

VALLEY CENTER MUNICIPAL WATER DISTRICT

A Public Agency Organized July 12, 1954

(12/7/15) Public Workshop
Urban Water Conservation
Deadline: 12/2/15 by 12:00 noon

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November 25, 2015

Ms. Felicia Marcus, Chair
State Water Resources Control Board
1001 "I" Street, 24th Floor
Sacramento, CA 95814



To the Attention of: Jeanine Townsend, Clerk of the Board

Subject: Comments for Consideration at the December 7, 2015 Workshop – “Urban Water Conservation”

Dear Ms. Marcus;

As always we appreciate the opportunity to present comments to the State Water Resources Control Board (“State Board”) regarding the Drought Emergency Regulation (“Emergency Regulation”).

I. Background

The current Emergency Regulation was adopted in response to unprecedented hydrologic conditions and it was widely recognized that the State Board needed to take swift and decisive action at that time. During that regulatory process the California Water Community offered input to help shape the initial Emergency Regulation and raised concerns regarding the potential impacts. We also understood that the State Board would monitor the conservation response, learn from the implementation experience and listen to the input from the water community as to how to improve and refine the Emergency Regulation if, indeed, they were to be extended.

As the State Board considers whether to extend the Emergency Regulation, it is important to consider the following fundamental points:

1. In general, the response to the Emergency Regulation statewide has been excellent, with cumulative statewide conservation exceeding the Governor’s target of 25%;
2. While there is almost certainty that an El Niño will hit California, we are not sure where it will hit, how much rain and snowpack it will provide or how much it will alleviate the severe drought conditions, if at all; and
3. Governor Brown’s latest Executive Order, B-36-15, requires that if the drought conditions extend through January 2016, the Emergency Regulation be extended through October 31, 2016.
4. Section 3 of Executive Order B-36-15, states that: “The Water Board shall consider modifying its existing restrictions to address uses of potable and non-potable water, as well as to incorporate insights gained from existing restrictions.”

II. Response to State Board Workshop Questions

We would now like to present the following comments in response to the questions posed in the Notice of Public Workshop for Monday, December 7, 2015:

State Board Question 1:

“What elements of the Existing Emergency Regulation, if any, should be modified in an extended Emergency Regulation?”

Recommendation 1:

Any Extended Regulation Must Recognize and Consider Drought-Sustainable Supplies Developed at the Local and Regional Level as Proposed by the San Diego County Water Authority (SDCWA) and Others.

For a number of decades, successive DWR Bulletin 160s have encouraged local and regional development of water supplies to bridge the anticipated gap in supplies from the State Water Project and the water needs of a growing population and economy (*See Attachments 1, 2 and 3*).

From the 2009 Bulletin 160 -

“With new urgency, regions must develop and implement truly integrated regional water management plans as roadmaps to meeting future water demands in sustainable ways. We must also continue our efforts at the statewide level to develop and implement plans for a sustainable Delta and to improve our flood management system.”

Source: 2009 Bulletin 160, Integrated Water Management, Forward, Page V.

Propositions 50 and 84 provided millions in funding for Integrated Water Resources Planning and Project implementation to maximize the development and use of local and regional water supplies.

From the 2013 Bulletin 160, *“Planning for Environmental, Economic and Social Prosperity”* –

“In recent years, regional and local entities have been investing in water resources management at a rate of about \$18 billion per year. This constitutes the majority of the statewide investments, which total about \$22 billion per year in local, State, federal, and private expenditures....

State, federal, and local agencies need to step up efforts to enhance California’s business and finance climate by increasing the certainty that flood damages will be averted, that surface water and groundwater supplies will be reliable and predictable, and that recreational opportunities and environmental sustainability will be improved.”

Source: 2013 Bulletin 160 Update, Chapter 1 – Planning for Environmental, Economic and Social Prosperity, Pages 1- 7 and 1-8

Most recently, the Governor's "California Water Action Plan" restated this theme by describing how California needs a multi-faceted approach to developing more core state supplies along with continued development of local and regional supplies, including conservation, water transfers, storage, reclamation, indirect potable reuse (IPR), direct potable reuse (DPR), brackish groundwater desalination and seawater desalination:

"State, regional and local agencies have increasingly been pursuing a strategy of making regions more self-reliant by reducing water demand and by developing new or underused water resources locally. In the future, most new water will come from a combination of improved conservation and water use efficiency, conjunctive water management (i.e., coordinated management of surface and groundwater), recycled water, drinking water treatment, groundwater remediation, and brackish and seawater desalination. There is increased focus on projects with multiple benefits, such as storm water capture and floodplain reconnection, that can help simultaneously improve the environment, flood management and water supplies. These diversified regional water portfolios will relieve pressure on foundational supplies."

Source: California Water Action Plan: Actions for Reliability, Restoration and Resilience, Page. 4

Not recognizing the regionally developed drought-sustainable water supplies in any extended Emergency Regulation would be in conflict with long-standing state water policy but would also undercut the clear goal of the Governor's *California Water Action Plan* by sending the following messages to water agencies and manager statewide:

- *To those who have made the local and regional investments in drought sustainable supplies, "you have wasted your money;" and*
- *To those who have not but may be considering making those investments: "Don't waste your money, because in a drought, you will not realize the reliability benefits of those investments."*

Moreover, how the State Board deals with drought - sustainable local and regional supply development in any extended Emergency Regulation will indicate the Administration's and State Board's vision of a future California. The question is:

- Will policies and actions be perpetuated which will leave California with a chronically deficient water supply which:
 - Presents a perpetual struggle over allocating artificially limited water supplies between environmental and human beneficial uses of water;
 - Provides for a lower standing of living for its growing population; and
 - Places California at a competitive disadvantage in terms of new business attraction and existing business expansion, thus limiting economic opportunities for its citizens?

or

- As envisioned in successive Bulletin 160s and the Governor's "Water Action Plan," will our collective state, regional and local resources be used to develop a broad-based, multi-faceted water supply portfolio which will reliably sustain:

- California's diverse, complex and sensitive environmental resources;
- A growing population anticipated to be 50 million by 2049 (Ca. Department of Finance); and
- The eighth-largest economy in the world (according to the U.S. Bureau of Economic Analysis and the World Bank)?

We trust that the Administration's and State Board's vision is for California to have a water supply that will protect and enhance our environment, economy and quality of life, now and into the future. ***If this is to be the case, then what will be required is much more than just ongoing mandatory demand reduction.***

To ensure an adequate and reliable water supply, the State Board needs to facilitate ongoing investments in new long-term drought-resilient supplies, at the state, regional and local levels. By recognizing and giving full credit for local and regional supply development in extending mandatory reduction levels, as recommended by the SDCWA and others (*See Attachments 1, 2, and 3*), the State Board can encourage and incentivize the development of sustainable, drought-resilient supplies; which then serves as a catalyst for the development of new supplies to serve and sustain California's population and grow its economy.

Recommendation 2:

Any Extended Emergency Regulation Must Recognize Impacts on Water Demand of Climatic and Community Character Differences.

The current Emergency Regulation provides no recognition or consideration for water demand differences due to climatic conditions and community character.

A cursory review of maps showing the distribution of mandatory conservation levels clearly indicates that the majority of the communities with mandatory conservation levels of 36% are more inland, rural and agricultural. The communities with the lower percentages, 8%, 12%, 16%, are in the coastal, more urban settings where lower gpcd would be and should be expected. To not recognize these differences and sustain a "one-size fits all" approach ignores fact-based reality that climate has on relative water demand. Further, sustaining this approach sends the message that the Administration and the State Board does not support the diversity of communities and life-styles in California, and clearly states that the urban, coastal life-style is the one sanctioned for Californian's by our state government (*See Attachment 4*).

Recommendation 3:

The Commercial Agricultural Exemption Must be Retained in the Extended Emergency Regulation.

Executive Order B-29-15 clearly indicated that it was not the intention of the Governor to further impact agriculture with the Emergency Regulation. The final Emergency Regulation adopted by the State Board clearly reflected the Governor's direction. Per the May 2015 Emergency Regulation, urban suppliers within the San Diego County Water Authority have imposed locally appropriate reductions on their commercial agricultural customers which has resulted in a reduction of at least 7,151 AF, or 29% compared to the same period in 2013. Further, as per Executive Order B-29-15 and the agreement with the State Board, 19 of the SDCWA member

agencies with commercial agriculture are in the process of developing a region-wide Agricultural Water Management Plan to be approved and delivered to the State Board by February, 2016.

Yet, even with the good faith conservation efforts of commercial agriculture served by urban water agencies (which represents \$1.8 billion in farm gate value in San Diego County alone) certain members of the environmental community continue to launch attacks on southern California agriculture asking that the exemption be removed in any extended Emergency Regulation. We strongly urge the State Board to focus on the facts concerning the economic value and conservation contribution of commercial agriculture served by urban water agencies and retain the commercial Agricultural Exemption in any extended regulations.

Recommendation 4:

Any Extended Emergency Regulation Must Include Adjustments for Economic Growth.

Areas of California have grown economically at different rates since 2013 and not considering this in any extended Emergency Regulation places those areas with higher growth rates at a disadvantage to other areas with lower growth rates (*See Attachment 5*).

Recommendation 5:

Any Extended Emergency Regulation Must Consider Investments Made in Groundwater Supplies to Buffer Against Surface Water Shortages.

Some water agencies with multiple sources and well managed groundwater basins have made investments in groundwater recharge and/or extraction facilities to supplement surface water supplies without compromising the long-term viability of the groundwater basin. As with other drought-sustainable supplies, these investments should be considered in any extended Emergency Regulation (*See Attachment 6*).

Recommendation 6:

Any Extended Emergency Regulation Must Allow for Voluntary Regional Compliance.

SBX 7X, 20% \times 2020 provided for water agencies to voluntarily form regional groups to achieve compliance with the conservation requirement provided by that statute. The logic used in this law would apply directly to any extended Emergency Regulation to be adopted by the State Board (*See Attachment 7*).

State Board Question 2:

“What Additional Data, if any, should the State Board be collecting through the Emergency Regulation and how should it be used?”

Recommendation:

For the purposes of the existing and any extended Emergency Regulation, the current type and level of reporting is adequate. Prior to considering the inclusion of any additional data, the State Board staff and Board members should seriously ask themselves how will collecting and reporting the new data (which is costly and time-consuming to collect and draws staff resources

away from drought response) actually assist local retail water agencies in complying with the extended Emergency Regulation.

Further, when individual agencies do not meet the mandatory reduction levels, the State Board already has the authority to issue an "information order" and collect any and all extraordinary data it deems appropriate. Why impose the burden of additional data collection on all agencies, all of the time, even those who have been in compliance with the mandatory reduction levels?

State Board Question 3:

"How should the State Board account for precipitation after January 2016 in its implementation of any extension of the Emergency Regulation?"

Recommendation:

The Board should maintain existing restrictions with any adopted adjustments for drought sustainable supplies and climatic/community character adjustments until March 1, 2016. After which, for the months of March, April and May 2016, the State Board staff should consult with the Department of Water Resources (DWR), Department of Fish and Wildlife (DFW) and other relevant agencies. This consultation would result in the establishment of water supply "triggers" to be used for adjusting the Emergency Regulation, going forward to the end of any extended period. This should include referencing water supply management documents such as the latest Bulletin 120 forecast, which has information on the volume of seasonal runoff from the state's major watersheds, and summaries of precipitation, snowpack, reservoir storage, and runoff in various regions of the state. As a result of this consultation, adjustments would be made to the regulations based upon the actual regional water supply conditions.

On June 1, after the last Bulletin 120 forecast, the State Board should make a final determination on mandatory provisions for the remainder of the extended regulation period (October 31, 2016). This assessment would also be in consultation with DWR, other relevant agencies, and be based upon actual water supply conditions, again, on a regional basis.

III. Conclusion

Policy decisions the State Board will make in a few months on the extension of the Emergency Regulation will not only impact how we deal with the current drought, but will also impact if and how state, regional and local water agencies combine resources to secure a future water supply which adequately and reliably meets the needs of California's people, environment and economy. We hope the State Board considers these and other comments by California's Water Community.

Finally, we also want to recommit to assisting the State Board in the development of any extended regulation and restate our ongoing commitment to reasoned and fact-based water stewardship for our service area and the entire state.

Sincerely;



Gary Arant
General Manager

Attachments

**Sustainable Approach to Managing California's Droughts
Combination of Water Conservation and Sustainable Supplies**

Alternative Path to Compliance

**Proposed Modification to May 5, 2015 SWRCB Mandatory Water Conservation Regulation
November 12, 2015**

Introduction

In managing droughts, extraordinary water conservation serves as an excellent tool to achieve immediate savings necessary to reduce reliance on California's drought impacted supplies. However, the current State Water Resources Control Board (State Water Board) emergency conservation regulation (emergency regulation), by focusing just on conservation, does not provide a sustainable, equitable or holistic approach to managing droughts. Should the emergency regulation be extended, this proposal provides a more sustainable approach by providing urban agencies the ability meet their reduction targets through a combination of both conservation and the addition of drought sustainable supplies.

Knowing that the current drought could continue or that climate change will likely bring more frequent droughts, it is critical that the state focus on a sustainable strategy to managing droughts, even as part of any emergency regulation extension. That strategy should combine water conservation with investments in drought-sustainable supplies, such as potable reuse, desalination and long-term transfers of conserved water. This is the only approach that will provide an incentive for agencies to develop drought-resilient supplies as called for in the Governor's Water Action Plan, and provide a sustainable approach to managing droughts.

May 2015 State Water Board Emergency Regulations

The current emergency regulation assigns each urban water supplier a conservation standard that ranges between 4 and 36 percent based on their residential gallons per capita per day. Over the nine month compliance period (June 1, 2015 through February 29, 2016) an urban water agency must reduce its potable water production by the assigned reduction target. Each month, an urban water supplier reports potable water production for 2013 and the current month. From this data, the State Water Board determines if it has achieved the required reduction and are is on-track to meeting its conservation standard.

Proposed Alternative Path to Compliance

The proposed alternative path to compliance method is a simple, straightforward approach where an urban water supplier may be allowed to achieve its reduction target through a combination of conservation and sustainable supplies. This provides for a more balanced and equitable means to reduce reliance on California's drought-impacted supplies. To ensure a balanced approach to managing the current drought, an agency's required conservation savings cannot drop below 8% during the emergency period. The following principles were utilized in developing the proposed modification to the emergency regulation:

- Proposal must be simple and easy to understand
- Applies to emergency regulation structure only

Alternative Path to Compliance

- No change to urban water supplier conservation standard
- Due to the severity of the drought, agencies must continue to conserve
- Takes into account investments made in sustainable supplies
- Provides an incentive for agencies to develop sustainable supplies
- Increases self-reliance and reduces demands on the Bay-Delta

To utilize the alternative path to compliance, an urban agency must provide written proof that the existing and current long-term, drought-resilient supply meets the following criteria:

- Written agreements, contracts, or other guarantees are in place that identifies the long-term availability of the supply to the urban water user; and,
- It is a drought-sustainable supply, such as potable reuse, desalination, long-term transfer of conserved water or other supply source not impacted by California's current drought.

A wholesaler has the ability to assign its drought sustainable supplies to the urban water suppliers that are served by that wholesaler. Table 1 illustrates how an agency could utilize this alternative path to compliance to achieve its reduction target.

Table 1: Illustrative Example - Alternative Path to Compliance				
Achieving Conservation Standard through				
Combination of Water Conservation and Sustainable Supplies				
Figures in Acre-Feet				
		Example Agency A	Example Agency B	Example Agency C
A	2013 Base Period (Urban Potable Water Use)	3,000	3,000	3,000
B	Conservation Standard	20%	20%	20%
C=A*B	Total Reduction Target	600	600	600
<i>Reduction target may be met through conservation and sustainable supplies</i>				
D	Sustainable supplies available	200	0	500
E=C-D	Conservation savings	400	600	100
F=E/A	Does conservation saving drop below 8%?	13% (No)	20% (No)	3% (Yes)
<i>Determine sustainable supplies and conservation applied to reduction target, assuming 8% conservation floor</i>				
G= E or A*.8	Conservation savings required with 8% floor	400	600	240
H= D or C-G	Adjusted sustainable supplies applied to Reduction Target (adjusted for required 8% conservation savings where necessary)	200	0	360

This proposed alternative path to compliance was presented at the State Water Board's October 26, 2015 emergency regulation workgroup meeting.

Alternative Path to Compliance

Table 2 illustrates how the State Water Board would determine compliance once sustainable supplies utilized to meet the reduction target have been determined.

Table 2: Illustrative Example - Urban Water Supplier Reporting and Determining Compliance Achieving Conservation Standard through Combination of Water Conservation and Sustainable Supplies Figures in Acre-Feet				
		Example Agency A	Example Agency B	Example Agency C
A	2013 Base Period (Urban Potable Water Use)	3,000	3,000	3,000
B	Conservation Standard	20%	20%	20%
C=A*B	Total Reduction Target	600	600	600
H	Sustainable Supplies (<i>From Table 1, Line H</i>)	200	0	360
I	Reported Conservation Achieved	300	700	500
J=H+I	Total Reduction Achieved	500	700	860
K=J/A	Percent Reduction Achieved	17%	23%	29%
Conservation Standard Achieved:		<i>No</i>	<i>Yes</i>	<i>Yes</i>

**Other Drought Sustainable Supplies
Long-Term Transfers of Conserved Water
November 13, 2015**

The following provides a summary of the key factors associated with the transfer of conserved water and demonstrates why they are sustainable supplies, critical to managing California's drought, and why they should be accounted for in any potential extension of the State Water Resources Control Board Emergency Regulation. The factors are based on the transfer of conserved Colorado River water through long-term contracts and agreements.

Benefits Associated with the Transfer of Conserved Water

- A key element to this sustainable supply is the source of the water, which is through long-term sustainable supplies and extraordinary water conservation by agricultural users
- Transfer supplies generated through the extraordinary conservation do not require the construction of large capital projects or result in increased diversions from surface water or groundwater sources
- They are an important strategy to managing California's water supplies by providing a form of flexible system reoperation linked to extraordinary conservation
- Transfers can help improve regional resiliency to future climate changes by providing more operational flexibility through long-term, contractually obligated conserved water transfers

Additional Benefits Associated with Long-Term Transfer of Conserved Colorado River Water

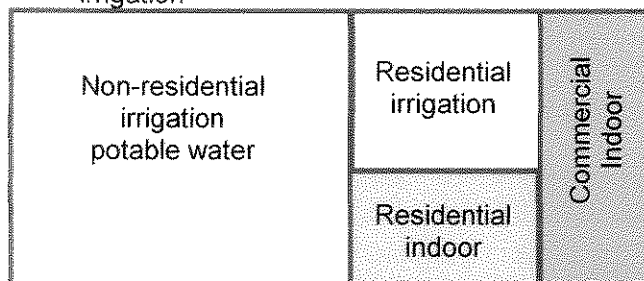
- Conserved Colorado River supplies are guaranteed by long-term contracts and agreements supported by California's priority water rights system
- To ensure accountability, procedures are in place to quantify and accurately measure the water conserved and transferred to urban water suppliers
- Allows California to live within its 4.4 million acre-feet basic annual apportionment of Colorado River
- Allows urban water suppliers to further diversify their supply portfolio with a highly reliable water supply that protects the region against shortages and reduces reliance on the Bay-Delta
- By recognizing the value of long-term conservation and transfer programs, the agricultural community can significantly improve its water use efficiency through significant investments by the urban sector. It's a win-win for the both parties, and the State of California.

Based on the reliability benefits that the transfer of conserved Colorado River supplies provides both the state of California and urban water suppliers, the State Water Board must account for these sustainable supplies in any extension of the emergency regulation if we are to effectively manage California's current drought.

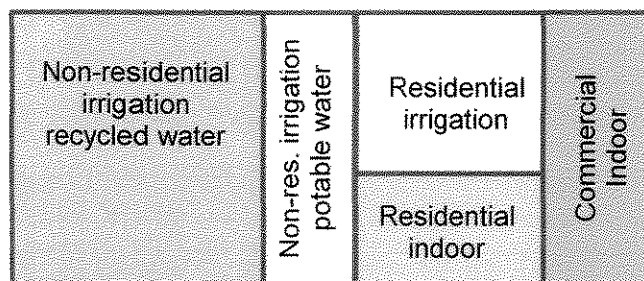
Recycled Water Equity Adjustment

Need for Adjustment

- The use of recycled water in lieu of potable water to meet irrigation is a highly effective means of reducing the demand on local and imported water supplies.
- Many water agencies have been expanding the use of recycled water within their service areas, which involve the significant capital investments for distribution infrastructure.
- The use of recycled water for irrigation limits the ability for an agency to reduce potable landscape irrigation



Agency with no recycled water for outdoor irrigation can obtain significant savings reductions from broad customer base to achieve conservation target.



Agency with recycled water has limited ability to gain significant savings reductions from broad customer base. Residential customers are disproportionately impacted to achieve the required reduction.

Credit Calculation

To avoid disproportionately penalizing an agency's potable water customers when that agency has invested in and implemented recycled water programs, an equity adjustment is proposed. The adjustment calculation is as follows:

$$\text{Total Monthly Recycled Water Use} \times \text{Ratio of Monthly Recycled to Potable Use} \times \text{Conservation Standard}$$

The adjustment would be subtracted from the monthly production for the agency and the adjusted number reported.

Example

	Agency A	Agency B
Total Water Use	125,000	125,000
Indoor Water Use – Potable	45,000	45,000
Outdoor Water Use –Potable	80,000	45,000
Outdoor Water Use –Recycled Water Use	0	35,000
Conservation Standard -28%	35,000	25,200
Indoor Reduction	2,250	2,250
Outdoor Reduction	32,750	22,950
Percent Outdoor Reduction from Potable Water Customers Required Before an Adjustment is Applied	41%	51%

The adjustment for Agency B would be:

$$35,000 \text{ AF} \times 35,000 \text{ AF} / 90,000 \text{ AF} \times 28\% = 3,811$$

I	Agency A	Agency B
Outdoor Irrigation Demand Reduction Required Before Adjustment, AF	32,750	22,950
Recycled Water Adjustment, AF		3,811
Outdoor Irrigation Demand Reduction Required After Adjustment, AF		19,139
Potable Irrigation Demand, AF	80,000	45,000
Recycled Irrigation Demand, AF		35,000
Percent Outdoor Reduction from Potable Water Customers Required After an Adjustment is Applied	41%	43%

This adjustment will be applied at the discretion of the reporting agency.

Climate Equity Adjustment November 2015

Background: The Significance of Evapotranspiration (ET)

The California Irrigation Management Information System (CIMIS) has divided California into 18 climate zones. CIMIS, sponsored by the Department of Water Resources, has more than 150 climate monitoring stations throughout the state, and provides data that is accessible online and free to the public. The data includes temperature, relative humidity, solar radiation, and wind speed for each station. When assembled through formulas, this information becomes Evapotranspiration (ET_o), the amount of water that evaporates from soil and plant surfaces, and transpires through a known plant crop. The reference crop at most CIMIS stations in California is clipped tall fescue grass. Using plant factors developed by horticultural experts, the reference crop can be compared to other plant species. Through a collaborative work product titled, *The Water Use Classification of Landscape Species (WUCOLS)*, six regional teams of experts, in conjunction with staff from the California Center for Urban Horticulture, the Department of Water Resources, and the University of California, Davis, have divided landscape species into water use categories. The plant groupings are defined by water need as a percent of ET_o. The recently updated 2015 State Model Water Use Efficiency Landscape Ordinance establishes maximum allowable water application to planted landscapes based on local ET. Evapotranspiration data is important to the appropriate water management of our urban landscapes.

The need for Climate Equity

Trees and shrubs—even climate-appropriate species—require additional water in more arid regions of the state than they do in temperate locations. The May 2015 Conservation Standards considered total water production relative to population, but not relative to geography, location, or climate. Based on insights gained in the first Emergency Reduction period beginning June 2015, a climate equity adjustment will preserve the long-term viability of established trees and shrubs as well as the drought tolerant landscapes that have recently replaced non-functional lawns throughout the state. Climate-appropriate trees and shrubs beautify, add value, and cool the areas many residents of California call “home.” Providing a reasonable equity adjustment based on known science will protect our investments, our homes, and California’s rich botanical heritage.

Adjustment Methodology

We have developed a single statewide average monthly ET for July, August, and September. A one-time adjustment to the Conservation Standard (as assigned in May 2015 for each of the 400+ reporting water agencies) can be calculated based on each reporting agency’s deviation from the Statewide ET value. For modeling efforts, the deviation was calculated using the *default* ET values published by CIMIS for the state’s 18 climate zones. If our methodology is adopted, each agency should provide *local* ET values for the months of July, August, and September 2014 to ensure equity across the state.

The following formula mathematically depicts an example of the climate equity adjustment where the local supplier’s May 2015 Conservation Standard (CS) is 28% and its local ET is 15% higher than the statewide average ET. The resultant CS is 24%.

$$28\% * (1 - 15\%) = 24\%$$

Example

	Supplier A	Supplier B
Climate	Wetter, Cooler	Hotter, Drier
Average Evapotranspiration, July — September (inches)	14.86	21.52
July–September Water Need for 1,000 sf of Efficient Landscaping (gallons per thousand sq. ft.) ¹	5,095	7,378
Original Conservation Standard for Each Supplier	16%	28%
Adjusted Conservation Standard	16%	24% ²
Reduction Requirement for Landscape (gallons per thousand sq. ft.)	1,630	3,541

1. Maximum Allowable Water Application for 1,000 sq. ft. of Area and ETAF of 0.55 (Model Water Efficient Landscape Ordinance, 2015)

2. 15 percent Local ET deviation from the State for Supplier B

Impact to Statewide Water Savings

Adhering to our policy principle that no water agency should have their May 2015-assigned Conservation Standard increased because of another region’s need for an adjustment, the model lowers the statewide reduction from 24.9 percent or 1,239,000 acre-feet to 22.6 percent or 1,124,354 acre-feet for the period June 2015 through February 2016. The Microsoft Excel model can be made available upon request.

Equity Adjustment for Economic Growth November, 2015

Why an Equity Adjustment for Economic Growth is Needed

- There has been variability in growth across the State since 2013. Some water agencies have added significant new connections and associated water demands since 2013 as a result of strong economic growth since 2013.
- The additional water demand from the growth is not accounted for in the current regulation.
- Agencies with growth since 2013 have to reduce all of their customers' demands much more than their required Conservation Standard, as shown in the table below.
- Requiring agencies that are experiencing growth and economic recovery to disproportionately decrease water use to meet their required Conservation Standard is clearly inequitable and not the intent of the Emergency Regulation.

Growth Impacts on Water Demand Reduction Requirements

	Agency A	Agency B
Growth Since 2013	None	6% Growth
2013 Baseline Active Service Connections	85,000	85,000
2015 Reporting Year Service Connections	85,000	90,000
Increase in number of active service connections	0	5,000
AF per active service connection	0.071	0.071
2013 Monthly Baseline Production, AF	6,000	6,000
Increase in Demand due to Growth	0	353
Conservation Standard	28%	28%
Production Target, AF	4,320	4,320
Water Savings to Meet Required Reduction Target, AF	1,680	2,033
Actual Percent Reduction to Meet Target	28%	34%

Adjustment to Provide Equity

- Agencies experiencing growth since 2013 should be given an adjustment in the form of an increase to the agency's 2013 "baseline" demand.
- The adjustment needs to be agency specific. Population change does not incorporate demands from new business and industry, and therefore use of demand per service connection is proposed.
- This baseline demand adjustment would be calculated each month to account for on-going growth since 2013. The additional demand from the growth would be added to the 2013 production baseline. This proposed adjustment would be calculated in two steps:
 1. Estimate Monthly Demand from New Development:

$$\text{Monthly Demand 2013/Number of Connections} = \text{Demand per Connection}$$

$$\text{Number of New Connections} \times \text{Demand per Connection} = \text{Demand from New Development}$$
 2. Adjust 2013 Monthly Baseline Production:

$$\text{2013 Monthly Production} + \text{Demand from New Development} = \text{Adjusted Baseline}$$

Impact of the Equity Adjustment

- No agency should have targets adjusted upward to offset equity adjustments. Use of the adjustment would be at the discretion of the water supplier.
- As a proxy to estimate the impact of the economic growth adjustment to statewide water savings, statewide population data shows average growth of 1.8% since 2013.

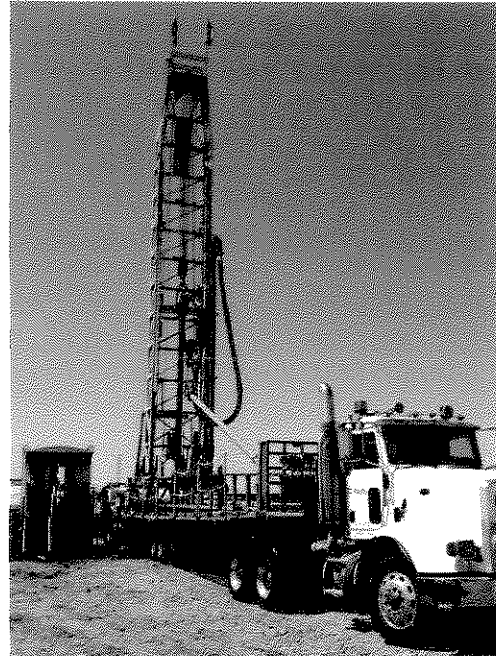
Benefit of the Equity Adjustment

- Maintains equity where the effective Conservation Standard for each agency is maintained, in this case, at 28%; even though Agency B has experienced increased demands from growth.
- The emergency regulation does not inhibit the State's ongoing economic recovery and growth.

Emergency Conservation Regulations Groundwater Credits

Why a Groundwater Credit?

- The response and vulnerability of groundwater basins and supplies to drought is significantly different than surface water.
- Water providers made past investments in groundwater supplies as a buffer against shortages of surface water.
- Conservation targets may stifle investment and innovation in sustainable groundwater management.



General Principles

- Adjustments must consider collective actions of multiple water providers within a groundwater basin or sub-basin.
- Groundwater extraction to offset the conservation target must be demonstrated to not have a negative impact on water quality or subsidence.
- Use of the supply must be through a formal action by the governing body of the water agency, which certifies that the project or program meets eligibility requirements and confirms the source, storage and method of delivery of the water.
- Groundwater supplies must be identified in an adopted Urban Water Management Plan or Water Resources Plan.
- Water supplies used from an eligible project or program during the period of the extended water conservation regulations would not be required to be reported as potable water production. Agencies would report total production and then separately the amount of potable water production that would be used to determine compliance with the required conservation reduction.

Scenarios

- Groundwater Banking
- Conjunctive Use
- “Sustainable” Groundwater Management
- Adjudicated Basins

Groundwater Bank Example

- Water providers that have stored water in a formalized groundwater banking program with a quantified storage account.
- Any such water use must be consistent with the “rules” of the banking program.
- Any stored groundwater extracted under this program must be reduced from the stored water balance in the bank.
- The use of groundwater banking credits cannot involve variations to use of the agency’s existing water supply projects or programs.
- Groundwater banking credits cannot provide water on a regular basis to the retail water agency and must increase water supplies to the retail water agency in times of a declared water supply shortage or during emergency conditions.
- Groundwater banking credits must not negatively impact the supplies available to other water agencies during the shortage condition or emergency.

	Agency A	Agency B
Demand, AF	30,000	30,000
Banked Groundwater, AF		3,000
Reported Potable Water Production, AF	30,000	27,000

Conjunctive Use Example

- Water providers that have participated in a conjunctive use program to use surplus surface water to recharge groundwater directly or through in-lieu use may demonstrate a quantity of water in storage as a result of these actions.
- Any such water use must be consistent with a locally developed groundwater management plan.

	Agency A	Agency B
Demand, AF	30,000	30,000
Groundwater Use, Dry Year Average, AF	15,000	15,000
Groundwater Use, Wet Year Average, AF	15,000	5,000
Difference, AF	0	10,000

“Sustainable” Groundwater Management

- An agency that uses groundwater from a groundwater basin that is being managed sustainably under an adopted groundwater management plan may reduce its conservation target.
- A demonstration must be made that:
 - groundwater in storage was increasing prior to the beginning of the drought in 2012, and would be expected to increase during the next year of average or above precipitation and recharge, or;
 - groundwater extracted from a groundwater basin is less than the recharge during a year of average precipitation
- Groundwater extraction should be consistent with quantities allowed under the groundwater management plan.

Reported Potable Water Production, AF	0	20,000
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Emergency Regulation Regional Compliance Proposal

Purpose:

To provide an option for regional compliance with Emergency Regulation conservation standards that will achieve the same amount of water savings as individual water agency conservation standards.

Guiding Principles:

- Provide an opportunity for regions to work together to achieve water savings.
- Regional compliance is a voluntary approach. Water agencies would not be required to form a region nor participate in a regional alliance.
- Provide an additional compliance option to the Emergency Regulation.
- This proposal would support any other revisions to the Emergency Regulation. Additional revisions to the Emergency Regulation can and should be incorporated into the overall Regional Conservation Standard calculation.

Regional Compliance Benefits:

Doesn't change individual agency conservation standards	Provides economies of scale for programs
Allows for consistent public messaging in the region	Improves flexibility for compliance
Allows agencies to leverage resources	Uses existing state law for regional formation
Allows for regional collaboration now and in the future	

Regional Formation Criteria and Geographic Scope:

Allow regions to form based on the criteria for forming a SBx7-7 regional alliance, per Water Code Section 10608.28. Existing regional alliances, formed per Water Code Section 10608.28(a), would simply provide documentation to the State Water Board of their regional alliance and their intent to comply regionally. Additionally a region can form and submit letters of support to the State Water Board from each participating water agency for the purpose of regional compliance with the Emergency Regulation. Regions must be formed within two months of the effective Emergency Regulation date. Once a region is formed, it continues to exist until the end of the Emergency Regulation period.

Regional Conservation Standard Calculation:

Each individual water agency would calculate their required water savings using their assigned individual conservation standard, weighted by June through February 2013 water production data. All individual water agency data would then be consolidated to calculate a Regional Conservation Standard.

Group Leadership and Compliance Assessment:

- Regions would designate a lead agency to submit the Regional Conservation Standard and monthly progress on that standard to the State Water Board for acceptance.
- Each water agency would continue to report their individual monthly data to the State Water Board.

Accountability and Enforcement:

- If the region meets the Regional Conservation Standard, each individual water agency in a region would be deemed successful at complying with the Regional Conservation Standard.
- If the region does not meet the Regional Conservation Standard, each individual water agency in a region would need to meet its individual conservation standard.
- If the region does not meet the Regional Conservation Standard and the individual water agency in the region does not meet its individual conservation standard, the individual water agency would be subject to enforcement action by the State Water Resources Control Board as outlined in the Emergency Regulation.