CALIFORNIA Water Boards

Media Release

State Water Board Approves Emergency Regulation to Ensure Agencies and State Residents Increase Water Conservation

For Immediate Release
July 15, 2014

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In response to the ongoing severe drought, on Tuesday the State Water Resources Control Board approved an emergency regulation to ensure water agencies, their customers and state residents increase water conservation in urban settings or face possible fines or other enforcement.

The new conservation regulation is intended to reduce outdoor urban water use. The regulation, adopted by the State Water Board, mandates minimum actions to conserve water supplies both for this year and into 2015. Most Californians use more water outdoors than indoors. In some areas, 50 percent or more of daily water use is for lawns and outdoor landscaping.

Many communities and water suppliers have taken bold steps over the years and in this year to reduce water use; however, many have not and much more can and should be done statewide to extend diminishing water supplies.

With this regulation, all Californians will be expected to stop: washing down driveways and sidewalks; watering of outdoor landscapes that cause excess runoff; using a hose to wash a motor vehicle, unless the hose is fitted with a shut-off nozzle, and using potable water in a fountain or decorative water feature, unless the water is recirculated. The regulation makes an exception for health and safety circumstances.

Larger water suppliers will be required to activate their Water Shortage Contingency Plan to a level where outdoor irrigation restrictions are mandatory. In communities where no water shortage contingency plan exists, the regulation requires that water suppliers either limit outdoor irrigation to twice a week or implement other comparable conservation actions. Finally, large water suppliers must report water use on a monthly basis to track progress.

Local agencies could ask courts to fine water users up to $500 a day for failure to implement conservation requirements in addition to their existing authorities and processes. The State Water Board could initiate enforcement actions against water agencies that don't comply with the new regulations. Failure to comply with a State Water Board enforcement order by water agencies is subject to up to a $10,000 a day penalty.

"We are facing the worst drought impact that we or our grandparents have ever seen," said State Water Board Chair Felicia Marcus. "And, more important, we have no idea when it will end. This

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drought's impacts are being felt by communities all over California. Fields are fallowed; communities are running out of water, fish and wildlife will be devastated. The least that urban Californians can do is to not waste water on outdoor uses. It is in their self-interest to conserve more, now, to avoid far more harsh restrictions, if the drought lasts into the future. These regulations are meant to spark awareness of the seriousness of the situation, and could be expanded if the drought wears on and people do not act."

In addition to approving the emergency conservation regulation today, the State Water Board made a plea for water suppliers, communities and businesses to do even more. For example, water agencies are being asked to step up their programs to fix leaks and other sources of water loss, use more recycled water or captured stormwater, and find additional ways to incentivize demand reduction among their customers.

The new regulation was developed following two drought emergency declarations by Governor Brown. On January 17, Governor Edmund G. Brown Jr. issued a drought emergency proclamation following three dry or critically dry years in California.

The April 25 Executive Order issued by the Governor directs the State Water Board to adopt an emergency regulation as it deems necessary, pursuant to Water Code section 1058.5, to ensure that urban water suppliers implement conservation measures.

As drought conditions continue, the State Water Board may revisit this regulation and consider other measures to enhance conservation efforts throughout the state.

Following Board adoption, the regulation will likely go into effect on or about August 1, following submittal to the Office of Administrative Law. The emergency regulation remains in effect for 270 days, unless extended by the State Water Board due to ongoing drought conditions.

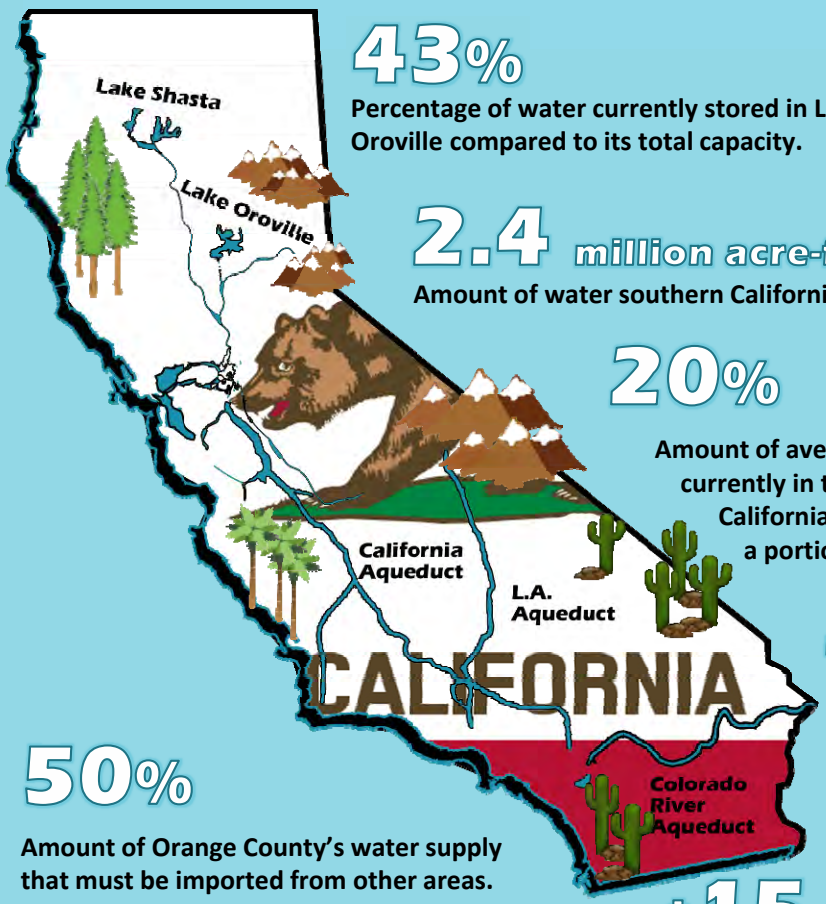
For more information on the proposals leading to this Board action, please visit the Emergency Water Conservation website.

Governor Brown has called on all Californians to reduce their water use by 20 percent and prevent water waste – visit SaveOurH2O.org to find out how everyone can do their part, and visit Drought.CA.Gov to learn more about how California is dealing with the effects of the drought.

2013 ***was the driest year on record in California history***, and 2014 is shaping up to be another dry year. Some regions throughout the state are being severely impacted, but there is no immediate danger of water supply interruptions here in Orange County. We don't know how long the drought will last, so we must be good stewards and use our water supplies as efficiently as possible.

January 17, 2014

Governor Brown declares a drought emergency in California.



43%

Percentage of water currently stored in Lake Oroville compared to its total capacity.

2.4 million acre-feet

Amount of water southern California currently has in storage.

20%

Amount of average annual snowpack currently in the Sierra Nevada mountains. Californians rely on this snowpack for a portion of their water supply.

14

Number of consecutive years the Colorado River Basin has been in a drought.

50%

Amount of Orange County's water supply that must be imported from other areas.

- **Many areas of Orange County are nearly 100% dependent on imported water supplies.**
- **Nearly ½ of Orange County's imported water comes from the Colorado River, the other ½ comes from the State Water Project which begins at Lake Oroville.**

The drought is a reminder that we must continue to invest in water infrastructure and reliability projects in order to ensure our water supplies remain reliable.

$15 Billion

Investments by Southern California water providers in water reliability projects over the past 20 years.

Resulting in...

- ***Increased regional storage***
- ***Infrastructure improvements***
- ***New local water supplies***
- ***Water use efficiency programs that are now sustaining the region.***

140 gallons

Average amount of water used every day by each Orange County resident.

More than ½ of that amount is used to water our landscapes.

$40 million

Funding available to southern California residents for rebates on water-efficient devices including:

- **Smart irrigation timers**
- **Rotating nozzles**
- **High efficiency clothes washers**
- **Rain barrels**

140 gallons

Water savings each day by replacing 1,000 sq. ft. of grass with California Friendly plants

19 gallons

Water savings each day by installing a high efficiency toilet.

MUNICIPAL WATER DISTRICT OF ORANGE COUNTY

Governor Brown has asked that Californians reduce their water use by 20%. Orange County water providers, in turn, are asking that all residents and businesses make simple changes to reduce their daily water use. A variety of rebates, useful tips, and programs are currently available to help all water users become as water efficient as possible. Visit: www.mwdoc.com/wue to learn more!

MUNICIPAL WATER DISTRICT OF ORANGE COUNTY

NEWS RELEASE

FOR IMMEDIATE RELEASE

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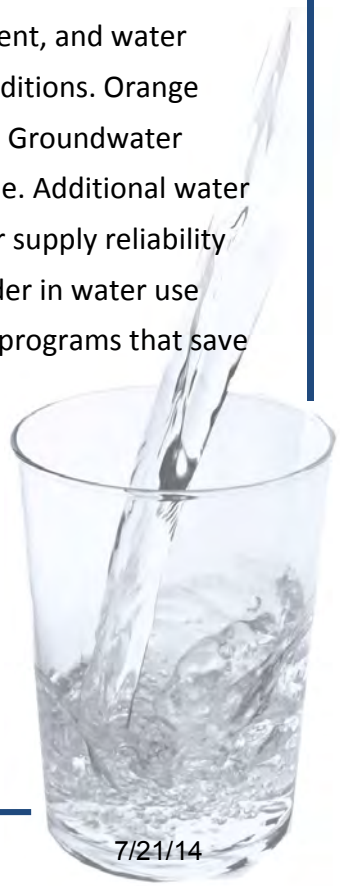
ORANGE COUNTY WATER PROVIDERS CALL FOR ENHANCED WATER USE EFFICIENCY EFFORTS FOLLOWING GOVERNOR BROWN'S DROUGHT DECLARATION

Fountain Valley, CA (January 17, 2014) – Today, Governor Brown officially declared a drought emergency in the state of California amidst declining reservoir levels and historically low amounts of rainfall. Orange County water providers are concerned about the continuing dry conditions throughout the State and are closely monitoring water supplies, but at this time local residents and businesses face no immediate danger of supply interruptions. However, this is a serious situation statewide, and we ask that everyone assess their current water usage and make simple changes to ensure our water supplies are being used as efficiently as possible.

"While we can't predict how much rain Mother Nature will bring us this year, Orange County water providers have invested heavily in water reliability projects to prepare for a situation like this," remarked Joan Finnegan, MWDOC Board President. "Continuing to invest in key water reliability projects like the water conveyance facilities proposed in the Bay Delta Conservation Plan as well as local projects will ensure our water supplies remain reliable in the long-run."

Prior local investments in storage, water use efficiency, groundwater management, and water recycling are all helping Orange County water providers deal with the historic dry conditions. Orange County is a worldwide leader in water recycling with renowned projects including the Groundwater Replenishment System, the world's largest water purification system for potable reuse. Additional water recycling projects are currently underway throughout Orange County to ensure water supply reliability and reduce dependence on imported supplies. Orange County is also a long-time leader in water use efficiency, having piloted and implemented a wide variety of innovative projects and programs that save more than 21 million gallons of water per day.



While Orange County is presently in a good position in terms of its water supplies, we continue to encourage residents and businesses to use water as efficiently as possible year-round. Residents have done a great job of being water efficient inside their homes, but there is still water savings potential outside the home, where nearly 50% of our water use occurs. Residents are encouraged to replace grass with California Friendly plants that require less water, install rotating

(Continues…)

MUNICIPAL WATER DISTRICT OF ORANGE COUNTY

DROUGHT DECLARATION….
2-2-2

sprinkler nozzles and a smart irrigation controller that gives plants the appropriate amount of water, and repair leaks inside and outside the home. Governor Brown has asked that everyone reduce their water usage by 20%, and water-saving tips to help you be more efficient can be found at www.mwdoc.com/wue.

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The Municipal Water District of Orange County is a water resource management and planning agency dedicated to ensuring supply and system reliability for the 2.2 million residents we serve through our 28 member agencies.

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MUNICIPAL WATER DISTRICT OF ORANGE COUNTY

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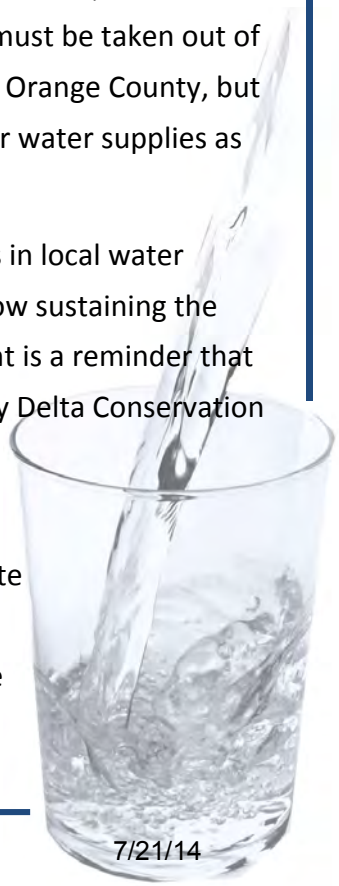
MUNICIPAL WATER DISTRICT BOARD ASKS RESIDENTS AND BUSINESSES TO REDUCE WATER USE THROUGH ENHANCED WATER USE EFFICIENCY EFFORTS

Fountain Valley, CA (February 19, 2014) – The Board of Directors of the Municipal Water District of Orange County (MWDOC) is calling for Orange County residents and businesses to reduce their water use through enhanced water use efficiency measures. Today, the MWDOC Board passed a resolution asking all water users to take necessary actions in an effort to extend stored water supplies and prepare for a prolonged drought.

The call for enhanced water use efficiency comes on the heels of extremely low snowpack in the Sierra Nevada Mountains, where snow levels measured just 12 percent of average water content during the January snow survey. This led the California Department of Water Resources to take the unprecedented step of reducing anticipated water supply deliveries through the State Water Project (SWP) to zero percent – meaning SWP Contractors are expecting to receive no water from the Sacramento San Joaquin Delta this year.

Orange County receives approximately 30% of its annual water supply from this source, so enhanced water use efficiency efforts are needed in order to reduce the amount of water that must be taken out of storage this year. There is no immediate danger of water supply interruptions here in Orange County, but we don't know how long the drought will last. We must be good stewards and use our water supplies as efficiently as possible now.

"The MWDOC Board wishes to thank our ratepayers for supporting investments in local water reliability projects, like water recycling and water use efficiency programs, that are now sustaining the region," remarked Larry Dick, who was recently elected Board President. "The drought is a reminder that we must continue to invest in water infrastructure and reliability projects, like the Bay Delta Conservation Plan, in order to ensure our water supplies remain reliable for future generations."



As result of the drought conditions and severe impacts to communities in many parts of the state, last month Governor Brown issued a drought emergency in the state of California. The Metropolitan Water District of Southern California (Metropolitan) responded by endorsing Governor Brown's statewide call for a reduction in water use and declaring a Water Supply Alert throughout its 5,200 square mile service area.

(Continues…)

MUNICIPAL WATER DISTRICT OF ORANGE COUNTY

MWDOC BOARD REQUESTS ENHANCED WATER USE EFFICIENCY…. 2-2-2

MWDOC is working closely with Metropolitan and its member agencies to monitor water supplies and accelerate outreach efforts to communicate the need for additional water use efficiency efforts.

MWDOC and its member agencies offer a wide variety of water use efficiency programs and rebates to assist residents, businesses, and institutions in reducing their water use. Residents are encouraged to consider planting California Friendly plants that require very little water, install rotating sprinkler nozzles and a "smart" sprinkler timer that gives plants the appropriate amount of water, check for and promptly repair leaks inside and outside the home. For information on water use efficiency programs, rebates, and water-saving tips, please visit www.mwdoc.com/wue.

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How Can Residents Meet Mandatory Water Conservation Goals?
By Joe Berg, MWDOC Water Use Efficiency Program Manager

In response to our current water supply situation, water agencies throughout Orange County are asking consumers to reduce their water use up to fifteen percent. Some consumers are asking, "I've already done so much, how can I save more?" Here are the top five ways that residents can save water.

1. **Repair leaks.** According to the American Water Works Association, leaks account for 5.5% of residential water use (Residential End Uses of Water, 1999). This amounts to approximately 21.9 gallons per household, per day. The most common source of a leak is the toilet, more specifically the flapper. To check your toilet for a leak, put a few drops of food coloring in the tank. If you see the color appear in the toilet bowl (without flushing), you likely have a leaky flapper. For more detailed information on how to check your home, inside and out, for leaks go to: http://www.h2ouse.org/action/details/action_elements.cfm?actionID=F56F50F2-34E3-4095-9A919C304D945B5F

2. **Replace older toilets with high efficiency toilets.** Toilets use the largest amount of water inside the home. This makes them a great target for water savings. In 1992, the Energy Policy Act established a toilet manufacturing standard requiring that only 1.6 gallon per flush toilets be manufactured and sold in the U.S. If your toilets are of pre- 1992 vintage, consider replacing them with even more efficient high efficiency toilets (HETs) that use 1.23 gallons per flush or less. A manufacturing standard requiring HETs becomes effective in 2014. To help consumers select toilets that perform well, water agencies in the U.S. and Canada teamed up to conduct toilet performance testing known as Maximum Performance. To obtain the Maximum Performance test results by brand and model, go to: http://www.cuwcc.org/WorkArea/showcontent.aspx?id=12044

3. **Replace your old clothes washer with a high efficiency clothes washer.** Clothes washers use the second largest amount of water inside the home. Energy Star TM-rated washers that have a Water Factor less than 9.5 use up to 50% less water and energy per load. The water factor is a measure of gallons of water per cubic foot of laundry used by the washer. Today, the lowest water factor rating is 3.2 gallons per cubic foot of laundry. To obtain the Consortium for Energy Efficiency's list of High Efficiency Clothes Washers (includes both energy and water use ratings), go to: http://www.cee1.org/resid/seha/rwsh/rwsh-prod.pdf

4. **Water only when your plants need it.** According to landscape professionals, over-watering is the most common problem associated with home landscape. To improve the irrigation scheduling (an opportunity for landscape water savings), replace your old, manual irrigation timer with a new self-adjusting SmarTimer. Orange County-based studies dating back to June 2001 have quantified water savings of 37-42 gallons per day per single-family home, or 10% of residential water use. In June 2004, the Irrigation Association, water agencies and Center for Irrigation Technology established

a partnership now known as SWAT – Smart Water Application Technology. The objective was to establish performance standards that would evaluate "smart" controller performance, longevity, reliability and comparative information. Today, more than 23 products from various manufacturers have been tested and comprise the technologies that are eligible for water agency rebates.

In addition to installing a SmarTimer, run the irrigation system monthly and observe its operation. Look for quick and easy corrections such as sprinkler heads that are broken or missing, misaligned, obstructed, sunken, leaky seals, plugged nozzles, or excess pressure. These efforts will improve how efficiently the irrigation system operates.

If you do not have a SmarTimer, use the bewaterwise.com Watering Calculator to customize an irrigation schedule for each of your irrigation stations. This will establish a monthly irrigation schedule for your landscape. Once the schedule is programmed into your timer, be sure to fine tune it over time to maximize water savings. You should also consider using the Watering Index also found on the bewaterwise.com website. The index provides an easy way to make global adjustments to your irrigation schedule using the percent adjust feature in most irrigation timers. This feature allows the irrigation schedule for all irrigation stations to be adjusting using one knob or button. In the winter, the Watering Index may be zero during rain and in the summer it may be 110% during a Santa Ana wind condition. To learn more about the Watering Calculator and Watering Index, go to: http://www.bewaterwise.com/calculator.html

5. **Plant the right plants for our arid climate.** With increasing demand for water and reduced supply (due to both climatological and regulatory constraints), southern California landscapes need to transition from traditional turf-intensive landscapes to California Friendly landscapes. Tall Fescue, the thirstiest and most common grass used in Orange County, requires more than 48 inches or four feet of irrigation per year (assuming irrigation systems are 80% efficient) to maintain optimal health. Assuming all 12 inches of rainfall we receive locally are effectively consumed by the turf, which is not realistic, more than 36 inches or three feet of water would need to be applied.

   Fortunately, many new varieties of turf, including Zoyzia, have come to market that require 20-30 percent less water than the traditional tall fescue. Coupling more water efficient varieties of turf with smaller more functional turf areas and use of California Friendly trees, shrubs and groundcovers can significantly reduce irrigation requirements in local landscapes.

   Due to our current water supply situation, you should not run out this weekend to begin your planting renovation, but you can start planning now for a more California Landscape when our water supply situation improves. For a plethora of information about California Friendly landscaping including plant lists, demonstration gardens, on-line videos and more go to: http://www.bewaterwise.com/knowledge01.html

Even if some of these recommendations have already been implemented there is likely still room for improvement in other areas. With just a couple of these measures, water saving goals can be achieved. For even more water saving information, log onto www.H2Ouse.org or www.bewaterwise.com.

ORDINANCE NO. 09-07-02
ORDINANCE OF THE SANTA MARGARITA WATER DISTRICT, ORANGE COUNTY, CALIFORNIA, ADOPTING A COMPREHENSIVE WATER CONSERVATION PROGRAM

BE IT ORDAINED BY THE Board of Directors of the Santa Margarita Water District (the "District") as follows:

SECTION 1. Declaration of Policy. California Water Code Section 375 et seq. provides public water purveyors with the authority to adopt and enforce a water conservation program to (1) protect the health, safety and welfare of the customers of the District, (2) maximize the beneficial use of the District's water supplies, and (3) ensure that there will be sufficient water supplies to meet the basic needs of human consumption, sanitation and fire protection. The Board of Directors of the District ("Board") hereby establishes this District Comprehensive Water Conservation Program pursuant to California Water Code Section 375 et seq., to reduce the quantity of water used by persons within the jurisdiction of the District for the purpose of conserving the District's water supplies.

SECTION 2. Findings.

a. Southern California is a semi-arid region and is largely dependent upon imported water supplies. A growing population, potential climate change, environmental concerns, and other factors in other parts of the State and western United States, make the region susceptible to potential water supply reliability issues; and

b. The District and South Orange County relies on imported potable water to meets its water demands; and

c. A reliable minimum supply of potable water is essential to the public health, safety and welfare of the people and economy of California; and

d. Wasteful water use practices constitute a potential threat to, and an unacceptable diminution of, the District's water supplies. The prevention of water waste is an economically and environmentally feasible way to help protect, conserve and prevent unacceptable diminution of the District's water supplies; and

e. Careful water management that includes active water conservation measures not only in times of drought, but at all times, is essential to ensure a reliable minimum supply of water to meet current and future water supply needs, and

f. Article X, Section 2 of the California Constitution declares that the general welfare requires that water resources be put to beneficial use, waste or unreasonable use or unreasonable method of use of water be prevented, and conservation of water be fully exercised with a view to the reasonable and beneficial use thereof; and

g. On January 21, 1991, the District adopted a conservation based tiered rate structure for District residential customers and has periodically updated the tiered rate structure. On February 25, 1991, the District adopted guidelines for exceptions to the specific consumption allotments pertaining to residential water customers. Exceptions can only be granted upon application by the residential water customer accompanied with some evidence to prove or substantiate the variance condition (i.e., medical necessity, number of persons in household, hardship, business use of residence). The rate structure includes residential tiers, with specific consumption allotments and rates applicable to each tier; and

h. The District adopted Ordinance 0-91-04-01, adopting a Comprehensive Water Conservation Program on April 15, 1991 establishing a staged water conservation program; in response to the reduction in the District's allocation of water from Metropolitan Water District of Southern California (MWD) and Municipal Water District of Orange County (MWDOC); and

i. The District has reviewed Ordinance 0-91-04-01and determined it is appropriate to update its water conservation program.

NOW THEREFORE, this Ordinance contains provisions for a staged water conservation program that will encourage reduced water consumption within the District through conservation, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, and maximize the efficient use of water within the District.

SECTION 3. Rescindment of Ordinance 91-4-01. The District hereby rescinds Ordinance 91-41-01 and replaces it with the provisions of this Ordinance.

SECTION 4. Application. The provisions of this Ordinance shall apply to all persons, entities, customers, and properties served by the District (hereinafter collectively referred to as "customers"). The provisions of this chapter do not apply to uses of water necessary to protect public health and safety or for essential government services, such as police, fire and other similar emergency services. This Ordinance is intended solely to further the conservation of water. It is not intended to implement any provision of federal, State, or local statutes, ordinances, or regulations relating to protection of water quality or control of drainage or runoff; refer to the local jurisdiction or Regional Water Quality Control Board for information on any stormwater ordinances and stormwater management plans. Provisions of this Ordinance may be used in conjunction with local jurisdictions to meet regional water quality and conservation requirements.

SECTION 5. Authorization. The District's General Manager or his designated representative, is hereby authorized and directed to implement the staged water conservation and enforcement provisions of this Ordinance as necessary.

SECTION 6. Permanent Water Conservation Requirements – Prohibition Against Water Waste. As part of the District's "Best Management Practices," the following water conservation

requirements are in effect at all times and are permanent. Violations of this section will be considered waste and an unreasonable use of water.

A. Limits on Irrigation Practices.
   i. Limits on Watering Hours: Watering or irrigating of lawn, landscape or other vegetated area with potable water is prohibited between the hours of 8:00 a.m. and 6:00 p.m. Pacific Standard Time on any day, except by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very short periods of time for the express purpose of adjusting or repairing an irrigation system.
   ii. Limit on Watering Duration: Watering or irrigating of lawn, landscape or other vegetated area with potable water using a landscape irrigation system or a watering device that is not continuously attended is limited to no more than fifteen (15) minutes watering per day per station.
   iii. Efficient Irrigation Systems: This subsection does not apply to landscape irrigation systems that exclusively use very low-flow drip type irrigation systems when no emitter produces more than two (2) gallons of water per hour and weather based controllers or stream rotor sprinklers that meet a 70% efficiency standard.
   iv. No Excessive Water Flow or Runoff: Watering or irrigating of any lawn, landscape or other vegetated area in a manner that causes or allows excessive water flow or any runoff onto an adjoining sidewalk, driveway, street, alley, gutter or ditch is prohibited.

B. No Washing Down Hard or Paved Surfaces: Washing down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys, is prohibited except when necessary to alleviate safety or sanitary hazards, and then only by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off device, a low-volume, high-pressure cleaning machine equipped to recycle any water used, or a low-volume high-pressure water broom.

C. Obligation to Fix Leaks, Breaks or Malfunctions: Excessive use, loss or escape of water through breaks, leaks or other malfunctions in the water user's plumbing or distribution system for any period of time after such escape of water should have reasonably been discovered and corrected and in no event more than seven (7) days of receiving notice from the District, is prohibited.

D. Re-circulating Water Required for Water Fountains and Decorative Water Features: Operating and maintaining a water fountain or other decorative water feature that does not use re-circulated water is prohibited.

E. Limits on Washing Vehicles: Using water to wash or clean a vehicle, including but not limited to any automobile, truck, van, bus, motorcycle, boat or trailer, whether motorized or not is prohibited, except by use of a hand-held bucket or similar container or a hand-

held hose equipped with a positive self-closing water shut-off nozzle or device. This subsection does not apply to any commercial car washing facility.

F. Drinking Water Served Upon Request Only: Eating or drinking establishments, including but not limited to a restaurant, hotel, cafe, cafeteria, bar, or other public place where food or drinks are sold, served, or offered for sale, are prohibited from providing drinking water to any person unless expressly requested.

G. Commercial Lodging Establishments Must Provide Guests Option to Decline Daily Linen Services: Hotels, motels and other commercial lodging establishments must provide customers the option of not having towels and linen laundered daily. Commercial lodging establishments must prominently display notice of this option in each bathroom using clear and easily understood language.

H. No Installation of Single Pass Cooling Systems: Installation of single pass cooling systems is prohibited in buildings requesting new water service.

I. No Installation of Non-re-circulating Water Systems in Commercial Car Wash and Laundry Systems: Installation of non-re-circulating water systems is prohibited in new commercial conveyor car wash and new commercial laundry systems.

J. Restaurants Required to Use Water Conserving Dish Wash Spray Valves: Food preparation establishments, such as restaurants or cafes, are prohibited from using non-water conserving dish wash spray valves.

K. Commercial Car Wash Systems: Effective on January 1, 2010, all commercial conveyor car wash systems must have installed operational re-circulating water systems, or must have secured a waiver of this requirement from the District.

SECTION 7. Conservation Stages. In addition to the Permanent Water Conservation Requirements, the District's Comprehensive Water Conservation Program consists of the following four stages to respond to a reduction in the potable water available to the District for distribution to its customers.

Conservation Stage	Level of Restriction	Percentage of Projected Savings
Stage 1	Voluntary	Up to 10%
Stage 2	Mandatory	Up to 20%
Stage 3	Mandatory	Up to 40%
Stage 4	Mandatory	Over 40%%

Stage 1 shall remain in effect at all times until or unless a mandatory conservation stage is implemented in accordance with the provisions of this Ordinance. The mandatory conservation stages (stages 2, 3 and 4) shall take effect upon implementation by the Board in accordance with Section 8.

*A. **Stage 1 - Voluntary Conservation**.* In addition to complying with the Permanent Restrictions in Section 6, District customers are encouraged to voluntarily conserve water during stage 1. District customers are specifically requested to voluntarily implement the mandatory water use restrictions set forth in stages 2, 3 and 4 to the extent feasible. In particular, watering or irrigating of lawn, landscape or other vegetated area with potable water is requested to be limited to three days per week. During the months of November through March, watering or irrigating of lawn, landscape or other vegetated area with potable water is recommended to be limited to no more than one day per week. This provision does not apply to landscape irrigation zones that exclusively use very low flow drip type irrigation systems when no emitter produces more than two (2) gallons of water per hour and weather based controllers or stream rotor sprinklers that meet a 70% efficiency standard. This provision also does not apply to watering or irrigating by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very short periods of time for the express purpose of adjusting or repairing an irrigation system.

B. Stage 2 - Mandatory Conservation – Drought Conditions. A Stage 2 Mandatory Conservation – Drought Conditions exists when the District determines, in its sole discretion, that due to drought or other water supply conditions, a water supply shortage or threatened shortage exists and a consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water conditions. Upon the declaration by the District of a Stage 2 condition, the District will implement the mandatory conservation measures identified in this Section. In addition to the prohibited uses of water identified in Section 6, the following additional water conservation requirements apply during Stage 2:

1. **Watering Days:** Watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to three days per week on a schedule established and posted by the District. During the months of November through March, watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to no more than one day per week on a schedule established and posted by the District. This provision does not apply to landscape irrigation zones that exclusively use very low flow drip type irrigation systems when no emitter produces more than two (2) gallons of water per hour. This provision also does not apply to watering or irrigating by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very short periods of time for the express purpose of adjusting or repairing an irrigation system.

2. **Obligation to Fix Leaks, Breaks or Malfunctions**: All leaks, breaks, or other malfunctions in the water user's plumbing or distribution system must be repaired within forty-eight (48) hours of notification by the District unless other arrangements are made with the District.

3. **Limits on Filling Ornamental Lakes or Ponds**: Filling or re-filling ornamental lakes or ponds is prohibited, except to the extent needed to sustain aquatic life, provided that such animals are of significant value and have been actively managed within the water feature prior to declaration of a supply shortage level under this Ordinance.

4. **Limits on Washing Vehicles:** Using water to wash or clean a vehicle, including but not limited to, any automobile, truck, van, bus, motorcycle, boat or trailer, whether motorized or not, is prohibited except by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, by high pressure/low volume wash systems, or at a commercial car washing facility that utilizes a re-circulating water system to capture or reuse water.

5. **Limits on Filling Residential Swimming Pools & Spas:** Re-filling of more than one foot and initial filling of residential swimming pools or outdoor spas with potable water is prohibited.

6. **Limits on use of Potable Water for Construction:** The use of domestic water for construction purposes shall only be permitted by, and in accordance with the provisions of, a construction water use permit obtained from the District General Manager or his designee.

C. Stage 3-Mandatory Conservation - Serious Drought Conditions. . A Stage 3 condition exists when the District notifies its residents and businesses that a significant reduction in consumer demand is necessary to maintain sufficient water supplies for public health and safety. In addition to the mandatory water conservation measures for Stage 2, the following water conservation measures shall apply during Stage 3:

1. **Watering Days:** Watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to two days per week on a schedule established and posted by the District. During the months of November through March, watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to no more than one day per week on a schedule established and posted by the District. This provision does not apply to landscape irrigation zones that exclusively use very low flow drip type irrigation systems when no emitter produces more than two (2) gallons of water per hour. This provision also does not apply to watering or irrigating by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very short periods of time for the express purpose of adjusting or repairing an irrigation system.

2. **Obligation to Fix Leaks, Breaks or Malfunctions**: All leaks, breaks, or other malfunctions in the water user's plumbing or distribution system must be repaired within twenty four (24) hours of notification by the District unless other arrangements are made with the District.

3. **Artificial Lakes:** Filling or refilling of artificial lakes shall only be permitted by, and in accordance with the provisions of, an artificial lake filling permit obtained from the District General Manager or his designee.

4. **No New Potable Water Service**: Upon declaration of a Level 3 Water Supply Shortage Emergency condition, no new potable water service will be provided, no new temporary

meters or permanent meters will be provided, and no will-serve letters will be issued, except under the following circumstances:

a. A valid, unexpired building permit has been issued for the project; or
b. The project is necessary to protect the public health, safety, and welfare; or
c. The applicant provides substantial evidence of an enforceable commitment that water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of the District.

This provision does not preclude the resetting or turn-on of meters to provide continuation of water service or the restoration of service that has been interrupted for a period of one year or less.

5. **No New Annexations:** Upon the declaration of a Level 3 Water Supply Shortage condition, the District will suspend consideration of annexations to its service area. This subsection does not apply to boundary corrections and annexations that will not result in any increased use of water.

D. Stage 4 - Mandatory Conservation - Severe Drought Conditions. A Stage 4 condition exists when the District declares severe drought conditions exists and notifies its residents and businesses that a major reduction in consumer demand is necessary to maintain sufficient water supplies for public health and safety. In addition to the mandatory waters for stages 2 and 3, the following water conservation measures shall apply during stage 4:

1. **Irrigation**. All outdoor irrigation with potable water is prohibited.

2. **No agricultural use of water**. Use of water for agricultural or commercial nursery purposes is prohibited, except for livestock watering.

3. **Prohibition of vehicle washing**. Washing of autos, trucks, trailers, boats, airplanes or other types of mobile equipment is prohibited. Washing is permitted at any time upon the immediate premises of a commercial car wash. The 'use of water by all types of commercial car washes shall be reduced in volume by 50%. Further, such washings are exempted from these regulations where the health, safety and welfare of the public is contingent upon frequent vehicle cleaning such as garbage trucks and vehicles used to transport food and perishables.

4. **Prohibition on filling recreational water facilities.** Filling, refilling or adding of water to swimming pools, spas, ponds or artificial lakes is prohibited.

5. **Prohibition on use of potable water for construction**. Use of domestic water for construction purposes is prohibited.

SECTION 8. Mandatory Conservation Stage Implementation. The District shall monitor the projected supply and demand for water by its customers on a daily basis. The Board shall determine the extent of the conservation required through implementation or termination of

particular conservation stages in order for the District to prudently plan for and supply water to its customers. The Board may order that the appropriate stage of water conservation be implemented or terminated by resolution adopted in accordance with this Ordinance. Within five (5) days following the declaration of the response level, the District shall publish a copy of the resolution in a newspaper used for publication of official notices and shall post a notice on the District's Web site at www.smwd.com. Adoption of a resolution terminating any stage shall be made at a public meeting of the Board. The mandatory conservation measures applicable to Stage 2, 3 or 5 conditions shall take effect on the tenth (10) day after the date the response level is declared

Within five (5) days following the declaration of the response level, the District shall publish a copy of the resolution in a newspaper used for publication of official notices. Notices may also be posted on the District's Web site at www.smwd.com.

SECTION 9. Exemptions. Customers may be exempted from application of this Ordinance for a certain type of use if the General Manager issues a permit allowing such use and if such permit issuance is based on a finding that enforcement of the applicable restriction would either (1) cause an unnecessary and undue hardship to the customer applying for such permit or the public, or (2) cause or threaten an emergency condition affecting the health, sanitation, fire protection, or safety of the customer or the public. The General Manager may require the installation and use of such water conservation devices or practices as he deems appropriate as a condition of the exemption permit.

SECTION 10. Enforcement. The District intends to provide education and notice to its customers of the terms of the conservation stage then currently in place. The District's customers have previously responded to meet the water needs of the District. However, in the event active enforcement is required any customer who violates the provisions of this Ordinance by either excess use of water or by specific violation of one or more of the applicable water use restrictions for a particular mandatory conservation stage may be cited by the General Manager or his designated representative in accordance with the provisions of subsection A or B of this Section, as applicable.

A. Stage 1 and 2

1. Any person, who uses, causes to be used, or permits the use of water in violation of this policy is guilty of an offense punishable as provided herein.

2. Each day that a violation of this policy occurs is a separate offense.

3. For the first violation, the District shall issue a written notice of fact of such violation to the customer.

4. For a second violation within twelve months from the first notice of violation, the District shall issue a written notice of the fact of such violation of the customer delivered via certified mail to the customer address of record.

5. For a third violation within twelve months from the first notice of violation, a surcharge in the amount of $100 shall be added to the customer's water bill.

6. For the fourth and any subsequent violation within twelve months from the first notice of violation, a surcharge of $200 shall be added to the customer's water bill.

7. Violations of a provision of this policy are subject to enforcement through installation of a flow-restricting device in the meter. A person or entity that violates this ordinance is responsible for payment of the District's charges for installing and/or removing any flow restricting device and for disconnecting and/or reconnecting service per the District's schedule of charges then in effect. The charge for installing and/or removing any flow restricting device must be paid to the District before the device is removed. Nonpayment will be subject to the same remedies as nonpayment of basic water rates.

8. Willful violations of the mandatory conservation measures and water use restrictions applicable during a Stage 4 Water Emergency Condition may be enforced by discontinuing service to the property at which the violation occurs as provided by the Water Code Section 356.

9. All remedies provided for herein shall be cumulative and not exclusive.

B. Stage 3 and 4.

1. For the first violation, the customer will receive a certified letter.

2. For the second violation, the customer will incur a $200 fine.

3. For the third violation, the customer shall be subject to fines and flow restrictions. A person or entity that violates this ordinance is responsible for payment of the District's charges for installing and/or removing any flow restricting device and for disconnecting and/or reconnecting service per the District's schedule of charges then in effect. The charge for installing and/or removing any flow restricting device must be paid to the District before the device is removed. Nonpayment will be subject to the same remedies as nonpayment of basic water rates.

4. For the fourth violation, the customer will be charged double fines for construction and/or irrigation use.

SECTION 11. Rules and Regulations for Water Service. The provisions of this Ordinance are in addition to all other District Rules and Regulations for Water Service, and in the event of a conflict between this Ordinance and other rules and regulations relating to the same subject matter, the conflict shall, insofar as practical, be resolved to implement the purposes of this Ordinance.

SECTION 12. Severability. If any section, subsection, sentence, clause or phrase of this Ordinance is for any reason held to be unconstitutional or invalid by a court of competent

jurisdiction, such decision shall not affect the remaining portions of this Ordinance and those shall remain in full force and effect.

SECTION 13. CEQA Exemption. The District finds that this Ordinance and actions taken hereafter pursuant to this Ordinance are exempt from the California Environmental Quality Act pursuant to Public Resources Code Section 21080(b)(4) and California Code of Regulations, Title 14, Section 15301. The General Manager of the District is hereby authorized and directed to file a Notice of Exemption as soon as possible following adoption of this Ordinance.

SECTION 14. Effective Date and Publication. This Ordinance shall become effective as of the date of adoption and shall be published within ten days of adoption, pursuant to the California Water Code Section 376.

ADOPTED, SIGNED AND APPROVED this 10th day of July, 2009.

President of the Board of Directors
Santa Margarita Water District

ATTEST:

Secretary of the Board of Directors
Santa Margarita Water District

STATE OF CALIFORNIA)
)ss.
COUNTY OF ORANGE)

I, BETTY MEGREY, Secretary of the Board of Directors of the Santa Margarita Water District, do hereby certify that the foregoing Ordinance was duly adopted by the Board of Directors of said District at a regular meeting held on the 10th day of July, 2009 and that it was so adopted by the following vote:

AYES: DIRECTORS:	JACOBS, LAWSON, OLSON & WILSON
NOES: DIRECTORS:	NONE
ABSENT: DIRECTORS:	FAUBEL
ABSTAIN: DIRECTORS:	NONE

Betty Megrey
Secretary, Board of Directors
Santa Margarita Water District

I, BETTY MEGREY, Secretary of the Board of Directors of the Santa Margarita Water District, do hereby certify that the above and foregoing is a full, true and correct copy of Ordinance No. 09-07-02 of said Board, and that the same has not been amended or repealed.

DATED: July 10, 2009

Betty Megrey
Secretary, Board of Directors
Santa Margarita Water District

(Seal)

RESOLUTION NO. 2014-02-01

RESOLUTION OF THE BOARD OF DIRECTORS OF THE SANTA MARGARITA WATER DISTRICT IMPLEMENTING CONSERVATION MEASURES IN RESPONSE TO 2014 DROUGHT CONDITIONS

WHEREAS, Governor Brown issued a Proclamation of a State of Emergency in response to the State of California experiencing drought conditions; and

WHEREAS, the Proclamation calls on Californians to reduce water usage by 20 percent; and

WHEREAS, the Proclamation also calls upon local agencies to implement local water shortage contingency plans in order to avoid or forestall outright restrictions that could become necessary later in the drought season; and

WHEREAS, in 2009, the District adopted Ordinance No. 09-07-02, Adopting a Comprehensive Water Conservation Program which contains provisions for a staged water conservation program within the District through conservation, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, and maximize the efficient use of water within the District.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Santa Margarita Water:

1. **Incorporation of Recitals**. The Board of Directors hereby finds and determines that the Recitals of this Resolution are true and correct and are hereby incorporated into this Resolution as though fully set forth herein

2. **Call for 20 Percent Reduction**. The Board of Directors hereby determines that the District shall remain in Conservation Stage 1, which requests voluntary restrictions along with the Permanent Water Conservation Requirements and requests all water users to reduce consumption by 20 percent of their long-term average usage.

3. **District will implement water use restrictions for its facilities**. The Board of Directors hereby directs the District to implement mandatory conservation measures as described in Ordinance 09-07-02, Stage 2, at each of its facilities to reduce demands by 20 percent.

4. **Water Use Efficiency Master Plan**. The Board of Directors hereby directs the District to prepare a Water Use Efficiency Master Plan by July 1, 2014 for implementation in Fiscal Year (FY) 2014-2015.

5. **Education and Outreach Plan.** The Board of Directors hereby directs the District to develop an education and outreach plan to inform customers about the drought with a report on implementation of the Education and Outreach Plan to the Board on March 5, 2014.

6. **Recycled Water Conversion Report.** The Board of Directors hereby directs the District to develop a report on the plan for conversion of sites to recycled water for irrigation detailing current planning efforts, specific sites, costs and any impediments by July 1, 2014 for implementation in Fiscal Year 2014-2015.

PASSED AND ADOPTED by the Board of Directors of the Santa Margarita Water District this 5th day of February, 2014.

Saundra F. Jacobs
President of the Board of Directors
Santa Margarita Water District

ATTEST:

Joyce Crosthwaite
Secretary, Board of Directors
Santa Margarita Water District

STATE OF CALIFORNIA)

COUNTY OF ORANGE)

ss

I, Joyce Crosthwaite, Secretary of the Board of Directors of the Santa Margarita Water District, do hereby certify that the foregoing Resolution was duly adopted by the Board of Directors said District at a regular meeting held on the 17th day of January, 2014 and that it was so adopted by the following vote:

AYES: DIRECTORS:

NOES: DIRECTORS:

ABSENT: DIRECTORS:

ABSTAIN: DIRECTORS:

_____
Secretary, Board of Directors
Santa Margarita Water District

I, Joyce Crosthwaite, Secretary of the Board of Directors of the Santa Margarita Water District, do hereby certify that the above and forgoing is a full, true, and correct copy of Resolution No. 2014-01-01 of said Board, and that the same has not been amended or repealed.

DATED: January 17, 2014

_____
Secretary, Board of Directors
Santa Margarita Water District

(Seal)

SOUTH COAST WATER DISTRICT
ORDINANCE NO. 206

AN ORDINANCE OF THE BOARD OF DIRECTORS OF SOUTH COAST WATER DISTRICT ESTABLISHING A WATER CONSERVATION & WATER SUPPLY SHORTAGE PROGRAM FOR USERS OF POTABLE WATER PROVIDED BY THE DISTRICT

Section I. Title

South Coast Water District Water Conservation & Water Supply Shortage Ordinance ("Ordinance")

Section II. Findings

1. **A reliable minimum supply of potable water is essential** to the public health, safety and welfare of the people and economy of Southern California.

2. **Southern California is a semi-arid region, largely dependent on imported water** supplies from Northern California and the Colorado River. Population growth, drought, climate change, environmental concerns, government policy changes, restrictions on pumping and other factors in our region, in other parts of the State and in the western U.S. make Southern California highly-susceptible to water supply reliability issues.

3. **Careful water management requires active conservation measures** not only in times of drought but at all times. It is essential to ensure a reliable minimum supply of water to meet current and future water supply needs.

4. **California Constitution Article X, Section 2** declares for the general welfare:

    a. Water resources be put to beneficial use

    b. Prevention of water waste and unreasonable water use or methods of water use

    c. Full exercise of water conservation with a view to reasonable and beneficial water use

5. **California Water Code Section 375** authorizes water suppliers to adopt and enforce a comprehensive water conservation program to reduce potable water consumption and conserve supplies. Section 375 requires a noticed public meeting and public hearing.

6. **California Water Code Section 31027** sets forth the public notification requirements for water providers adopting requirements by ordinance.

7. **California Water Code Sections 350, et. seq.**, set forth the determination and notification procedures for water suppliers seeking to declare a water shortage emergency condition.

8. **California Water Code Section 356** allows for the adoption of regulations and restrictions that include discontinuance of service as an enforcement option where a water shortage emergency condition has been declared.

9. **California Water Code Section 377** authorizes water suppliers to enforce a comprehensive water conservation program by declaring that violations of adopted programs constitute misdemeanor violations.

10. **Health and Safety Code Section 5471** authorizes the District to apply charges or fees to persons or entities for services and facilities provided by the District, including, but not limited to, fees and charges for recovery of administrative and enforcement costs.

11. **California Water Code Section 370, et. seq.**, authorizes water suppliers to adopt water allocation programs for water users and allocation-based water conservation pricing.

12. **California Water Code Sections 13550 and 13551** declare a statewide policy that the use of potable domestic water for irrigation purposes when reclaimed (recycled) water is available constitutes a waste or unreasonable use of water within the meaning of the State Constitution.

13. **South Coast Water District Resolution No. 23-85/86** requires that future developments utilize reclaimed (recycled) water wherever economically and technically feasible within the boundaries of the District in order to conserve potable water for the purposes of human consumption and fire protection.

14. **The adoption and enforcement of a Water Conservation & Water Supply Shortage Ordinance is necessary to manage the District's potable water supply** short- and long-term and to minimize and/or avoid the effects of drought and water shortage within the District. Such a program is essential to ensure a reliable and sustainable minimum supply of water for public health, safety and welfare.

Section III. Declaration of Purpose and Intent

1. **To minimize or avoid the effect and hardship of potential shortages of potable water** to the greatest extent possible, this Ordinance establishes a Water Conservation & Water Supply Shortage Program designed to:

    a. **Reduce potable water consumption** (demand) through conservation

    b. **Enable effective potable water** supply planning

    c. **Assure reasonable and beneficial use** of potable water

    d. **Prevent waste of potable water** and maximize efficient use in the District

2. **The Ordinance establishes:**

    a. **Permanent water conservation standards** designed to alter behaviors related to potable water-use efficiency during non-shortage conditions.

    b. **Voluntary water conservation measures** designed to supplement permanent standards in the face of potential/planned water shortages.

    c. **Three levels of potential response to escalating water supply shortages** which the South Coast Water District Board may choose to implement during times of declared water shortage or water emergency. The three levels of response consist of increasing water use restrictions as a result of worsening drought conditions, emergencies, and/or decreasing supplies.

Section IV. Definitions

1. **General Definitions**

    a. **"The District"** means South Coast Water District.

    b. **"The Board"** means the South Coast Water District Board of Directors.

    c. **"Person"** means any person or persons, corporation, public or private entity, governmental agency or institution, or any other user of water provided by the District.

    d. **"Potable Water"** means water that is suitable for drinking.

    e. **"Recycled Water"** means the reclamation and reuse of non-potable water and/or wastewater for beneficial use, such as irrigation. Also known as "Reclaimed Water."

f. **"Water Waste"** refers to uses of water that are limited or prohibited under the Ordinance because they exceed necessary or intended use and could reasonably be prevented, such as runoff from outdoor watering.

g. **"Billing Unit"** is equal to 100 cubic feet (1 CCF) of water, which is 748 gallons. Water use is measured in units of 100-cubic-feet and multiplied by applicable water usage rates for billing. Also known as a "Unit of Water."

h. **"Undue Hardship"** is a unique circumstance in which a requirement of the Ordinance would result in a disproportionate impact on a water user or property upon which water is used compared to the impact on water users generally or similar properties or classes of water use.

i. **"Base water supply"** refers to the District's average annual wholesale water purchases over the three-year period set by Metropolitan Water District for member agencies, i.e., 2004, 2005, 2006.

2. **Irrigation-Related Definitions**

a. **"Automatic Shut-Off Nozzle"** refers to a water-efficient nozzle for use with residential or commercial hoses that must be pressed to start or stop the flow of water. Also known as a "Positive Self-Closing Shut-Off Nozzle."

b. **"Irrigation Controller"** is the part of an automated irrigation system that instructs the valves to open and close to start or stop the flow of water.

1. **"Sensor-based irrigation controller"** operates based on input from a combination of sensors (rain, solar, soil moisture) installed in or around the landscaped area.

2. **"Weather-based irrigation controller"** operates automatically based on evapo-transpiration rates and historic or real-time weather data.

c. **"Irrigation System"** refers to a manual or automated watering system consisting of pipes, hoses, spray heads and/or sprinkler devices or valves. Also known as a "Landscape Irrigation System."

d. **"Minimal Irrigation Water Flow or Runoff"** is exceeded when water flows into the street **and** enters the nearest storm drain. Minimal levels of irrigation water flow or runoff would include water that tops the curb, flows into the gutter, but does not enter the storm drain.

e. **"Positive Self-Closing Shut-Off Nozzle"** refers to a water-efficient nozzle for residential or commercial hoses that users must press or release to start or stop the flow of water. Also known as an "Automatic Shut-Off Nozzle."

f. **"Valves"** refer to the part of an irrigation system that opens and closes manually or electronically to start or stop the flow of water.

3. Other Definitions

a. **"Pre-Rinse Kitchen Spray Valves"** refer to highly water-efficient sprayers that commercial kitchens use to rinse dishes in the sink before washing and for other preliminary cleaning purposes.

b. **"Single-Pass Cooling System"** refers to an air conditioning, refrigeration or other cooling system that removes heat by transferring it to a supply of clean water and dumping the water down the drain – after a single use. This type of cooling system is extremely water-inefficient compared to systems that re-circulate the water.

Section V. Application of Ordinance

1. **Ordinance provisions apply to any person or entity using <u>potable</u> water provided by the District.** This includes individuals, persons, corporations, public or private entities, governmental agencies or institutions, or any other users of District water.

2. **The provisions of the Ordinance <u>may not</u> apply to the following:**

   a. **Water use necessary to protect public health and safety** or for essential government services, such as police, fire and similar services.

   b. **Recycled water use for irrigation.**

      1. Use of recycled water requires a permit that has specific use restrictions, many of which focus on water efficiency.
      2. Given recycled water permit restrictions and interest in promoting recycled water as a means to preserve potable water, **recycled water is exempt from all requirements of this Ordinance.**

   c. **Water used by commercial nurseries and growers** to sustain plants, trees, shrubs, crops or other vegetation intended for commercial sale.

3. **This Ordinance is intended solely to further the conservation of <u>potable</u> water.**

   a. It is **not intended** to implement any provision of federal, state or local statutes, ordinances or regulations relating to protection of water quality or control of drainage or runoff.

   b. Refer to the Regional Water Quality Control Board or local jurisdiction for information on storm water ordinances or management plans. Note: For local requirements regarding proper containment of water in the street, refer to local municipal codes.

Section VI(A): Permanent Water Conservation Measures

The following Permanent Mandatory Water Conservation Measures for potable water are in effect at all times, whether or not there is a water supply shortage or emergency.

1. **General Restrictions – Residential, Commercial and Public Customers**

   a. **Limits on Watering Hours**

      1. Watering or irrigating is **prohibited** any day of the week between **9:00 a.m. and 5:00 p.m.**

      2. This applies to lawns, landscaping and all other vegetated areas.

      3. The week includes weekdays and weekends, seven (7) days.

      4. The following are **exempt** from this restriction:

         a. Watering with a hand-held bucket or similar container
         b. Watering with a hand-held hose equipped with a positive self-closing nozzle
         c. Adjusting or repairing an irrigation system for very short periods of time

      5. Outdoor watering cannot result in runoff that exceeds "minimal" levels. Minimal levels are exceeded when water enters the street **and** flows into the nearest storm drain. (See Permanent Water Conservation Measure VI(A)1.c.)

   b. **Limits on Watering Duration**

      1. Watering or irrigating with a device or system that is not continuously attended is limited to **no more than 10 minutes per valve per cycle.**

      2. This applies to lawns, landscaping and all other vegetated areas.

      3. The following irrigation systems are **exempt:**

         a. Very low-flow drip-type systems where no emitter discharges more than two (2) gallons of water per hour
         b. Systems equipped with weather-based controllers

      4. Outdoor watering cannot result in runoff that exceeds "minimal" levels. Minimal levels are exceeded when water enters the street **and** flows into the nearest storm drain. (See Permanent Water Conservation Measure VI(A)1.c.)

c. Minimal Water Flow or Runoff from Irrigation: It is prohibited to water lawns, landscaping and vegetated areas in a manner that causes or allows more than a minimal amount of water flow or runoff onto an adjoining sidewalk, driveway, street, alley, gutter, ditch or other property.

1. Water flow or runoff shall exceed "minimal" levels when the water enters the street **and** flows into the nearest storm drain.

2. Minimal levels of water flow or runoff would include irrigation water that tops the curb, flows into the gutter, but does not enter the storm drain.

d. **Turn Off Irrigation Systems When It Rains**

1. **New residential** automated irrigation systems must be equipped with:

   a. Rain sensors that shut off the system when it rains, **or**
   b. Smart controllers or evapo-transpiration sensors that use weather-based data to set efficient watering schedules, **or**
   c. Manual control of the on/off function

e. **Fix Leaks, Breaks or Malfunctions in lines, fixtures or facilities**

1. Excessive use, loss or escape of water through breaks, leaks or malfunctions in the user's plumbing, distribution or irrigation system:

   a. Is prohibited for any period of time after such water waste should have reasonably been discovered and corrected
   b. Must be corrected in **no more than five (5) calendar days of District notification** – unless other arrangements are made with the District

2. Turning off an irrigation system during repairs constitutes a fix.

3. If water is being actively discharged and the owner cannot be contacted, the District may perform a temporary shut down.

f. **No Hosing or Washing Down Hard or Paved Surfaces**

1. It is **prohibited** to hose or wash down hard or paved surfaces, such as sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys.

2. When it is necessary hose or wash down hard or paved surfaces to alleviate safety or sanitary hazards, the following may be used:

a. Hand-held bucket or similar container
b. Hand-held hose equipped with a positive self-closing nozzle
c. Low-volume high-pressure cleaning machine, preferably equipped to recycle used water

3. Note: For local requirements regarding proper containment of water in the street, refer to local municipal codes.

g. **No Hosing or Washing Down Vehicles:** It is **prohibited** to use water to hose or wash down a motorized or non-motorized vehicle, including but not limited to automobiles, trucks, vans, buses, motorcycles, boats or trailers.

1. The following are **exempt** from this restriction:

a. Use of a hand-held bucket or similar container
b. Use of a hand-held hose equipped with a positive self-closing nozzle
c. Commercial car washing facility
d. Commercial mobile detailers using their own source of water

2. Note: For local requirements regarding proper containment of water in the street, refer to local municipal codes.

h. **Re-Circulating Decorative Water Fountains and Features:** Effective **January 1, 2011**, all decorative water fountains and water features must re-circulate water -- or users must secure a waiver from the District.

i. **Retrofit of Plumbing Fixtures by Prospective Account Holder Upon Sale or Transfer of Property**

1. Effective **January 1, 2011**, any request for new water service associated with the sale or transfer of property shall require the prospective account holder to demonstrate – **prior to the District's initiating service -- that all existing plumbing fixtures on the property are retrofitted exclusively with water-conserving fixtures, such as:**

a. Low-flow or high efficiency toilets (i.e., 1.6 gallons or less per flush)
b. Low-flow showerheads (e.g., rated at maximum of 2.5 gallons per minute at 80 psi)
c. Aerators for kitchen and bath faucets (e.g., rated maximum of 2.5 gallons per minute at 80 psi)
d. Irrigation controllers with rain-shut off feature (not necessarily "smart controllers")

j. **Unauthorized Use of Fire Hydrants Prohibited**

1. **No person may use water from any fire hydrant** for any purpose other than fire suppression or emergency aid without first:

   a. Requesting and posting the appropriate fees at the District.
   b. Obtaining a hydrant meter to record all water consumption for a specified project. Failure to obtain a hydrant meter may result in fees associated with water theft and meter tampering, as deemed appropriate.

2. **Commercial Dedicated Potable Irrigation Systems -- Turn off Irrigation Systems when it Rains**

   a. As of **July 1, 2010, new and existing** commercial dedicated potable irrigation systems must be equipped with:

      1. Rain sensors that shut off the system when it rains, **or,**

      2. Smart controllers or evapo-transpiration sensors that use weather-based data to set efficient watering schedules, **or,**

      3. Manual control of the on/off function

3. **Commercial Food-Serving & Lodging Requirements**

   a. **Water Served Only Upon Request.** Eating or drinking establishments, including but not limited to restaurants, hotels, cafes, bars or other public places where food or drinks are sold, or served or offered for sale, are prohibited from providing drinking water to any person unless requested.

   b. **Option Not To Launder Towels & Linens.** Hotels, motels and other commercial lodging establishments must provide guests the option of not having used towels and linens laundered. Lodging establishments must prominently display notice of this option in each room and/or bathroom, using direct and straightforward language that is easy to understand.

3. **Commercial Kitchen Requirements**

   a. **Water-Efficient Pre-Rinse Kitchen Spray Valves.** Food preparation establishments, such as restaurants, cafes and hotels, are prohibited from using non-water efficient kitchen spray valves, as follows:

      1. **New** kitchen spray valves must use 1.6 gallons or less per minute.

      2. Effective **January 1, 2010, existing** kitchen spray valves must be retrofitted to models using 1.6 gallons of water or less per minute.

b. **Best-Available Water-Conserving Technology.** All water-using equipment in new or remodeled commercial kitchens must use the best-available, water-conserving technology. See examples cited on the California Urban Water Conservation Council (CUWCC) website for examples.

c. **Scoop Sinks.** Scoop sinks shall be set at minimum water flow at all times of use and shut off during non-working hours.

d. **Automatic Shut-Off Hose Nozzles.** When hosing or washing kitchen or garbage areas or other areas for sanitary reasons as required by the Health Dept., hoses shall be equipped with positive self-closing nozzles.

4. **Commercial Water Recirculation Requirements**

a. **Car Wash and Laundry System Requirements:**

1. All **new** commercial car-wash and laundry facilities and systems must re-circulate the wash water -- or secure a waiver of this requirement from the District.

2. All **existing** commercial car-wash facilities shall retrofit to systems that re-circulate wash water by **January 1, 2012.**

b. **No Single-Pass Cooling Systems:** Buildings requesting **new** water service or being **remodeled** are prohibited from installing single-pass systems.

5. **Recycled Water To Replace Potable Water Use**

a. **New Water Service:** Prior to the connection of any new water service, the District will determine whether recycled water is appropriate and available to meet the requirements of the new service request.

b. **Recycled water** must be utilized to the maximum extent feasible, as determined by the District, and as required by state policy.

c. **Transition from Potable Water:** The District may prohibit the use of potable water in certain instances – if the District determines that a specified use for potable water could be achieved with recycled water as a cost-effective alternative and if the customer is given a reasonable time to make the conversion.

6. **Construction Site Requirements**

a. **Recycled or non-potable water** must be used, when available.

b. **No potable water may be used for soil compaction or dust control** where there is a reasonably-available source of recycled or non-potable water approved by the Dept. of Public Health and appropriate for such use.

c. **Water hoses shall be equipped with automatic shut-off nozzles,** given such devices are available for the size and type of hoses in use.

7. **Indiscriminate Water Use.** Upon notice by the District, persons shall cease to cause or permit the indiscriminate use of water not otherwise prohibited above which is wasteful and without reasonable purpose.

8. **Public Health and Safety.** These regulations shall not be construed to limit water use which is immediately necessary to protect public health and/or safety.

Section VI(B): Supplemental Conservation Measures – Water Supply Watch

Declaration of a Water Supply Watch may be considered when there is a potential or planned shortage in imported water supplies to the District and/or the District deems a reduction in consumer usage desirable due to existing water conditions.

1. **Water Supply Watch -- Supplemental, Voluntary Conservation Measures**

   a. A Water Supply Watch exists when the District Board of Directors, at its sole discretion, determines that it is desirable to:

      1. Put the public on notice of a potential or planned water shortage that could result in reduced imported water supplies to the District

      2. Encourage the public to supplement year-round, mandatory water conservation measures with voluntary conservation measures focused on outdoor water-use efficiency.

2. **Mandatory Permanent Water Conservation Measures** identified in Section VI(A) **remain in effect.**

3. **Voluntary Water Supply Watch Measures take effect** upon Board declaration:

   a. **Water-efficient irrigation systems and practices**

      1. Closely monitor irrigation systems for leaks, breaks and malfunctions
      2. Utilize water-efficient irrigation practices and devices, such as smart timer and evapo-transpiration controllers; stream rotor nozzles; proper amounts of fertilizer; mulch.
      3. Adjust irrigation controllers as the weather changes.
      4. Replace irrigation controller batteries in the spring and fall.
      5. Use soil probes to assess moisture depth and optimize root irrigation.
      6. Consider installation of drip irrigation systems.
      7. Target 40 psi to 60 psi for water pressure.

b. **California-friendly vegetation (native, drought-tolerant, fire-resistant)**

1. Consider planting California-friendly vegetation.
2. Consider replacing at least a portion of existing turf with California-friendly vegetation.

c. **Cover outdoor pools, spas and water features to minimize evaporation.**

Section VII: Level 1 Water Shortage – Water Supply Alert

Declaration of a Level 1 Water Supply Alert may be considered when the District experiences up to a 20% shortage in imported water supplies and/or determines the need to further reduce consumer usage by up to 20%.

1. **Level 1 Water Supply Alert**

   a. A Level 1 Water Supply Alert exists when the District Board of Directors, at its sole discretion, determines that a reduction in consumer usage is necessary to make more efficient use of limited water and appropriately respond to existing water conditions.

   b. The type of event that may prompt the Board to declare a Level 1 Water Supply Alert could include, among other factors, a finding that its **wholesale water provider has allocated no more than 80% of the District's base water supply.**

2. Mandatory Permanent Water Conservation Measures identified in Section VI(A) remain in effect.

3. **Mandatory Level 1 Water Conservation Measures take effect** upon declaring a Level 1 Water Supply Shortage and apply for the duration of the shortage:

   a. **Limits on Watering Days**

      1. No more than **three (3) days per week from April – October**
      2. No more than **one (1) day per week from November – March.**

         a. This applies to lawns, landscaping, and all vegetated areas.
         b. The week includes weekdays and weekends, seven (7) days.
         c. The District will establish/post the new watering schedules.

      3. The following are **exempt** from these restrictions:

         a. Watering with a hand-held bucket or similar container
         b. Watering with a hand-held hose equipped with a positive self-closing nozzle

c. Irrigation systems that exclusively use very-low-flow drip type systems where emitters discharge no more than two (2) gallons of water per hour.

b. **Shorter Timeframe to Fix Leaks, Breaks or Malfunctions** in water users' pipelines, fixtures or facilities.

1. **Excessive use,** loss or escape of water through breaks, leaks or other malfunctions in the water user's plumbing, distribution or irrigation system:

a. Is prohibited for any period of time after such water waste should have reasonably been discovered and corrected
b. Must be corrected in **no more than (3) business days of District notification** – unless other arrangements are made with the District

2. Turning off an irrigation system during repairs constitutes a fix.

3. If water is being actively discharged and the owner cannot be contacted, the District may perform a temporary shut down.

c. **During Level 1, Level 2 and/or Level 3** water supply conditions, the Board of Directors, at its sole discretion and by written request, **may implement Water Conservation Plans for High Water Users.**

1. **Water Conservation Plans for High Water Users**

a. Residential, public and commercial customers (including dedicated potable water irrigators) may be required to develop Water Conservation Plans at the District's discretion.
b. The requirement would be triggered by annual water usage of **10,000 billing units or more** at the District's discretion.
c. The District could conduct and/or oversee on-site assessments of water use as a first step in plan development.
d. Customers identified for plan development would:

1. Submit a Water Conservation Plan based on a standard plan outline and criteria from the District.
2. Recommend increased water savings, e.g., potential use of recycled water, as determined by the District.
3. Work interactively with staff in developing the plan
4. Provide regular progress reports to the District on the status of implementing recommendations. The District Manager would determine the frequency of reports.

4. **Other Prohibited Uses:** The District may implement other prohibited water uses as deemed necessary, after notice to customers.

Section VIII: Level 2 Water Shortage – Water Supply Warning

Declaration of a Level 2 Water Supply Warning may be considered when the District experiences up to a 40% shortage in imported water supplies and/or determines the need to further reduce consumer usage by up to 40%.

1. **Level 2 Water Supply Warning**

    a. A Level 2 Water Supply Warning exists when the District Board of Directors, at its sole discretion, determines that a further reduction in consumer usage is necessary to make more efficient use of limited water and appropriately respond to water conditions.

    b. The type of event that **may** prompt the Board to declare a Level 2 Water Supply Warning could include, among other factors, a finding that its **wholesale water provider allocated no more than 60%** of the District's base water supply.

2. The following **mandatory water conservation measures remain in effect** during a Level 2 Water Supply Warning:

    a. Permanent Water Conservation Measures identified in Section VI
    b. Level 1 Water Conservation Measures identified in Section VII

3. The following **water conservation measures will take effect** upon declaration of a Level 2 Water Supply Warning and apply for the duration of the water shortage:

    a. **Additional Limits on Watering Days**

        1. No more than **two (2) days per week from April – October**
        2. No more than **one (1) day per week from November – March.**

            a. This applies to lawns, landscaping and vegetated areas.
            b. The week includes weekdays and weekends, seven (7) days.
            c. The District will establish/post the new watering schedules.

        3. The following are **exempt** from these restrictions:

            a. Watering with a hand-held bucket or similar container
            b. Watering with a hand-held hose equipped with a positive self-closing nozzle
            c. Irrigation systems that exclusively use very low-flow drip-type systems where emitters discharge no more than two (2) gallons of water per hour.

b. **Shorter Timeframe to Fix Leaks, Breaks or Malfunctions** in water users' pipelines, fixtures or facilities.

1. **Excessive use,** loss or escape of water through breaks, leaks or other malfunctions in the water user's plumbing, distribution or irrigation system:

   a. Is prohibited for any period of time after such water waste should have reasonably been discovered and corrected
   b. Must be corrected in **no more than two (2) business days of District notification** – unless other arrangements are made with the District

2. Turning off an irrigation system during repairs constitutes a fix.

3. If water is being actively discharged and the owner cannot be contacted, the District may perform a temporary shut down.

c. **No Filling or Refilling Ornamental Lakes and Ponds**

1. Filling or refilling ornamental lakes and ponds is prohibited.

2. **Exempt** are ornamental lakes and ponds that sustain aquatic life – provided such life is of significant value and was actively managed in the water feature prior to declaring the shortage.

d. **No Filling or Refilling Residential Pools or Spas**

1. Filling residential swimming pools or outdoor spas is prohibited.

2. The operational water level in a pool or spa may be maintained by re-filling it once a month with no more than one (1) foot of water.

3. **Exempt** are individuals who, due to health reasons or medical conditions and upon notice to the District, find it necessary to fill or refill their pools or spas.

e. **No Hosing or Washing Down Vehicles:** It is **prohibited** to use water to hose or wash down a motorized or non-motorized vehicle, including but not limited to automobiles, trucks, vans, buses, motorcycles, boats or trailers.

1. The only **exemptions** from this Level 2 restriction are:

   a. Washing vehicles at a commercial car washing facility that recycles its wash water
   b. Washing vehicles using a commercial mobile detailer that uses its own source of water

2. Note: For local requirements regarding proper containment of water in the street, refer to local municipal codes.

f. **Golf Courses Required to Irrigate with Recycled Water**

1. If the District determines that it is a cost-effective alternative

2. If the customer is given a reasonable amount of time to make the conversion, as determined by the District Manager.

g. **Other Prohibited Uses:** The District may implement other prohibited water uses as deemed necessary, following notification of customers.

h. **During Level 1, Level 2 and/or Level 3** water supply conditions, the Board of Directors, at its sole discretion and by written request, may implement **Water Conservation Plans for High Water Users.** (See Section VII.3.c.1 for description).

i. **During Level 2 and/or Level 3** water supply conditions, the Board of Directors, at its sole discretion, may implement one or more of the following additional conservation requirements:

1. **Water Allocation or Budget Program**

a. The District Board of Directors, at its sole discretion, may establish water allocations or water budgets for properties served by the District starting with a Level 2 Water Supply Warning – using a method that does not penalize persons for either the implementation of the conservation method or installation of water-saving devices.
b. Following the effective date of a water allocation or budget program, any person using water in excess of the allocation or budget will be subject to a penalty as determined by the District rate schedule.
c. The penalty for excess water use will be cumulative to any other remedy or penalty imposed for violation of this Ordinance.

2. **Increased Water Usage Rates:** The District Board of Directors, at its sole discretion, may increase water usage rates, other than single-family residential Tier 1 rates, by an amount deemed necessary, as determined by the District's rate schedule.

3. **Percentage Water-Use Reduction for Commercial Customers:** The District Board of Directors, at its sole discretion, may require commercial customers to reduce water use by a certain percentage, as determined by the District.

Section IX. Level 3 Water Shortage – Water Supply Emergency

Declaration of a Level 3 Water Supply Emergency may be considered when the District experiences more than a 40% shortage in imported water supplies and/or determines the need to further reduce consumer usage by more than 40%.

1. **Level 3 Water Supply Emergency**

   a. A Level 3 Water Supply Emergency exists when the District Board of Directors, at its sole discretion, determines that a further reduction in consumer usage is necessary to make more efficient use of limited water and appropriately respond to existing water conditions.

   b. The type of event that **may** prompt the Board to declare a Level 3 Water Emergency could include, among other factors, a finding that its **wholesale water provider allocated less than 40% of the District's base water supply.**

2. The following **mandatory water conservation measures will remain in effect**:

   a. **Permanent Water Conservation Measures** identified in Section VI
   b. **Level 1 Water Conservation Measures** identified in Section VII
   c. **Level 2 Water Conservation Measures** identified in Section VIII

3. The following **mandatory conservation measures take effect** upon declaring a Level 3 Water Supply Emergency and apply for the duration of the Emergency:

   a. **All Watering Prohibited**

      1. **Watering is prohibited on any day at any time.**

         a. This applies to lawns, landscaping and vegetated areas.
         b. The District will post the no- watering restriction.

      2. This restriction **does not apply** to the following categories of use unless the District has determined that recycled water is available and may be lawfully applied to the use:

         a. Maintenance of vegetation, trees and shrubs using:

            1. A hand-held bucket or similar container
            2. A hand-held hose equipped with a positive self-closing nozzle
            3. Irrigation systems that exclusively use very-low-flow drip type systems where emitters discharge no more than two (2) gallons of water per hour, subject to hour restrictions in Sect. VI(A)1.a.

b. Maintenance of the following, subject to hour restrictions in Sect. VI(A)1.a:

1. Existing landscaping necessary for fire protection and/or soil erosion control
2. Plant materials identified as rare or essential to the well being of endangered/rare species
3. Public works projects and actively-irrigated environmental mitigation projects

b. **Shorter Timeframe to Fix Leaks, Breaks or Malfunctions** in lines, fixtures, and facilities.

1. Excessive use, loss or escape of water through breaks, leaks or malfunctions in the user's plumbing, distribution or irrigation system:

   a. Is prohibited for any period of time after such water waste should have reasonably been discovered and corrected
   b. Must be **corrected in no more than one (1) calendar days** of District notification – unless other arrangements are made with the District

2. Turning off an irrigation system during repairs constitutes a fix.

3. If water is being actively discharged and the owner cannot be contacted, the District may perform a temporary shut down.

c. **No New Potable Water Service**

1. During a Level 3 Water Emergency, the District will **not provide:**

   a. New potable water service
   b. New water meters (temporary or permanent)
   c. Will-serve letters

2. The District will **only issue** will-serve letters in the following cases:

   a. Projects necessary to protect public health, safety & welfare
   b. Projects that have a valid, unexpired City building permit
   c. Projects in which applicants can provide -- to the satisfaction of the District -- substantial evidence of an enforceable commitment that water demands will be offset prior to the provision of a new water meter(s)

3. This prohibition **does not preclude** resetting or turning-on meters to restore or continue water service interrupted for one year or less.

d. During **Level 1, Level 2 and/or Level 3** water supply conditions, the Board of Directors, at its sole discretion and by written request, may implement **Water Conservation Plans for High Water Users.** (See Section VII.3.c.1).

e. During **Level 2 and/or Level 3** water supply conditions, the Board of Directors, at its sole discretion, may implement one or more of the following additional conservation requirements. (See Section VII.3.g):

1. **Water Allocation or Budget Program**
2. **Increased Water Usage Rates**
3. **Percentage Water-Use Reduction for Commercial Customers**

4. **Discontinue Service:** Per Water Code Section 356, the District, in its sole discretion, may discontinue service to customers who willfully violate Section IX provisions.

5. **Other Prohibited Uses:** The District may implement other prohibited water uses as deemed necessary, following notification of customers

Section X. Declaration & Notification of Water Shortages/Emergencies

1. **Declaration of Level 1 or Level 2 Water Shortage:** The Board of Directors may declare a Level 1 or Level 2 Water Shortage and adopt a water shortage resolution at a regular or special public meeting in accordance with State law.

2. **Declaration of Level 3 Water Supply Emergency:** The Board of Directors may declare a Level 3 Water Supply Emergency in accordance with the procedures specified in Water Code Sections 351 and 352. Thereafter, penalties and violations under Section XIII.2 shall apply.

3. **Notification of Declared Level 1, Level 2 or Level 3 Water Supply Condition:** The District must **publish a copy of resolution** declaring the water supply shortage or emergency in a newspaper used for the publication of official notices within the jurisdiction of the District within **ten (10) days** of the date that the shortage/emergency level is declared. Additional mandatory conservation requirements will **take effect on the fifteenth (15th) day** after the date that the shortage level is declared.

4. **Notification of Declared Water Allocation or Water Budget Program:** If the Board of Directors implements a water allocation or water budget program during a Level 2 or Level 3 Water Shortage, the District will provide **notice of the program** to customers via U.S. mail, other mailings in which the District customarily sends billing statements, automated calling and/or e-mail outreach. The program will take effect on the date of the notification mailing or at such later date as specified in the notice.

Section XI. Hardship Waiver

1. **Undue and Disproportionate Hardship:** If, due to unique circumstances, a specific requirement of the Ordinance would result in undue hardship to a person using water or to property upon which water is used, that is disproportionate to the impacts to water users generally or to similar property or classes of water users, then the person may apply for a waiver.

2. **Written Finding:** The waiver may be granted or conditionally granted only upon a written finding of the existence of facts demonstrating an undue hardship.

3. **Application for a Waiver:** Application for a waiver must be on a form prescribed by the District and accompanied by a non-refundable processing fee in an amount in accordance with the District's standards.

4. **Supporting Documentation:** The application must be accompanied by photographs, maps, drawings, and other information, including a written statement of the applicant.

5. **Required Findings for Waiver:** Based on the information and supporting documents provided in the application, additional information provided as requested, and water use information for the property as shown by the records of the District, the General Manager in making the waiver determination will take into consideration the following:

    a. That the waiver does not constitute a grant of special privilege inconsistent with the limitations upon other residents and businesses;
    b. That because of special circumstances applicable to the property or its use, the strict application of this Ordinance would have a disproportionate impact on the property or use that exceeds the impacts to residents and businesses generally;
    c. That the authorizing of such waiver will not be of substantial detriment to adjacent properties, and will not materially affect the ability of the District to effectuate the purpose of this Ordinance and will not be detrimental to the public interest; and
    d. That the condition or situation of the subject property or the intended use of the property for which the waiver is sought is not common, recurrent or general in nature.

6. **Approval Authority:** The General Manager or his designee(s) must act upon any completed Application for a Waiver no later than ten (10) days after receipt and may approve, conditionally approve, or deny the waiver. The decision is final.

    a. The applicant requesting the waiver must be promptly notified in writing of any action taken.
    b. Unless specified otherwise, at the time a waiver is approved, it will apply to the subject property for the duration of the water supply shortage.

Section XII: Non-Compliance Charges and Penalties

1. **Non-Compliance with Permanent, Level 1 or Level 2 Conservation Measures**

   a. The following will apply to persons or entities that fail to comply with any provision of the Ordinance for Permanent, Level 1 or Level 2 mandatory water conservation measures.

      1. **First Instance of Non-Compliance:** The District will issue a **written warning** and send it and a copy of the Ordinance by mail.

      2. **Second Instance of Non-Compliance:** A second instance of non-compliance with the Ordinance within the preceding twelve (12) calendar months is punishable by a non-compliance charge not to exceed **one hundred dollars ($100).**

      3. **Third Instance of Non-Compliance:** A third instance of non-compliance with the Ordinance within the preceding twelve (12) calendar months is punishable by a non-compliance charge not to exceed **two hundred and fifty dollars ($250)**

      4. **Fourth and Subsequent Instances of Non-Compliance:** A fourth or any subsequent instance of non-compliance with this Ordinance is punishable by a non-compliance charge not to exceed **five hundred dollars ($500).**

   b. **Misdemeanor:** Pursuant to water Code Section 377, any instance of non-compliance with the Ordinance may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than thirty (30) days or by a fine not exceeding one thousand dollars ($1,000) or by both.

   c. **Separate Offenses:** Each day that a person or entity is non-compliant with the Ordinance is a separate offense.

2. **Non-Compliance with Level 3 Water Supply Emergency Conservation Measures**

   a. **Non-Compliance Charges:** The following will apply to persons or entities failing to comply with any provision of the Ordinance for Level 3 mandatory water conservation measures:

      1. **First Instance of Non-Compliance:** The District will issue a **written warning** and send it and a copy of the Ordinance by mail.

      2. **Second Instance of Non-Compliance:** A second instance of non-compliance with the Ordinance within the preceding twelve (12) calendar months is punishable by a non-compliance charge not to exceed **two hundred and fifty dollars ($250).**

3. **Third Instance of Non-Compliance:** A third instance of non-compliance with the Ordinance within the preceding twelve (12) calendar months is punishable by a non-compliance charge not to exceed **five hundred dollars ($500).**

b. **Water Flow Restrictor and/or Termination of Service**

1. **Water Flow Restrictor Device:**

a. In addition to any non-compliance charges, the District may install a water flow restrictor device, following **written notification of intent** to the customer.

b. The device would in place for a minimum of forty eight (48) hours.

2. **Termination of Service:** In addition to any non-compliance charges and the installation of a water flow restrictor, the District may disconnect and/or terminate a customer's water service, pursuant to Water Code Section 356.

3. **Costs for Water Flow Restrictors and Service Disconnection**

a. A person or entity in non-compliance with this Ordinance is responsible for:

1. Payment of the District's charges for installing and/or removing any water flow restricting device, and

2. Disconnecting and/or reconnecting service per the District's schedule of charges then in effect.

b. The charge for installing and/or removing any flow restricting device must be paid to the District before it is removed. Nonpayment will be subject to the same remedies as nonpayment of basic water rates.

c. **Misdemeanor:** Pursuant to Water Code Section 377, any instance of non-compliance with the Ordinance may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than thirty (30) days or by a fine not exceeding one thousand dollars ($1,000) or by both.

d. **Separate Offenses:** Each day that a person or entity is non-compliant with the Ordinance is a separate offense.

3. **Appeal & Hearing Process: Notice of Non-Compliance, Hearing Determination**

   a. **The District will issue a Notice of Non-Compliance** by mail or personal delivery at least ten (10) days before taking enforcement action. The notice will describe the violation and the date by which corrective action must be taken.

   b. **A customer may appeal the Notice of Non-Compliance** by filing a written Notice of Appeal with the District no later than the close of business on the day before the date scheduled for enforcement action. A customer appeal shall state the grounds for the appeal. Any Notice of Non-Compliance not timely appealed will be final.

      1. Upon receipt of a timely appeal, the District will schedule a **hearing on the appeal** and mail written notice of the hearing date to the customer at least ten (10) days before the hearing.

      2. The General Manager or his designee(s) will hear the appeal, make a Hearing Determination, and issue a written **Notification of Decision** within ten (10) days of the hearing.

   c. **A customer may appeal a Hearing Determination to the Board of Directors** by written request for a hearing within ten (10) days after the certified date of delivery or date of first class mailing of the Notification of Decision. The request shall state the grounds for appeal.

      1. At a public meeting, the Board shall **review the appeal** and, at its sole discretion, may affirm, reverse or modify the Hearing Determination.

      2. **The decision of the Board is final.**

   d. Pending receipt of a written appeal or pending a hearing pursuant to an appeal, the District **may take appropriate steps to prevent the unauthorized use of water** given the nature and extent of the violations and the current declared water shortage level condition, including restricting the level of water use until the appeal is heard.

Section XIII: Severability: If any section, subsection, sentence, clause or phrase in this Ordinance is for any reason held invalid, the validity of the remainder of the Ordinance will not be affected. The District Board of Directors hereby declares it would have passed this Ordinance and each section, subsection, sentence, clause or phrase thereof, irrespective of the fact that one or more sections, subsections, sentences, clauses, or phrases thereof is declared invalid.

PASSED and **ADOPTED** by the affirmative vote of a majority of the Board of Directors of the South Coast Water District at a Regular Meeting held April 23, 2009.

Richard D Robinson

President

ATTEST:

Michael P Hunter

Secretary

SOUTH COAST WATER DISTRICT

Serving the Public Since 1932

Certification

I, Michael P. Dunbar, Secretary of the SOUTH COAST WATER DISTRICT, Orange County, California, do hereby certify that the foregoing **Ordinance No. 206** was duly adopted at a Regular Meeting of the Governing Board of said District, held on the 23rd day of April, 2009 by the following vote of members of the Board:

AYES: Dietmeier, Moore, McGuire, Rayfield and Gardner
NOES:
ABSENT:
ABSTAIN:

and I further certify that Richard Dietmeier, as President, and Michael P. Dunbar, as Secretary, signed and approved said **Ordinance No. 206** on the 23rd day of April, 2009.

Michael P. Dunbar

Michael P. Dunbar
Secretary of the Board
South Coast Water District

(District Seal)

SOUTH COAST WATER DISTRICT

ORDINANCE NO. 211

AN ORDINANCE OF THE BOARD OF DIRECTORS OF SOUTH COAST WATER DISTRICT AMENDING ORDINANCE 206, AN ORDINANCE OF THE BOARD OF DIRECTORS OF SOUTH COAST WATER DISTRICT ESTABLISHING A WATER CONSERVATION & WATER SUPPLY SHORTAGE PROGRAM FOR USERS OF POTABLE WATER PROVIDED BY THE DISTRICT AND REVISING MANDATORY LEVEL I WATER CONSERVATION MEASURE, § VII, 3.a 2., TO ALLOW FOR A THREE (3) DAY PER WEEK WATERING LIMIT YEAR ROUND

WHEREAS, on April 23, 2009, the Board of Directors of South Coast Water District adopted District Ordinance No. 206, an Ordinance of the Board of Directors of South Coast Water District Establishing A Water Conservation and Water Supply Shortage Program for Users of Potable Water Provided by the District; and

WHEREAS, the Board of Directors desire to amend Ordinance 206 at § VII, 3.a.2. thereof, to allow for a three (3) day per week limit for watering days on a year round basis;

NOW, THEREFORE, the Board of Directors of South Coast Water District does hereby ordain:

§ VII, 3.a.2. of Ordinance 206 is amended to read:

"No more than one (1) day per week from November to March; provided, however, that the Board of Directors may elect by minute motion of the Board at a regularly scheduled meeting to allow application of the standard set forth in § VII, 3.a.1., i.e. three days per week limited watering days, on a year round schedule where the District water usage as a whole is within and meeting water conservation goals.

a. This applies to lawns, landscaping, and all vegetated areas.
b. The week includes weekdays and weekends, seven (7) days.
c. The District will establish/post the new watering schedules."

§VII, 3.a.4 is added:

4. The following may be exempt from these restrictions upon approval by the District: Irrigation systems that use weather-based technology and meet best practice standards for conservation in landscape irrigation.

Wayne Rayfield
President

ATTEST:

Michael P. Aunbar
Secretary

SOUTH COAST WATER DISTRICT

Serving the Public Since 1932

Certification

I, Michael P. Dunbar, Secretary of the SOUTH COAST WATER DISTRICT, Orange County, California, do hereby certify that the foregoing **Ordinance No. 211** was duly adopted at a Regular Meeting of the Governing Board of said District, held on the 14th day of April, 2011 by the following vote of members of the Board:

AYES: McGuire, Moore, Rayfield, Runge
NOES: Garnder
ABSENT:
ABSTAIN:

and I further certify that Wayne Rayfield, as President, and Michael P. Dunbar, as Secretary, signed and approved said **Ordinance No. 211** on the 14th day of April, 2011.

Michael P. Dunbar

Michael P. Dunbar
Secretary of the Board
South Coast Water District

(District Seal)

SOUTH COAST WATER DISTRICT

RESOLUTION NO. 14-13/14

A RESOLUTION OF THE BOARD OF DIRECTORS OF SOUTH COAST WATER DISTRICT CALLING ON THE COMMUNITIES SERVED BY THE DISTRICT TO FOLLOW THE REQUIREMENTS OF DISTRICT ORDINANCES 206 AND 211 BY LIMITING OUTDOOR WATERING TO THREE DAYS PER WEEK AND FOLLOWING OTHER MANDATORY WATER CONSERVATION MEASURES TO IMMEDIATELY CURTAIL CURRENT LOCAL WATER USAGE BY 20%

WHEREAS, the South Coast Water District is a County Water District organized and existing under the laws of the State of California; and

WHEREAS, the mission of the South Coast Water District includes management of water resources and environmental quality throughout its service area; and

WHEREAS, on January 17, 2014, the Governor of the State of California, Edmund G. Brown, Jr. declared a drought State of Emergency and directed that state officials take necessary actions to prepare for drought conditions, including directing that Californians act to voluntarily reduce their water use by 20%; and

WHEREAS, on January 31, 2014, the state's second snowpack survey showed a worsening of the drought due to only 12% of average water content to the snowpack; and accordingly, Metropolitan Water District of Southern California, the wholesale supplier of water through Municipal Water District of Orange County to South Coast Water District, acted on February 11, 2014 to Adopt a Water Supply Alert Resolution to call upon retail agencies to adopt *extraordinary conservation measures*; and

WHEREAS, the South Coast Water District, is aware of the now three-year drought cycle and on March 15, 2011, adopted Ordinance 211, which modified District Ordinance 206, an Ordinance of the South Coast Water District establishing a Water Conservation & Water Supply Shortage Program for Users of Potable Water provided by the District, and by District Ordinance 211, establish a permanent limitation on outdoor watering to 3 days per week throughout the service area; and

WHEREAS, the Board of Directors of the South Coast Water District desires to affirm District Ordinances 206 and 211 and call upon the communities served by the District to follow the requirements of said Ordinances by limiting watering days and following other mandatory conservation measures such as immediately finding and fixing water leaks.

NOW, THEREFORE, BE IT RESOLVED that this Board of Directors of South Coast Water District does hereby determine:

Section 1: That the requirements of District Ordinances 206 and Ordinance 211 are hereby affirmed.

Section 2: That pursuant to Ordinances 206 and 211, the South Coast Water District remains in a Level 1 Water Shortage - Water Supply Alert Status whereby consumers should reduce usage District-wide by 20%.

Section 3: That by immediately coming into compliance with the limitation on watering of three days per week, acting immediately to detect and fix water leaks in local homes and businesses, and replacing toilets with low flow fixtures, the communities served by the South Coast Water District will reduce local water use by 20% and, thereby do our part to support the citizens of the state that will suffer personal and economic harm as a result of the current drought conditions.

Section 4: That the staff of the South Coast Water District will remain alert and dedicated to support the community effort to curtail water usage by notifying homes and businesses of the detection of leaks running over a 24 hour usage period, providing free of charge local inspections on request for indoor and outdoor water use, and taking active measures to inform the community about the drought and steps that can be taken to contribute to drought management for our state.

PASSED AND ADOPTED this 27th day of February, 2014.

Wayne Rayfield
President

ATTEST:

Secretary

SOUTH COAST WATER DISTRICT

Serving the Public Since 1932

Certification

I, Andrew D. Brunhart, Secretary of the SOUTH COAST WATER DISTRICT, Orange County, California, do hereby certify that the foregoing **Resolution No. 14-13/14** was duly adopted at a regular meeting of the Governing Board of said District, held on the 27th day of February 2014 by the following vote of members of the Board:

AYES: Dietmeier, Erkeneff, Moore, Rayfield, Runge

NOES:

ABSENT:

ABSTAIN:

and I further certify that Wayne Rayfield, as President, and Andrew D. Brunhart, as Secretary, signed and approved said **Resolution No. 14-13/14** on the 27th day of February 2014.

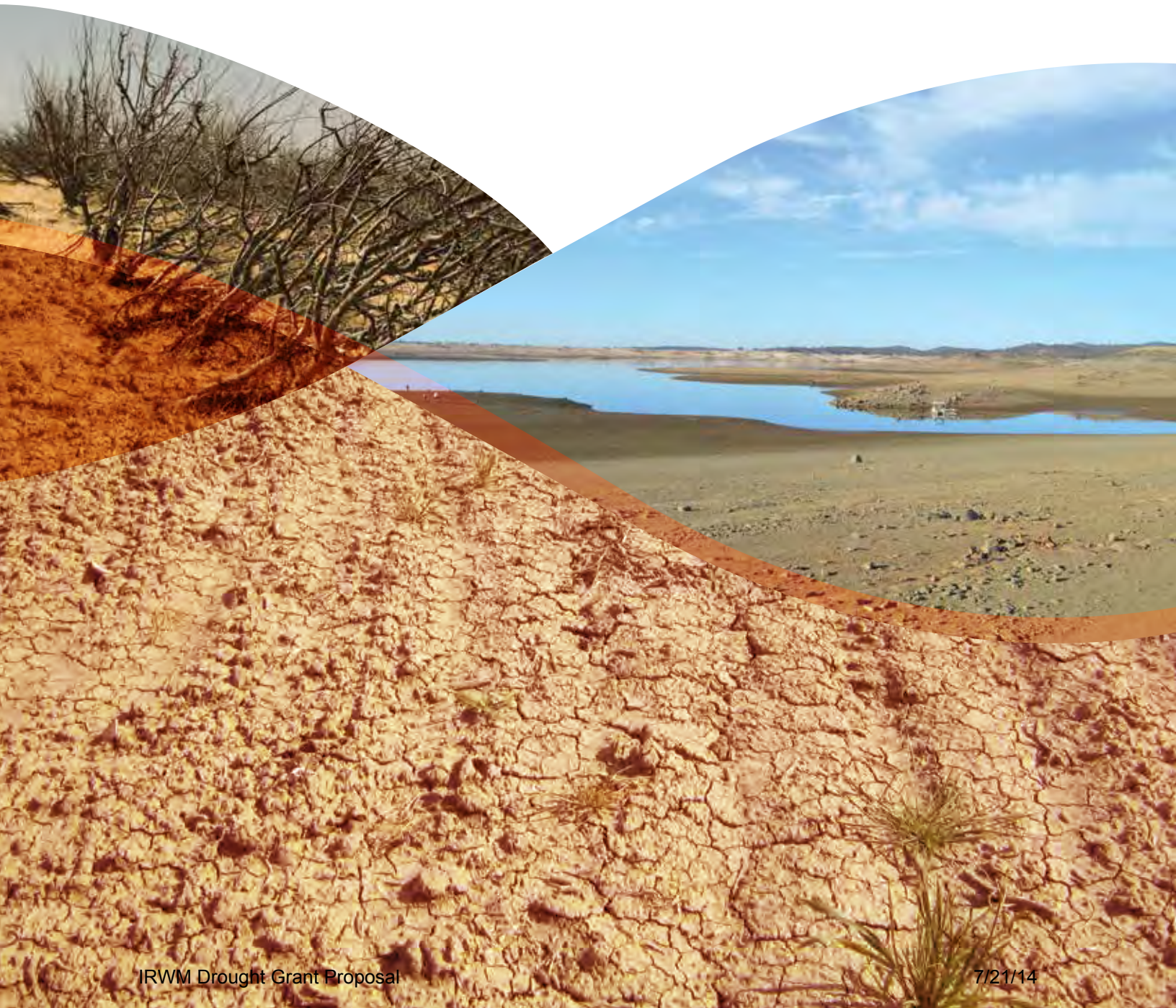
Andrew D. Brunhart
Secretary of the Board
South Coast Water District

(District Seal)

Association of California Water Agencies
Since 1910
ACWA
Leadership • Advocacy
Information • Service

2014 DROUGHT
IMPACTS AND STRATEGIES FOR RESILIENCE

June 2014



Association of California Water Agencies

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Executive Director

ACWA's mission is to assist its members in promoting the development, management and reasonable beneficial use of good quality water at the lowest practical cost in an environmentally balanced manner.

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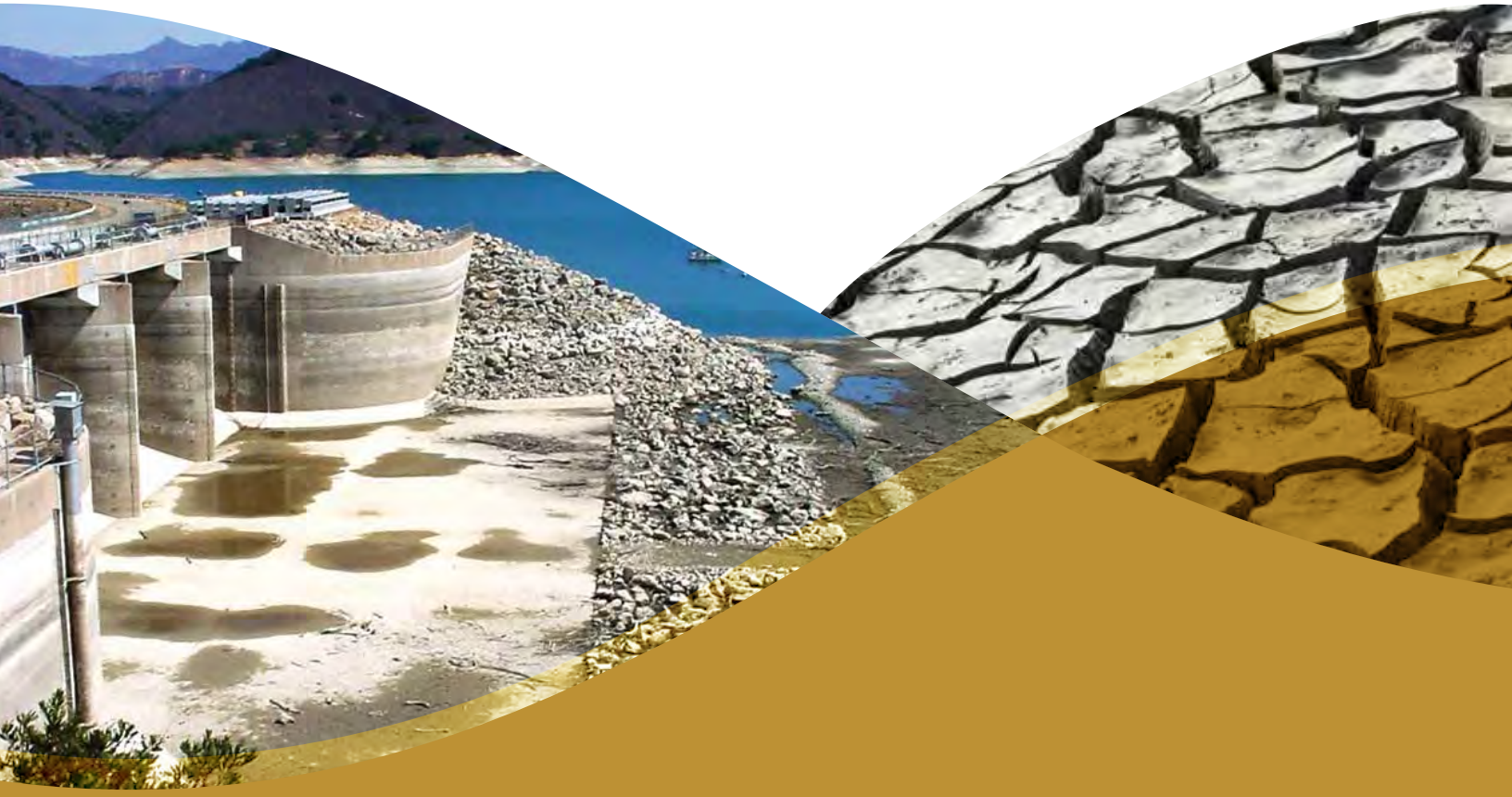

Left: Running on empty: The concrete spillway pad lies exposed at Cachuma's Bradbury Dam.
(Courtesy U.S. Bureau of Reclamation)

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Executive Summary

Left: An idle field next to a planted one near Firebaugh shows the effects of drought in 2014. Last year, the idle field produced melons; this year it will remain unplanted due to lack of water. Right: Folsom Lake, a key reservoir on the American River, dipped to critically low levels in January and February. Thousands of visitors trekked to the shrunken lake to view the remnants of a long-submerged Gold Rush-era town.

By nearly any measure, California is in extreme drought. On the heels of two consecutive dry years, the 2014 water year (Oct. 1, 2013 through Sept. 30, 2014) is tracking to be the third-driest on record. Major reservoirs are at half capacity and diminishing by the week, the Sierra snowpack had dwindled to 3% of the seasonal average by late May, and wildfires already are causing major destruction even before the dry summer months begin.

Though the full story of the drought continues to unfold, the effects are being felt across many sectors of the state. California's $44.7 billion agricultural economy is facing significant impacts, while ripple effects are extending to everything from ports to equipment dealers to the landscape industry. Wildfire protection, ecosystems and other commercial industries also are seeing impacts.

As historic dry conditions emerged in January of this year, the Association of California Water Agencies established a Drought Action Group to share information and develop recommendations to address the current drought and prepare for future dry times.

The Drought Action Group, composed of 40 water community experts from throughout the state, compiled information on drought impacts around California and identified future vulnerabilities if dry conditions continue in 2015 and beyond.

This report summarizes that information as a snapshot in time and describes significant drought impacts across the areas of agriculture, wildlife protection, ecosystems, commercial industries and trade. It also identifies 2015 vulnerabilities and recommends strategies and priority actions to address this and future droughts.

Overall, the report finds the current drought has exposed key vulnerabilities in California's water management system that must be addressed now if we are to avoid facing even more dire challenges in 10, 15 or 20 years. A variety of strategies and actions must be pursued to improve the resilience of the state's water supply system, including investments in backbone water storage and conveyance infrastructure. These investments must be made as part of a comprehensive plan that includes expanded water conservation, water recycling, storm water capture and reuse, local and regional water storage, groundwater management and other strategies to ensure water supply reliability and ecosystem health in California.

As summer gets under way and agencies begin to prepare for 2015, the water community urges state and federal agencies to take action in partnership with local agencies to put California on a path to resilience. Even if California receives above-average rainfall next winter, vulnerabilities exposed by this drought must be addressed. The work simply must begin today.

Following are the 10 key recommendations identified by ACWA's Drought Action Group:

KEY RECOMMENDATIONS

1. State and federal agencies should facilitate construction of shovel-ready water infrastructure projects by providing funding and technical assistance as soon as possible.

2. Consistent with *ACWA's Recommendations for Achieving Groundwater Sustainability*, the Department of Water Resources (DWR) and the State Water Resources Control Board (SWRCB) should identify ways to reduce impediments and provide funding and technical assistance for projects that create new surface and groundwater storage and improve conveyance around the state to help address the state's groundwater challenges.

3. State and federal agencies should continue to move toward using real-time data for operational decisions to allow for greater flexibility and efficiency in getting water to the state's economy. Examples include using flexibility under existing law to maximize water supplies from the Delta while remaining consistent with species protection requirements; maintaining a one-to-one ratio in April and May for water transfers and exchanges involving the San Joaquin River; monitoring turbidity to allow for increased water deliveries while avoiding jeopardy to adult Delta smelt due to entrainment at state and federal pumping plants; and accelerating review of temporary barriers and operable gates to help manage salinity and improve water quality in the Delta.

4. The state should work with stakeholders and explore opportunities to further streamline transfers including additional collaboration with the federal government and a careful review of the recent report from the Streamline Our Agency Regulations (SOAR) Water Transfers Action Team.

5. The state should facilitate and/or expedite regulations or permitting processes that encourage innovative technologies including water recycling and desalination.

6. The state should work with local agencies to review opportunities for more closely coordinating planning documents in drought conditions. The state also should facilitate long-term solutions for agencies that indicate sustainability concerns in the applicable water management plans.

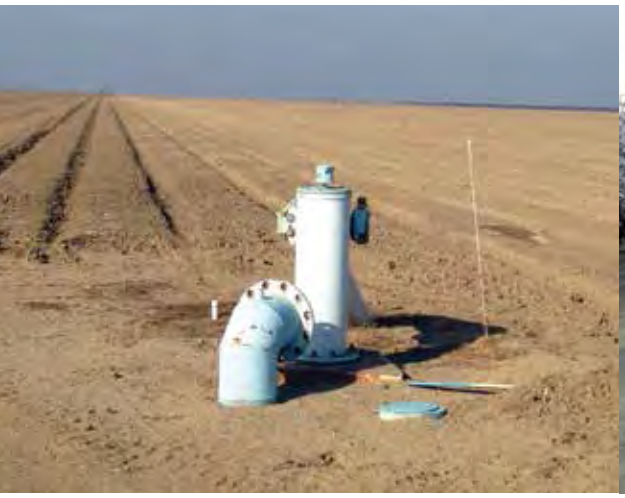
7. The state and federal government should provide funding and technical support in partnership with local agencies to develop long-term water infrastructure projects that will help ensure reliable water supplies for both the economy and the environment.

8. The state and federal government should disburse funding approved through state drought emergency legislation passed earlier this year and other federal programs so projects can move forward and assist impacted communities. The state and federal government also should work to ensure additional funding is available, including through a 2014 water bond, for projects and programs that will improve California's aging water infrastructure and further the coequal goals.

9. The state should acknowledge that local water systems are best equipped to determine which water conservation programs are most effective for their customers. In addition, the state should provide funding for water use efficiency activities in disadvantaged communities and support programs that are not locally cost effective but contribute broad benefits to California.

10. The state should review its overall 2014 drought response and look for opportunities to improve coordination in future dry conditions or other extreme weather events.

Overview



Left: A state-of-the-art water delivery system sits idle this year due to zero surface water allocations on the west side of the San Joaquin Valley. Right: A productive almond orchard in full bloom across from a newly bulldozed orchard owned by the same grower in the Westlands Water District reflects the difficult choices made in 2014 due to lack of water.

The Association of California Water Agencies (ACWA) represents nearly 430 public water agencies that collectively supply 90% of the water delivered in California for domestic, agricultural and industrial uses.

When the severity of the drought began to crystallize in early 2014, ACWA and its member agencies began bracing for a water year like no other. Immediately following the formation of ACWA's Drought Action Group in January, participants set out to leverage their collective knowledge of drought impacts, activities and potential solutions to develop this report.

The following pages identify current drought impacts and future vulnerabilities, provide an overview of ACWA's regions and recommend priority actions for combating this and future droughts. This report complements ACWA's Statewide Water Action Plan (SWAP) released in September 2013 and other strategic planning documents that highlight the importance of a comprehensive action plan to advance sustainable water management.

2014 DROUGHT

Governor Jerry Brown declared a statewide drought emergency on Jan. 17, 2014 and directed state officials to take all necessary actions to prepare for drought conditions. The governor called on Californians to reduce water use by 20% and followed his drought declaration with a more detailed executive order on April 25, 2014.

Even with late winter rains bringing limited relief, the Golden State remains locked in drought. The latest National Weather Service data continue to show nearly the entire state in severe drought and over two-thirds in extreme drought. The 2014 water year (Oct. 1, 2013 through Sept. 30, 2014) is on track to be the third-driest on record and follows two consecutive dry years. With the rainy season now completed, the state's major reservoirs are at less than 60% of capacity and water storage is declining weekly.

After announcing an initial water supply forecast of zero percent this year for customers of the State Water Project (SWP), DWR released a revised allocation of just 5% of requested supplies on April 18. However, SWP contractors will not be able to draw on those allocations until September. Federal officials similarly announced in February that the federal Central Valley Project would likely deliver zero water in 2014 to agricultural service contractors north and south of the Delta. The forecast for CVP settlement contractors north of the Delta was later revised from a 40% to a 75% supply, providing limited but not total relief with most planting decisions already made. In an unprecedented announcement May

13, the U.S. Bureau of Reclamation (USBR) said it would release water from Millerton Lake behind Friant Dam to meet contractual obligations to deliver Central Valley Project (CVP) water to the San Joaquin River Exchange Contractors. Deliveries for contractors in the Friant Unit of the CVP remain at zero.

Citing insufficient water to serve all water-rights holders, the State Water Resources Control Board sent notices in late May to more than 4,900 junior water-rights holders in the Sacramento River watershed, the San Joaquin River watershed and the upper Russian River ordering users to immediately cease diverting water to allow it to flow to more senior water-rights holders. It marked the first time such orders have been issued since the 1977 drought.

Water users who received orders to stop diverting were required to fill out forms within seven days to confirm that they have stopped. Limited exceptions apply, such as water that is needed for human health and safety purposes.

To help coordinate CVP and SWP drought response efforts, state and federal agencies on April 8 released a 2014 Drought Operations Plan outlining a multi-stage, collaborative effort to manage the projects from April 1 through November 15, 2014. Developed by the Department of Water Resources in coordination with the Bureau of Reclamation, U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), California Department of Fish and Wildlife (CDFW) and the SWRCB, the plan's proposed actions and likely range of coordinated operations are based on the assumption that conditions would remain dry in 2014 and potentially continue into 2015. The plan indicates that all water users, including agricultural, municipal, and fish and wildlife uses, will suffer hardship due to drought.

California water agencies are currently experiencing a variety of significant impacts based on this lack of available water supply. Even with proactive efforts through Urban and Agricultural Water Management Plans, the severity of this drought has affected areas throughout the state. From mandatory water use restrictions to failing groundwater wells to reduced water quality, these impacts highlight the widespread vulnerabilities that exist in the state's water infrastructure system and the urgent need to create more resilient water supplies.

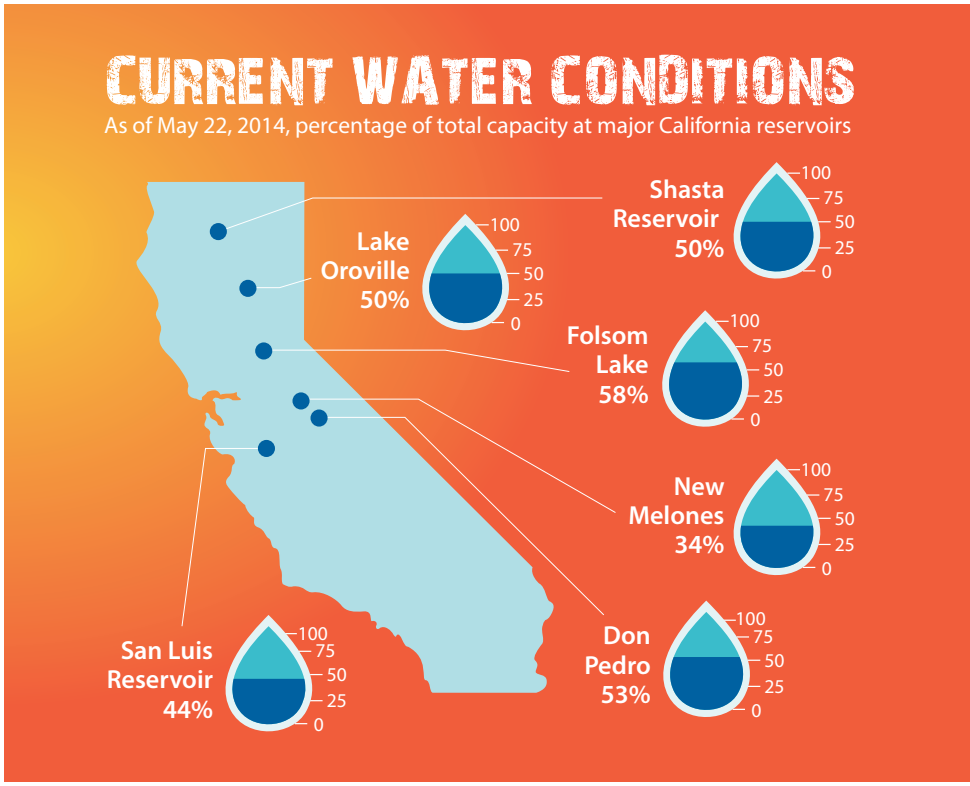
Unless otherwise indicated, impacts data included in this report was provided by ACWA members. While the drought story continues to evolve and change, the information provides a snapshot of impacts around the state.

SIGNIFICANT IMPACTS

Agriculture

Although many of the state's economic sectors have been affected, agriculture — one of the top 10 economic drivers in the state — is bearing the brunt this year with impacts ranging from idled acreage to reduced traffic in ports to loss of jobs in a variety of agriculture-related industries. Current estimates from the UC Davis Center for Watershed Sciences project a $1.7 billion loss to the agricultural industry and it is expected that over 400,000 acres will be idled this year because of lack of water.

Impacts to California's agricultural communities are widespread. In some parts of the northern Sacramento Valley, farmers are idling thousands of acres, negatively



impacting the local and statewide economy. Though most are idling acres this year that would normally produce a variety of crops, continued dry conditions next year and beyond could spell the loss of numerous orchards, creating severe long-term economic and ecological impacts. (California Farm Water Coalition.)

Growers in the Tehama-Colusa Canal Authority service area anticipate idling approximately 80,000 acres of annual crops to prioritize water for permanent crops.

As a result of the drought, Sacramento Valley 2014 rice production is expected to see a 20% decline in planted acreage. This affects not only exports but on-farm and related industry employment. In addition, because rice acreage provides unique benefits as wetlands habitat, less water for rice farmers this year will reduce or eliminate key wildlife areas and refuges. (California Farm Water Coalition.)

In the San Joaquin Valley, many different crops are being affected adversely, including cotton, citrus and other permanent crops. A 300-square-mile area on the west side of Fresno and Kings Counties is expected to be idled this year, according to information from Westlands Water District.

Many citrus farmers in the federal CVP's Friant Division receiving a 0% water allocation stand to lose their crops this year and possibly their entire farm because their trees will die. Up to 50,000 acres of citrus trees in the San Joaquin Valley could be pulled out this year where surface supplies are being cut and there is no access to groundwater. According to local growers it could cost over $600,000 to restore a 90-acre citrus grove. (California Farm Water Coalition.)

The effects extend beyond idled acreage. Cotton grown in Fresno County is considered the highest quality in the world, leading to high demand for it for fine fabrics, high-end linens and towels. In 2014, cotton production will be down by 32% (or 90,000 acres) as a direct result of the drought. For all agricultural commodities, idling acreage or losing trees would also result in economic losses to local businesses, increased unemployment and a potential loss of export markets if growers cannot reliably deliver product to customers throughout the U.S. and overseas, according to the California Farm Water Coalition.

One example of job loss is in Huron, a small town in Fresno County that normally sees an influx of up to

Wildfires such as this blaze near Glendora in January 2014 remain a huge threat during California's ongoing drought. In the first five months of 2014, CAL FIRE crews battled nearly double the number of fires normally seen for that time of year.

6,000 seasonal workers to irrigate and harvest crops. This year it is expected that only 1,500 jobs will be available between March and November. Businesses have closed and tax revenue is in decline due to the loss of economic activity. (California Farm Water Coalition.)

Where available, farmers are turning to groundwater to sustain fields and orchards through the 2014 growing season. In many areas, including parts of the San Joaquin Valley, increased pumping this year will add further strain to basins already experiencing potentially unstable groundwater level declines. Though groundwater will keep many growers from devastating losses in 2014, over reliance on the resource without adequate recharge is not sustainable as a long-term water supply.

Pumping in many areas of the valley is accelerating depletion of the region's groundwater basins, which can lead to groundwater-related land subsidence. This subsidence has economic consequences through damaged wells and water conveyance facilities such as canals and flood channels. An April 2014 report by DWR confirmed that groundwater levels are experiencing record lows in most areas of the state and especially in the northern portion of the San Francisco Bay hydrologic region, the southern San Joaquin Valley, and also the South Lahontan and South Coast hydrologic regions.

In many areas of the San Joaquin Valley, recent groundwater levels are more than 100 feet below previous historical lows. The intensive use of groundwater also increases pumping costs and energy usage (e.g., the City of Tulare is looking at an additional $500,000 for increased energy costs to run wells), further affecting the state's economy.

This information gives only a brief glimpse into the potential impacts on the state's agricultural communities based on 2014 drought conditions. For growers, it could mean pushing legacy industries to a tipping point. For consumers, it means loss of jobs and higher prices for food and other products. It also means less locally produced food, which affects food security and our carbon footprint.

Wildfire Protection

Wildfire protection is another sector facing significant impacts due to California's extremely dry conditions. The California Department of Forestry and Fire Protection (CAL FIRE) never fully closed out the 2013 fire season and returned to peak staffing levels on March 31 of this year, several months earlier than normal. The move became necessary as spring temperatures arose and conditions became even drier around the state. The first five months of 2014 also have seen a significant increase in wildfires across much of California. By May 23, state fire crews had battled 1,661 wildfires since Jan. 1, almost double the 933 wildfires seen by that date in an average year, according to CAL FIRE. In mid-May alone, nine significant fires burned over 27,000 acres in San Diego County, destroying homes and other structures, damaging critical infrastructure and causing the evacuation of thousands of residents. Warmer than average temperatures, very dry conditions and strong Santa Ana winds made these fires difficult to contain and caused the fires to spread rapidly.

Land management agencies are extremely concerned about the potential for additional wildfires throughout the state, particularly with reduced water availability in many areas.

Ecosystem

California's ecosystem also has been affected adversely by the current drought. Concerned that conditions in the Sacramento River and Delta were becoming detrimental to the survival of juvenile Chinook salmon, the USFWS activated a drought contingency plan in conjunction with CDFW and the NMFS to transport 12 million hatchery smolts by truck for release into the ocean in 2014. USFWS announced in late May that it completed its plan with the final trucking and release of approximately 900,000 salmon smolts from the Coleman National Fish Hatchery to the Mare Island area of San Pablo Bay.

Scientists at UC Davis said at a drought summit in April that drought stress is causing foothill pine trees in Yolo County to die this year because they are unable to fend off the dwarf pine mistletoe, which makes them vulnerable to both the mistletoe and the bark beetle. In previous droughts, native bark beetles took hold in Southern California forests following severe drought years causing unprecedented tree mortality.

Commercial Sector and Trade

Industries such as the commercial and recreational fishing sector have also suffered ecosystem and financial damages due to the closure of rivers and streams and activities like the trucking of salmon populations outlined earlier in this report. Several remote areas dependent on fishing-based tourism are faced with not only severe water cutbacks but also reduced tax and tourist income.

In addition, lack of water is impacting agricultural commodities that are destined for nationwide and global markets. For example, California-grown almonds, according to the California Department of Food and

California is home to three of the largest ports in the United States. Significant reductions in rice and almond production this year will have a ripple effect on commodities exported from the Port of Oakland, shown here, as well as the trucking industry that moves cargo in and out of ports.

Agriculture, are the state's second most valuable crop and the top agricultural export. California supplies over 80% of the global almond crop according to the Almond Board of California with top export markets in China, Spain, India, Germany and the United Arab Emirates. However, in 2014 most almond orchards are in counties suffering "extreme" drought conditions and many growers are being forced to remove trees or sacrifice entire orchards. The resulting significant reductions in almond production and other such commodities will not only affect growers and their employees, but will have a considerable effect on urban areas due to reduced activity in the transportation industry and ports that depend on these types of overseas shipments.

2015 Vulnerabilities

In 2014 the most noticeable and significant drought-related impacts in California are to the agricultural economy and certain areas that are dependent upon a single source of supply (e.g. Willits). While efforts have been made to shore up supplies for the most vulnerable communities throughout the summer, a dry 2015 would have disastrous consequences for agencies and sectors up and down the state.

Hundreds of thousands of acres of annual and permanent crops throughout the state would be idled, affecting the growers, local communities, related industries and the statewide economy. For example, in ACWA's Region 4, Oakdale Irrigation District is expecting to utilize all its conserved water to meet demands in 2014, so if 2015 is dry, the district would likely need to idle nearly one-third of its acreage, or 20,000 acres.

In a worst case scenario for the agricultural industry, cotton production in California's San Joaquin Valley could cease completely, resulting in severe economic losses from crop revenue, employment, shipping and more. Even agencies with access to groundwater in 2014 would likely have to contend with an increasing number of challenges including reduced water quality, higher energy costs, and subsidence.

A dry 2015 would increasingly affect commercial and industrial sectors in California. While businesses based in urban areas that made investments in water infrastructure and water conservation activities may not be significantly affected in 2014, future drought would likely begin to impact production including businesses that may begin to relocate to states with more reliable water supplies.

Continuing drought conditions would also put significant strain on the state's headwaters, exponentially increasing the risk for catastrophic wildfires, infestation of devastating forest pests and requiring substantial investment in proactive fire prevention efforts.

Strategies for Resiliency

Left: Interties such as this one along the Mokelumne Aqueduct near Brentwood can provide emergency water supply in droughts and improve water supply reliability. Right: Regional off-stream storage projects such as Contra Costa Water District's Los Vaqueros Reservoir can store high-quality water when it's available to improve water quality and bolster supplies during droughts.

While 2014 has been extremely dry, climate change is expected to bring more extreme weather events that include very dry and very wet years, so it is critical that California take action to create a more resilient water management system in all weather conditions. Following are priority actions and recommendations to help achieve that goal.

PRIORITY ACTIONS

ACWA's Drought Action Group compiled these priority actions from water agencies throughout the state and has categorized them into several issue areas and a recommended timeline for completion. The actions range from specific infrastructure improvements to legislative or legal solutions and highlight only a small portion of the infrastructure and regulatory improvements that were received through the data collection efforts.

The types of actions and solutions are organized into three time frames: immediate (0-12 months), short-term (12-24 months), and longer-term (24 months+) and a separate fourth category that includes overall actions. The overall actions should begin immediately but due to their nature or complexity were not limited to a specific timeframe.

Immediate Actions (0-12 months)

1. **Immediate Infrastructure and Funding Needs**: ACWA members have identified a significant number of projects and programs — many shovel ready — that could provide relief to systems currently at risk or located in a vulnerable area. Examples include replacing faulty water mains and/or distribution systems or creating emergency interties with other systems. A list of those immediate needs from ACWA agencies is provided in Appendix A.

   Recommendation: State and federal agencies should facilitate construction of shovel-ready water infrastructure projects by providing funding and technical assistance as soon as possible.

2. **Groundwater Sustainability Actions:** The 2014 drought has brought into sharper focus the need for more sustainable groundwater management in California. In many areas, including parts of the San Joaquin Valley, overdraft has been and continues to be exacerbated by a significant reduction in available surface water supplies over the last three years. ACWA issued a suite of recommendations April 7 for improving management of groundwater basins throughout California in response to growing concern about potentially unsustainable groundwater level declines, local subsidence and degraded groundwater quality in some subbasins, along with widespread recognition that

further action is required to promote and achieve groundwater sustainability. The *Recommendations for Achieving Groundwater Sustainability* include legislative and administrative changes to strengthen groundwater management and accountability where it is deficient, provide new tools and authorities to accelerate progress by local and regional agencies, and guide enhanced state support where needed. As outlined in the recommendations, many of these actions can and should be implemented as soon as possible to ensure groundwater resources are protected for the future. This is particularly important for the agricultural industry, which depends heavily on the successful coordination of groundwater and surface water management (conjunctive use) so groundwater can be available when needed.

Recommendation: Consistent with ACWA's Recommendations for Achieving Groundwater Sustainability, the Department of Water Resources (DWR) and the State Water Resources Control Board (SWRCB) should identify ways to reduce impediments and provide funding and technical assistance for projects that would create new surface and groundwater storage and improve water conveyance around the state to help address the state's groundwater challenges.

3. **Regulatory and Operational Efficiencies**: Coordination among state and federal agencies and more efficient project operations are essential to address short- and long-term drought impacts. ACWA encourages DWR, SWRCB, USBR and the California Office of Emergency Services (OES) to continue injecting flexibility wherever possible into their decisions to immediately increase water supply for urban, agricultural and/or environmental needs. This includes regulatory decisions allowing water from precipitation events to be used in the most beneficial manner and maximizing opportunities for recycled water use to provide both immediate and longer-term water supplies for water agencies throughout the state.

Recommendation: State and federal agencies should continue to move toward using real-time data for operational decisions to allow for greater flexibility and efficiency in the state's water management system. Examples include using flexibility under existing law to maximize water supplies from the Delta while remaining consistent with species protection requirements; maintaining a one-to-one ratio in April and May for water transfers and exchanges involving the San Joaquin River; monitoring turbidity to allow for increased water deliveries while avoiding jeopardy to adult Delta smelt due to entrainment at state and federal pumping plants; and accelerating review of temporary barriers and operable gates to help manage salinity and improve water quality in the Delta.

4. **Water Transfers**: Water transfers can provide much needed flexibility in meeting water supply and environmental needs and have proven invaluable in dry years and droughts. A well-defined set of policies and procedures that provide certainty to transferring parties is essential to facilitate future transfers and promote local and statewide economic, social and environmental sustainability.

Recommendation: The state should work with stakeholders and continue to explore opportunities to further streamline transfers including additional collaboration with the federal government and a careful review of the recent report from the Streamline Our Agency Regulations (SOAR) Water Transfers Action Team. The SOAR report offers a number of recommendations such as the creation of common application form templates for all state agencies to use that would prevent unnecessary cost, confusion and duplication of efforts.

Short-Term Actions (12-24 months)

1. **Innovative technologies**: Local agencies are at the forefront of developing new technologies for recycling water, desalinating both brackish groundwater and seawater, creating opportunities for conjunctive use, and treating contaminated drinking water. ACWA members have identified and are working to advance many of these innovative projects in the next 12-24 months.

   As an example, San Diego County Water Authority is currently constructing what will be the nation's largest ocean desalination facility in Carlsbad, which is expected to provide up to 56,000 AF per year by the fall of 2015. Both San Diego and Orange Counties also are looking at a variety of potable reuse and groundwater desalination facilities. Santa Cruz County has made progress on a regional desalination

facility and has investigated a conjunctive use (water exchange) project but is delayed due to water rights. The City of Fresno is continuing to implement its Metropolitan Water Resources Management Plan which has the potential to include conjunctive use through the development of a 650,000-750,000 AF groundwater bank.

Another example is the City of Visalia/Tulare ID water exchange, whereby 11,000 AF per year of tertiary-treated wastewater would be delivered for irrigation uses in exchange for more imported water being used for recharging the groundwater basin.

In Northern California, the Del Puerto Water District (DPWD) and the cities of Turlock and Modesto are proposing to implement a regional solution to address water supply shortages within DPWD's service area on the west side of the San Joaquin River in San Joaquin, Stanislaus and Merced Counties, south of the Sacramento-San Joaquin River Delta. The North Valley Regional Water Recycling Program proposes to deliver up to 59,000 AF per year of recycled water produced by the cities via the Delta-Mendota Canal. Recycled water would be conveyed from Modesto and Turlock through pipelines from their wastewater treatment facilities and ending at the Delta-Mendota Canal. The recycled water would then be conveyed directly to DPWD customers or to San Luis Reservoir for storage during low water demand periods and may also provide water to Central Valley Project Improvement Act (CVPIA)-designated refuges located south of the Delta to meet their need for water supply.

Recommendation: The state should facilitate and/or expedite regulations or permitting processes that encourage innovative technologies such as water recycling and desalination.

2. **Drought Planning**: California's water agencies develop a number of planning documents, some of which include requirements to consider climate change impacts on water supplies and drought response actions for two or three years of reduced supply. However, these documents, which include Urban Water Management Plans, Agricultural Water Management Plans, Groundwater Management Plans and Integrated Regional Water Management Plans, often are not linked, which can reduce their effectiveness in drought conditions. An integrated approach is needed among local planning efforts to enhance local and regional solutions during dry years.

Recommendation: The state should work with local agencies to review opportunities for more closely coordinating planning documents in drought conditions. The state also should facilitate long-term solutions for agencies that indicate sustainability concerns in the applicable water management plans.

Longer-Term Actions (24 months+)

1. **Longer-Term Infrastructure Needs**: Infrastructure needs identified by ACWA members also include longer-term projects such as expanding surface water or groundwater storage capacity and constructing new facilities for desalination and water recycling. Additional storage is needed not only to meet growing demands, but also to make up for water supplies reallocated to environmental/regulatory purposes. Many ACWA member agencies, including those that have sufficient water in 2014 given existing demands, have identified a large number of projects that would help provide a sustainable water supply in 2015 and beyond.

For example, Metropolitan Water District of Southern California is looking at infrastructure improvements that would allow the delivery of Colorado River Aqueduct water to parts of its service area normally supplied exclusively by water from the SWP, providing for a supplemental supply when SWP water is not available. The San Francisco Bay Area and the Sacramento region are developing partnerships among their agencies to improve reliability within their respective regions, optimizing existing infrastructure through new interties and other improvements.

In addition, Soquel Creek Water District is working with the City of Santa Cruz on a regional desalination project and is coordinating with a number of local agencies on a regional recycled water treatment for irrigation and future Direct Potable Reuse (DPR).

To complement information received through the Drought Action Group process, ACWA recently partnered with the California Water Commission (CWC), Delta Stewardship Council (DSC), and DWR on a water projects survey that requested information from water agencies on water infrastructure projects that could be completed in the next five to 10 years.

ACWA and CWC received over 60 responses, which will provide more opportunities for creating drought-resilient water supplies.

Recommendation: The state and federal government should provide funding and technical support in partnership with local agencies to facilitate the development of these longer-term water infrastructure projects that will help ensure reliable water supplies for both the economy and the environment.

Overall Recommendations without Specific Timeline

1. **Funding**: Most of the solutions for securing adequate water supplies in both this and future droughts are dependent on some type of funding support. Local agencies have invested billions in new or upgraded infrastructure, which is reflected in part by reviewing the current supply balances of those areas where significant investments were made after the last drought. However, much more needs to be done.

   Examples of infrastructure projects that could benefit from funding include the restoration of Wilson Dam in the Calaveras County Water District (CCWD) service area that has failed, severely affecting the availability of water for residents in the West Point Water System. Restoration of the dam could produce 150 AF of storage and other ecosystem benefits, but would cost this disadvantaged community $580,000 for design and construction.

   Another part of CCWD, Ebbitts Pass Expansion, has 2,200 homes dependent on marginal fractured rock groundwater supplies and its well will likely fail by June. Developing surface water supply would cost $8.4 million and relieve drought impacts for 2,200 properties.

   The state and federal government have indicated that water infrastructure is an important investment and ACWA members have identified a variety of projects that with appropriate funding would help solve many of the short and long-term challenges faced by water agencies.

   Recommendation: The state and federal government should disburse funding approved through the state drought emergency legislation and other federal programs as soon as possible so projects can move forward and assist impacted communities. The state and federal government also should work to ensure additional funding is available, including through a 2014 water bond, for projects and programs that will improve California's aging water infrastructure and further the coequal goals.

2. **Continued and heightened conservation**: In both the SWAP and the recent resolution passed by its Board of Directors urging water agencies to call for heightened water conservation statewide, ACWA has expressed its strong support for both urban and agricultural water use efficiency. In addition to ACWA's partnership with DWR on the Save Our Water program, ACWA member agencies continue to be leaders on a variety of initiatives at the local and regional level to encourage water conservation and water use efficiency. Many of these activities are identified on ACWA's 2014 Drought Watch website.

   For example, Sonoma County Water Agency and its contractors are implementing voluntary 20% conservation and a regional water conservation program called "There's a Drought On. Turn the Water Off." The program includes an easy-to-use website, local toolkits, eco-friendly garden tours, rebates and more. The City of Sacramento has implemented mandatory 20% conservation and is using a host of measures including limiting outdoor irrigation to twice per week, increased water patrols and implementing a "cash for grass" program.

   Metropolitan Water District of Southern California recently doubled its existing conservation and outreach budget from $20 million to $40 million, which includes $5.5 million for an outreach campaign designed to raise public awareness and target inefficient practices. MWD's programs include rebates, incentives for turf removal, large landscape audits, California Friendly Landscape Training Classes and a Public Agency Program and Fitness Center Program, both of which target larger water users with higher upfront incentives for conservation devices.

   San Diego County Water Authority also is urging additional voluntary conservation through its "When in Drought" campaign featuring paid advertising, public service announcements and online communications. The campaign is

supported by $300,000 in drought response grant funds from DWR and is being coordinated with other local and statewide conservation efforts, including Save Our Water.

Should dry conditions persist into 2015, ACWA members have detailed plans to step up their conservation efforts.

- ***Recommendation: The state should acknowledge that local water systems are in the best position to determine which water conservation programs are most effective for their customers. In addition, the state should provide funding for water use efficiency activities in disadvantaged communities and support programs that are not locally cost effective but contribute broad benefits to California.***

3. **Agency Coordination**: As outlined in ACWA's SWAP and earlier in this report, improved coordination among state agencies and between the state and federal government will be critical to successfully implementing a comprehensive set of actions, including those that will help navigate the effects of drought conditions. The success of many actions will rely on consistent and deliberate cooperation between local agencies, regulators and their policymaking counterparts.

- ***Recommendation: The state should review its 2014 drought response and look for opportunities to improve coordination in future dry times or other extreme weather events.***

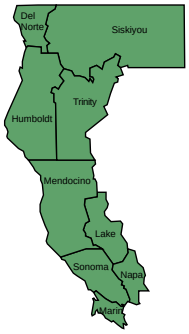
Regional Overview

Left: San Luis Reservoir, a key storage facility for both the Central Valley Project and State Water Project, was at just 41% of capacity in early June 2014. Right: Dry conditions prevail at this field west of Firebaugh in the San Joaquin Valley.

To provide context for the priority actions outlined in this report, following is a summary of conditions and vulnerable areas in ACWA's 10 geographic regions.

The summary includes a brief description of each ACWA region including geographic boundaries, major water sources, and areas that should be watched closely if the state continues to experience dry conditions.

NORTH COAST (ACWA REGION 1)



Extending through nearly 25,814 square miles of California's northern coast, Region 1 includes the nine counties of Del Norte, Humboldt, Siskiyou, Trinity, Lake, Mendocino, Sonoma, Napa, and Marin. This north coast region is 12 percent of California's landscape, but home to less than 2 percent of the state's population. Approximately 25 ACWA member agencies help serve this region's 1.4 million residents.

Major Water Sources

ACWA's Region 1 agencies are supplied by diverse water sources. Larger surface water supply projects in this region include the USBR Klamath Project, the US Army Corps of Engineers' (USACE) Russian River Project (Lake Mendocino and Lake Sonoma), and the Humboldt Bay Municipal Water District's Ruth Reservoir, which serves coastal communities from Eureka to McKinleyville. Two of the largest water supply reservoirs in this area are Trinity Lake (2.437 million acre-feet), a CVP facility on the Trinity River and the USACE Lake Sonoma (380,000 acre-feet) in the Russian River watershed. The North Bay Aqueduct of the SWP also supplies water to agencies within Napa County.

Groundwater development is sporadic throughout the northern and mountainous areas of this region, and wells are generally along the many valleys' rivers and streams. Very few significant aquifers in the coastal mountains are capable of providing a reliable water supply. Significant groundwater basins exist in the upper Klamath River Valley along the California border with Oregon, along with the Napa-Sonoma Valley and underlying the Santa Rosa area.

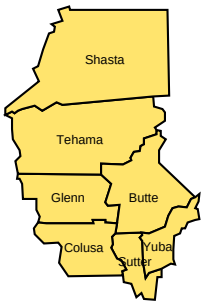
Vulnerable Areas

Much of the northern coastal part of this region is sparsely populated and without major commerce. Remaining population centers such as Fort Bragg, Arcata and Willits were previously home to active logging and fishing industries but now rely on tourism that depends largely on weather conditions. These factors result in a network of many small and often disadvantaged communities (DACs) with water systems

that must contend with significant challenges during droughts because they frequently rely on one water source and cannot easily tie into another water system. Several communities within this area are regularly at risk due to limited groundwater or local surface water supplies, in addition to risks associated with catastrophic wildfires.

The southern part of this region (Marin, Napa and Sonoma Counties) is more densely populated, and agencies can more closely coordinate with neighboring systems along with diversifying their water supply portfolio. However, local major surface water supplies (Lake Mendocino and Lake Sonoma) are low, and further dry conditions will put additional pressure on the system, reducing available water for urban, agricultural and environmental needs.

SACRAMENTO VALLEY (ACWA REGION 2)



Spanning 8,362 square miles of Northern California's agricultural lands, Region 2 is comprised of Butte, Colusa, Glenn, Shasta, Sutter, Tehama and Yuba counties. Forty-five ACWA member agencies help serve the region's population of 502,000 residents, with water, utility, irrigation and reclamation services.

Major Water Sources

Region 2 water agencies receive much of their surface water from SWP and CVP facilities. Major SWP water supply facilities are along the Feather River basin in this region, consisting of Oroville Reservoir Complex, Lake Davis, and Frenchman Reservoir. Major CVP facilities include Lake Shasta and Whiskeytown Lake. A large amount of water from both SWP and CVP reservoirs also is released downstream to maintain environmental water quality standards in the Delta, which are critical in the summer and fall to prevent ocean salt water from penetrating east into the Delta during high tidal cycles.

CVP and SWP water is delivered to agriculture and wildlife refuges throughout the region including the state's Butte Basin and Graylodge Wildlife Areas as well as the federal Sacramento Wildlife Refuge Complex. For example, the new $180 million Red Bluff Pumping Plant and Fish Screen convey water to districts served by the Tehama-Colusa and Corning Canals on the Sacramento River. Sacramento River CVP Settlement Contractors, CVP Water Service Contractors and the Feather River Service Area Contractors collectively irrigate over 2 million acres.

Local surface water supplies are also a key part of the water supply portfolio for the region, including the Yuba-Bear River system and New Bullards Bar Reservoir, the Yuba River's largest reservoir at 966,000 acre-feet.

Groundwater provides about 30% of the water supply. Reliance on this resource varies greatly depending on the area within the region; in some areas groundwater is the only source of water supply including most if not all of the local cities and communities. Agencies often rely upon available groundwater resources when surface water supplies are not available and have been working to develop conjunctive use opportunities. However, local groundwater ordinances in Butte, Glenn, Shasta and Tehama counties limit or prohibit groundwater substitution transfers. Shasta County also limits inter-county groundwater transfers.

Vulnerable Areas

Because many agencies receive all or a significant portion of their water through the SWP and CVP, these areas are at risk when allocations are reduced or not available. With record low allocations for both projects during the 2014 drought, some agencies are relying on groundwater (where available), particularly for agriculture and crops. Communities in Region 2 are highly dependent on the agriculture industry, especially rice production that accounts for over 600,000 acres and much of their economic activity.

Much of the Redding basin is urbanized and highly reliant upon CVP surface water supplies. Most of these agencies have water service contracts with shortage provisions that can reduce water allocations to zero for agricultural purposes and to 50% of historical use for non-agricultural purposes. Agencies around the basin with limited groundwater resources are the most severely impacted due to severely curtailed surface water supplies and continued dry conditions will intensify these impacts.

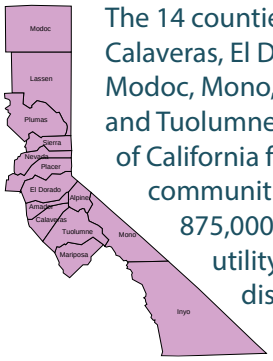
Also, increased long-term use of groundwater will exacerbate existing groundwater declines and contribute to additional negative effects including increased pumping costs, reduced water quality and potential land subsidence.

Farmers in some parts of Region 2 are idling thousands of acres due to drought, negatively impacting both the

local and statewide economy. At this time most are idling acres that normally produce a variety of crops, but should dry conditions persist, farmers will lose orchards that are particularly vulnerable, resulting in severe long-term economic and ecological impacts.

Impacts on the availability of habitat could be severe. In Region 2, agricultural lands, wildlife areas and refuges provide sanctuary to hundreds of species of wildlife. This is especially important because 95% of the state's wetlands no longer exist. Rice is the only crop that provides similar benefits.

SIERRA FOOTHILLS AND MOUNTAINS (ACWA REGION 3)



The 14 counties in Region 3 (Alpine, Amador, Calaveras, El Dorado, Inyo, Lassen, Mariposa, Modoc, Mono, Nevada, Placer, Plumas, Sierra, and Tuolumne) encompass 36,229 square miles of California forest and Sierra Nevada range communities. The regional population of 875,000 is partly served by 30 water, utility, irrigation and reclamation districts that make up ACWA's Region 3 membership.

Major Water Sources

Of California's developed water supply, about 40% originates within this region, more than from any other source. However, much of the water supplies are unavailable locally due to prior water rights appropriations for downstream or out-of-basin users. For example, Bay Area water agencies export water supplies from the Mokelumne and Tuolumne rivers, and the Los Angeles Department of Water and Power exports water from Owens River and Mono Lake. The state and federal government, Central Valley water agencies, and the USACE also built major foothill multipurpose reservoirs from Lake Oroville to Millerton Lake, enabling delivery of water to other regions of the state through canals, aqueducts, and via the Delta.

Locally developed surface water accounts for the vast majority of the local public water supply, with the remainder of the water provided by federal water facilities, groundwater, locally developed imports from adjacent hydrologic regions, and reclaimed wastewater. Local water sources include the Truckee, Walker, Carson and Susan Rivers, although water rights issues, interstate agreements with Nevada, in-stream environmental requirements, and miscellaneous private rights holders can limit access to this water supply. In the Lake Tahoe Basin, further development is strictly limited because of concerns regarding water quality in the lake. Local supplies vary seasonally and year to year, depending on precipitation and the corresponding large fluctuations in runoff.

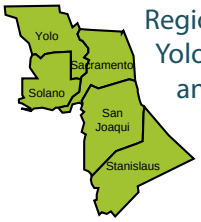
Groundwater availability provides a small portion of the water supply in this region and is more likely to be in fractured rock and small alluvial deposits immediately adjacent to the area's many streams, although some wells constructed in volcanic formations can produce large amounts of groundwater. In rural areas, many individual residences are dependent upon individual wells for domestic use, which are often unreliable during drought periods. In the southern counties of this region, there are areas that use groundwater as their sole source of supply but much of the area has very low population density and within these areas there has been little groundwater development.

Vulnerable Areas

As outlined above, water systems in Region 3 largely depend on local surface water and groundwater supplies so in times of drought, lack of rainfall quickly affects these agencies. In addition, similar to Region 1, there are many areas that are not densely populated, agencies are not closely connected, and many small communities are also disadvantaged. Small communities in this region will likely experience severe water shortages in the summer and fall. Continued dry conditions will increase the number of agencies and areas affected.

This region also is vulnerable to catastrophic wildfires, which are becoming more of a risk due to reduced snowpack levels and warm temperatures experienced so far in 2014. A large wildfire or (multiple smaller ones) could have disastrous consequences for both the water quality and supply for this region along with the affected downstream water users.

LOWER SACRAMENTO VALLEY AND DELTA (ACWA REGION 4)



Region 4 is made up of five counties — Yolo, Solano, Sacramento, San Joaquin, and Stanislaus counties — which cover about 4,357 square miles the Sacramento Valley. Approximately 45 irrigation districts, utilities, and

cities are members of this region, helping to serve a population of more than 3.3 million residents.

Major Water Sources

The Sacramento-San Joaquin Delta serves as a hub for California's two largest water systems, the SWP and CVP. Four of this region's five counties border the Sacramento-San Joaquin Delta, which puts a local emphasis on Delta issues. Water sources in this region include both surface water from the major delivery projects and groundwater. Surface water sources include the Sacramento, San Joaquin, American, Tuolumne, Calaveras and Stanislaus Rivers.

Releases from CVP's Folsom Reservoir on the American River, serve Delta and CVP export needs including maintaining environmental water quality standards in the Delta and in the Lower American River, and also supplying agencies in the Sacramento metropolitan area. Many agencies, such as the cities of Sacramento, Roseville, Folsom and San Juan Water District, rely heavily on deliveries from Folsom Reservoir. Local agencies in the Sacramento region have invested $1 billion in activities on demand management, conservation and conjunctive use in an effort to create a sustainable water supply.

Solano County's primary sources of water are from Lake Berryessa, the principal water storage facility of USBR's Solano Project, and SWP water from the Delta through the North Bay Aqueduct. Other surface water supplies in the region include Don Pedro Reservoir, USACE's New Hogan Lake, and CVP's New Melones Reservoir.

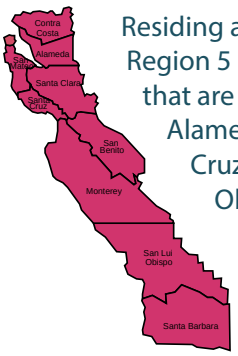
Groundwater provides approximately 30% of the total water for this region but some agencies use it more extensively than others. Efforts continue to improve access to groundwater in the Sacramento region as a complement to existing surface water supplies, for aquifer storage and recovery, and as a secondary supply during drought conditions.

Vulnerable Areas

As home to the Delta, this entire region is vulnerable to the effects of drought-related water supply fluctuations including reduced water quality that could result in salt water entering the Delta during high tidal cycles. In the current drought, the Sacramento region was "ground zero" for impacts to larger urban agencies in the first few months of 2014, highlighting the need for more diverse and reliable supplies. Because Folsom Reservoir serves multiple purposes, including maintaining environmental quality standards in the Delta and in the Lower American River, those agencies that depend on the reservoir for all or a large portion of their water supply have been significantly affected and will be working to ensure sufficient supplies throughout 2014.

Continued dry conditions will additionally strain existing infrastructure, further reduce surface and groundwater quality and supplies, and require an increased effort to conserve in this region.

BAY AREA/CENTRAL COAST (ACWA REGION 5)



Residing along California's central coastline, Region 5 includes the 14,793 square miles that are Contra Costa, San Francisco, Alameda, San Mateo, Santa Clara, Santa Cruz, Monterey, San Benito, San Luis Obispo, and Santa Barbara Counties. Region 5's membership includes 50 irrigation, utility, reclamation, and cities to help serve its population of more than 7 million.

Major Water Sources

In Region 5, water agencies manage a diverse portfolio of water supplies including groundwater, local surface water, imported Sierra Nevada supplies from the Tuolumne and Mokelumne rivers, Delta supplies via the SWP and CVP and other sources (recycled water, desalination, and transfers). Major storage facilities include Pardee, Los Vaqueros and Hetch Hetchy Reservoirs. About 70% of the urban supplies are imported to the Bay Area portion of this region.

In the Bay Area, local groundwater accounts for about 15% of the water supply. For agencies like Santa Clara Valley Water District, Alameda County Water District, and Zone 7 Water Agency, groundwater is a critically important component that reduces the demand on imported water. Several agencies such as Alameda County Water District have entered into agreements with groundwater banks in the San Joaquin Valley for a portion of their supply portfolio, particularly in dry years, but due to 0% allocation from SWP, ACWD and others are unable to retrieve those banked supplies.

In the Central Coast counties of Region 5, groundwater provides more than 80% of the water supply. The

remainder is provided by a variety of sources including local streams and rivers, such as the San Lorenzo and Carmel Rivers, USBR projects such as the Santa Maria Project and the Cachuma Project and the SWP Coastal Branch, which delivers surface water to San Luis Obispo and Santa Barbara counties. Agencies in this area are also working to increase desalination efforts for both brackish groundwater and ocean saltwater.

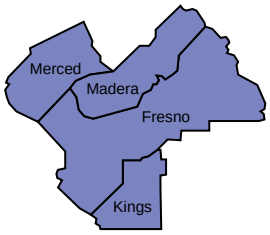
Vulnerable Areas

Many of the major Bay Area agencies have sufficient supplies this year because of $3 billion-$5 billion invested in conservation, recycled water, upstream reservoirs, the construction of the Freeport Regional Water Project and Los Vaqueros Reservoir, and conjunctive use. However, several agencies dependent on the SWP or on other wholesale agencies with reduced or even zero projected allocations are significantly impacted by the drought, particularly those that receive direct supply or have banked water south of the Delta that could otherwise be accessed when allocations are higher. With continued drought, water quality will likely become a primary concern for many agencies in this part of the region. Several member agencies are also concerned that a low Delta outflow to protect the state's water supply will adversely impact their local supplies from the Delta.

Central Coast agencies in this region are experiencing drought impacts and the ongoing challenge of saline intrusion into groundwater aquifers, the primary water source. Record low rainfall exacerbated the salinity issue and agencies are under a State Water Resources Control Board (SWRCB) Cease and Desist Order to reduce the use of the Carmel River. Further, much of the groundwater in that area contains hexavalent chromium, and water systems soon will be required to install expensive treatment systems or lose that source. While these agencies have worked diligently to reduce their per capita water use, options are limited, and they are increasingly turning to desalination, water recycling and water budgets. The City of Santa Cruz began water rationing on May 1 with strict allotments per household and significant penalties for those who exceed their allotment. The City of Santa Barbara is looking at potentially restarting its desalination plant as a last resort if drought conditions continue into 2015 and water usage is not reduced enough through conservation.

Continued dry conditions would significantly affect both water supply and quality throughout this region.

NORTHERN SAN JOAQUIN VALLEY (ACWA REGION 6)



Located in California's San Joaquin Valley, Region 6 expands throughout 11,590 square miles and includes Merced, Madera, Fresno, and Kings counties. Region 6 has approximately 48 member agencies that help serve its 1.5 million residents and agricultural industry.

Major Water Sources

Most of this region's imported surface water supplies are delivered by the CVP although the SWP also provides water to several districts. Most of the surface water in the upper San Joaquin River is stored and diverted at Friant Dam and is then conveyed north through the Madera Canal and south through the Friant-Kern Canal. The Kings River and the tributaries of the San Joaquin River provide the region with high-quality water that constitutes most of the surface water supplies for local uses. Much of this water is regulated by reservoirs and used on the east side of the San Joaquin Valley.

Groundwater provides a significant portion of the water needs for this region. The availability and use of groundwater is of critical importance to many areas in the San Joaquin Valley. Efforts are under way to address concerns related to water quality and subsidence that have occurred for a variety of reasons. As outlined above, ACWA's *Recommendations for Achieving Groundwater Sustainability* outline a suite of actions regarding the future of California's groundwater resources.

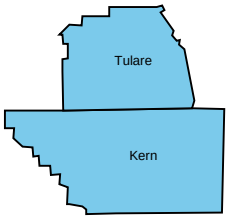
Agricultural operations have worked diligently to increase agricultural water use efficiency in the San Joaquin Valley. In fact, from 2003 through 2010, San Joaquin Valley farmers invested almost $2.2 billion installing upgraded irrigation systems (drip, micro sprinklers, high-efficiency pumps) on more than 1.8 million acres and continue to look for opportunities to enhance the efficiency of their operations.

Vulnerable Areas

This region is home to some of California's leading agricultural producing areas, ranking in the state's top 10 counties in farm production value. If local or imported surface water supplies are not available, demand for these activities in many areas can initially

be met with groundwater supplies but intensive groundwater pumping can also outstrip the aquifer system's ability to recharge itself, affecting water quality and potentially causing groundwater-related land subsidence. In Region 6 some the most severe subsidence is occurring on the west side of Madera County. The intensive use of groundwater also increases pumping costs and energy usage. Should there be continued drought, farmers and water agencies that are not able to utilize available groundwater will be forced to idle hundreds of thousands of acres.

SOUTHERN SAN JOAQUIN VALLEY (ACWA REGION 7)



Region 7 spans nearly 13,014 square miles of southern San Joaquin Valley, including both Tulare and Kern Counties. ACWA has over 50 members in this region who help serve its 1.3 million residents and agricultural industry. Tulare County is the most productive county in the U.S. in terms of agricultural revenues.

Major Water Sources

Water districts in both the western and eastern sides of the valley floor depend heavily on contracts for imported water from the CVP and SWP. These two projects follow a coordinated operation agreement governing Delta export facility pumping for water shortage, water quality, and environmental requirements. The CVP's Friant Unit also provides surface water for the region's east side. Additional surface water runoff is provided by four rivers in this region: the Kings, Kern, Kaweah and Tule.

Groundwater is a critical water source in this region, providing approximately 4% of total needs. However, because surface water supplies are unreliable or have been reduced, Region 7's increased reliance on groundwater has resulted in water extraction amounts exceeding recharge to some of the region's groundwater aquifers, worsening an existing overdraft situation.

In the western valley area, groundwater quality is often poor, and availability is highly variable. In addition, drainage problem areas have developed with high water tables that have high total dissolved solids (TDS).

However, as with Region 6, agricultural operations have worked diligently to increase agricultural water use efficiency through upgraded irrigation systems and other activities. This region also features some of the state's oldest and most successful conjunctive use efforts including those of North Kern Water Storage District and Tulare Irrigation District. The Kern Water Bank and groundwater banking storage partnerships in the Arvin-Edison Water Storage District, the Semitropic Water Storage District, and other groundwater banking projects help sustain the local groundwater basins and successfully provide water to agencies throughout the state.

Vulnerable Areas

Much of the industry and consequently water use in this region is related to agriculture. A large portion of this region farms permanent crops, making it difficult for the agricultural industry when faced with low to zero water allocations, particularly if those areas have limited access to groundwater. While demands can initially be met in many areas with groundwater supplies, intensive groundwater pumping can also outstrip the aquifer system's ability to recharge. Intensive groundwater pumping is causing increased depletion of the region's groundwater basins with DWR reporting that recent groundwater levels in the San Joaquin Valley at more than 100 feet below previous historical lows. This increased activity can lead to water quality issues and groundwater-related land subsidence, potentially damaging wells and water infrastructure. Some the most severe subsidence has occurred in this part of the San Joaquin Valley. The intensive use of groundwater also increases pumping costs and energy usage (e.g., the City of Tulare is looking at an additional $500,000 for increased energy costs to run wells).

Should there be continued drought conditions coupled with limited surface water imports, farmers and water agencies that are not able to utilize available groundwater, whether due to quality or quantity, will be forced to idle hundreds of thousands of acres.

In addition, as outlined above, many local and also geographically distant agencies have water banked in the Semitropic or Kern facilities. However, because of the drought and extremely low allocations of water for the SWP and CVP (5% and 0% respectively), agencies cannot transfer the water as needed. This adversely affects both local and those more distant agencies that rely on that water as part of their supply portfolio. Several agencies have even proposed a "pump-back plan" to the state that would reverse the flow of up to 47 miles of the California

Aqueduct and allow water from the Kern Water Bank to reach distressed agricultural water districts.

GREATER LOS ANGELES (ACWA REGION 8)

ACWA's second-smallest geographic region happens to be its most populous. Los Angeles and Ventura counties make up Region 8, serving a population of 11.1 million over 6,000 square miles. Fifty ACWA member agencies are among the water providers for the densely populated region.

Major Water Sources

To meet current and growing demands for water, this region leverages all available water resources: imported water, water transfers, conservation, captured surface water, groundwater, recycled water, and desalination. Water is imported into Region 8 from three major sources: the Sacramento-San Joaquin Delta via the SWP, the Colorado River, and the Owens Valley/Mono Basin.

Local surface capture plays an important role in this region. Dozens of impound structures are used to capture local runoff for direct use or groundwater recharge, operational or emergency storage for imported supplies, or flood protection. Water recycling, desalination and urban water conservation are also important sources of water for this region and have significantly reduced water demand.

Groundwater plays an important role in the water supply portfolio for Region 8, although water quality concerns have prevented its use in some areas, particularly in Los Angeles County. Contamination has significantly reduced groundwater availability for the Los Angeles Department of Water and Power. Los Angeles will soon complete a multiyear groundwater status report with the goal of creating an inventory for pollution and contaminants that compromise San Fernando Valley groundwater.

Vulnerable Areas

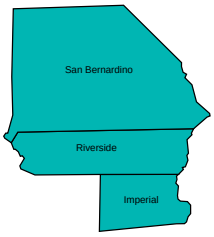
After the last major drought (1987-1992), agencies in this region invested $12 billion in storage and other water facilities to prepare for future dry times, along with implementing aggressive conservation programs to increase water use efficiency. MWD increased its storage capacity from 200,000 AF in early 1990s to 4+ MAF today and since that time imported water demand is down about 20%.

While most of the region can withstand drought conditions in 2014 due to these investments, Metropolitan may need to withdraw upward of a million acre-feet this year to meet demands, the most it has taken from reserves in any one year. Should drought conditions persist into 2015, storage reserves available this year will not be an option and an increasing number of areas will be vulnerable to water shortages or water quality issues.

In addition, while snowpack in the Colorado River watershed is above average this year, the river system is recovering from 12 years of drought. Storage in the system's two huge reservoirs — Lake Mead and Lake Powell — is just above 40%.

This region also is at risk for catastrophic wildfires, particularly with unusually strong Santa Ana winds already affecting the area.

INLAND EMPIRE (ACWA REGION 9)



The counties of Imperial, Riverside, and San Bernardino span 32,000 square miles of vast desert lands. The 4.2 million residents of the region are served by 49 ACWA members representing water, utility, irrigation and reclamation districts.

Major Water Sources

Water demands in this region are met through a combination of imported surface water, supplies from the Colorado River and the SWP, local groundwater basins, and recycled water supplies.

Colorado River supplies meet either all or most of the agricultural and urban water demands in the Imperial, Palo Verde, Coachella, and Bard valleys. The All-American Canal is used to import water supplies from the river to Imperial Irrigation District for its agricultural customers and for the urban customers of the public and investor-owned water agencies in the valley. The Coachella Canal conveys river water into the Coachella Valley for agricultural and some urban uses.

The SWP and recycled and local surface water supplies such as the Santa Ana River also provide water to the region. A portion of SWP supplies is obtained through

an exchange agreement among Coachella Valley Water District, Desert Water Agency and Metropolitan Water District of Southern California because no facilities exist at this time to deliver SWP supplies to Coachella Valley contractors.

Groundwater also is important to Region 9 as many of the alluvial valleys in the area are underlain by aquifers that are the sole source of water for local communities and farming operations. Groundwater is used to meet much of the urban demand along the Colorado River, but not all groundwater sources are suitable for potable uses without treatment due to water quality issues such as salinity and hexavalent chromium. Many aquifers in the eastern part of this region also are experiencing overdraft and depend on imported water from the SWP to ensure sufficient water supplies.

Vulnerable Areas

Because SWP supplies have not been as readily available, it has increased the region's reliance on groundwater. There are several basins in overdraft or challenged by water quality issues including from naturally occurring hexavalent chromium. While the Colorado River basin is experiencing normal weather conditions in 2014, it is recovering from a 12-year drought and further dry conditions could also negatively affect this region.

Region 9 also was well prepared for the current drought year, though agencies have noted that a continuing drought will become an eventual crisis.

SOUTH COASTAL PLAIN (ACWA REGION 10)

Thirty-nine ACWA member agencies in California's southernmost coastal counties of Orange and San Diego make up Region 10, which is home to a population of just over 6.2 million and encompasses 5,000 square miles of urban area.

Major Water Sources

Local water agencies utilize a diverse mixture of local and imported sources, groundwater and water management strategies (including water transfers and conservation) to meet urban and agricultural demands each year in Region 10. For example, the San Diego region is projected to produce approximately 182,000 acre-feet per year of local supplies through water recycling, desalination, groundwater, and surface storage programs by 2030 including the launch in 2015 of the Carlsbad seawater desalination facility. The area currently receives approximately 180,000 acre-feet from the San Diego County Water Authority-Imperial Irrigation District (SDCWA-IID) water conservation and transfer agreement and canal-lining programs, which by 2021 will increase to 280,000 acre-feet of supply. Imported water sources for both San Diego and Orange counties include the SWP and the Colorado River. Local water supply sources for Orange County include the Santa Ana River.

Groundwater also provides a portion of this region's water supply. Orange County Water District manages the vast groundwater basin under northern and central Orange County that supplies water to more than 20 cities and water agencies and has developed its state-of-the-art Groundwater Replenishment System, a water purification system for potable reuse that supplies 72,000 acre-feet per year to the groundwater basin. The current expansion of the Groundwater Replenishment System will increase production capacity up to 102,000 acre-feet per year.

Vulnerable Areas

Because this region depends so heavily on imported water and even in a typical year experiences low rainfall, local water systems are susceptible to the impacts of a drought. To ensure reliable supplies, local water agencies have invested in a diverse portfolio of water sources, storage and conservation programs to reduce these impacts. However, communities in this region relying on a single source are more at risk, including agricultural and small water system users.

As with Region 8, should drought conditions persist into 2015, storage reserves available this year will be severely reduced, and an increasing number of areas will be vulnerable to water shortages or water quality issues. Increased groundwater use also could cause additional salt water intrusion in coastal areas and pollution from industrial sources and underground gasoline tanks to migrate throughout the basin.

This region also is at risk for catastrophic wildfires, particularly with unusually strong Santa Ana winds that are already affecting the area. The recent fires in San Diego illustrate the increased danger of wildfires to Region 10.

ACWA Region Map

Summary

Left: Don Pedro Reservoir in Tuolumne County retreated to unusually low levels in early 2014, revealing the long-hidden remnants of a gold and copper mine. Right: Bare ground at relatively high elevations signaled the severity of the drought during the Department of Water Resources' January 2014 snow survey.

No two droughts are exactly the same in California, and this one is unique. It is indeed a statewide drought, but as highlighted throughout the report, immediate impacts vary. Several agencies and areas have learned from previous droughts and made significant investments in local groundwater storage, regional surface water storage, water transfers, conservation and water recycling, which are allowing some agencies to effectively manage drought conditions in 2014. Lack of surface water is forcing many agricultural users to rely heavily on groundwater to survive this year, a short-term solution that adds to mounting concerns about potentially unsustainable groundwater level declines and local subsidence in some areas of the state.

This report highlights the major water sources that currently supply California's water agencies, describes many of the areas that we expect would be most vulnerable should the drought continue and provides a roadmap for actions that can be taken now and in the near future to combat this and future droughts.

To be most effective, actions outlined in this and other ACWA efforts should be implemented as part of a package to help ensure overall water supply reliability and ecosystem health in California. From the immediate need to secure water availability for isolated communities in the North Coast to the larger and longer-term issues of sustainable groundwater management in the San Joaquin Valley to a Delta conveyance solution, successful planning and execution will require the strong commitment and efforts of local water agencies, state policymakers and the federal government.

As summer gets under way and agencies begin to prepare for 2015, the water community is extremely concerned about the effects of continuing drought conditions. As outlined above, a dry 2015 would wreak havoc on California's citizens, the environment and the state's economy, including its world-renowned agricultural industry. Even if the state receives above-average rainfall next winter, the past three years have exposed the fragility of California's water management system. This crisis should be a wake-up call for state government and water managers throughout California regarding the need for comprehensive action and significant investments in a more resilient water supply. Working together, we can improve the state's water future for generations to come.

Appendix A

ACWA member agencies have identified the following examples of projects, programs or regulatory approvals that could provide relief to systems that are currently at risk or located in a vulnerable area. This is not an exhaustive list and focuses on short-term, specific actions in some of the regions most affected by this year's dry conditions.

As outlined in the report, the entire state is in drought and a comprehensive set of actions is needed to truly create a resilient water management system.

NORTH COAST (REGION 1)

Hidden Valley Lake CSD

- Secure State Water Resources Control Board (SWRCB) approval to reduce if not cease supplemental stream flow releases to Putah Creek
- Approve SWRCB Petition for Change for construction of additional groundwater well(s) capable of diverting Putah Creek underflow under existing appropriative water rights
- Secure SWRCB approval to temporarily expand beneficial uses of Hidden Valley Lake and California Department of Public Health (CDPH) approval to treat and use Hidden Valley Lake supply

Marin Municipal Water District

- Ensure flexibility to modify instream flow requirements when storage levels remain low

North Marin Water District (Novato Service Area)

- Ensure clarity on use of raw water and/or recycled water for stock watering from the California Department of Food & Agriculture and at CDPH
- Review and revise rules on place/purpose of use by the SWRCB for non-customers, principally ranchers for stock watering or rural "off water grid" residents with failing wells

Sonoma County Water Agency

- Secure SWRCB approval to lower minimum instream flow conditions in the Russian River to preserve water storage in Lake Mendocino

SACRAMENTO VALLEY (REGION 2)

Sacramento River Settlement Contractors

- Ensure coordination with Reclamation and the Department of Water Resources on operations of the projects and Sacramento Valley diversions to maximize the efficiency of the system
- Implement salmon restoration efforts on the Sacramento River to benefit winter run and spring run.
- Reoperate Shasta Reservoir to time releases with flood flows and hatcheries to benefit out-migrating salmon smolts
- Longer term, complete Sites Reservoir, which will provide additional water supply, environmental benefits, and system flexibility

Tehama Colusa Canal Authority

- Ensure flexibility and streamlining of water transfers
- Provide greater flexibility on giant garter snake habitat requirements under ESA and CEQA

SIERRA FOOTHILLS AND MOUNTAINS (REGION 3)

Calaveras County Water District

- Build inner basin conduit from Stanislaus to Calaveras River tributaries, which would provide alternatives to water shortages and many secondary enhancements including the replacement of 15 miles of pipe that currently provide treated water for 38 connections but cannot address shortfall
- Restore Wilson Dam in the Calaveras County Water District (CCWD) service area which has failed, severely affecting the availability of water for residents in the West Point Water System. This project could produce 150 AF of storage and other ecosystem benefits
- Extend raw water line into area to relieve domestic wells and preserve potable water supplies in the N. Burson/West County Groundwater service area. Extend potable water to provide for additional fill stations to reduce hauling distance for makeshift water transport vehicles being used by homeowners

- Develop surface water supply for 2,200 homes in the Ebbitts Pass Expansion area, which are currently dependent on marginal fractured rock groundwater supplies; its well will likely fail by June

City of Lincoln

- Secure more reliable water supplies through the following infrastructure projects: repair Nelson Well (2,000 GPM), reactivate Well #2 (800 GPM), make improvements to Well #4 (500 GPM) and dig two new wells (1,600 GPM total)
- Increase amount of water available for use by local residents through reclaimed water delivery to Western Placer Waste Management Authority Material Recovery Facility (MRF) and reclaimed water use for construction water

City of Placerville

- Provide funding for ongoing capital improvement program to replace its aging water infrastructure as the city does not have an adequate revenue source to fund the necessary improvements. Master planning efforts have identified the need to replace at least 2,500 linear feet of waterline each year for the next 10 to 15 years at a cost of $500,000 per year
- Complete a pipeline replacement project with El Dorado Irrigation District that initially will be funded in part through Prop 84 funds awarded by DWR through CABY IRWM. This important project will increase local water supply reliability and use efficiency within the American River watershed upstream of Folsom Reservoir

City of Roseville

- Build booster pump station to move water (up to 7.0 MGD) from Sacramento Suburban Water District (SSWD) into the City of Roseville
- Install pumps and piping into two existing groundwater well casings to access additional groundwater
- Install Zone 4 to Zone 1 booster pump station to move local groundwater supplies within the city's service area
- Install recycled water infrastructure to deliver up to 1.0 MGD of recycled water to the Sierra View Golf Course
- Construct a new groundwater well (3.0 MGD) to access local groundwater

El Dorado County Water Agency

- Install water filling stations for remote customers
- Support water conservation program planning, $100,000
- Replace Grizzly Flats Community Services District Raw Waterline

El Dorado Irrigation District

- Construct a temporary 5 mgd pump station to allow pumping out of Folsom at elevations below 350 feet
- Pipe the Main Ditch to conserve up to 1,100 AF / year
- Construct a reliable intake at Strawberry on the South Fork American River
- Construct a reliable intake in Outingdale on the North Fork Cosumnes River
- Provide reliable pumping to the Pollock Pines area at the Moosehall Pump Station to support the transference of water through the Hazel Creek Tunnel to Jenkinson Lake
- Install Swansboro auto flusher to allow automatic flushing to reduce water loss by about 50,000 gallons per week
- Secure flexible terms from Federal Energy Regulatory Commission (FERC) and the State Board regarding FERC-licensed Project 184
- Secure regulatory relief for Deer Creek Wastewater Treatment Plant

Georgetown Divide Public Utility District

- Rehabilitate (line or pipe) approximately 12,000 feet of open ditch, saving up to 2,000 acre-feet of water each year

Lukins Brothers Water Company

- Install new water meters at 900 service locations in the water company service area

Placer County Water Agency

- Construct Ophir Road pipeline extension for Ophir Gardens community

- Plan on additional pump(s) in American River to increase access to this supply. Contract under negotiation, plan to authorize work in spring 2014 and have running ahead of summer 2015

South Tahoe Public Utility District

- Install 8,030 meters for connections that are currently not metered but are scheduled for meter installation within the next five years
- Install MTBE treatment for Glenwood and Paloma wells
- Implement Waterline Replacement Program to conserve water and provide sufficient fire flows
- Irrigation piping upgrades
- Increase funding for turf removal program and hire a water efficiency technician for next 4 summer irrigation months.
- Continue leadership on Tahoe Sierra Integrated Regional Water Management Planning (TSIRWMP) partnership/regional water conservation program

Tahoe City Public Utilities District

- Build the West Lake Tahoe Regional Water Treatment Plant, a permanent, all season surface water treatment plant on the West Shore of Lake Tahoe utilizing Lake Tahoe as the water source (replaces an interim seasonal water treatment plant that TCPUD constructed in 2004 that has reached its useful life and needs to be replaced)
- Consolidate with Tahoe Cedars Water Company and install water meters on TCWC connections
- Implement the Tahoe City Main Emergency Water Supply Project, which would construct an emergency raw water line from the Grove Street lake intake, up to a level publicly-owned parcel, for the opportunity to install a connection to an emergency water treatment plant

LOWER SACRAMENTO VALLEY AND DELTA (REGION 4)

Carmichael Water District (CWD)/Fair Oaks Water District (FOWD)

- Build booster pump station at Sweitzer School (2.0 MGD) to deliver water to FOWD
- Build Dewey booster pump station (2.0 MGD) to deliver water to FOWD
- Build booster pump station near San Juan Ave and Lincoln Ave (2.0 MGD) to deliver water to FOWD

City of Folsom

- Secure funding for developing groundwater wells in city's east area
- Include regional infrastructure projects in drought relief bills or legislative water bills
- Pass legislative language to facilitate "in watershed" surface water transfers when infrastructure is in place to move water

City of Sacramento

- Secure funding and regulatory support for interties with the Sacramento Suburban Water District and Sacramento County Water Agency that could potentially supply up to 29 MGD of additional supply through emergency agreements
- Include regional infrastructure projects in drought relief bills or legislative water bills
- Secure support for drought relief projects that include water conservation programs and shovel-ready infrastructure projects to improve water supply quality and reliability, including:
  - Five ground water projects to build new capacity and restore stand by wells to service
  - Two treatment plant projects to ensure functionality at lower river levels
  - Expansion of River Friendly Landscape (cash for grass) program in line with 20% water consumption mandates

City of West Sacramento

- Develop Southport Well 19 conditioning project to pump and treat groundwater
- Implement Bryte Bend Water Treatment Plant well project to pump and treat groundwater
- Implement City of West Sacramento Parks Grey Water Retrofit Project, which will serve 19 parks with grey water

Golden State Water Company

- Construct intertie with Carmichael Water District (CWD)
  - CWD would capture, treat and deliver water introduced to the American River from Aerojet's groundwater extraction and treatment (GET) remediated water discharges
  - Build pipeline from CWD's service area into Golden State Water Company's water service area

Oakdale Irrigation District

- Install Rubicon Total Channel Control Technology throughout its water delivery system; expected savings of up to 15,000 acre feet

Sacramento County Water Agency

- Upgrade striker well (1.5 MGD) to move water to City of Sacramento
- Convert and upgrade North Freeway well (1.5 MGD) to move water to City of Sacramento
- Retrofit Big Horn Blend Line well site (2.2 MGD) to move water to City of Sacramento
- Enhance and improve filtration of Poppy Ridge Wells (6.5 MGD) to move water to City of Sacramento

Sacramento Suburban Water District

- Increase well capacity within the district to possibly serve neighboring water purveyors, including the City of Sacramento
- Upgrade existing well sites with manganese treatment that are currently offline

San Juan Water District

- Construct facilities to access treated groundwater from Sacramento Suburban Water District (up to 14.4 MGD)
- Construct interties with Placer County Water Agency (up to 3.0 MGD)
- Establish groundwater pumping option from wholesale agencies with access to groundwater supplies (FOWD and Citrus Heights Water District)

Turlock Irrigation District

- Provide funding for the following shovel-ready water efficiency projects*
  - Lateral 4.5 to 5.5 intertie
  - Pump automation
  - Intermediate canal measurement points
  - Lateral 7 to 8 booster pump
  - Automation of lateral heads
  - Ceres Main Canal regulating reservoir
  - Lateral 6 pump back reservoir
  - Lateral 8 total channel control
  - Shelansky regulating reservoir

* These projects are expected to produce over 36,000 AF / year in water savings

BAY AREA/CENTRAL COAST (REGION 5)

Alameda County Water District

- Repair Lago Los Osos rediversion pipeline
- Repair Vallecitos Channel banks
- Replace membranes at SWTP #1 to PES – a material that can treat Del Valle water chemistry
- Complete alternative booster station (B16) which could supplement reduced production at TP1
- Install ozone at TP1 to handle degraded water quality
- Construct new groundwater well and piping to feed existing non-potable distribution system

City of Watsonville

- Provide funding and regulatory support to address groundwater supply that is impacted by the hexavalent chromium MCL including an exemption or variance to operate affected wells until funding for treatment is available

Contra Costa Water District

- Implement shovel-ready recycled water projects to increase utilization during the drought
- Provide operational flexibility through temporary modifications to CCWD's Biological Opinion restrictions when necessary, which can preserve water in storage to meet future public health and safety needs

- Confirm state and federal commitment to operational coordination that optimizes opportunities for refill of Los Vaqueros reservoir in upcoming years
- Facilitate delivery of CCWD's CVP water from the Freeport Intake through EBMUD's system as it would partially alleviate the adverse water quality impacts
- Preserve Delta water quality through placement of temporary rock barriers in Delta channels as necessary so as to reduce seawater intrusion

Dublin San Ramon Services District

- Extend recycled water distribution to landscape irrigation users, including parks, schools, streetscapes and commercial areas in established portions of the City of Dublin and to Alameda County facilities, to permanently reduce potable water demand by approximately 300 AF / year
- Longer term, extend recycled water distribution system into the Parks Reserve Forces Training Area, and expand capacity of recycled water treatment facilities by 6.8 MGD to reduce ultimate potable water demand by approximately 6,460 AF / year

East Bay Municipal Utility District

- Accelerate processing and approvals of transfers on State Board petitions and US Bureau of Reclamation Warren Act contracts
- Provide funding for conservation and recycling programs
- Expedite processing of transfers and exchanges by the State Board and Reclamation to facilitate regional collaboration and exchanges through interties (Execution of a water transfer with Placer County Water Agency (PCWA) to purchase up to 20,000 AF of water starting in April, diverted at Freeport)
- Provide funding for treatment improvements to utilize additional capacity in Freeport project facilities.

Monterey Peninsula Water Management District

- Provide federal or state funding to finance laundry retrofits and to extend rebate programs
- Include regional infrastructure projects in drought relief bills or legislative water bills; Coastal communities need specific carve-out for recycled water and desalination projects in state water bond (not as part of IRWM funding)

Pajaro Valley Water Management Agency

- Optimize production of supply from the Recycled Water Facility located in Watsonville
- Construct additional storage (two 1M gallon tanks) for finished recycled water. Partially funded through Prop 84 grant funds but additional support is needed
- Provide funding for conservation / irrigation efficiency workshops

San Benito County Water District

- Develop reclaimed water and seasonal storage ponds as source of agricultural water
- Provide federal or state funding for reclaimed water project and development of local groundwater bank

San Francisco Public Utilities Commission

- Develop the Lower Cherry Aqueduct supply by Fall 2014 to access 200,000 AF of water currently stored in Cherry Lake, which SFPUC does not normally use directly for supply (some conveyance infrastructure was damaged during the Rim Fire in 2013)

Santa Barbara County

- Streamline approval for Cachuma Operations and Maintenance Board (COMB) pumping project
- Provide funding for recycled water projects, the COMB pumping project, Santa Barbara's desal facility, rehabilitation of groundwater wells, and other infrastructure projects

Scotts Valley Water District

- Fast track short term solution for providing Pasatiempo Golf Course with recycled water in 2014

Soquel Creek Water District

- Streamline water rights for neighboring water exchanges
- Facilitate commitment/support from community and permitting/regulatory agencies
- Finalize direct potable reuse regulations

Zone 7 Water Agency

- Construct Chain of Lakes Well #5 and the Cope Lake to Lake I pipeline intertie. The additional groundwater recharge capacity is up to 15 MGD through the intertie and extraction from the well is estimated at 2 MGD, allowing improved management and placement of wells in the Livermore-Amador Valley Groundwater Basin
- Provide funding for water conservation and landscape irrigation efficiency improvements and education
- Construct an intertie between Zone 7 and East Bay Municipal Utility District to provide increased water supply reliability and also allow wheeling of up to 25 MGD should a regional desalination project move forward
- Preserve Delta water quality through placement of temporary rock barriers or interim demonstration project barge barriers in Delta channels to reduce seawater intrusion
- Construct a two-way pipeline and pump station between the Del Valle Water Treatment Plant and the Chain of Lakes to allow for groundwater recharge and local storage when State Water Project water supplies are abundant and allow for treatment of lake water at the existing plant during drought

NORTHERN SAN JOAQUIN VALLEY (REGION 6)

City of Fresno

- Revise land use ordinances with respect to sustainability; both agriculture and urban
- Review and improve rules and regulations that negatively impact an appropriate return on investments
- Provide funding for education to better address existing attitudes regarding preferential uses, whether it's agriculture, urban, or environment that negatively impact our ability to implement practical solutions immediately and provide the best solutions to meet today's needs

SOUTHERN SAN JOAQUIN VALLEY (REGION 7)

County of Tulare

- Ensure old wells are abandoned correctly upon permitting a new well. The number of new well installations increases in dry years due to changing groundwater levels
- Require a 50 annular seal on all new agricultural wells, rather than 20 feet previously required for an ag well
- Prioritize disadvantaged communities and other small community water systems that may be at risk this summer and develop an emergency water service plan that can be implemented if needed
- Extend the pipes on four wells that draw water from the underground aquifers under the city by another 100 feet, in case water levels dip so low in the spring and summer — when water use goes up — that the pumps run dry

Tulare County/Friant Region

- Develop ways to isolate the Friant-Kern Canal and regulate reservoirs where possible to minimize losses
- Address operational challenges for the Friant-Kern Canal, which include trying to move water orders aggregating to 10 cfs in a system designed to move 5,000 cfs. Meters aren't designed to measure such low flows. High water temperatures will occur, making algae blooms a real problem for turnout deliveries and on-farm delivery systems

GREATER LOS ANGELES (REGION 8)

Metropolitan Water District of Southern California

- Evaluate conveyance and distribution system to most efficiently manage available supplies
- Pursue facility improvements, operational modifications and pump-back capabilities to augment deliveries of Colorado River Aqueduct and stored water supplies within MWD service area
- Coordinate with member agencies to investigate changes in normal operations and delivery points to help accommodate additional use of Colorado River Aqueduct and stored water supplies

- Pursue exchange agreements with other parties to provide flexibility and resources to respond to hydrologic uncertainty and address supply and system issues

Sunnyside Farms Mutual Water Company

- Acquire permits from Los Angeles County Health Department for the operation of two new wells that have been constructed but are not yet permitted for operation

INLAND EMPIRE (REGION 9)

Coachella Valley Water District

- Expand distribution of recycled water to golf courses
- Continue providing incentives and rebates to help domestic customers reduce water use
- Pursue extension of Coachella Canal delivery system to provide Colorado River water to farmers currently using groundwater
- Increase funding for conservation program, including turf rebates

Desert Water Agency

- Construct shallow groundwater recovery wells to recover percolated secondary-treated wastewater
- Expand recycled water supply to offset existing irrigation and reduce need for additional groundwater pumping
- Implement efficiency projects that mitigate the need for flushing dead ends in the water distribution system that result from high temperatures
- Continue turf reduction programs and other conservation efforts to reduce demand

SOUTH COASTAL PLAIN (REGION 10)

Orange County Water District

- Complete first expansion of Groundwater Replenishment System expansion, providing an additional 30,000 AF / year of water for groundwater recharge
- Begin second expansion of GWRS to add another 30,000 AF; secure California Department of Public Health approval to allow recycling of brine waste from inland areas
- Secure legislation to streamline grant funding processes for pipeline extensions in a short timeframe
- Secure legislation to streamline CEQA requirements for minor extensions of recycled water pipelines (e.g., 8 miles or less)

San Diego County Water Authority

- Complete construction of Carlsbad Desalination project to provide an additional 56,000 AF / year
- Extend existing non-potable member agency recycled water distribution systems to serve additional customers
- Develop and implement short- and long-term potable reuse projects
- Secure temporary drought variance criteria from SWRCB for total dissolved solids (TDS) and other constituents applied to existing recycled water permits, in response to use of higher TDS imported water supplies due to drought
- Pass legislation that would allow recycled water agencies to approve use sites under a master permit

ACWA's Drought Action Group

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Vice Chair: Taj Dufour, Soquel Creek Water District (Region 5)

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- Chris DeGabriele, North Marin Water District
- David Guhin, City of Santa Rosa Utilities Department
- Krishna Kumar, Marin Municipal Water District

REGION 2

- Lewis Bair, Reclamation District #108
- Sean Earley, Richvale Irrigation District
- Bryce Lundberg, Western Canal Water District
- Jeff Sutton, Tehama-Colusa Canal Authority

REGION 3

- Mitch Dion, Calaveras County Water District
- Tony Firenzi, Placer County Water Agency
- Remleh Scherzinger, Nevada Irrigation District

REGION 4

- Terry Erlewine, State Water Contractors
- John Mills, Turlock Irrigation District
- John Woodling, Regional Water Authority
- Marcus Yasutake, City of Folsom

REGION 5

- Jerry Brown, Contra Costa Water District
- Andy Moran, San Francisco Public Utilities Commission (David Briggs, alternate)
- David Stoldt, Monterey Peninsula Water Management District

REGION 6

- Chris Kapheim, Alta Irrigation District
- Ara Azhderian, San Luis Delta Mendota Water Authority
- Dan Nelson, San Luis Delta Mendota Water Authority
- Martin Querin, City of Fresno

REGION 7

- Curtis Creel, Kern County Water Agency
- Paul Hendrix, Tulare Irrigation District
- Dan Vink, Lower Tule River Irrigation District

REGION 8

- Shane Chapman, Upper San Gabriel Valley MWD
- Penny Falcon, Los Angeles Department of Water and Power
- Debra Man, Metropolitan Water District
- Dave Pedersen, Las Virgenes Municipal Water District

REGION 9

- Robert Cheng, Coachella Valley Water District
- Luis Cetina, Cucamonga Valley Water District
- Paul Jones, Eastern Municipal Water District

REGION 10

- Paul Cook, Irvine Ranch Water District
- Carlos Lugo, Helix Water District
- Ken Weinberg, San Diego County Water Authority (Dana Friehauf, alternate)

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Westlands Water District

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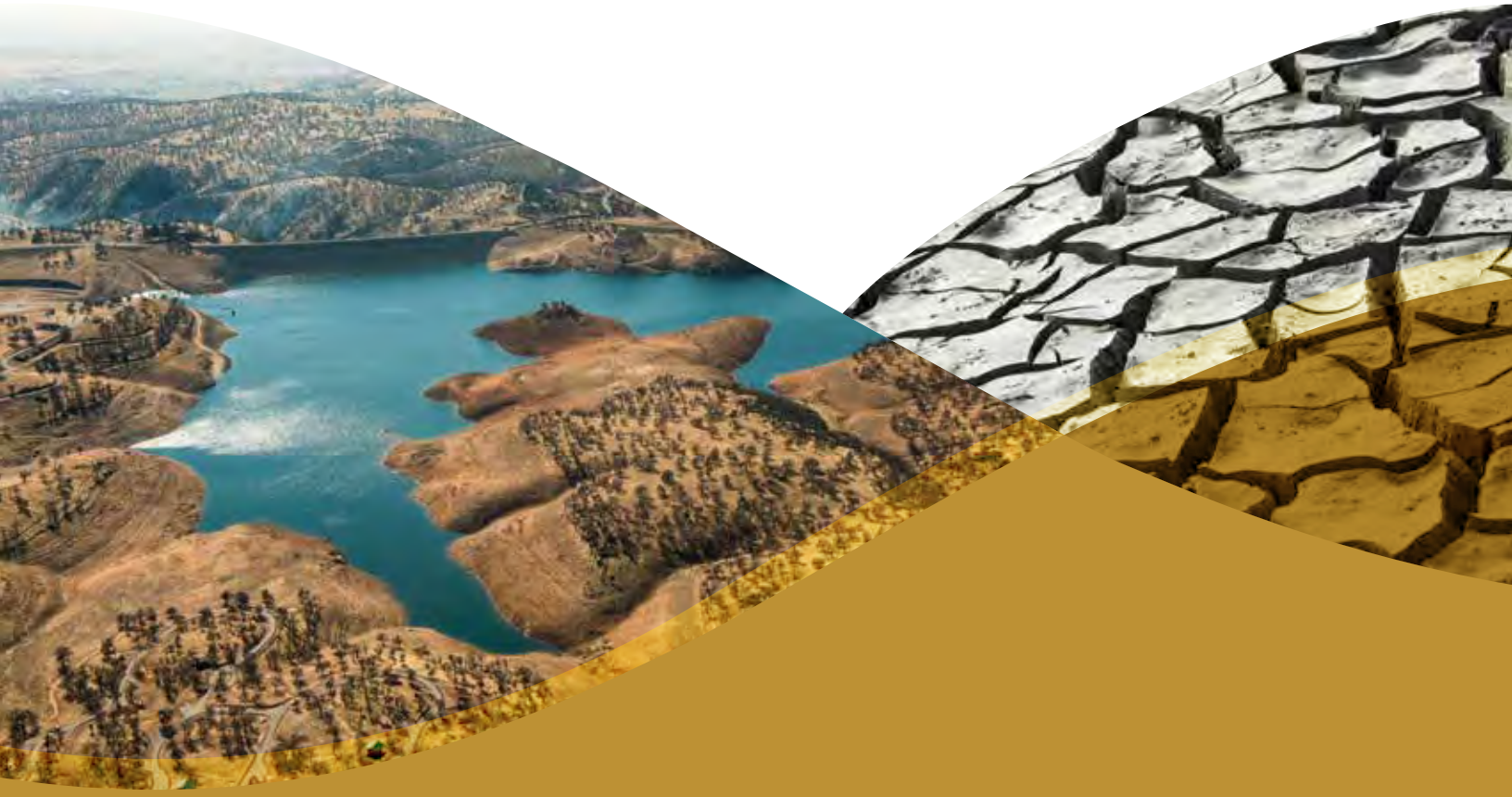

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RESOLUTION NO. 14-02

RESOLUTION OF THE BOARD OF DIRECTORS OF MOULTON NIGUEL WATER DISTRICT IMPLEMENTING CONSERVATION MEASURES IN RESPONSE TO 2014 DROUGHT CONDITIONS, CALLING FOR A VOLUNTARY REDUCTION IN WATER USAGE

WHEREAS, Governor Brown issued a Proclamation of State of Emergency on January 17, 2014 in response to the State of California experiencing drought conditions; and

WHEREAS, the State of California is experiencing record dry conditions, with 2014 projected to become the driest year on record, and is facing severe drought conditions in numerous communities that threaten residents, agriculture, and our business community; and

WHEREAS, the Proclamation calls on Californians to reduce water usage by 20 percent; and

WHEREAS, the Proclamation also calls upon local agencies to implement local water storage contingency plans in order to avoid or forestall outright restrictions that could become necessary later in the drought season; and

WHEREAS, in 2008, the District adopted Resolution No. 08-46, Adopting Water Conservation Program Under Moulton Niguel Water District Rules and Regulations for Water Service which contains provisions to reduce water consumption and conserve supplies; and

WHEREAS, while Southern California has devoted decades to planning, water conservation policies, construction of facilities, and billions of dollars of investment, there are steps that can be taken by all to assist the State during this drought period; and

WHEREAS, during the emergency Californians need to work together to reduce water usage, and extend water reserves;

NOW, THEREFORE, the Board of Directors of Moulton Niguel Water District does hereby **RESOLVE, DETERMINE** and **ORDER** as follows:

Section 1. The Board finds and determines that the foregoing Recitals of this Resolution are true and correct and are hereby incorporated into this Resolution as though fully set forth herein.

Section 2. The Board hereby encourages all of its customers to reduce their water usage by 20 percent as called upon by the Governor in order to help the State get through this dry period, extend available water reserves, and help reduce the severity of potential water shortages in the future. The District will continue to evaluate usage and in the event that the reduction is

not being achieved, the Board of Directors will consider further actions to enforce conservation to ensure reliability.

Section 3. The Board hereby directs District staff to develop an education and outreach plan to inform customers about the drought.

Section 4. The Board directs District staff to develop regional coordination with the South Orange County Agencies Reliability Planning Group.

APPROVED, ADOPTED and **SIGNED** this 20th day of February, 2014.

MOULTON NIGUEL WATER DISTRICT

President
MOULTON NIGUEL WATER DISTRICT and the Board of Directors thereof

Secretary
MOULTON NIGUEL WATER DISTRICT and the Board of Directors thereof

APPROVED AS TO FORM:

BOWIE, ARNESON, WILES & GIANNONE
Legal Counsel - MOULTON NIGUEL WATER DISTRICT

By: Patricia B. Giannone
Patricia B. Giannone

STATE OF CALIFORNIA)
) ss.
COUNTY OF ORANGE)

I, PAIGE GULCK, Secretary of the Board of Directors of the MOULTON NIGUEL WATER DISTRICT, do hereby certify that the foregoing resolution was duly adopted by the Board of Directors of said District at a regular meeting of said Board held on the 20th day of February 2014 that it was so adopted by the following vote:

AYES: COLTON, FIORE, FROELICH, KURTZ, LIZOTTE, MCKENNEY, PROBOLSKY

NOES:

ABSTAIN:

ABSENT:

Paige Gulck
Secretary
MOULTON NIGUEL WATER DISTRICT
and of the Board of Directors thereof