# Yosemite Community College District Drought Plan 2014-2015



# **Table of Contents**

Introduction	3
Challenges for Managing Water for the State of California	4
State of California's Actions.	6
YCCD Best Practice	7
Best Management Practices for Water Use in CA State Government Facilities	9
A Proclamation by the Governor of the State of California	10
California K-12 Schools & Community Colleges Urged to Cut Water Use	14
State Agencies Take Aggressive Action to Curb Water Use Across California	14
Department of General Services (DGS) Water Conservation Efforts	15
Resolution No. 4-14 – Tuolumne Utilities District	16
City of Modesto Drought Stage II Reduction Objectives	19
U.S. Drought Monitor – California	20
Be Water Smart – How Low Can you Go – Publication	21
California Department of Water Resources – Water Efficiency Ideas – Commercial Buildings	22
California Department of Water Resources – Water Efficiency Ideas – Commercial Landscapes	24

## YCCD

# **DROUGHT PLAN FOR 2014-2015 FISCAL YEAR**

#### Introduction

On January 17, 2014, the Governor of the State of California proclaimed a State of Emergency to exist in the State of California due to severe drought conditions. In addition, California Community Colleges were asked to collaborate on near and long-term actions to reduce water usage.

It is imperative that the Yosemite Community College District (YCCD) does everything possible to mitigate the effects of the drought. Facilities Planning and Operations has provided this drought plan for 2014-2015 fiscal year to enable Columbia College and Modesto Junior College to mitigate the effects of the drought.

We need everyone to conserve water. We need water rules so we might maintain our campuses and provide for student needs. As the Yosemite Community College District plan lays out, water recycling, expanded storage and serious conservation management efforts must all be part of the mix. This drought plan will lay out our challenges, our goals and decisive actions needed to conserve water.

On the proceeding pages you will find an excerpt from the California Water Action Plan, explaining the State's challenges and plans, the District's Best Practices and informational reference items.

Facilities Planning and Operations, thanks you in advance for saving every drop. Together we will get through this drought and prepare for the next.

# Challenges for Managing Water for the State of California

#### (from the California Water Action Plan)

In this **excerpt** from the California Water Action Plan, this section will provide you some history and information from the State of California as to the urgency that is needed by community colleges for water conservation.

#### **Challenges for Managing California's Water Resources**

Water has always been a scarce resource in California. Most of the precipitation falls on the west-facing slopes of Northern California mountain ranges, yet most of the population and irrigated farmland is located in the drier southern half of the state. Precipitation is highly variable year-to-year, but the long warm summers are always dry. In the mid-20th century, state, federal and local agencies vastly expanded the state's system of reservoirs, canals, pumps and pipelines to store water and deliver it to agricultural and urban users in dry areas. Also, in the late 20th century, significant investments were made in the state's flood protection system, including levees and bypasses. These changes to the physical infrastructure have resulted in unintended consequences to the natural world. In general, there is broad consensus about our challenges.

**Uncertain water supplies** – Reductions in water from major watersheds like the Colorado River watershed and the Sacramento-San Joaquin Delta (Delta) watershed—due to hydrologic and declining environmental conditions—have made these water supplies less reliable. Moreover, climate change impacts to these sources and the Cascade and Sierra headwaters will further strain supply reliability throughout the state. These sources are foundational supplies around which communities develop and manage local resources through strategies such as water use efficiency, recycled water, and groundwater recharge. The unreliable nature of these supplies threatens local, regional and statewide economies. **Collectively, the California Water Action Plan will contribute to more reliable water supplies**.

Water scarcity/drought – California's hydrology has always included extended dry periods. Much of California's water system was originally designed to withstand a seven-year dry period without severe damage to the economy and environment. Today some regions and many communities struggle to maintain adequate water supplies after only a year or two of dry conditions. Climate change makes this situation even more challenging. Less outflow of water coming from the Cascades and Sierras during periods of drought increases seawater intrusion into the Delta. Improving our ability to manage scarce water supplies and over-stressed groundwater basins and better coordination of major reservoir operations is essential to economic and environmental sustainability. Taking action to address drought is especially urgent for agriculture where crops wither without water, and the world's growing population and food demand create food security concerns. The California Water Action Plan includes both immediate steps for 2014 as well as actions that will better prepare California for future droughts.

**Declining groundwater supplies** – Groundwater accounts for more than one-third of the water used by cities and farms – much more in dry years, when other sources are cut back. Some of California's groundwater basins are sustainably managed, but unfortunately, many are not. Inconsistent and inadequate tools, resources and authorities make managing groundwater difficult in California and impede our ability to address problems such as overdraft, seawater intrusion, land subsidence, and water quality degradation. Pumping more than is recharged lowers groundwater levels – which makes extracting water more expensive and energy intensive. Under certain conditions, excessive groundwater pumping could mobilize toxins that impair water quality and cause irreversible land subsidence which damages infrastructure and diminishes the capacity of aquifers to store water for the future. When properly managed, groundwater resources will help protect communities, farms and the environment against the impacts of prolonged dry periods and climate change. **The strategies identified in the California Water Action Plan will move California toward more sustainable management of our groundwater resources.** 

**Poor water quality** – It is a fact that millions of Californians rely, at least in part, on contaminated groundwater for their drinking water. While most water purveyors blend or treat water to meet public health standards, many disadvantaged communities cannot afford to do so. In addition, domestic wells are drying up in many areas. All Californians have a right

to safe, clean, affordable and accessible water adequate for human consumption, cooking and sanitary purposes. Safe water is necessary for public health and community prosperity. The methods set forth in the California Water Action Plan will improve the organization of our water quality programs and create new tools to help ensure that every Californian has access to safe water.

Declining native fish species and loss of wildlife habitat – California's once robust native fish populations are at or near historic lows. Federal and state fish agencies now list many species of salmon and other fish as endangered and threatened. Wildlife habitat is also being lost at a rapid pace. Climate change further threatens the state's natural biodiversity. Many do not understand that our fish and wildlife are part of the complex system that provides and protects California's water resources. Tourism and fishing which provide economic benefits to local communities and to the state are also reliant on healthy ecosystems. Declining species and lost habitat disrupt the cultural, spiritual and ecological practices of California's Native American tribes. Simply put, California's diverse and unique ecosystems are irreplaceable and their loss threatens the sustainability of all of California's communities. The objectives in the California Water Action Plan include aggressive ecosystem restoration and other steps that will restore fish populations and benefit wildlife.

**Floods** – Over 7 million Californians live in a floodplain. Historically, flooding has occurred in all regions of the state. Our state's capital, Sacramento, has one of the lowest levels of flood protection of any major city in the nation. Climate change will only exacerbate this problem. More precipitation will fall as rain rather than snow, snowmelt will occur earlier, and there will be more extreme weather events. **The California Water Action Plan will serve to coordinate and streamline flood control efforts and result in multi-benefit flood projects, helping to mitigate the significant investments needed to improve flood protection for existing communities and infrastructure.** 

Supply disruptions – Many parts of California's water system are vulnerable to earthquakes and flooding, particularly the Delta, which serves as the conveyance hub for a substantial percentage of all water supplies in the Bay Area, the San Joaquin Valley, and Southern California. A large earthquake along any of five major faults or a major storm-induced levee failure could render this water supply unreachable or unusable for urban and agricultural needs for months. The combined benefits of many of the actions in the California Water Action Plan will better prepare us to manage through potential disruptions in the system.

**Population growth and climate change further increase the severity of these** *risks* – The state's population is projected to grow from 38 million to 50 million by 2049.1 The effects of climate change are already being felt and will worsen. The Sierra snowpack is decreasing, reducing natural water storage and altering winter and spring runoff patterns. This is most likely the result of higher temperatures and may also be related to air pollution that deposits fine particulate on the surface of snow, changing its reflectivity and causing it to absorb more heat and melt faster. Higher river and ocean water temperatures will make it harder to maintain adequate habitat for native fish species. Higher ocean temperatures will alter the already changing weather patterns. Sea level rise threatens coastal communities and islands in the Delta. Sea level rise also amplifies the risk that the pumps that supply cities and farms with Delta water will be inundated with seawater in a large earthquake or storms that breach levees. The strategies identified in the California Water Action Plan will help protect our resources from more frequent and more severe dry periods which threaten the health of our natural systems and our ability to meet our diverse water supply and water quality needs.

## State of California's Actions

- 1. Make conservation a California way of life;
- 2. Increase regional self-reliance and integrated water management across all levels of government;
- 3. Achieve the co-equal goals for the Delta;
- 4. Protect and restore important ecosystems;
- 5. Manage and prepare for dry periods;
- 6. Expand water storage capacity and improve groundwater management;
- 7. Provide safe water for all communities;
- 8. Increase flood protection;
- 9. Increase operational and regulatory efficiency;
- 10. Identify sustainable and integrated financing opportunities.

Together, these actions address the most pressing water issues that California faces while laying the groundwork for a sustainable and resilient future and are critical to moving the state forward now. They reflect an integration of new ideas with the ongoing important work that the state and federal government, local agencies, and others are already engaged in and require coordination and collaboration across levels of government. They will not address all of our challenges. Some of these actions are new proposals. Some are currently being planned and should be completed more rapidly, implemented in a better way, or on a larger scale. Success will require the cooperation of many partners; the state's role is to lead, help others, and remove barriers to action.

## **YCCD Best Practices**

#### **Outdoor Procedures:**

- Facilities paths of travel and large concrete areas will be swept or raked rather than pressure washed or hosed off. This method saves 5 gallons per minute.
- Water efficient drip irrigation systems for trees, shrubs and flowers will be installed on all new landscape on all three college campuses. This method saves 15 gallons each time a 500 sq. foot area is watered.
- Two to three inches of mulch will be placed around trees and plants to reduce evaporation. Mulch will be provided from tree trimmings chipped on campus. This method saves 30 gallons each time per 1000 ft. area is watered.
- Leaking and broken sprinkler heads will be repaired quickly. This saves 20 gallons per day, per leak.
- New landscape on campuses will be low water use trees and plants. This method saves 9 gallons per day, per 1000 sq. ft.
- Adjust sprinklers to avoid overspray and runoff immediately. This method saves more than 40 gallons every time you water.
- Eliminate non-essential water use such as washing exterior of buildings.
- Create water management policy statement. Publicize policy to staff and students.
- When mowing, keep grass long.
- HVAC to survey/inspect pipes and distribution for leaks.
- Vehicle washing-eliminate washing, if possible, except as needed for safety or health protection.
- Use automatic shut-off valves when possible.
- Wipe or squeegee when needed or possible

### Columbia College:

- During inclement weather, use only ice melt on freezing surfaces no water to be applied.
- Implement water catch plan with the assistance of Cal-fire. Store caught water in 20,000 gallon tank that has been abandoned on campus. Completed 20,000 gallons have been caught and stored.
- Revitalize existing well and pump on campus and use to water Simons Field. A 5000 gallon storage tank to be supplied by District. Booster pump to be installed.
- Follow best management practices outlined by City and State guidelines.

#### **Modesto Junior College:**

- <u>West Campus -</u> Divert the use of domestic, metered water by tying into the existing well water system to irrigate the east end of the West Campus. This will significantly reduce domestic, metered water usage on the West Campus.
- Prioritize other areas to reduce the use of irrigation water. Preliminary plan is to reduce irrigation landscaped areas around most buildings and arboretum while keeping athletic fields, Plaza and quad area green.
- East Campus Prioritize where to reduce the use of irrigation water. Preliminary plan is to reduce irrigation landscaped areas around most buildings, while keeping athletic fields and the quad area green.
- Follow best management practices outlined by City and State guidelines.

#### **Indoor Procedures:**

- Place water conservation materials inside all restrooms near drinking fountains and on bulletin boards on all campuses.
- Post instructions near low flush toilets.
- Utilize dry cleaning products and techniques for Custodial.
- Provide buckets in all shower facilities to catch clean water for mopping purposes or cleaning sticky outdoor surfaces that require water.
- Facilities custodial staff to inventory all restrooms to check for leaks, count toilets, urinals, & faucets and record leaks for work order processing.
- Run dishwashers on campus only when full.
- Don't leave water running while rinsing dishes.
- Limit garbage disposal use. Hand scrape food trays into garbage containers. Use sink's drainers to divert sink waste into disposals.
- Facilities to repair all leaky faucets and leaky toilets quickly. This saves between 15-50 gallons per day.
- Retrofit flush-o-meters with water saving diaphragms where appropriate and cost effective.

#### Additional education:

- Supply plan information and conservations tips and techniques in the Facilities Newsletter, website and district-wide email.
- Meet with departments such as Physical Education, Food Service, Fire Sciences, Technical Education, Agriculture, to discuss water-saving measures and district policy.
- Utilize Best Management Practices for Water Use in CA State Government Facilities, Executive Order B-18-12

## Best Management Practices for Water Use in CA State Government Facilities Executive Order B-18-12

Department:	
Department.	
Facility Name.	
Facility Location:	
Date:	
Completed By:	
Water Management and Conservation Best Practice	Check
Water Management	
Designate a water management coordinator for the facility to track monthly water use, to	
implement best management practices, and to conduct building walk-through inventory	
In 2013, conduct a building walk-through inventory of all water use fixtures and appliances	
For facilities with landscapes larger than 20,000 sq.ft., attend a landscape water budget	
tracking program	
Establish a system for facility occupants to report water leaks and water waste	
Educate the staff and facility occupants of water conservation methods and practices	
Leak Detection and Repair	
Perform monthly visual leak detection survey on all water use fixtures:	
A) Toilets	
B) Urinals	
C) Faucets	
D) Showers	
E) Boiler/Steam systems: steam traps, steam lines	
G) Cooling tower	
Check faucets for proper aerators (kitchen faucets 2.2 gpm and lavatory faucets 0.5 gpm), and	
install aerators or laminar flow devices if necessary	
Check showerhead flow rates and install showerheads using no more than 2.0 gpm if	
necessary	
Check leak indicator on water meter when water is not in use	
Kitchens	
Replace any broken or damaged dishwasher racks, and run dishwasher only when full to	
maximize capacity	
Check all equipment water temperatures and flow rates against the manufacturer	
recommendations. Use the recommended minimum to maximize savings	
Use pre-rinse spray valves with a flow rate of 1.25 gpm or less	
Use strainers or mesh traps in place of garbage disposals	
Laundry Excilition	
Lauriury Facilities Run washer only when full to maximize canacity	
Set water level and water temperature appropriate according to the load	
Sustainable Landscape Practices (all landscapes)	
Check Irrigation schedule, adjust schedule at least monthly, post schedule in controller cabinet	
Maintain irrigations system:	
A) Adjust heads for level, adjust direction of spray and distance of throw, clean filters	
<ul> <li>B) Install check valves, swing joints and replace nozzles as needed</li> </ul>	
Install and maintain pressure regulators to operate irrigation system according to	
manufacturers' specifications	
Inspect and maintain backflow prevention devices	
Maintain record drawings of landscapes with identification of hydrozones and corresponding valves and submit a copy to Agency/Department and landscape architect.	
Install shut-off nozzles or quick-couplers for all hoses. Install faucet timers for hose or hand	
Ingrade irrigation system components such as controllers, nozzles and sensors	
Install submaters or dedicated maters where appropriate	
Special Buildings (i.e., Hospitals, laboratories)	

#### A PROCLAMATION OF A CONTINUED STATE OF EMERGENCY

**WHEREAS** on January 17, 2014, I proclaimed a State of Emergency to exist in the State of California due to severe drought conditions; and

**WHEREAS** state government has taken expedited actions as directed in that Proclamation to minimize harm from the drought; and

**WHEREAS** California's water supplies continue to be severely depleted despite a limited amount of rain and snowfall since January, with very limited snowpack in the Sierra Nevada mountains, decreased water levels in California's reservoirs, and reduced flows in the state's rivers; and

WHEREAS drought conditions have persisted for the last three years and the duration of this drought is unknown; and

**WHEREAS** the severe drought conditions continue to present urgent challenges: water shortages in communities across the state, greatly increased wildfire activity, diminished water for agricultural production, degraded habitat for many fish and wildlife species, threat of saltwater contamination of large fresh water supplies conveyed through the Sacramento-San Joaquin Bay Delta, and additional water scarcity if drought conditions continue into 2015; and

**WHEREAS** additional expedited actions are needed to reduce the harmful impacts from the drought as the state heads into several months of typically dry conditions; and

**WHEREAS** the magnitude of the severe drought conditions continues to present threats beyond the control of the services, personnel, equipment, and facilities of any single local government and require the combined forces of a mutual aid region or regions to combat; and

**WHEREAS** under the provisions of section 8558(b) of the Government Code, I find that conditions of extreme peril to the safety of persons and property continue to exist in California due to water shortage and drought conditions with which local authority is unable to cope; and

**WHEREAS** under the provisions of section 8571 of the Government Code, I find that strict compliance with the various statutes and regulations specified in this proclamation would prevent, hinder, or delay the mitigation of the effects of the drought.

**NOW, THEREFORE, I, EDMUND G. BROWN JR.**, Governor of the State of California, in accordance with the authority vested in me by the Constitution and statutes of the State of California, including the Emergency Services Act and in particular Government Code section 8567, do hereby issue this Executive Order, effective immediately, to mitigate the effects of the drought conditions upon the people and property within the State of California.

#### IT IS HEREBY ORDERED THAT:

1. The orders and provisions contained in Proclamation No. 1-17-2014, dated January 17, 2014, remain in full force and effect except as modified herein.

2. The Department of Water Resources and the State Water Resources Control Board (Water Board) will immediately and expeditiously process requests to move water to areas of need, including requests involving voluntary water transfers, forbearance agreements, water exchanges, or other means. If necessary, the Department will request that the Water Board consider changes to water right permits to enable such voluntary movements of water.

3. Recognizing the tremendous importance of conserving water during this drought, all California residents should refrain from wasting water:

a. Avoid using water to clean sidewalks, driveways, parking lots and other hardscapes.

b. Turn off fountains and other decorative water features unless recycled or grey water is available.

c. Limit vehicle washing at home by patronizing local carwashes that use recycled water.

d. Limit outdoor watering of lawns and landscaping to no more than two times a week.

Recreational facilities, such as city parks and golf courses, and large institutional complexes, such as schools, business parks and campuses, should immediately implement water reduction plans to reduce the use of potable water for outdoor irrigation.

Commercial establishments such as hotel and restaurants should take steps to reduce water usage and increase public awareness of the drought through measures such as offering drinking water only upon request and providing customers with options to avoid daily washing of towels or sheets.

Professional sports facilities, such as basketball arenas, football, soccer, and baseball stadiums, and hockey rinks should reduce water usage and increase public awareness of the drought by reducing the use of potable water for outdoor irrigation and encouraging conservation by spectators.

The Water Board shall direct urban water suppliers that are not already implementing drought response plans to limit outdoor irrigation and other wasteful water practices such as those identified in this Executive Order. The Water Board will request by June 15 an update from urban water agencies on their actions to reduce water usage and the effectiveness of these efforts. The Water Board is directed to adopt emergency regulations as it deems necessary, pursuant to Water Code section 1058.5, to implement this directive.

Californians can learn more about conserving water from the Save Our Water campaign (SaveOurH2O.org).

4. Homeowners Associations (commonly known as HOAs) have reportedly fined or threatened to fine homeowners who comply with water conservation measures adopted by a public agency or private water company. To prevent this practice, pursuant to Government Code section 8567, I order that any provision of the governing document, architectural or landscaping guidelines, or policies of a common interest development will be void and unenforceable to the extent it has the effect of prohibiting compliance with the water-saving measures contained in this directive, or any conservation measure adopted by a public agency or private water company, any provision of Division 4, Part 5 (commencing with section 4000) of the Civil Code notwithstanding.

5. All state agencies that distribute funding for projects that impact water resources, including groundwater resources, will require recipients of future financial assistance to have appropriate conservation and efficiency programs in place.

6. The Department of Fish and Wildlife will immediately implement monitoring of winter-run Chinook salmon in the Sacramento River and its tributaries, as well as several runs of salmon and species of smelt in the Delta as described in the April 8, 2014 Drought Operations Plan.

7. The Department of Fish and Wildlife will implement projects that respond to drought conditions through habitat restoration and through water infrastructure projects on property owned or managed by the Department of Fish and Wildlife or the Department of Water Resources for the benefit of fish and wildlife impacted by the drought.

8. The Department of Fish and Wildlife will work with other state and federal agencies and with landowners in priority watersheds to protect threatened and endangered species and species of special concern and maximize the beneficial uses of scarce water supplies, including employment of voluntary agreements to secure instream flows, relocation of members of those species, or through other measures.

9. The Department of Water Resources will expedite the consideration and, where appropriate, the implementation, of pump-back delivery of water through the State Water Project on behalf of water districts.

10. The Water Board will adopt statewide general waste discharge requirements to facilitate the use of treated wastewater that meets standards set by the Department of Public Health, in order to reduce demand on potable water supplies.

11. The Department of Water Resources will conduct intensive outreach and provide technical assistance to local agencies in order to increase groundwater monitoring in areas where the drought has significant impacts, and develop updated contour maps where new data becomes available in order to more accurately capture changing groundwater levels. The Department will provide a public update by November 30 that identifies groundwater basins with water shortages, details remaining gaps in groundwater monitoring, and updates its monitoring of land subsidence and agricultural land fallowing.

12. The California Department of Public Health, the Office of Emergency Services, and the Office of Planning and Research will assist local agencies that the Department of Public Health has identified as vulnerable to acute drinking water shortages in implementing solutions to those water shortages.

13. The Department of Water Resources and the Water Board, in coordination with other state agencies, will provide appropriate assistance to public agencies or private water companies in establishing temporary water supply connections to mitigate effects of the drought.

14. For the protection of health, safety, and the environment, CAL FIRE, the Office of Emergency Services, the Department of Water Resources, and the Department of Public Health, where appropriate, may enter into contracts and arrangements for the procurement of materials, goods, and services necessary to quickly mitigate the effects of the drought.

15. Pursuant to the drought legislation I signed into law on March 1, 2014, by July 1, 2014, the California Department of Food and Agriculture, in consultation with the Department of Water Resources and Water Board, will establish and implement a program to provide financial incentives to agricultural operations to invest in water irrigation treatment and distribution systems that reduce water and energy use, augment supply, and increase water and energy efficiency in agricultural applications.

16. To assist landowners meet their responsibilities for removing dead, dying and diseased trees and to help landowners clear other trees and plants close to structures that increase fire danger, certain noticing requirements are suspended for these activities. Specifically, the requirement that any person who conducts timber operations pursuant to the exemptions in Title 14, California Code of Regulations sections 1038 (b) and (c) submit notices to CAL FIRE under the provisions of Title 14, California Code of Regulations, section 1038.2 is hereby suspended. Timber operations pursuant to sections 1038(b) and (c) may immediately commence operations upon submission of the required notice to CAL FIRE and without a copy of the Director's notice of acceptance at the operating site. All other provisions of these regulations will remain in effect.

17. The Water Board will adopt and implement emergency regulations pursuant to Water Code section 1058.5, as it deems necessary to prevent the waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water, to promote water recycling or water conservation, and to require curtailment of diversions when water is not available under the diverter's priority of right.

18. In order to ensure that equipment and services necessary for drought response can be procured quickly, the provisions of the Government Code and the Public Contract Code applicable to state contracts, including, but not limited to, advertising and competitive bidding requirements, are hereby suspended for directives 7 and 14. Approval by the Department of Finance is required prior to the execution of any contract entered into pursuant to these directives.

19. For several actions called for in this proclamation, environmental review required by the California Environmental Quality Act is suspended to allow these actions to take place as quickly as possible. Specifically, for actions taken by state agencies pursuant to directives 2, 3, 6–10, 13, 15, and 17, for all actions taken pursuant to directive 12 when the Office of Planning and Research concurs that local action is required, and for all necessary permits needed to implement these respective actions, Division 13 (commencing with section 21000) of the Public Resources Code and regulations adopted pursuant to that Division are hereby suspended. The entities implementing these directives will maintain on their websites a list of the activities or approvals for which these provisions are suspended. This suspension and that provided in paragraph 9 of the January 17, 2014 Proclamation will expire on December 31, 2014, except that actions started prior to that date shall not be subject to Division 13 for the time required to complete them.

20. For several actions called for in this proclamation, certain regulatory requirements of the Water Code are suspended to allow these actions to take place as quickly as possible. Specifically, for actions taken pursuant to directive 2, section 13247 of the Water Code is suspended. The 30-day comment period provided in section 1726(f) of the Water Code is also suspended for actions taken pursuant to directive 2, but the Water Board will provide for a 15-day comment period. For actions taken by state agencies pursuant to directives 6 and 7, Chapter 3 of Part 3 (commencing with section 85225) of the Water Code is suspended. The entities implementing these directives will maintain on their websites a list of the activities or approvals for which these provisions are suspended.

**I FURTHER DIRECT** that as soon as hereafter possible, this Proclamation shall be filed in the Office of the Secretary of State and that widespread publicity and notice be given to this Proclamation.

**IN WITNESS WHEREOF** I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 25th day of April, 2014

EDMUND G. BROWN JR. Governor of California

ATTEST:

DEBRA BOWEN Secretary of State

# California K-12 Schools & Community Colleges Urged to Cut Water Use

Monday, February 24, 2014

In response to Governor Brown's recent drought state of emergency declaration, California public school administrators have been asked to take immediate measures to reduce water use at campuses throughout the state.

"California is experiencing the worst drought in our state's history and Governor Brown is asking every Californian to take extra steps to use water wisely," said state architect Chester A. Widom, FAIA in a letter to district officials. "I am asking school districts to lead by example in water conservation and water efficiency efforts, wherever possible."

School officials, who collectively manage approximately 11,000 facilities in 1,200 school districts throughout the state, were supplied with a water conservation best practices guide developed by the California Department of General Services and the Department of Water Resources.

The Division of the State Architect (DSA), which oversees design and construction oversight for K–12 schools, and community colleges, provided school districts with additional resources including a water conservation report card developed by the Collaborative for High Performance Schools. DSA is also developing guidance for schools on the use of recycled water in concrete used in construction projects.

Read the press release.

# State Agencies Take Aggressive Action to Curb Water Use Across California

Thursday, February 06, 2014

Across California, state agencies and departments are taking immediate actions to curb water use at their facilities in response to the drought state of emergency declared by Gov. Edmund G. Brown Jr.

The Governor's state of emergency declaration charged the Department of General Services (DGS) with "immediately implement(ing) water use reduction plans for all state facilities."

"Throughout state government, we are answering Governor Brown's call to save water wherever we can," said DGS Director Fred Klass. "DGS is leading water conservation efforts at our state-owned buildings."



You are here > Home (http://www.dgs.ca.gov/dgs/Home.aspx) > Water Conservation (http://www.dgs.ca.gov/dgs/Home/water.aspx)

# DGS Water Conservation Efforts

The Governor's Emergency Drought Declaration (http://gov.ca.gov/news.php?id=18379) ordered state agencies to take action to conserve water:

"State agencies, led by the Department of General Services, will immediately implement water use reduction plans for all state facilities. These plans will include immediate water conservation actions, and a moratorium will be placed on new, non-essential landscaping projects at state facilities and on state highways and roads."

Actions Taken to Conserve Water at State Facilities Some immediate steps DGS has taken:

- Cutting the amount of water used in landscaping at DGS properties by 20 percent.
- Shutting off water fountains and water features on state property, including the State Capitol grounds.
- Additional water conservation measures at State Capitol. Read more (http://www.documents.dgs.ca.gov/dgs/pio/capwater.pdf).
- Instituting a moratorium on non-essential landscaping projects at state facilities.
- Cancelling contracts for water intensive-window washing at state facilities.
- Eliminating all car washes in the state garage other than those required for safety.
- Issuing guidance through the Division of the State Architect to nearly 1,200 school administrators on best practices for conserving water at K-12 schools and community college campuses.
- Placing signage (http://www.documents.dgs.ca.gov/dgs/pio/water/waterwise2.jpg) in restrooms and other areas of state buildings to remind tenants and visitors of the urgent need to save water. (If you are interested in obtaining water conservation signage, please contact DGS (mailto:DGSFeedback@dgs.ca.gov?subject=Water Signage).)
- Sending messages to the owners of all state-leased buildings encouraging them to adopt similar water-saving measures as those being undertaken at state-owned properties.

Best Practices for Water Conservation Tracking State Water Usage Water Conservation Coordinated Actions by the Administration Water Watchers

#### Resolution No. <u>4-14</u> TUOLUMNE UTILITIES DISTRICT DECLARING THAT A WATER SUPPLY EMERGENCY EXISTS CAUSED BY EXTREMELY DRY CONDITIONS AND IMPLEMENTATION OF THE AMENDMENTS/ADDITIONS TO THE PHASE III WATER CONSERVATION MEASURES PURSUANT TO THE DISTRICT'S WATER RULES AND REGULATIONS

<u>Whereas</u>, the District has only a fixed and limited supply of water available each year and any year with below normal rainfall a potential for shortage exists; and,

<u>Whereas</u>, pursuant to Water Code section 350, a water shortage emergency exists whenever the governing body finds and determines that "the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection;" and,

<u>Whereas</u>, on January 28, 2014 the governing body of the Tuolumne Utilities District determined that a water shortage emergency exists due to the extremely dry conditions and that there is not sufficient water to meet the ordinary consumption, sanitation and fire protection demands and requirements of water consumers; and,

Whereas, when the Board implemented Phase III conservation measures on January 28, 2014, it did not implement all of the elements of Phase III as set forth in its Water Rules and Regulations Section 12.03.3; and,

Whereas, it is now necessary to add further restrictions to the Phase III conservation measures as set forth in Section 12.03.3 of the District's Water Rules and Regulations.

#### NOW THEREFORE BE IT RESOLVED

Section 1. The District has implemented Phases I, II and III conservation measures and shall implement the following amended or additional elements to the Phase III Water Conservation Measures.

System Wide - In Addition to those Measures Contained within Phase II

#### 12.03.3 Phase III - Critical Years - Restricting Use of Potable Water

1. Determine system reduction goals (a function of projected runoff weighed against previous years usage) and update as conditions warrant and approved by the Board of Directors.

2. Landscape Maintenance:

a) Individual plants within gardens or trees must be irrigated by the use of buckets or other containers or properly maintained irrigation drip systems. Property address ending in an even number shall confine their outside usage to Tuesday, Thursday and Saturday, those with an odd number shall confine their outside usage to Wednesday, Friday, and Sunday. All irrigation shall occur between the hours of 7 p.m. and. 10 a.m. No watering on Mondays.

b) Watering of lawns is allowed on the days and times above whenever the conservation goal is 40% or less.

c) The watering of lawns, gardens and any other outdoor irrigation not specified above is prohibited.

Page 1 of 3

 Washing of cars, boats, trailers, equipment or other vehicles by hose or by use of water directly from faucets or outlets connected to the public water supply is prohibited.

d) Water use which results in water running onto driveways, gutters, streets, adjoining property, and/or any other water runoff is prohibited.

- 4. Washing of sidewalks, walkways, driveways, patios, parking lots, graveled areas, tennis courts or other hard-surfaced areas, including commercial establishments, by hose or by use of water from faucets or any outlets connected or syphoned from the public water supply is prohibited.
- New construction service applications shall be granted upon condition that water shall be used only for interior purposes. Any landscaping requiring the use of water shall be delayed until repeal of Phase III restrictions.
- Use of water in decorative fountains, pools, recreational ponds and the like shall be limited to the minimum necessary to preserve aquatic life if present.
- 7. Dust control, earth compaction, and other construction use of raw or potable water is limited to specific times and locations determined by the District. All users of this water must contact the District for times and location of water availability. Use of water at any other time or location is subject to a \$500 fine per occurrence and possible prohibition of water use.
- 8. Filling of new or existing swimming pools, hot tubs, spas, ponds or decorative fountains is prohibited.
- 9. Excessive water usage is prohibited. Excessive water is defined as:
  - i. Allowing plumbing system leaks, including sprinkler and drip systems, to remain un-repaired for seven (7) calendar days following written notification by the District.
  - ii. Without reasonable cause, water usage in excess of 50 percentage points above the reduction goal based on the prior year's usage during the same month of the year.
- 10. Fire hydrant use by any entities other than the District shall be restricted for any purpose other than fire suppression.
- 11 Any single family equivalent using 400 cubic feet per month or less has met the reduction goal and is not subject to further conservation.
- 12. Anyone who violates the District Water Rules and Regulations shall be subject to Section 14.08 and 14.09 of the Water Rules and Regulations and up to a \$500 penalty.

#### Treated Water and Raw Water (Metered) Domestic Accounts

 Both raw and treated water metered customers, (where water is sold by the cubic foot) shall be required to restrict outside water usage. Property address ending in an even number shall confine their outside usage to Tuesday, Thursday and Saturday, those with an odd number shall confine their outside usage to Wednesday, Friday, and Sunday. All irrigation shall occur between the hours of 7p.m. and 10 a.m. No watering on Mondays.

#### Raw Water Accounts

1. All raw water accounts shall be reduced to an amount equal to the system wide reduction goal.

#### Page 2 of 3

- 2. All interruptible accounts shall be reduced to sustained maintenance quantities shall not exceed the reduction goal.
- 3. Agricultural (irrigation/stock watering) water rate accounts:

All "agricultural (irrigation/stock watering) water rate" accounts shall equal the system wide reduction goal.

4. Irrigation season and shorten duration:

Irrigation season shall begin no earlier than April 15th and last no longer than October 15<sup>th</sup> and may be postponed or shortened by Board determination based on conditions existing at this time.

5. Supplemental water shall not be available.

#### Industrial and Commercial

Customers shall reduce consumption to the District wide reduction goal. Customers may contact the District to discuss their individual needs to maintain their business.

#### Resale Service - Treated and Raw Water

- Mandatory reduction in percent of usage equal to District's reduction goal. Customers may contact the District to discuss their individual needs to maintain health, fire protection and sanitation purposes.
- 2. Resaler shall restrict all outside water usage within the area of service to be consistent with this policy established herein.

<u>Section 2.</u> The Board hereby finds and determines that this action could not possibly affect the environment and is therefore exempt from CEQA pursuant to Public Resources Code section 21080(b)(4) and also constitutes an emergency and is therefore exempt from CEQA pursuant to the CEQA Guidelines section 15269.

Section 3: The aforementioned amended or additional elements of the Phase III conservation measures shall be effective the date this resolution is adopted by the Board, shall remain in effect until repealed by the Board, and shall have the same force and effect had they been an original Phase III conservation measure.

Section 4: The system reduction goal is set at 50% for 2014.

**PASSED AND ADOPTED** by the Board of Directors of Tuolumne Utilities District on February 13, 2014, by the following vote:

AYES: Maciel, Sarno, Johnson, Mikkelsen, Rotelli

NOES: None

ABSENT: None

ABSTAINED: None

John Maciel, President Board of Directors

TTES Mellssa McMullen/District Secretary Page 3 of 3

# Drought Stage II–Moderate Shortage Potential

# **Phasing Criteria**

Groundwater levels are dropping due to the increased use associated with a warm, dry season, and due to lower than average precipitation and runoff.

Production from wells is decreasing.

There is a possibility that customer demands and system pressure requirements cannot be met at all times.

# **Reduction Objectives**

20%-35% reduction in total water production from baseline.

# **Requested Consumer Actions**

- \* Outdoor water use prohibited daily from 9 a.m. 7 p.m. Odd-numbered addresses water W, F, Su Even-numbered addresses water T, Th, Sa No outdoor water use on Mondays. No watering of front yards except for trees and shrubs by hand, and vegetation maintained through drip irrigation. Backyard watering subject to above-cited limitations.
- Car washing subject to above-cited limitations with use of a positive shutoff nozzle.
- Hosing concrete areas, building exteriors, etc., is prohibited except for health/safety concerns.
- \* Water leaks, once identified, must be repaired within 24 hours.
- \* Restaurants prohibited from serving water except upon request.
- \* New landscaping to comply with existing & future landscape ordinances.
- Mandatory retrofit of low flow showerheads in homes when building remodeling occurs.
- \* No use of outdoor fountains except for maintenance purposes.
- \* Water meter installation on all new single-family homes.
- \* Creation of a community-based task force to deal with possible





# (Released Thursday, Mar. 6, 2014) Valid 7 a.m. EST March 4, 2014

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	P
Current	0.00	100.00	94.56	90.82	65.89	22.37
Last Week 225/2014	0.00	100.00	94.56	90.82	73.83	26.21
3 Months Ago 1202013	2.61	97.39	94.15	82.53	27.59	0,00
Start of Calendar Year 1231/2013	2.61	97.39	94.25	87.53	27.59	0.00
Start of Water Year 10/2013	2.63	97.37	95.95	84.12	11,36	0.00
One Year Ago	0.03	99.97	47.37	26.96	0.00	0.00

D4 Exceptional Drought	D1 Moderate Drought
D3Extreme Drought	D0 Abnormally Diry
	-Auc

The Drought Monitor focuses on broad-scale conditions Local conditions may vary. See accompanying text summary for forecast statements.

Author: Brad Rippey U.S. Department of Agriculture

USDA



National Drought Mitigation Come

http://droughtmonitor.unl.edu/





Learn about your water provider's watering guidelines, water-smart tips and resources at: BeWaterSmart.info

Water Sense



# **COMMERCIAL BUILDINGS**

# WATER USE EFFICIENCY IDEAS



Increase employee awareness of water use efficiency.

Seek employee suggestions for water use efficiency; locate suggestion boxes in prominent areas.

Install signs in all restrooms encouraging water use efficiency.

When cleaning with water is necessary, use budgeted amounts.

Install sub-meters and read water meters weekly to monitor success of water use efficiency efforts and to help detect leaks.

Assign an employee to monitor water use and waste.

Determine the quantity and purpose of water being used.

Make it easy for building occupants to report leaks.

Ask your local water agency about rebates or financial incentives to offset or minimize cost of water use efficiency measures.

BUILDING MAINTENANCE

Check water supply system for leaks and turn off any unnecessary flows.

Repair dripping faucets and showers and running or leaking toilets.



Install flow reducers and faucet aerators in plumbing fixtures where possible.

Reduce the water used for toilet flushing by installing ultra-low-flush toilets.

As appliances or fixtures wear out, replace them with water-saving models.

Shut off the water to equipment rooms not in use.

Minimize the water used for cooling equipment rooms that are not in use.

Minimize the water used for cooling equipment, as recommended by the manufacturer.

Ensure that cooling units are running efficiently. Shut off cooling units when not needed.

Install closed-loop, multiple-pass systems cooling tower.

#### CAFETERIA

Turn off the continuous waterflow used to clean the drain trays.

Turn dishwasher off when not in use. Wash full loads only. Replace spray heads in dishwasher to reduce water flow.

Use water from steam tables to wash down cooking area.



Do not use running water to melt ice or frozen foods.

Use water efficient icemakers.

Recycle water consistent with state and county requirements.

Recycle rinse water from the dishwasher or recirculate it to the garbage disposal.

Presoak utensils and dishes in ponded water instead of rinsing them in running water.

Use connectionless food steamers.

#### EXTERIO

Convert from high water-using lawns, trees, and shrubs to water efficient landscapes, incorporating plants that provide beautiful color and require less water. Design landscapes that require less water.

Inventory outdoor water use for landscaped areas.

Use turf only where necessary (lunch and play areas).

Water landscape only when needed; two to three times a week is usually sufficient.

In winter, water only during prolonged hot and dry periods. (During spring and fall, most plants need about half the water needed in summer.)

# **COMMERCIAL BUILDINGS**

Use a broom to clean sidewalks and driveways instead of hosing them down.

Avoid excessive fertilizing and pruning that stimulates excessive growth.

Remove weeds and unhealthy plants so remaining plants can benefit from the water saved.

In many cases, older, established plants require only infrequent watering. Look for indications of water-need such as wilt, change of color, or dry soils.

Install soil moisture overrides or timers on sprinklers.

Time watering for morning or evening when evaporation is lowest. Do not water on windy days.

Make sure irrigation equipment applies water uniformly.

Investigate the advantages of installing drip irrigation.

Mulch around plants to reduce evaporation and discourage weeds.

Remove thatch and aerate turf to encourage movement of water to the root zone.

Avoid runoff. Set sprinklers to cover only the lawn or garden, not sidewalks, driveways, or gutters.

Plant native plant species. They are accustomed to local weather.

Adopt the state's model landscape ordinance or local landscape ordinance.

Ask your water agency about water efficient landscape design and potential rebate programs.

#### FOR FURTHER INFORMATION

And to request this brochure in an alternate format, contact: **California Department of Water Resources** Office of Water Use Efficiency 901 P Street, Third Floor P.O. Box 942836 Sacramento, California 94236-0001 seching@water.ca.gov (916) 651-9667



# **PARKS & COMMERCIAL LANDSCAPES**

# WATER USE EFFICIENCY IDEAS





#### GENERAL SUGGESTIONS

Increase employee awareness of water use efficiency.

Install signs encouraging water conservation in employee and customer restrooms.

When cleaning with water is necessary, use budgeted amounts.

Install sub-meters and read water meters weekly to monitor success of water use efficiency efforts and to help detect leaks.

Assign an employee to monitor water use and waste.

Seek employee suggestions on water use efficiency; locate suggestion boxes in prominent areas.

Determine the quantity and purpose of water being used.

#### SURVEY THE FACILITY

Identify water source points.

Develop a schematic of all water entry points. Know where your faucets, time clocks, solenoids, booster pumps, sprinklers and bubblers are located.

Determine specific use for each entry source.

Identify capacity of each water-carrying unit and frequency of use.

#### DESIGN CRITERIA

Contact the Department of Water Resources or your local water supplier about possible landscape water auditor classes for your golf course managers.

Hire a golf course or landscape architect with water use efficiency experience.

Use turf only in immediate picnic areas, outside lunch areas and golf course target areas (greens, tees, landing areas). Limit or exclude turf from roughs.

Mow turf at higher mower settings.

Use native, drought-tolerant plants in nonturf areas.

Design dual watering systems with sprinklers for turf and low-volume irrigation for flowers, trees, and shrubs.

Use automatic irrigation systems. Water only during the late afternoon, night, and early mornings to minimize evaporation.

Use evapotranspiration-based water budgeting, adjusted monthly. Amount of irrigation can be determined by the evapotranspiration rate available online at: www.cimis.water.ca.gov.

#### MAINTENANCE

Sweep materials from floor instead of washing down whenever possible. Discontinue using water to clean sidewalks, tennis courts, pool decks, driveways, and parking lots.

Instruct clean-up crews to use less water where appropriate.

Check water supply system for leaks.

Repair dripping faucets and running or leaking toilets.

Avoid runoff.

If necessary, use multiple stop/start irrigation setting to allow sufficient soak-in time.

Inspect irrigation system regularly for leaks, broken pipes and heads, and needed adjustments—once a week in traffic areas, once a month in nontraffic areas. Repair and adjust within 24 hours with the correct parts.

Keep sprinkler heads vertical and at the correct height for good coverage and keep the spray pattern uniform.

Use a soil probe to check moisture level.

Use properly treated recycled water for irrigation where available.

Mulch around trees and shrubs.

**PARKS & COMMERCIAL LANDSCAPES** 

#### INTERIOR

Use ponded water instead of running water.

Adjust water flows to reduce discharge.

Install water-saving devices such as ultra-low-flush toilets and faucet aerators.

Use recycling systems for chillers and cooling towers.

Install energy and water efficient air conditioning equipment.

Conservation suggestions for clubhouse areas are contained in the *Restaurants* and *Hotels and Motels* checklists.

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