remains necessary to promote water conservation, minimize the potential for waste and unreasonable use, and address the drought emergency. Irrigating ornamental turf on street medians with potable water cannot be considered necessary or reasonable during such severe drought conditions. Ornamental turf on street medians does not provide for domestic use, sanitation, or fire protection, which are the primary needs that public water supply distributors must meet during drought periods. (Wat. Code, § 354). It is not the intent of this rule, however, to prohibit reasonable targeted water application to trees to protect their health. Healthy urban trees provide

multiple health and safety benefits, such as providing shade and reducing the urban heat island effect, thereby reducing the impacts from extreme heat days.

The proposed regulation continues to prohibit irrigation with potable water of landscapes outside of newly constructed homes and in a manner inconsistent with regulations or other requirements established by the California Building Standards Commission (BSC), the agency responsible for building standards. This prohibition promotes water conservation, minimizes the potential for waste and unreasonable use, and addresses the drought emergency by requiring technologies that reduce runoff, overspray and evaporation. The rule encourages new construction to plan for this drought and for future droughts by installing water efficient irrigation systems. Because efficient irrigation outside new uses less potable water than many current practices, this prohibition regarding new construction provides an opportunity for reduction of potentially wasteful practices.

Reducing potable water use supplied by urban water suppliers continues to be necessary to promote conservation, minimize the potential for waste and unreasonable use, and address the drought emergency. Mandatory restrictions have proven to be effective at reducing water use as shown through implementation of the May 5 Emergency Regulation. This approach allows suppliers discretion as to how they meet their reduction targets. It gives urban water suppliers flexibility to work with their customers and identify and make reductions from the least essential and the most wasteful practices and areas, like outdoor ornamental landscape irrigation, while protecting paramount uses, like domestic water supply, sanitation, and fire protection.

The proposed regulation continues to include a compliance relief mechanism for the handful of urban water suppliers with significant commercial agricultural operations within their service area. Each urban water supplier that provides potable water for commercial agricultural use meeting the definition of Government Code section 51201, subdivision (b) may subtract the amount of water supplied for commercial agricultural use from its potable water production total, provided that the supplier complies with the Agricultural Water Management Plan requirement of paragraph 12 of the Governor's April 1, 2015 Executive Order. To add clarity to the definition of agricultural water, under the proposed Emergency Regulation suppliers will be allowed to subtract the water delivered for commercial agriculture from total potable water production only for those users that produced at least $1,000 of revenue in the previous year, or who would have but for circumstances beyond their control, and agriculture water must exclude water used on ornamental landscapes. Some agricultural properties have extensive ornamental landscaping and these landscapes need to conserve potable water as do their urban counterparts.

Grouping urban water suppliers based on residential gallons per capita per day (R-GPCD) water usage, and setting different conservation standards for each grouping based on that relative use, promotes water conservation and equity by ensuring that those with the highest levels of residential per capita water usage make greater reductions. A tier structure also promotes equity by recognizing past conservation gains. Communities that already reduced their R-GPCD to low levels are rewarded with lower

conservation standards. The proposed Emergency Regulation continues to provide the handful of communities not experiencing surface water shortage to apply for a lower conservation standard. Finally, the new credits and adjustments may reduce a supplier's conservation standard by up to eight percent. As before, all Californians still need to do their part to bring their water use to reasonable levels that reflect the severity of this drought.

Smaller urban water suppliers and self-supplied commercial, industrial and institutional users continue to be required to do their part to meet the Governor's call for a statewide reduction in potable urban water use and reduce potentially wasteful or unreasonable uses of water during this drought emergency. It is necessary and appropriate that these suppliers and users either reduce potable water usage by 25 percent or reduce outdoor watering of ornamental landscapes to no more than two days per week. The alternative limit on outdoor water use is anticipated to promote largely equivalent levels of conservation as the 25 percent performance standard because outdoor irrigation accounts on average for 44 percent of urban water use, because outdoor irrigation is generally more discretionary than other types of use, and because studies have shown that urban landscapes are often over-watered. It is important to note that in some areas of the state, irrigation of outdoor ornamental landscapes can account for as much as 80 percent of the water use. Limiting the number of days per week of outdoor irrigation increases conservation and reduces the likelihood of over-irrigation and visible runoff. Giving these smaller suppliers and self-supplied users two different options allows them to identify and make reductions from the least essential and the most wasteful practices considering their general size and financial limitations compared to larger suppliers. Similar to the May 2015 emergency regulation, there is a one-time reporting requirement for small water supplies.

The proposed regulation continues to include a requirement that urban water suppliers with more than 3,000 service connections provide monthly information to the State Water Board on: potable water production figures, estimates of R-GPCD, details of outdoor use restrictions, local compliance and enforcement actions, and information on commercial, industrial and institutional water use. This is necessary so that the State Water Board can track the effectiveness of the proposed regulation and urban water conservation actions and take enforcement action where appropriate. Such monitoring reports will document the effectiveness of existing conservation efforts and inform whether further actions are necessary to address the drought emergency.

This extended emergency regulation contains modest adjustments and it offers credits to individual urban water suppliers in three possible ways: a climate adjustment for suppliers located in hotter climates; water-efficient urban growth; and new, local, drought resilient water supplies. The statewide effect of these changes is expected to be modest and still result in a 20-25 percent savings. Changes to slightly reduce the conservation standards of urban water suppliers located in drier climates would help save trees that improve air quality, shade homes, provide wildlife habitat and enhance quality of life. Changes to allow adjustments for growth would provide equity for existing water customers. Changes to allow for reduced conservation standards where new,

local, resilient supplies have been established would acknowledge investments made in these resources specifically for times like these.

## Estimate of Water Savings from Proposed Regulation

The Governor's April 1, 2015 Executive Order called for a statewide 25 percent reduction in potable urban water use as compared to 2013. Based on aggregated monthly reports from California's 411 urban water suppliers, 2013 urban potable water use for the 90 percent of the population served by an urban water supplier was approximately 5.2 million acre feet statewide. While the Board does not have comparable data on the 10 percent of the population served by small water suppliers, and water use by self-supplied commercial, institutional, and industrial users, it is assumed that their use is equivalent to the population served. Accordingly, total 2013 urban water use is estimated at approximately 5.8 million acre-feet. Therefore, a 25 percent reduction in such use would equate to savings of approximately 1.45 million acre-feet of water. However, since the Board's is uncertain of the usage and savings likely to be achieved by small water suppliers and self-supplied commercial, institutional, and industrial users, the Board had been using 1.2 million acre-feet as a conservative savings estimate based solely upon reductions by urban water suppliers for the period the current emergency regulation is in effect. Proposed credits and adjustments will reduce conservation requirements for certain suppliers and the Board now estimates statewide water savings will range from 20 to 25 percent with total water saving still over 1 million acre-feet.

The State Water Board expects that most water savings would continue to come from reduction in or elimination of irrigation of ornamental landscapes with potable water, which normally is estimated to consume around 44 percent of statewide urban use. The requirement that urban water suppliers meet their specified conservation standard would, in some cases, entail restrictions on use by other customer classes, including residential indoor use or commercial, industrial and/or institutional uses. Giving suppliers the flexibility to identify where and how they can best achieve their required savings maximizes their ability to do so by targeting the least essential and most wasteful practices, as different communities have different water needs and values.

At the time that the State Water Board adopted the existing water conservation emergency regulation, many California urban water suppliers were already implementing significant water conservation measures. As compared to 2013, and based on the most recent data submitted pursuant to the existing emergency water conservation regulation, current conservation efforts have already led to a 26.3 percent reduction in total potable urban water use through November 2015, as compared to the same months in 2013. Current conservation efforts are effective and should continue until the current drought emergency ends. Some communities have made greater conservation gains than others and are currently meeting their specified conservation standard, but it is expected that all suppliers will do their part to achieve the statewide savings.

Many studies have analyzed the response of urban populations to mandatory use restrictions imposed during drought conditions. Multiple studies conclude that mandatory use restrictions are more effective than voluntary conservation measures because areas that have imposed mandatory use restrictions have achieved greater use reductions than areas that imposed only voluntary measures, controlling for other variables. The amount of conservation achievable through mandatory restrictions varies. Studies show conservation savings of up to 29 percent. For example, a study conducted on the effects of water demand management policies of eight California water agencies during the period from 1989-1996, which included three years of drought (1989-1991), found that rationing and use restrictions were correlated with use reductions of 19 percent and 29 percent, respectively. The study's authors concluded:

> In general, relatively moderate (5-15%) reductions in aggregate demand can be achieved through modest price increases and "voluntary" alternative [Demand-Side Management] policy instruments, such as public information campaigns. However, to achieve larger reductions in demand (greater than 15%), policymakers will likely need to consider either relatively large price increases, more stringent mandatory policy instruments (such as use restrictions), or a package of policy instruments.

A recent study from UCLA on use reductions in Los Angeles during the 2007-2009 drought reached similar conclusions:

> Our results indicate that mandatory restrictions are most effective at reducing water consumption for [Single-Family Residential] households. The greatest impact of measures resulted from the combination of mandatory watering restrictions and the price increase, which led to a water reduction of 23% in July/August 2009, while voluntary restrictions led to only a 6% reduction in water use.

In addition, a study of Virginia's severe 2002 drought found that mandatory use restrictions, coupled with an aggressive information and enforcement campaign, led to a 22 percent reduction in use. At the time of adoption of the existing emergency regulation, the State Water Board anticipated up to a 20 percent reduction in outdoor water use, totaling 0.48 million acre-feet, as calculated below.

- Total urban water use for outdoor irrigation: 3.9 MAF
- Urban water use for outdoor irrigation affected by the proposed regulation: 3.9*0.62 = 2.4 MAF
- Estimated conservation savings from adoption of the proposed regulation: 2.4*0.2 = 0.48 MAF

Data collected pursuant to the May 2015 emergency regulation, reflecting its requirements, support the findings that a statewide mandatory conservation program using a statewide tiered approach is effective at achieving additional water savings as compared to local voluntary approaches. Approximately 1 MAF of water has been saved between June 2015 and November 2015 (most recent data available); this savings equates to 26.3 percent cumulative statewide water savings as compared to the same months in 2013. Preliminary review of the data contained in the required smaller

supplier reports supports that the smaller suppliers, those serving 3,000 or fewer customers and 3,000 or fewer acre-feet of water per year, have achieved similar percentage savings by implementing the current emergency regulation.

Using similar methodology and taking into consideration the proposed changes to supplier conservation standards, some that may slightly reduce water savings, if approved, the State Water Board expects the larger urban water suppliers and their customers will save more than one million acre-feet of water between March and October 2016, as compared with the same months in 2013, with additional and likely proportionately commensurate savings by the smaller suppliers and their customers.

## Additional Benefits of Proposed Regulation

The State Water Board has determined that additional benefits will be realized should it adopt the proposed updated regulation. These benefits include the following:

- Continuity of the existing water conservation program and all its benefits during a declared drought emergency until the emergency is lifted.
- Incentives to eliminate ornamental turf will generate additional economic activity, such as investments in drought-tolerant landscaping.
- Increased water quality in receiving waters due to lower runoff volumes.
- More effective tracking of total urban water use.
- Reduced potential for severe economic disruption due to water shortages if 2016 is another dry year.
- Reduced potential for waste and unreasonable use of water.
- Increased drought awareness and shared sense of responsibility among urban water users as well as out-of-state guests at California hotels, motels, restaurants and bars.
- Improved equity with adjustments based on climate, growth, and new, local drought-resilient water supplies.
- Penalties for homeowners' associations or community service organization that block, stifle or threaten homeowners from reducing or eliminating water of vegetation or lawns during a declared drought emergency will support all of the above benefits.

These benefits will offset some of the fiscal impacts to water suppliers when benefits and costs are viewed from a statewide perspective. Therefore, these benefits provide

additional justification for adopting the proposed regulations.

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## Informative Digest

### Summary of Existing Laws and Regulations

Readoption of the May 2015 emergency regulation, to take effect no later than February 12, 2016, ensures that current restrictions remain in effect without any lapse until rain and snowfall are sufficient to place the state in a condition where the current restrictions are no longer necessary, or until 270 days from the regulation's effective date, whichever comes first. Absent the existing emergency regulation, there is no statewide prohibition on specific water uses to promote conservation. There is also no law or regulation requiring urban water suppliers to make specific potable water use reductions or report the amount of water they produce to the state. The proposed emergency regulation extends the May 2015 emergency regulation that constituted the first statewide directive to urban water users to undertake specific actions to respond to the drought emergency and the first statewide directive that set enforceable conservation performance standards for urban water suppliers; consequently, the proposed emergency regulation is consistent and compatible with existing regulations on this subject. Additionally, homeowners' associations for common interest developments currently are statutorily barred from prohibiting low-water use landscaping or artificial turf and from fining residents who reduce their outdoor irrigation during drought emergencies. (Civ. Code, § 4735, see also *id.*, §§ 4080, 4100, 4110, 4150, and 4185.)

The Governor's April 25, 2014 Executive Order similarly declared "any provision of the governing document, architectural or landscaping guidelines, or policies of a common interest development … void and unenforceable to the extent it has the effect of prohibiting compliance with the water-saving measures contained in this directive, or any conservation measure adopted by a public agency or private water company…." (Proclamation of a Continued State of Emergency, April 25, 2014, Ordering ¶ 4.) The proposed regulation neither differs from nor conflicts with an existing comparable federal statute or regulation.

## Description and Effect of Proposed Regulation

The proposed emergency amendment and readoption of section 863 sets forth the State Water Resources Control Board's (State Water Board) findings of a drought emergency. The proposed emergency amendment and readoption of section 864 directs individuals and homeowners' associations statewide to refrain from engaging in certain activities and contains other commercial sector restrictions to promote conservation to meet the drought emergency. The proposed emergency amendment and readoption of section 865 directs urban water suppliers to meet specified conservation standards and to report information to the State Water Board. The proposed emergency adoption of section 866 provides the State Water Board with additional emergency enforcement tools to ensure that water suppliers and users are on track to achieve their required savings throughout the effective period of the regulation.

### Proposed Emergency Regulation Section 863

Proposed section 863 sets forth the State Water Board's findings of drought emergency, noting the Governor's adoption of multiple emergency proclamations pertaining to drought conditions, the persistence of drought conditions, the dry nature of the preceding four years, and the likelihood that drought conditions will continue, even with increased precipitation in 2015-16, given the severe water deficit of the preceding years.

### Proposed Emergency Regulation Section 864

Proposed section 864 maintains the current prohibitions on several activities, 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, to promote conservation. The section maintains prohibitions on: the application of water to outdoor landscapes in a manner that causes visible runoff; the use of a hose to wash an automobile except where the hose is equipped with a shut-off nozzle; the application of water to hardscapes, the use of potable water in non-recirculating ornamental fountains; the application of potable water to outdoor landscapes during or within 48-hours after measurable rainfall; the irrigation of ornamental turf on public street medians with potable water; and the irrigation with potable water outside of newly constructed homes and buildings that is not delivered by drip or microspray systems. This section also extends the prohibition on serving water except when requested in restaurants and bars and requires the operators of hotels and motels to offer patrons the option of not having their towels and linens washed daily. Under this section, commercial, industrial and

institutional users not served by either type of water supplier regulated by section 865 must either limit the number of days they water outdoor turf and ornamental landscapes to no more than two days per week or reduce their total potable water production by 25 percent as compared to 2013. Finally, this section proposes penalties for homeowners' associations or community service organizations impeding homeowners from reducing or eliminating the watering of vegetation or lawns during a declared drought emergency, as described in existing Civil Code provisions.

**Proposed Emergency Regulation Section 865**

Proposed section 865, like existing section 865, directs urban water suppliers to meet specified conservation standards and to report specific information to the State Water Board. Section 865 continues conservation standards for all urban water suppliers to be allocated across nine tiers of increasing levels of R-GPCD water use. This approach considers the relative per capita water usage of each water suppliers' service area and requires that those areas with high per capita use achieve proportionally greater reductions than those with low use, while lessening the disparities in reduction requirements between agencies that have similar levels of water consumption but fall on different sides of dividing lines between tiers. Suppliers have been assigned a conservation standard that ranges between eight percent and 36 percent based on their R-GPCD for the months of July - September, 2014. These three months reflect the amount of water used for summer outdoor irrigation, which provides the greatest opportunity for conservation savings. The proposed Emergency Regulation continues the reserved four percent conservation tier for those suppliers meeting specific criteria relating to not experiencing drought conditions.

Proposed section 865, unlike existing section 865, allows urban water suppliers to update their conservation standards under certain situations: qualifying urban water suppliers are allowed a climate adjustment that can reduce their conservation standard by up to four percentage points for those water suppliers located in the warmer regions of the State; a growth adjustment provides a mechanism to adjust urban water supplier conservation standards to account for water efficient growth since 2013; and a credit for new local drought resilient supply provides a mechanism to adjust qualifying urban water suppliers' conservation standards between four and eight percentage points.

Proposed section 865 continues to provide compliance relief mechanism for the handful of urban water suppliers with significant commercial agricultural operations in their service area. It also defines what agricultural uses may be subtracted from a supplier's potable water production total.

Finally, this section also requires smaller urban water suppliers, defined as any distributor of a public water supply, whether publicly or privately owned and including a mutual water company, but not meeting the definition of urban water suppliers in water code section 10617, to either limit the number of days that outdoor watering of turf and ornamental landscapes is allowed to no more than two days per week or to reduce their

total potable water production by 25 percent as compared to 2013. Similar to the May 2015 emergency regulation, small suppliers must submit a one-time report.

**Proposed Emergency Regulation Section 866**

Proposed section 866 provides the State Water Board with continued emergency enforcement tools to ensure that water suppliers and users are on track to achieve their required savings throughout the effective period of the regulation. The State Water Board would continue to assess compliance on a cumulative basis, using suppliers' monthly reported data. Each month, State Water Board staff will reassess compliance based on the supplier's cumulative savings since June 2015. Cumulative tracking means that conservation savings will be added together from one month to the next and compared to the amount of water used during the same months in 2013. A conservation order would remain an enforceable order by the Board requiring the recipient to take specified actions immediately. An informational order issued by the Board would continue to require the recipient to submit additional information relating to water production, water use or water conservation. Both conservation orders and informational orders issued by the Board would remain subject to reconsideration by the Board. Violations would be subject to enforcement pursuant to Water Code section 1846. Either of these types of orders issued under a prior version of the regulation, along with any cease and desist orders and administrative civil liabilities issued or initiated under a prior version of the regulation, would continue to remain valid and enforceable.

**<u>Authority and Reference Citations</u>**

For Section 863

Authority: Wat. Code, § 1058.5.

References: Cal. Const., Art., X § 2; Wat. Code, §§ 102, 104, 105, 275; *Light v. State Water Resources Control Board* (2014) 226 Cal.App.4th 1463.

For Section 864

Authority: Wat. Code, § 1058.5.

References: Cal. Const., Art., X § 2; Civil Code, §§ 4080, 4100, 4110, 4150, 4185, and 4735; Wat. Code, §§ 102, 104, 105, 275, 350, 10617; *Light v. State Water Resources Control Board* (2014) 226 Cal.App.4th 1463.

For Section 865

Authority: Wat. Code, § 1058.5.

References: Cal. Const., Art., X § 2; Wat. Code, §§ 102, 104, 105, 275, 350, 1846, 10617, 10632; *Light v. State Water Resources Control Board* (2014) 226 Cal.App.4th 1463.

For Section 866

Authority: Wat. Code, § 1058.5.

References: Cal. Const., Art., X § 2; Wat. Code, §§ 100, 102, 104, 105, 174, 186, 187, 275, 350, 1051, 1122, 1123, 1825, 1846, 10617, 10632; *Light v. State Water Resources Control Board* (2014) 226 Cal.App.4th 1463.

## Mandate on Local Agencies or School Districts

The State Water Board has determined that adoption of sections 863 and 864 does not impose a new mandate on local agencies or school districts. The sections are generally applicable law.

The State Water Board has further determined that adoption of section 865 and 866 does not impose a new mandate on local agencies or school districts, because the local agencies affected by the section have the authority to levy service charges, fees, or assessments sufficient to pay for the mandate program or increased level of service. (See Gov. Code, § 17556, subd. (d); *Connell v. Sup. Ct*. (1997) 59 Cal.App.4th 382.)

## Suspension of California Environmental Quality Act

On April 24, 2014, the Governor issued an executive order addressing the drought emergency, which, among other things, suspended the California Environmental Quality Act (CEQA) as applied to the State Water Resources Control Board's adoption of emergency regulations to "prevent the waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water, to promote water recycling or water conservation, and to require curtailment of diversions when water is not available under the diverter's priority of right."

On December 22, 2014, Governor Brown issued Executive Order B-28-14, which extended the suspension of CEQA and Water Code section 13247 contained in the January 17, 2014 and April 25 Proclamation through May 31, 2016. On November 13, 2015 the Governor again extended this suspension by Executive Order B-36-15. The proposed emergency regulation falls under this suspension.

## Public Agency and Government Fiscal Impact Analysis

### Summary

Ongoing and increased urban water conservation will result in reduced water use by the customer, which in turn will result in reduced water sales and lost revenue for urban water suppliers. This loss in revenue will be a function of the amount of water conserved (and therefore not sold) and the unit price that water would have sold for. California Urban Water Supplier water rates are primarily comprised of a fixed and a variable component. The variable portion of the rate is based on the volume of water used by the customer and generally the fixed portion does not change with use. The variable portion of the rate therefore represents the unit cost of lost revenue.

Urban water suppliers in California are comprised of governmental agencies, investor owned utilities that are regulated by the California Public Utilities Commission, and privately owned mutual water companies. Costs to investor owned utilities and mutual water companies need not be considered for the purposes of estimating the costs of the proposed regulation on local agencies. It is estimated that water suppliers that are local agencies will incur approximately 85 percent of the total costs to urban water suppliers.

In addition to lost revenue from reduced water sales, urban water suppliers will also incur costs associated with enhanced conservation and administrative programs and activities such as water production reporting as required by the proposed emergency regulation. Local governments may also see lower tax revenues from impacts the regulation may have on commercial, industrial and institutional users, but it is not anticipated that suppliers will focus on activities that would have tax revenue impacts if there are other water uses that can be reduced without such impacts.

Implementation of the proposed updated emergency regulation will result in additional workload for the State Water Board. Based on experience implementing the existing emergency regulation, the State Water Board estimates that two additional PYs (at a cost of $254,000) will be needed to implement the updated emergency regulation.

### Fiscal Impacts: Water Supplier Revenue Losses and Compliance Costs

Fiscal impacts presented below are estimated impacts attributable to implementation of the proposed regulation after accounting for what water suppliers likely would have saved if the drought were to continue but the current regulation was not extended as proposed.

Fiscal impacts are comprised of net revenue losses and compliance costs. The net revenue loss is equal to the product of the amount of required water savings and the water price less variable cost. Compliance costs cover added expenses incurred from reporting requirements, and implementation and administration of conservation programs, including enforcement, that would not have occurred without the proposed regulation.

The net fiscal impacts would be absorbed by water suppliers as fiscal deficits in the short run, but would ultimately be passed along to water customers through higher service charges and rates. In the near-term, the analysis assumes water suppliers do not immediately adjust their rates in response to the decrease in water sales.[1]

This analysis, prepared for the State Water Board by M.Cubed and RMann Economics, provides an estimate of fiscal impacts for three alternative regulatory scenarios.

- **Scenario 1: Existing Conservation Requirement**. Under this scenario, the Board leaves unchanged water supplier conservation requirements. The current regulation is extended to require existing conservation requirements for the remainder of February 2016 through October 31, 2016.

- **Scenario 2: Existing Conservation Standards with Credits Capped at 4% (Framework Proposal)**. Under this scenario, the Board adopts the credits proposed by its staff with the provision that the total credit any individual supplier can receive is capped at 4 percentage points. The current regulation is extended to require existing conservation requirements for the remainder of February 2016 through October 31, 2016.

- **Scenario 3: Existing Conservation Standards with Credits Capped at 8%**. Under this scenario, the Board adopts the credits proposed by its staff with the provision that the total credit any individual supplier can receive is capped at 8 percentage points. The current regulation is extended to require existing conservation requirements for the remainder of February 2016 through October 31, 2016.

**Data and Calculations**

The baseline for this analysis is the effective water conservation percentage for each urban supplier for the period February 1 to October 31, 2016. The effective water conservation percentage is equal to the state-mandated conservation percentage (including any credits) less the expected water savings percentage in the absence of the proposed regulation. The expected water savings percentage in the absence of the proposed regulation is taken as the percentage difference in water consumption for the periods February 1 to October 31, 2013 and February 1 to October 31, 2014. If a water supplier's expected water savings percentage in the absence of the proposed regulation exceeds its state-mandated percentage, then its effective water conservation percentage is set to zero in the analysis.

Table 1 summarizes results for the entire State. Under Scenario 1, where the existing conservation requirements are extended until October 31, 2016, fiscal impacts are

[1] This assumption is consistent with findings from a survey of retail water suppliers conducted by ACWA and CMUA, which found that only eight percent of surveyed water suppliers adjusted their rates in direct response to the drought. The overwhelming majority reported they would adjust their rates according to already adopted plans and schedules. Eventually, however, water suppliers will have to adjust their rates to recoup the revenue losses associated with the proposed regulation in order to restore their balance sheets.

estimated at $673 million, of which $572 million would accrue to local governmental entities and $101 million would accrue to investor-owned and mutual water companies. Approximately 90 percent of the fiscal impact is associated with lost sales revenue. The remaining impact is associated with expenditures by water suppliers to comply with the conservation requirements. Net water saved under Scenario 1 is projected to be approximately 850,000 acre-feet (AF).[2]

Both Scenario 2 and 3 result in smaller fiscal impacts, but also less net water saved. Under these two scenarios, which give climate, growth, and drought supply credits to water suppliers, estimated fiscal impacts are approximately $100 million less. Water savings under Scenarios 2 and 3 are 130,000 to 140,000 AF less than under Scenario 1, respectively.

It is important to reiterate that the fiscal impact estimates shown in Table 1 are not measuring the total revenue losses and costs water suppliers are expected to incur during the drought. First, the estimates in Table 1 only cover the period February 1 to October 31, 2016, not the full duration of the drought. Second, the fiscal impact estimates are net of the water savings realized over the corresponding period in 2014, which is used as a proxy measure of what water suppliers would likely save assuming the drought continues and the current regulation is not extended. Third, the estimated revenue losses are net of avoided variable costs of production. Gross revenue losses are $200 to $250 per AF greater.

The underlying assumptions used in this analysis and the prior analysis of the current regulation result in revenue loss estimates that closely match revenue losses reported by water suppliers surveyed by the Association of California Water Agencies (ACWA) and the California Municipal Utilities Association (CMUA). The Board's prior analysis for the current regulation estimated the average loss in gross revenue per AF would range between $850 and $975 per AF. The median loss per AF reported by the ACWA/CMUA survey respondents was $780 per AF and the mean loss was $960 per AF.

The fiscal impacts to local government shown in Table 1 are non-reimbursable costs under Government Codes 17500 et seq. Local revenue losses, which comprise about 90 percent of the fiscal impact, are not reimbursable under state law. Costs incurred by public water agencies to comply with the proposed regulation extension also are not reimbursable under state law because the public water supply agencies have existing authority to recover such costs from their customers.[3]

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[2] This amount represents net water savings attributable to the proposed extension of the current regulation after accounting for savings water suppliers would be likely to realize if the current regulation is not extended and the drought were to continue; gross savings figures have been suggested in other documents, currently estimated to total approximately 1.1 MAF of water saved pursuant to the January 15, 2016 proposed regulatory text, as compared to the same period in 2013.

[3] Per Government Code Section 17556, subdivision (d), costs incurred by a local agency to comply with a state mandate are not reimbursable if the "local agency or school district has the authority to levy service charges, fees, or assessments sufficient to pay for the mandated program or increased level of service. This subdivision applies regardless of whether the authority to levy charges, fees, or assessments was enacted or adopted prior to or after the date on which the statute or executive order was enacted or issued."

Table 1: Summary of Fiscal Impacts of Proposed Regulation

| | Scenario 1: Current Policy | Scenario 2: Credit up to 4% | Scenario 3: Credit up to 8% |
|---|---|---|---|
| **Net Water Saved** (taf)[1] | 848 | 718 | 706 |
| | | | |
| **Fiscal Impacts in Mil $** | | | |
| Net Revenue Losses | $610 | $523 | $514 |
| Compliance Costs | $64 | $54 | $53 |
| Total Impact | $673 | $577 | $567 |
| | | | |
| **Fiscal Impact by Local Entity in Mil $** | | | |
| Public Water Agencies (local government) | $572 | $490 | $482 |
| Investor-Owned & Mutual Water Companies | $101 | $87 | $85 |
| | | | |
| **Statewide Fiscal Impact in Dollars** | | | |
| Per AF | $794 | $803 | $803 |
| Per Capita | $19.10 | $16.36 | $16.09 |

1. This amount represents net water savings attributable to the proposed extension of the current regulation after accounting for savings water suppliers would be likely to realize if the current regulation is not extended and the drought were to continue.

Source: M.Cubed and RMann Economics (2016) *Proposed Regulatory Framework for Extended Emergency Regulation for Urban Water Conservation Fiscal and Economic Impact Analysis.* See full report for more details.

## Discussion of Additional Economic Impacts[4]

In the longer run, the cost of extending the current regulation will be determined by weather conditions in 2016 and 2017. Significant uncertainties are associated with policies predicated on unknown futures. The proposed regulation is intended to address potential vulnerabilities, not probabilistic expectations. While a return to a normal, or above average, hydrologic water conditions may be likely in 2016, such an outcome is far from certain. For this reason, the proposed regulation must be evaluated against the reasonable possibility of continued drought conditions. In such a situation, extending the current regulation would help offset what would likely be even greater economic and fiscal impacts in the event the drought continues. If the drought continues, water saved as a result of the extension of the current regulation will become increasingly valuable. Under these circumstances, estimated 2016 costs would be offset by similar or even greater costs that would be avoided next year. That is, if the

[4] An economic impacts analysis is not required by Government Code Section 11346.5, subdivision (a)(6). However, the State Water Board has chosen to include this section and the attached economic analysis report to demonstrate the Board's careful consideration of the full societal impacts of the emergency regulation.

drought continues, the proposed regulation will have helped to safeguard the state's future water supplies, thereby forestalling potentially dramatic economic consequences.

An example of the potential challenge facing California comes from Australia, which experienced persistent and severe drought across most of its continent between 2002 and 2012. Lasting 10 years, the "Big Dry" had profound impacts on Australia's economy.[5] Water curtailments imposed early in the drought in 2002-03 cut 1.6 percent from the gross domestic product (GDP) growth rate. Lower production in non-agricultural industries accounted for nearly 40 percent of the slowdown in GDP growth. Employment growth slowed by 0.8 percent, average wages fell by 0.9 percent, and exports dropped by 5 percent. Over the full course of the drought half a percentage point may have been shaved from Australia's GDP growth rate. A half-point reduction in GDP growth is significant; if this were to occur in California, cumulative state output would be reduced by close to half a trillion dollars over the same 10-year span of time. These costs would not necessarily be attributable to regulatory action in response to the drought, however, so much as to the fact that reduced water availability during a severe drought has significant economic impacts.

If wet and moderate temperature conditions return this year and next, the proposed regulation's water saving benefits will be relatively less valuable. However, even in this circumstance some of the proposed regulation's elements will increase water supply resiliency. For example, permanently replacing water-dependent landscaping with drought tolerant plots; retiring less water-efficient appliances and replacing them with water wise ones; and imposing new conservation-oriented water rate structures could serve to structurally reduce water demand and create new tools to address water scarcity as it emerges. As stated by the World Wildlife Fund,

> *Tackling water scarcity in such a way that reduces long-term risks to a range of stakeholders can have multiple pay-offs in relation to a range of government policy priorities on poverty reduction, economic growth, food security and trade…*[6]

In addition, imposing statewide conservation requirements will forestall the adverse consequences of allowing agencies and water users to inadequately respond to water scarcity, and "free ride" on the actions of other more prudent agencies and water users. Quantifying the economic costs imposed by free riding on more prudent planning is beyond the scope of this analysis. However, based on experience from past droughts, the potential impacts next year and in the future from failing to impose prudent planning could be quite large.

**References:**

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[5] Further discussion of Australia's drought impacts are in Appendix A to this report by M.Cubed, et al., *Executive Order B-29-15 State of Emergency Due to Severe Drought Conditions: Economic Impact Analysis*, Prepared for the State Water Resources Control Board, May 2015.

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