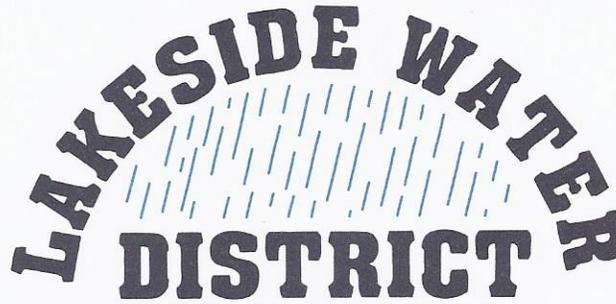


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November 30, 2015

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;

In behalf of the Lakeside Water District located in East San Diego County, and our Board of Directors, I want to thank you for the opportunity to submit these comments regarding potential changes to the Emergency Regulation for Statewide Urban Water Conservation by the State Water Resources Control Board. First and foremost, I appreciate the Board's task and efforts to achieve increased water conservation during our State's unprecedented drought conditions through the current Emergency Regulation.

The current regulation's focus on achieving the state's water reduction standards solely through conservation though does not allow regional or local water agencies to realize the benefits of their investments in water supply reliability – investments in self-reliance that are consistent with Governor Brown's Water Action Plan. For example, here at Lakeside Water District we have developed our own groundwater pumping and treatment facilities at a cost of over \$1,000,000, and have supported our wholesale water agency the San Diego County Water Authority, and our fellow member agencies to invest billions of dollars in developing a portfolio of sustainable water supplies specifically designed to make our region less vulnerable to droughts and devastating water supply cutbacks. However, the current regulations strip away the drought protections these supplies provide by not allowing the region to benefit from these investments. This approach threatens to discourage ratepayers from supporting future water supply investments, stunting California's ability to meet the needs of its growing population amid a changing and more challenging climate.

The imposition of demand reduction targets as the state's primary drought response, places California at a competitive disadvantage in terms of business attraction and business expansion. Businesses are unlikely to relocate to, or expand their businesses in California under prolonged water use reduction mandates that ignore the availability of sustainable water supplies to meet our state's economic needs. These businesses and industries need to be convinced that the state is doing everything in its power to develop new and drought-resilient water supplies to serve their businesses. One of the things the state can do now is amend the regulation to provide credits for new supply development.

The emergency regulation has also contributed to rising water rates for residents and businesses, as water agencies are forced to meet their revenue requirements on lower sales. It also enhances the level of frustration of all ratepayers who are upset by the concept of “paying more for using less,” which undermines public support for ongoing conservation and continued investment in sustainable water supplies and infrastructure.

Finally, the regulations are threatening property values by inhibiting efforts to re-landscape dead lawns with water-smart plants, which require irrigation to establish even though they reduce overall water use in the long term and also provide aesthetic and environmental benefits. Without healthy landscapes, soil erosion and silt laden storm water runoff will increase, wildlife habitat will decrease and the urban heat island effect will intensify.

It is critical to maximize the water reliability benefits of drought-resilient and sustainable water supplies, such as the Carlsbad Desalination Project, during drought conditions to help support California’s economy and quality of life. That’s why Lakeside Water District emphatically support’s modifications to the Emergency Regulation to allow water agencies to meet reduction targets through a combination of conservation and sustainable drinking water supplies, such as desalination, groundwater, potable reuse and long-term transfers of conserved water.

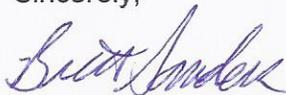
Recommendation:

Any “Extended Regulation” must recognize and consider drought-sustainable supplies developed at the local and regional level with adjustments made accordingly as proposed by the San Diego Water Authority and other regional agencies including Lakeside Water District. (See Attachments 1-7).

This is a more balanced, comprehensive and flexible approach to drought management and will help save water now given our current supply challenge and better prepare California for future droughts.

Thank you very much for your time and the Board’s consideration.

Sincerely,



Brett Sanders
General Manager

**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

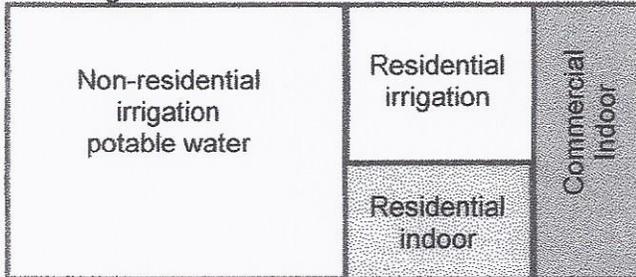
- Conserved Colorado River supplies are guaranteed by long-term contracts and agreements supported by California's priority water rights system
- To ensure accountability, procedures are in place to quantify and accurately measure the water conserved and transferred to urban water suppliers
- Allows 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.

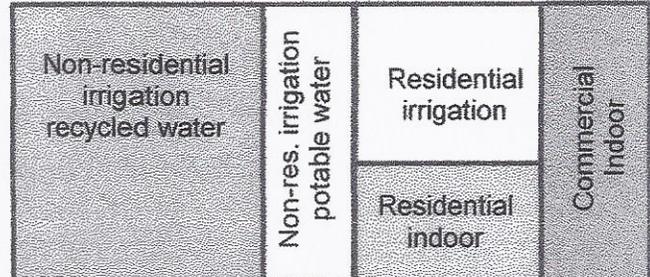
Recycled Water Equity Adjustment

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.

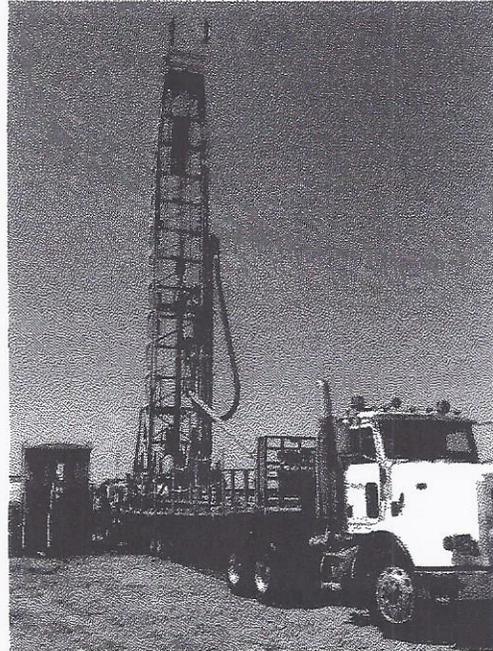
Benefit of the Equity Adjustment

- 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.