

COLORADO RIVER BOARD OF CALIFORNIA

770 FAIRMONT AVENUE, SUITE 100
GLENDALE, CA 91203-1068
(818) 500-1625
(818) 543-4685 FAX



January 29, 2015

**NOTICE OF REGULAR MEETING OF THE
COLORADO RIVER BOARD**

NOTICE IS HEREBY GIVEN pursuant to the call of the Chairperson, Dana B. Fisher, Jr., by the undersigned Executive Director of the Colorado River Board of California that a regular meeting of the Board Members is to be held as follows:

Date: Wednesday, February 11, 2015
Time: 10:00 a.m.
Place: Vineyard Room Holiday Inn Ontario Airport 2155 East Convention Center Way Ontario, CA 91764-4452 Tel: (909) 212-8000; FAX: (909) 418-6703

The Colorado River Board of California welcomes any comments from members of the public pertaining to items included on this agenda and related topics. Oral comments can be provided at the beginning of each Board meeting and written comments may be sent to Mr. Dana B. Fisher, Jr., Chairperson, Colorado River Board of California, 770 Fairmont Avenue, Suite 100, Glendale, California, 91203-1068.

An Executive Session may be held in accordance with provisions of Article 9 (commencing with Section 11120) of Chapter 1 of Part 1 of Division 3 of Title 2 of the Government Code and in accordance with Sections 12516 and 12519 of the Water Code to discuss matters concerning interstate claims to the use of Colorado River System waters in judicial proceedings, administrative proceedings, and/or negotiations with representatives from other states or the federal government.

Requests for additional information may be directed to: Ms. Tanya M. Trujillo, Executive Director, Colorado River Board of California, 770 Fairmont Avenue, Suite 100, Glendale, CA 91203-1068, or 818-500-1625. A copy of this Notice and Agenda may be found on the Colorado River Board's web page at www.crb.ca.gov.

A copy of the meeting agenda, showing the matters to be considered and transacted, is attached.

Tanya M. Trujillo
Executive Director

attachment: Agenda

Regular Meeting
COLORADO RIVER BOARD OF CALIFORNIA
Wednesday, February 11, 2015
10:00 a.m.

Vineyard Room
Holiday Inn Ontario Airport
2155 East Convention Center Way
Ontario, CA 91764-4452

AGENDA

At the discretion of the Board, all items appearing on this agenda, whether or not expressly listed for action, may be deliberated upon and may be subject to action by the Board. Items may not necessarily be taken up in the order shown.

1. Call to Order
2. Opportunity for the Public to Address the Board (Limited to 5 minutes)
As required by Government Code, Section 54954.3(a)
3. Administration
 - a. Consideration and Approval of the Minutes of the Meeting held January 14, 2015
(Action)
 - b. Consideration of application for allocation from the Colorado Water Supply Project **(Action)**
4. Presentation by Don Ostler, Executive Director of the Upper Colorado River Commission
5. Presentation regarding the Wyoming Weather Modification Pilot Program
6. Colorado River Basin Water Reports
 - a. Reports on current reservoir storage, reservoir releases, projected water use, and forecasted river flows
 - b. State and Local Water Reports
7. Staff Reports regarding Colorado River Basin Programs
 - a. Review status of the Basin States Drought Contingency Programs
 - b. Review status of the Colorado River Basin Water Supply and Demand Study
 - c. Review status of the implementation of Minute 319
 - d. Review status of the Salinity Control Forum, Workgroup, and Advisory Council
 - e. Review status of the Glen Canyon Dam Adaptive Management Work Group and Long-Term Experimental Management Plan EIS
 - f. Review status of the Lower Colorado River Multi-Species Conservation Program

8. Announcements/Notices

9. Executive Session

An Executive Session may be held by the Board pursuant to provisions of Article 9 (commencing with Section 11120) of Chapter 1 of Part 1 of Division 3 of Title 2 of the Government Code and Sections 12516 and 12519 of the Water Code to discuss matters concerning interstate claims to the use of Colorado River system waters in judicial proceedings, administrative proceedings, and/or negotiations with representatives from other states or the federal government.

10. Other Business

a. Next Board Meeting: March 11, 2015
 Hosted by The Metropolitan Water District of Southern
 California
 Time and location to be determined later

Minutes of Meeting
COLORADO RIVER BOARD OF CALIFORNIA
Wednesday, January 14, 2015

A meeting of the Colorado River Board of California was held on Wednesday, January 14, 2015.

Board Members and Alternates Present

Dana Bart Fisher, Jr., Chairman
James Hanks
Henry Kuiper
Glen Peterson
David Pettijohn
John Powell Jr.

Jack Seiler
Michael Touhey
Doug Wilson
Jeanine Jones, Designee
Department of Water Resources

Board Members and Alternates Absent

Stephen Benson
Chris Hayes, Designee
Department of Fish and Wildlife
James McDaniel

David Vigil, Designee
Department of Fish & Wildlife

Others Present

Steve Abbott
Tim Blair
Brian Brady
Robert Cheng
Dan Denham
Bill Hasencamp
Christopher Harris
Tom Havens
Ned Hyduke
Joanna Hoff
Michael Hughes
Eric Katz
Kathy Kunysz
Lisa Johansen
Lori Jones
Tom Levy
Lindia Liu
Kara Mathews
Jan Matusak
Jessica Neuwerth

Thang (Vic) Nguyen
Autumn Plourd
Angela Rashid
Eric Ruckdaschel
Ed Smith
Mark Stuart
Mark Van Vlack
Jerry Zimmerman

CALL TO ORDER

Chairman Fisher announced the presence of a quorum and called the meeting to order at 10:08 A.M.

OPPORTUNITY FOR THE PUBLIC TO ADDRESS THE BOARD

Chairman Fisher asked if there was anyone in the audience who wished to address the Board on items on the agenda or matters related to the Board. Hearing none, Chairman Fisher moved to the next agenda item.

ADMINISTRATION

Board member Wilson introduced Brian Brady, an alternate representing the San Diego County Water Authority on the Colorado River Board. Mr. Wilson explained that the former alternate, Mr. Bud Pockington, has retired. Dr. Brady is the General Manager of the Fallbrook Public Utility District and is a representative on the County Water Authority. Chairman Fisher introduced Ned Hyduke as the new manager of the Palo Verde Irrigation District.

Approval of Minutes of the December 10, 2014 Colorado River Board Meeting

Chairman Fisher asked if there was a motion to approve the December 10, 2014 minutes. Ms. Jones moved that the minutes be approved, seconded by Mr. Pettijohn. By unanimous support, the December 10, 2014 meeting minutes were approved.

Resolution honoring Ed Smith

Executive Director Trujillo announced that the Colorado River Board has prepared a Resolution honoring the service of Ed Smith, manager at the Palo Verde Irrigation District (PVID). Ms. Trujillo stated that the Board is appreciative of Mr. Smith for his goodwill, good character and good sense of humor. The Resolution highlighted many of Mr. Smith's contributions, which included his work on the Multi-Species Conservation Program (MSCP). In addition, the Resolution noted Mr. Smith's involvement in the successful implementation of the Palo Verde and Metropolitan Water District Fallowing Agreement over the past ten years. Ms. Trujillo thanked Mr. Smith for his service and wished him well in retirement.

Mr. Wilson moved that the Resolution honoring Ed Smith be approved, seconded by Mr. Kuiper. By unanimous support, the Resolution honoring Ed Smith was approved.

Resolution honoring Larry Walkoviak

Chairman Fisher reported that the Colorado River Board has prepared a Resolution honoring the service of Larry Walkoviak, who recently retired as the Regional Director of the Upper Colorado Region. Chairman Fisher noted that Mr. Walkoviak was very helpful during the negotiations of the 2007 Guidelines among the states. Mr. Walkoviak retired about month ago due to health reasons and a farewell event is planned for him later this month in Salt Lake City.

Mr. Kuiper moved that the Resolution be approved, seconded by Mr. Wilson. By unanimous support, the Resolution honoring Larry Walkoviak was approved.

COLORADO RIVER BASIN WATER REPORTS

Colorado River Basin Water Report

Ms. Trujillo reported on the current reservoir capacities of Lake Powell and Lake Mead and stated that the total system content is at 50% as of January 4, 2015. Last year's total system was nearly the same at 49%. The water year 2015 precipitation to date is 92% of average and basin snowpack is 101% of average. The unregulated inflow into Lake Powell is about average. As of January 4, 2015, the reservoir capacity of Lake Powell was at 47% while the other Upper Basin reservoirs ranged from 64-95%.

Ms. Trujillo noted that the Colorado River Basin Forecast Center (CBRFC) map indicates a mix of snowpack distribution for the Water Year thus far. Another graph provided by CRBFC compares the Snow Water Equivalent for 2015 with 2014 and median and average values for the period between 1981 and 2010. The monthly precipitation map for November 2014 from the National Weather Service shows only a couple of basin locations in Colorado and Wyoming that received above average precipitation. In December 2014, the situation improved and even some areas in the Lower Basin received heavy rains.

The U.S. Drought Monitor map indicates that California is still experiencing widespread drought. The most severe drought category, however, has reduced to about 32%.

Ms. Trujillo anecdotally reported that some areas in New Mexico have temperatures in the single digits but there has not been heavy snowfall yet this year.

State Water Report

Mr. Stuart reported that the precipitation at the Los Angeles Civic Center for the period from October 1, 2014 to December 31, 2014 was about 4.6 inches, or at about average. Although about an inch fell over the weekend, the forecast for California looks weak for the rest of January 2015. Southern California was at about average while San Luis Obispo was below average.

The NOAA's precipitation map indicated that the upper Central Valley and northern and southern California areas are at about average, but the southern Sierra was below normal. For the northern Sierra precipitation 8-station index, the current daily precipitation as of January 5, 2015 is 22.8 inches or slightly above average.

The statewide summary of water-year data suggests that precipitation is about 70% of average, runoff at 50% of average, and reservoir storage at 55% of average. The snow water equivalent (SWE) as a percentage of the April 1 average is 20% for the northern Sierra and 15% for the southern Sierra; statewide the SWE is only 17%.

Mr. Stuart reported that with respect to the State Water Project (SWP) water storage, Lake Oroville is at about 1.35 million acre-feet (MAF) as of January 1, 2015 after picking up 440,000 AF in December 2014. San Luis storage added 233,000 AF to 543,000 AF. The total SWP storage is at 44% of capacity and the SWP allocation is at a meager 10%. Shasta reservoir also increased by about 800,000 AF to 42% of its capacity but is still far below its historical average. Many of the reservoirs including Lake Oroville, Trinity Lake, New Melones, and San Luis are considerably below their historical averages. Mr. Stuart then pointed to a graph of Oroville storage which showed the reservoir at about 3.5 MAF when full in recent years to low of about 900,000 AF in October 2014.

Chairman Fisher asked whether the water was captured by the reservoirs in the recent storms or released downstream. Ms. Jones replied that most of the water went downstream due to the current flood control storage mode and fish protection requirements. Ms. Jones explained that smelt seem to be attracted to turbidity and larger storms generate more turbidity. At times, pumping operations were reduced because smelt were getting too close to the pumps.

Local Reports

MWD's combined reservoir storage as of January 1, 2015 is at 49% of capacity. Mr. Peterson stated that Diamond Valley Lake is about half full. MWD continues to urge its customers to conserve.

Mr. Pettijohn reported that the water supply conditions for the eastern Sierra have not changed much from the previous month and the outlook is still weak. This situation is similar to last year when the lowest water delivery on record was recorded. If conditions don't change, there may not be much water delivered from the L.A. Aqueduct.

2015 CALIFORNIA DROUGHT UPDATE

Ms. Jones noted that we are halfway through what would be considered the wettest winter months. Although there were some good storms in December 2014, it has been rather dry since then. The Sierra snowpack is only between 30 and 50% of average

for this time of the year. The snowpack deficit is very concerning in terms of its ability to refill reservoirs later in the season.

Ms. Trujillo stated that the process for allocating funding that was approved in Proposition 1 is underway. Ms. Jones added that there was another update to the California Emergency Proclamation to extend expiring authorizations relative to certain exemptions for operations. Agencies are generally in a wait-and-see mode to see how the Water Year will develop.

LOWER COLORADO RIVER WATER ACCOUNTING

Ms. Trujillo announced that the U.S. Bureau of Reclamation (Reclamation) will be developing the Final Decree Accounting report. Based on published provisional data, California used 4.65 MAF in 2014 and is legally authorized to use the approved amount over its normal entitlement. Ms. Trujillo explained that MWD used 1.176 MAF in 2014 according to the January 2 accounting report. MWD withdrew 330,000 AF from its Intentionally Created Surplus (ICS) account, which was designed for use in times of need. It is anticipated that the Southern Nevada Water Authority will bank about 65,000 AF with MWD pursuant to the Storage Interstate Release Agreement (SIRA). These components provide MWD flexibility to use more Colorado River water in a year when the SWP allocation is not normal.

Ms. Trujillo stated that the Imperial Irrigation District (IID) appeared to be on target to create ICS in Calendar Year 2014. IID has repaid its overruns from prior years and now the account balance will be zero.

The total reported for Arizona was at 2.78 MAF and it appears that Arizona may request that unused water be stored in Lake Mead. Also, Nevada may have some unused water despite already banking some water with MWD. Mexico has also been receiving 1.5 MAFY as required by the treaty with the United States. Mexico has also been receiving excess water delivered as a result of system inefficiencies. The projection as of January indicates that excess deliveries were at 32,000 AF, which is lower than last year's reported 72,000 AF from the Final Decree Accounting Report. But the bypass flows (flows that cross the international border to help meet the salinity differential in Mexico) appear to be about 30,000 AF greater than what was delivered last year. Ms. Trujillo also noted there was a Pulse Flow released in 2014 that would be reflected in the Accounting Report. Reclamation will provide an opportunity to review a draft of the Lower Basin accounting report.

STAFF REPORTS REGARDING COLORADO RIVER BASIN PROGRAMS

Basin States Drought Contingency Program

Ms. Trujillo reported that the Memorandum of Understanding for the Basin States Drought Contingency effort was finalized in December 2014 during the CRWUA conference. One of the components involved implementing the Pilot System Water Conservation Program that was finalized in 2014. Reclamation has sought proposals for conservation in the Lower Basin. To date, there has not been any award of funding for projects.

The Upper Basin Commission passed a Resolution in December 2014 on the Drought Contingency effort and supported coordination with interested agencies on demand reduction projects for System Conservation. Other contingency planning efforts include continuation of weather modification programs which receive funding from the Six Agency Committee.

One key piece of the Upper Basin states' efforts is to maintain flexibility in operations of the reservoirs by moving water from some of the more full reservoirs downstream. Mr. Don Ostler, manager of the Upper Basin Commission, has been invited to speak at the February Colorado River Board meeting to provide more details on their drought contingency planning efforts.

Ms. Jones asked whether Wyoming has published any study results on its weather modification program. Mr. Harris replied that the Wyoming Water Development Commission has just released its preliminary findings that are contained in a Draft Executive Summary. Cost estimates reportedly ranged from \$40 to \$400/AF for water produced. Ms. Trujillo said that a presentation on the Wyoming weather modification program would be on the agenda for the next Board meeting.

Ms. Trujillo noted there has been a formal request by the Central Arizona Project (CAP) to review its proposal to create a new category of ICS. CAP currently does not have an ICS program. The CAP proposal was received in late December 2014 and is currently under review. CAP's plan is to bank water and reduce its Colorado River diversions. CAP plans to have its agricultural suppliers reduce their use by about 90,000 AF as part of a two-year program.

Mr. Peterson asked whether CAP is just banking its water entitlement and not fallowing land. Ms. Trujillo responded that CAP would be expected to meet the same standards that were applied to MWD and California water users, which included verification of reduced use.

Ms. Trujillo reminded Board members that Reclamation intends to coordinate with water users to create 50,000 AF through system efficiency improvements in the Yuma area. Jennifer McCloskey from Reclamation is expected to lead this effort.

Colorado River Basin Water Study and Demand Study

A Final draft of the Phase I Report has been completed and is undergoing review by the Department of the Interior in Washington, D.C. The report is expected to be released in February 2015. The next phase may be to implement pilot projects in the municipal and agricultural sectors.

Implementation of Minute 319

Ms. Trujillo noted that one of the highlights from the December 2014 CRWUA conference was to hear presentations from the Mexican delegation involved with Minute 319 implementation. Three different speakers committed to continued implementation of Minute 319 and showed an interest in negotiating a longer-term program. It is anticipated that we will learn more about this process from the engineer advisors from the International Boundary and Water Commission, its Mexican counterpart CILA, and Reclamation. Ms. Jennifer McCloskey is the designated engineering advisor and will be meeting with Basin State's representatives in February 2015 to plan a strategy for the next round of negotiations with Mexico.

Ms. Trujillo noted that we are two years into the 5-year period of Minute 319. The Pulse Flow was an accomplishment last year and it is hoped that more projects would be implemented this year.

Salinity Control Forum, Workgroup, and Advisory Council

Ms. Trujillo reported that California will host the next Salinity Control Workgroup meeting on February 17th through 19th at MWD's Diamond Valley Lake facilities. This will be an opportunity to highlight some of the water supply challenges that California is facing for the representatives from the Upper Basin, Arizona, and Nevada, and to show the importance of salinity control efforts for California's water users. The Salinity Control Forum is scheduled to meet in Salt Lake City, Utah in May. Ms. Trujillo reminded the Board of the detailed presentation by Mr. Don Barnett at December's meeting regarding the Paradox Valley Unit and the on-going EIS process. Reclamation reported earlier in the week that it is making progress with its review boards in evaluating locations for a potential second well.

Glen Canyon Dam Adaptive Management Work Group

Ms. Trujillo reported that Ms. Jennifer Gimbel, currently the Acting Assistant Secretary for Water and Science, had been selected as the Secretary's Designee for the Glen Canyon Dam Adaptive Management Work Group (AMWG) following the retirement of Anne Castle. The group's Technical Workgroup will meet on January 20th and 21st in Phoenix to review the past year's research efforts. In February, the AMWG will meet in Salt Lake City and hold a workshop evaluating the high flow experiments that have been occurring in the Grand Canyon.

Long-Term Experimental Management Plan EIS

The process for the Long-Term Experimental and Management Plan EIS is ongoing, with a draft EIS and a Preferred Alternative expected within the next several months and a Biological Opinion from the U.S. Fish and Wildlife Service expected later this summer.

Lower Colorado River Multi-Species Conservation Program

Ms. Trujillo noted that the Lower Colorado River Multi-Species Conservation Program (MSCP) is planning for its 10-year anniversary tour in April 2015 and that Deputy Director Christopher Harris has been coordinating with Reclamation staff on tour details. It is anticipated that the Secretary of the Interior will be attending. The MSCP is also planning a work group call on February 25th.

Announcements/Notices

Ms. Trujillo reported that Mr. Estevan Lopez was formally confirmed by the Senate as the Commissioner for the Bureau of Reclamation, and was sworn in by the former Commissioner, now Deputy Secretary of the Interior Mike Conner. Mr. Lopez is recused from working on certain Colorado River issues for one year. Chairman Fisher added that is great to have both Ms. Jennifer Gimbel who used to represent Colorado, and Mr. Lopez who once represented the Interstate Stream Commission in New Mexico, working for the federal government.

Ms. Trujillo reported that Congress has passed its appropriations bill for the 2015 budget which included \$50 million in new spending for drought. Reclamation is undergoing a process to decide how to allocate those funds. Ms. Trujillo suggested that the Basin States could strategize on how best to use the funds such as implementing more system conservation projects or bolstering efforts to increase reservoir levels within the Colorado River basin.

Ms. Trujillo noted that Congress has started a new year and Senator Murkowski from Alaska is now chairing the Energy and Natural Resources Committee. Senator Murkowski was formerly the minority leader on the Committee and is very familiar with western water issues.

Ms. Trujillo reminded the Board that the State of California and the Department of the Interior have jointly issued the Draft Desert Renewable Energy Conservation Plan, which has been out for review for several months. The comment period has been extended to February 23, 2015. Ms. Trujillo added that the staff of the Colorado River Board is in the process of drafting a comment letter. Ms. Trujillo explained that the report designated zones in the desert that would be appropriate for renewable energy development. Ms. Trujillo stated that the review will focus on water impacts associated with potential projects, particularly water used for solar power development. The

technology used in these development projects will have a huge impact on water requirements.

Ms. Trujillo reported that Senator Boxer has re-introduced a bill entitled “Water in the 21st Century”.

The State of California’s budget has been released, with the drought figured as a prominent item. Ms. Jones added that funding for the State’s drought will depend on how the Water Year will develop.

Ms. Trujillo stated that the date of the 2015 CRWUA conference has moved to a week later in December. Accordingly, the date of the Board meeting has been moved to December 16, 2015 to coincide with the CRWUA conference.

Adjournment

With no further items to be brought before the Board, Chairman Fisher asked for a motion to adjourn the meeting. Upon the motion of Mr. Peterson seconded by Mr. Kuiper, and unanimously carried, the meeting was adjourned at 11:05 a.m. on January 14, 2015.

RESOLUTION
 of the
COLORADO RIVER BOARD OF CALIFORNIA
 Regarding
 Potential Applicant to Receive
 Lower Colorado Water Supply Project Water
 2015-1

WHEREAS, the United States Congress, on November 14, 1986, enacted the Lower Colorado Water Supply Act (P.L.99-655) (amended through P.L. 109-103), to authorize the construction and operation of the Lower Colorado River Water Supply Project (Project) to provide a limited amount of Colorado River water to be made available on an exchange basis to entities in California, whose lands are located adjacent to the Colorado River, and who either do not have any, or do not have a sufficient, contractual entitlement to use Colorado River water; and

WHEREAS, the City of Needles has agreed to assume the administrative responsibility for Project beneficiaries in San Bernardino County, Riverside and Imperial Counties; and

WHEREAS, the Colorado River Board provides recommendations to Reclamation regarding the eligibility of non-federal applicants to receive Project water; and

WHEREAS, the Colorado River Board on September 14, 2001, notified owners of property within the Colorado River flood plain and/or the accounting surface as delineated by the U.S. Geological Survey in California of the availability of Project water; and

WHEREAS, the staff of the Colorado River Board on February 11, 2015, submitted the eligible applicant to the Board for its recommendations;

NOW, THEREFORE, BE IT RESOLVED THAT the Colorado River Board hereby recommends subcontracts for Project water be offered to the applicant listed on the attachment and directs the Executive Director to forward the application to Reclamation with its recommendation with the following provisos:

- (1) The applicant appears to be eligible to receive Project water, as shown in the attached table and summarized below:

County	Numbers of Parcels	Current Use (AF/YR)	Future Use (AF/YR)	Total Use (AF/YR)
San Bernardino	4	4	N/A	4
Total	4	4	N/A	4

- (2) At the time a subcontract is prepared, the annual quantity of water to be diverted, consumptively used, and returned will be refined to specify quantities of water to be reported in accordance with Article V in the Consolidated Decree in *Arizona v. California, et al.* entered March 27, 2006, (547 U.S. 150 (2006));
- (3) Reclamation should include provisions in the subcontract that the water to be put to reasonable beneficial use within a ten-year period of time, subject to renewal for another ten-year period.

THE FOREGOING RESOLUTION is approved and adopted by the Colorado River Board, this 11th day of February 2015.

Dana B. Fisher, Jr., Chairman

Governor Doug Ducey Announces Director of Arizona Department of Water Resources

January 26, 2015

PHOENIX - Governor Doug Ducey today announced the appointment of Thomas Buschatzke to the Arizona Department of Water Resources (ADWR).

Mr. Buschatzke has been assistant director for the department's Water Planning Division since 2011 overseeing Colorado River management, active management Areas, active management area planning and data management, assured and adequate water supply and recharge permitting, and statewide planning and tribal liaison functions. In this role, Mr. Buschatzke is responsible for planning and policy programs for the management of the state's water supplies. He also manages multiple regulatory and permitting programs and ADWR's water conservation and drought management efforts.

Mr. Buschatzke previously served as a water resources manager for the City Manager's Office in Phoenix (2002-11); a hydrologist in the civil division for the city of Phoenix law department (1988-2002); and a water resources supervisor for the Department of Water Resources (1982-1988).

He has served on University of Arizona's Water Resources Research Center External Advisory Committee and the Water Sustainability Program External Advisory Committee; the American Water Resources Association; the American Water Works Association; and the Colorado River Water Users Association.

Mr. Buschatzke received a Bachelor of Science in Geology from SUNY Cortland in 1977.

Feb 02, 2015

LOWER COLORADO WATER SUPPLY REPORT
 River Operations
 Bureau of Reclamation

Questions: BCOOWaterops@usbr.gov

(702) 293-8373

<http://www.usbr.gov/lc/region/g4000/weekly.pdf>

	PERCENT	Content 1000 ac-ft (kaf)	Elev. (Feet above mean sea level)	7-Day Release (CFS)
CURRENT STORAGE	FULL			
LAKE POWELL	46%	11,146	3593.56	13,400
* LAKE MEAD	41%	10,739	1088.63	17,800
LAKE MOHAVE	94%	1,697	642.94	10,600
LAKE HAVASU	94%	585	448.27	4,900
TOTAL SYSTEM CONTENTS **	49%	29,395		
As of 02/01/2015				
SYSTEM CONTENT LAST YEAR	49%	29,034		
* Percent based on capacity of 26,120 kaf or elevation 1219.6 feet.				
** TOTAL SYSTEM CONTENTS includes Upper & Lower Colorado River Reservoirs, less Lake Mead exclusive flood control space.				
Salt/Verde System	52%	1,180		
Painted Rock Dam	0%	0	530.00	0
Alamo Dam	5%	54	1088.93	10
Forecasted Water Use for Calendar Year 2015 (as of 02/02/2015) (values in kaf)				
NEVADA			290	
SOUTHERN NEVADA WATER SYSTEM				258
OTHERS				32
CALIFORNIA			4,345	
METROPOLITAN WATER DISTRICT OF CALIFORNIA				784
IRRIGATION DISTRICTS				3,422
OTHERS				139
ARIZONA			2,798	
CENTRAL ARIZONA PROJECT				1,558
OTHERS				1,241
TOTAL LOWER BASIN USE				7,433
DELIVERY TO MEXICO - 2015 (Mexico Scheduled Delivery + Preliminary Yearly Excess ¹)				1,528
OTHER SIGNIFICANT INFORMATION				
UNREGULATED INFLOW INTO LAKE POWELL - JANUARY MID-MONTH FORECAST DATED 01/16/2015				
		MILLION ACRE-FEET	% of Normal	
FORECASTED WATER YEAR 2015		9.758	90%	
FORECASTED APRIL-JULY 2015		6.200	87%	
DECEMBER OBSERVED INFLOW		0.409	113%	
JANUARY INFLOW FORECAST		0.340	94%	
		Upper Colorado Basin	Salt/Verde Basin	
WATER YEAR 2015 PRECIPITATION TO DATE		80% (9.5")	78% (8.3")	
CURRENT BASIN SNOWPACK		85% (8.3")	46% (2.2")	

¹ Delivery to Mexico forecasted yearly excess calculated using year-to-date observed and projected excess.

**U.S. BUREAU OF RECLAMATION
LOWER COLORADO REGION
CY 2015**

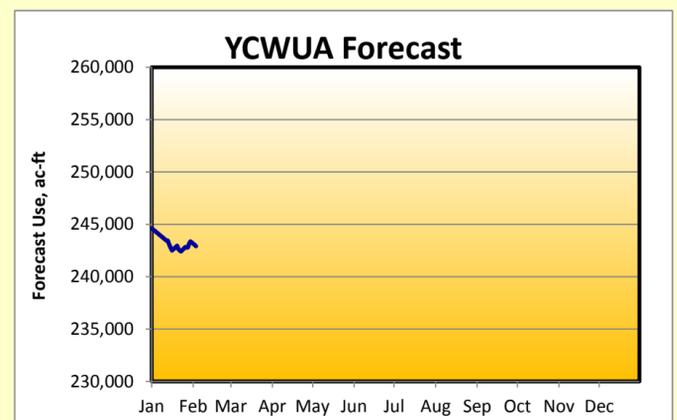
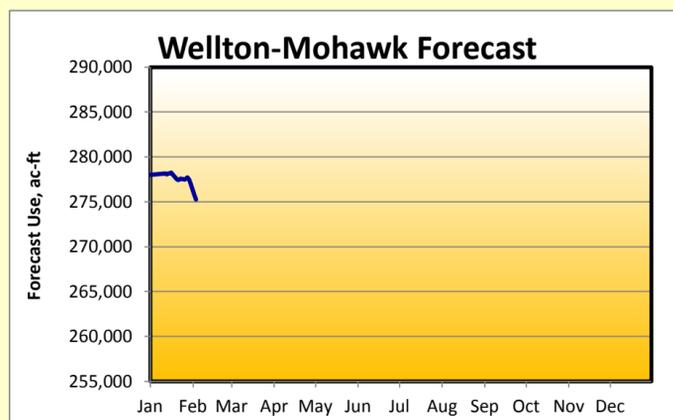
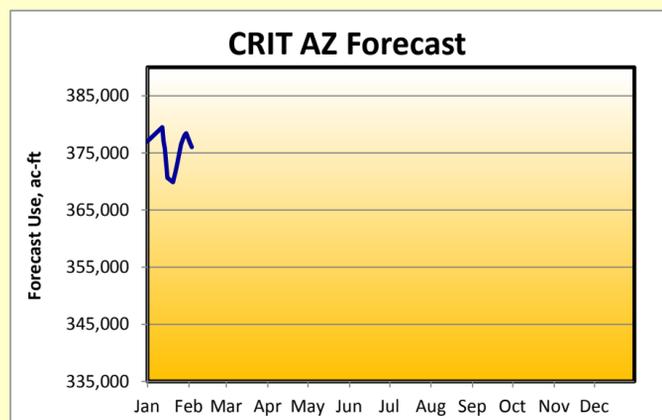
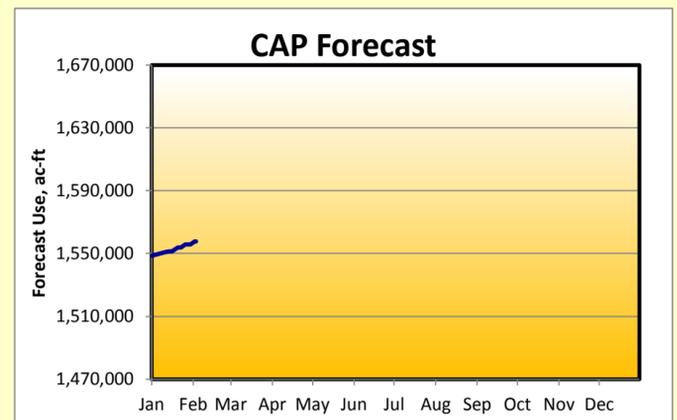
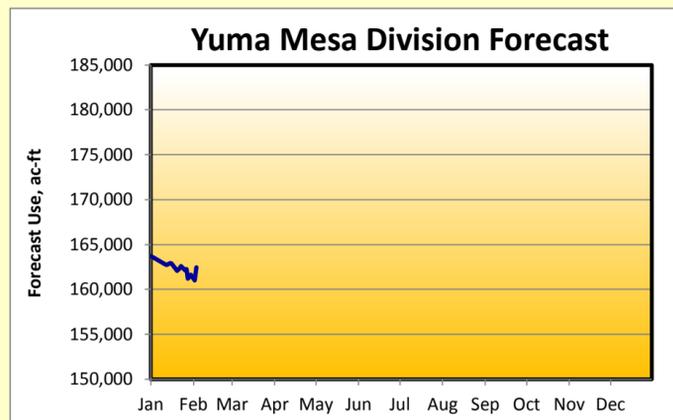
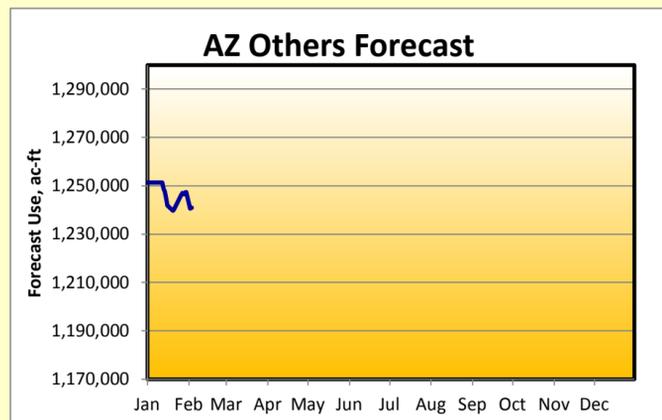
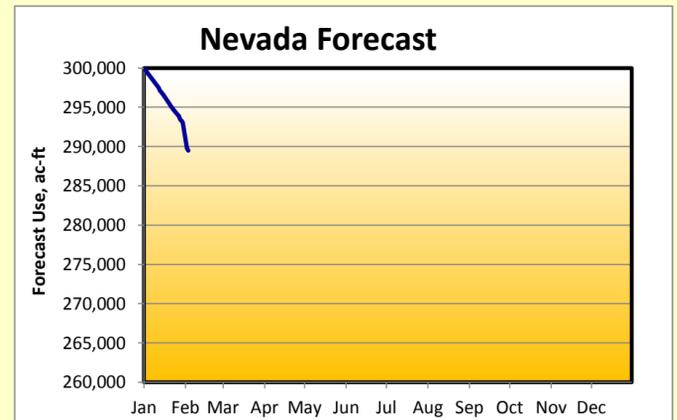
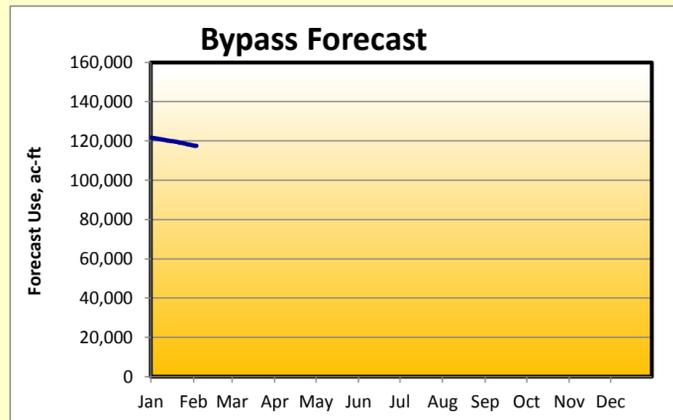
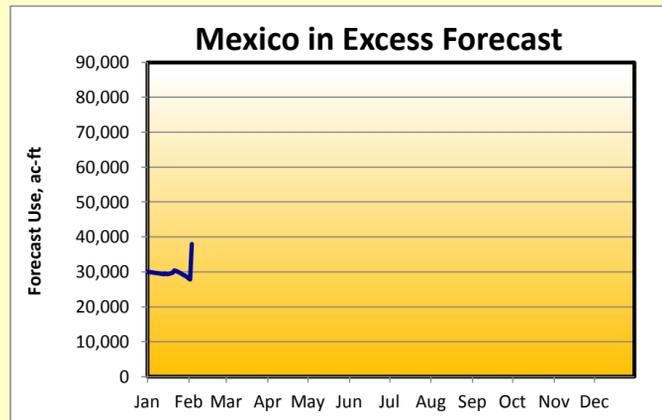
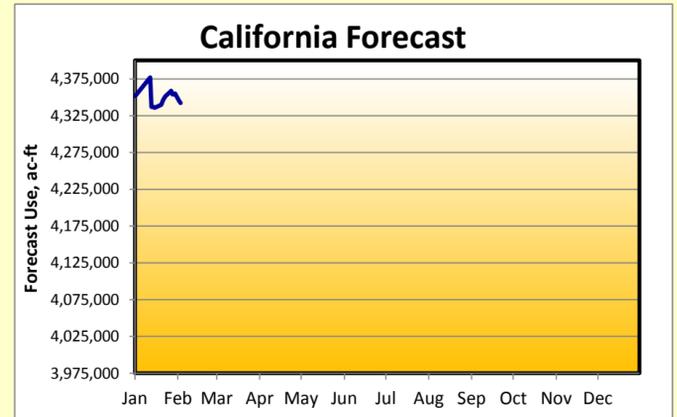
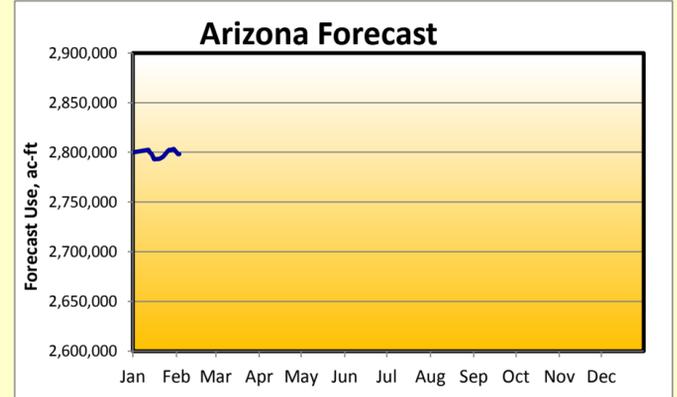
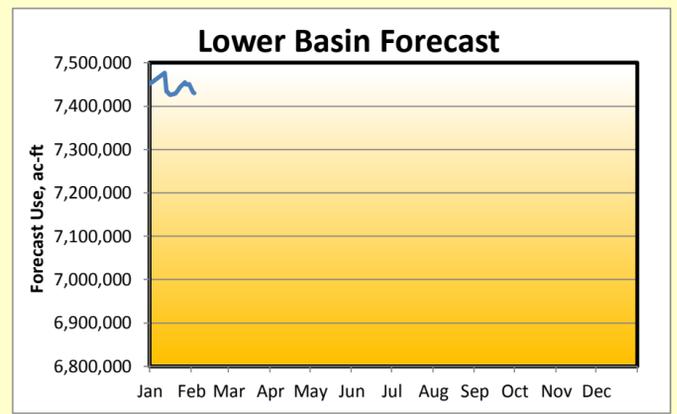
ARIZONA, CALIFORNIA, NEVADA, MEXICO
FORECAST OF END OF YEAR CONSUMPTIVE USE
FORECAST BASED ON USE TO DATE AND APPROVED ANNUAL WATER ORDERS¹
(ACRE-FEET)

WATER USE SUMMARY	Use To Date CY2015	Forecast Use CY2015	Approved Use² CY2015	Excess to Approval CY2015
ARIZONA	231,540	2,798,433	2,799,878	-1,445
CALIFORNIA	266,377	4,342,263	4,351,727	-9,464
NEVADA	6,076	289,461	300,000	-10,539
STATES TOTAL³	503,993	7,430,157	7,451,605	-21,448
MEXICO IN SATISFACTION OF TREATY (Including downward delivery) TO MEXICO AS SCHEDULED	156,919 146,325	1,537,915 1,500,000	1,500,000	37,915
MEXICO IN EXCESS OF TREATY BYPASS PURSUANT TO MINUTE 242	10,594 10,160	37,915 117,541		
TOTAL LOWER BASIN & MEXICO	671,072	9,085,613		

1/ Incorporates Jan-Jan USGS monthly data and 80 daily reporting stations which may be revised after provisional data reports are distributed by the USGS. Use to date estimated for users reporting monthly and annually.

2/ These values reflect adjusted apportionments. See Adjusted Apportionment calculation on each state page.

3/ Includes unmeasured returns based on estimated consumptive use/diversion ratios by user from studies provided by Arizona Department of Water Resources, Colorado River Board of California, and Reclamation.



Graph notes: Jan 1 forecast use is scheduled use in accordance with the Annual Operating Plan's state entitlements, available unused entitlements, and over-run paybacks. A downward sloping line indicates use at a lower rate than scheduled, upward sloping is above schedule, and a flat line indicates a use rate equal to schedule. Lower priority users such as CAP, MWD, and Robt.B.Griffith may adjust use rates to meet state entitlements as higher priority use deviates from schedule. Abrupt changes in the forecast use line may be due to a diversion schedule change or monthly updating of provisional realtime diversions.

**U.S. BUREAU OF RECLAMATION
LOWER COLORADO REGION
CY 2015**

NOTE:
 • Diversions and uses that are pending approval are noted in *red italics*.
 • Water users with a consumptive use entitlement - **Excess to Estimated Use** column indicates overrun/underrun of entitlement. Dash in this column indicates water user has a diversion entitlement.
 • Water user with a diversion entitlement - **Excess to Approved Diversion** column indicates overrun/underrun of entitlement. Dash in this column indicates water user has a consumptive use entitlement.

**CALIFORNIA WATER USERS
FORECAST OF END OF YEAR CONSUMPTIVE USE
FORECAST BASED ON USE TO DATE AND APPROVED ANNUAL WATER ORDERS**

[California Schedules and Approvals](#)
[Historic Use Records \(Water Accounting Reports\)](#)

WATER USER	Use	Forecast	Estimated	Excess to	Diversion	Forecast	Approved	Excess to
	To Date	Use	Use	Estimated	To Date	Diversion	Diversion	Approved
	CY2015	CY2015	CY2015	CY2015	CY2015	CY2015	CY2015	CY2015
CALIFORNIA PUMPERS	98	1,680	1,680	---	177	3,047	3,047	0
FORT MOJAVE INDIAN RESERVATION, CA	338	8,900	8,996	---	629	16,542	16,720	-178
CITY OF NEEDLES (includes LCWSP use)	112	1,931	1,931	0	158	2,720	2,720	0
METROPOLITAN WATER DISTRICT	109,712	786,786	768,208	---	109,989	789,858	771,299	---
COLORADO RIVER INDIAN RESERVATION, CA	189	3,246	3,246	---	313	5,378	5,378	0
PALO VERDE IRRIGATION DISTRICT	-13	425,167	431,782	---	34,802	936,298	946,750	-10,452
YUMA PROJECT RESERVATION DIVISION	2,138	48,588	48,586	---	4,227	102,906	104,200	-1,294
YUMA PROJECT RESERVATION DIVISION - INDIAN UNIT	---	---	---	---	2,021	49,721	50,200	-479
YUMA PROJECT RESERVATION DIVISION - BARD UNIT	---	---	---	---	2,206	53,185	54,000	-815
YUMA ISLAND PUMPERS	272	4,665	4,665	---	492	8,452	8,452	0
FORT YUMA INDIAN RESERVATION - RANCH 5	39	675	675	---	71	1,221	1,221	0
IMPERIAL IRRIGATION DISTRICT	119,692	2,580,747	2,602,481	-21,734	125,071	2,683,506	2,706,070	---
SALTON SEA SALINITY MANAGEMENT	13,921	121,636	121,636	0	14,373	130,684	126,826	---
COACHELLA VALLEY WATER DISTRICT	19,830	357,401	357,000	401	20,720	372,098	371,671	---
OTHER LCWSP CONTRACTORS	39	671	671	---	62	1,066	1,066	0
CITY OF WINTERHAVEN	4	68	68	---	6	103	103	0
CHEMEHUEVI INDIAN RESERVATION	6	102	102	---	661	11,340	11,340	0
TOTAL CALIFORNIA	266,377	4,342,263			311,751	5,065,219	5,076,863	

CALIFORNIA ADJUSTED APPORTIONMENT CALCULATION

California Basic Apportionment	4,400,000
Conservation for Salton Sea Restoration - 2010 ¹	-23,273
Creation of Extraordinary Conservation ICS (IID)	-25,000
Creation of Extraordinary Conservation ICS (MWD)	
Total State Adjusted Apportionment	4,351,727
Excess to Total State Adjusted Apportionment	-9,464

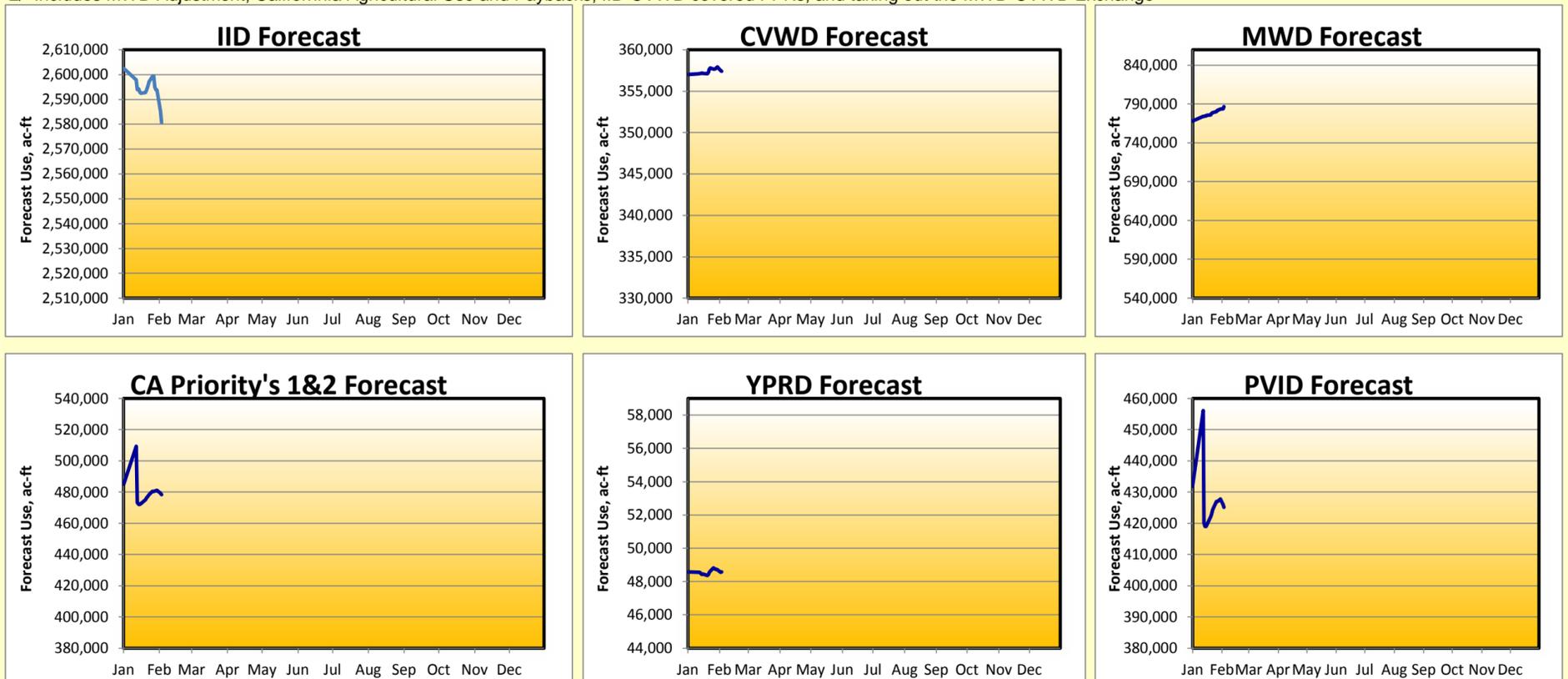
ISG ANNUAL TARGET COMPARISON CALCULATION

Priorities 1, 2, 3b Use (PVID+YPRD+Island+PVID Mesa)	478,420
MWD Adjustment	-58,420
Total California Agricultural Use (PVID+YPRD+Island+IID+CVWD)	3,416,568
California Agricultural Paybacks	23,273
Misc. PPRs Covered by IID and CVWD	14,500
California ICS Creation (IID ICS)	25,000
Total Use for Target Comparison ²	3,420,921
ISG Annual Target (Exhibit B)	3,448,000
Amount over/(under) ISG Annual Target	-27,079

NOTES: Click on California Schedules and Approvals above for incoming diversion schedules and approvals.

1/ Pending approval by Imperial Irrigation District's Board of Directors.

2/ Includes MWD Adjustment, California Agricultural Use and Paybacks, IID-CVWD covered PPRs, and taking out the MWD-CVWD Exchange



**U.S. BUREAU OF RECLAMATION
LOWER COLORADO REGION
CY 2015**

NOTE:
 ● Diversions and uses that are pending approval are noted in *red italics*.
 ● Water users with a consumptive use entitlement - **Excess to Estimated Use** column indicates overrun/underrun of entitlement. Dash in this column indicates water user has a diversion entitlement.
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ARIZONA WATER USERS
 FORECAST OF END OF YEAR CONSUMPTIVE USE
 FORECAST BASED ON USE TO DATE AND APPROVED ANNUAL WATER ORDERS
[Arizona Schedules and Approvals](#)
[Historic Use Records \(Water Accounting Reports\)](#)

<u>WATER USER</u>	<u>Use To Date CY2015</u>	<u>Forecast Use CY2015</u>	<u>Estimated Use CY2015</u>	<u>Excess to Estimated Use CY2015</u>	<u>Diversion To Date CY2015</u>	<u>Forecast Diversion CY2015</u>	<u>Approved Diversion CY2015</u>	<u>Excess to Approved Diversion CY2015</u>
ARIZONA PUMPERS	1,023	17,561	17,561	---	1,583	27,181	27,181	0
LAKE MEAD NRA, AZ - Diversions from Lake Mead	5	138	138	---	5	138	138	0
LAKE MEAD NRA, AZ - Diversions from Lake Mohave	13	165	165	---	13	165	165	0
DAVIS DAM PROJECT	0	2	2	---	4	75	75	0
BULLHEAD CITY	613	7,947	8,523	---	915	11,860	12,720	-860
MOHAVE WATER CONSERVATION	32	556	556	---	48	831	831	0
BROOKE WATER LLC	12	207	207	---	18	311	311	0
MOHAVE VALLEY IDD	1,596	20,761	22,260	---	2,955	38,444	41,220	-2,776
FORT MOJAVE INDIAN RESERVATION, AZ	1,057	41,904	42,390	---	1,957	77,600	78,500	-900
GOLDEN SHORES WATER CONSERVATION DISTRICT	18	316	316	---	28	473	473	0
HAVASU NATIONAL WILDLIFE REFUGE	40	3,524	3,563	---	335	41,234	41,820	-586
LAKE HAVASU CITY	627	8,339	8,928	---	1,011	13,450	14,400	-950
CENTRAL ARIZONA PROJECT	188,707	1,557,532	1,548,550	---	188,707	1,557,532	1,548,550	---
TOWN OF PARKER	14	339	352	---	60	864	920	-56
COLORADO RIVER INDIAN RESERVATION, AZ	10,523	375,982	376,964	---	29,159	664,201	662,402	1,799
EHRENBURG IMPROVEMENT ASSOCIATION	15	256	256	---	21	361	361	0
CIBOLA VALLEY IRRIGATION DISTRICT	987	16,951	16,951	---	1,381	23,707	23,707	0
CIBOLA NATIONAL WILDLIFE REFUGE	742	12,741	12,741	0	1,197	20,550	20,550	0
IMPERIAL NATIONAL WILDLIFE REFUGE	152	2,616	2,616	0	246	4,224	4,224	0
YUMA PROVING GROUND	27	525	550	---	27	525	550	-25
GILA MONSTER FARMS	131	5,080	5,244	---	240	8,853	9,156	-303
WELLTON-MOHAWK IDD	6,879	275,274	278,000	-2,726	17,546	419,570	424,350	---
CITY OF YUMA	555	16,313	17,051	-738	1,307	26,231	27,318	-1,087
MARINE CORPS AIR STATION YUMA	112	1,331	1,305	---	112	1,331	1,305	26
UNION PACIFIC RAILROAD	2	22	24	---	4	44	48	-4
UNIVERSITY OF ARIZONA	56	711	764	---	56	711	764	-53
YUMA UNION HIGH SCHOOL DISTRICT	5	188	193	---	7	246	253	-7
DESERT LAWN MEMORIAL	5	91	91	---	8	129	129	0
NORTH GILA VALLEY IDD	-125	9,547	10,099	---	1,934	40,655	41,000	-345
YUMA IRRIGATION DISTRICT	1,849	42,062	42,581	---	2,858	74,201	75,900	-1,699
YUMA MESA IDD	5,247	110,842	111,022	---	8,159	199,759	204,904	-5,145
UNIT "B" IRRIGATION DISTRICT	846	17,625	17,330	---	1,130	27,816	28,050	-234
FORT YUMA INDIAN RESERVATION	81	1,396	1,396	---	125	2,149	2,149	0
YUMA COUNTY WATER USERS' ASSOCIATION	9,353	242,919	244,599	---	22,085	387,442	388,000	-558
COCOPA INDIAN RESERVATION	334	6,554	6,457	---	337	9,816	9,840	-24
RECLAMATION-YUMA AREA OFFICE	7	116	116	---	7	116	116	0
RETURN FROM SOUTH GILA WELLS								
TOTAL ARIZONA	231,540	2,798,433	2,799,861		285,585	3,682,795	3,692,380	
CAP	188,707	1,557,532				1,557,532		
ALL OTHERS	42,833	1,240,901	1,251,311			2,125,263	2,143,830	
YUMA MESA DIVISION, GILA PROJECT	6,971	162,451	350,000	-187,549		314,615		

ARIZONA ADJUSTED APPORTIONMENT CALCULATION

Arizona Basic Apportionment	2,800,000
Payback of IOPP overruns - (Cocopah and Beattie)	-122
CAGR/YMIDD Pilot Conservation Program ¹	
Total State Adjusted Apportionment	2,799,878
Excess to Total State Adjusted Apportionment	-1,445
Estimated Allowable Use for CAP	1,559,395

1/ CAWCD has agreed to forebear 9,000 acre-feet during phase one of the study, during which time CAGR/D will refine the estimate of the actual conservation yield of the program.
 NOTES: Click on Arizona Schedules and Approvals above for incoming diversion schedules and approvals.

**U.S. BUREAU OF RECLAMATION
LOWER COLORADO REGION
CY 2015**

NOTE:

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NEVADA WATER USERS
FORECAST OF END OF YEAR CONSUMPTIVE USE
FORECAST BASED ON USE TO DATE AND APPROVED ANNUAL WATER ORDERS

[Nevada Schedules and Approvals](#)
[Historic Use Records \(Water Accounting Reports\)](#)

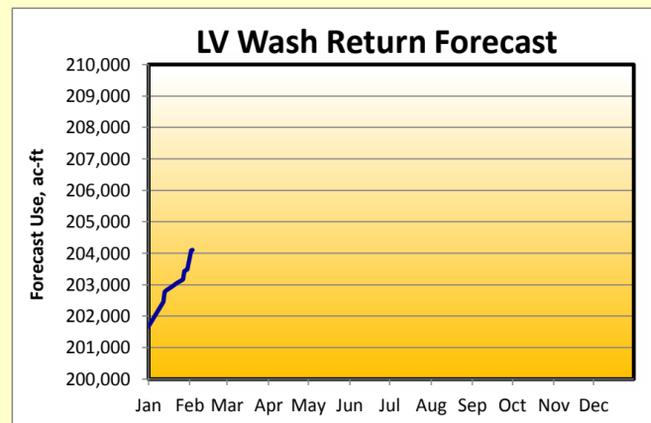
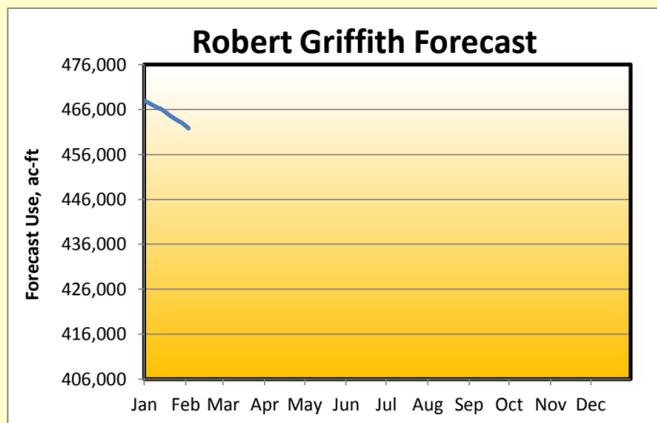
WATER USER	Use To Date CY2015	Forecast Use CY2015	Estimated Use CY2015	Excess to Estimated Use CY2015	Diversion To Date CY2015	Forecast Diversion CY2015	Approved Diversion CY2015	Excess to Approved Diversion CY2015
ROBERT B. GRIFFITH WATER PROJECT (SNWS)	25,041	461,750	467,935	-6,185	25,041	461,750	467,935	-6,185
LAKE MEAD NRA, NV - Diversions from Lake Mead	26	398	422	---	26	398	422	-24
LAKE MEAD NRA, NV - Diversions from Lake Mohave	12	155	166	---	12	155	166	-11
BASIC MANAGEMENT INC.	500	7,741	8,211	---	500	7,741	8,211	-470
CITY OF HENDERSON (BMI DELIVERY)	1,198	14,753	15,878	---	1,198	14,753	15,878	-1,125
NEVADA STATE DEPT. OF FISH & GAME	1	11	12	-1	27	338	363	---
PACIFIC COAST BUILDING PRODUCTS INC.	89	839	923	---	89	839	923	-84
BOULDER CANYON PROJECT	10	174	174	---	18	302	302	0
BIG BEND WATER DISTRICT	185	3,887	4,061	---	706	9,337	10,000	-663
FORT MOJAVE INDIAN TRIBE	121	3,854	3,886	---	181	5,752	5,800	-48
LAS VEGAS WASH RETURN FLOWS	-21,107	-204,101	-201,668	---				
TOTAL NEVADA	6,076	289,461	300,000	-6,186	27,798	501,365	510,000	-8,610
SOUTHERN NEVADA WATER SYSTEM (SNWS)	3,934	257,649				461,750		
ALL OTHERS	2,142	31,812				39,615		
NEVADA USES ABOVE HOOVER	5,770	281,720				486,276		
NEVADA USES BELOW HOOVER	306	7,741				15,089		

Tributary Conservation & Imported Intentionally Created Surplus

Total Requested Tributary Conservation Intentionally Created Surplus	37,000
Total Requested Imported Conservation Intentionally Created Surplus	9,000
5% System Cut for Creation of Intentionally Created Surplus	-2,300
Total Intentionally Created Surplus Left in Lake Mead	43,700

NEVADA ADJUSTED APPORTIONMENT CALCULATION

Nevada Basic Apportionment	300,000
Excess to Total State Adjusted Apportionment	-10,539



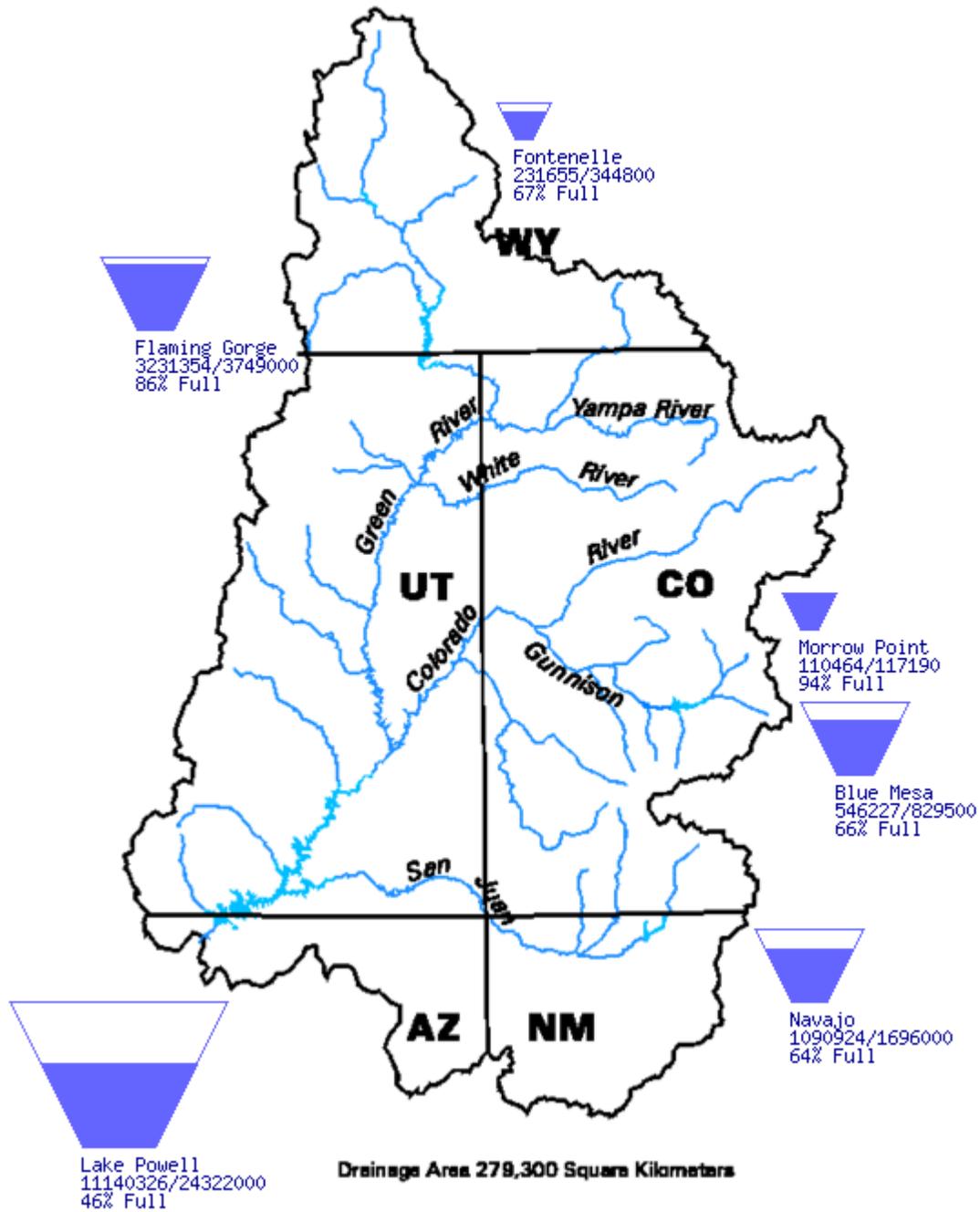
NOTES: Click on Nevada Schedules and Approvals above for incoming diversion schedules and approvals.

Upper Colorado Region Water Resources Group

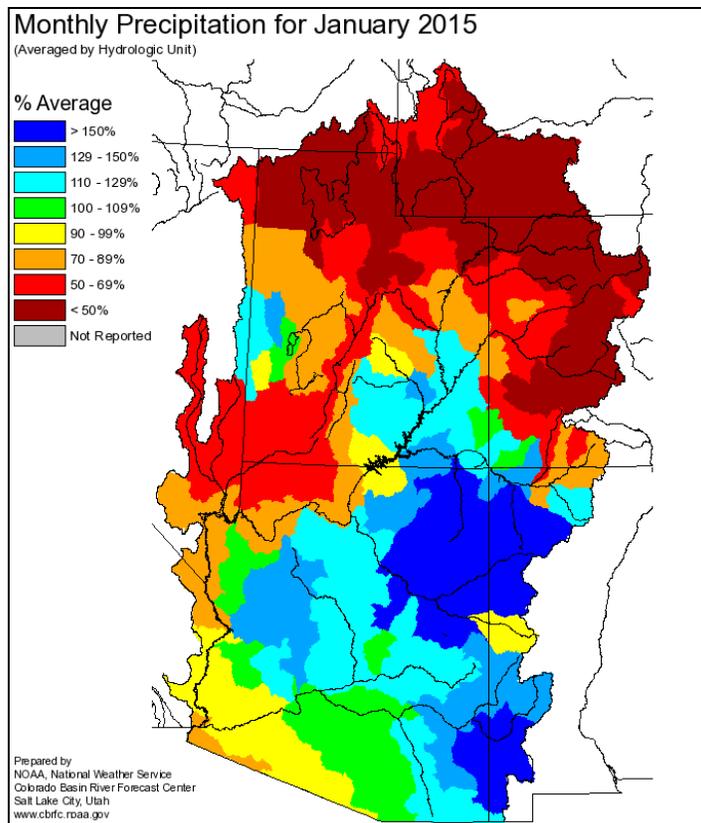
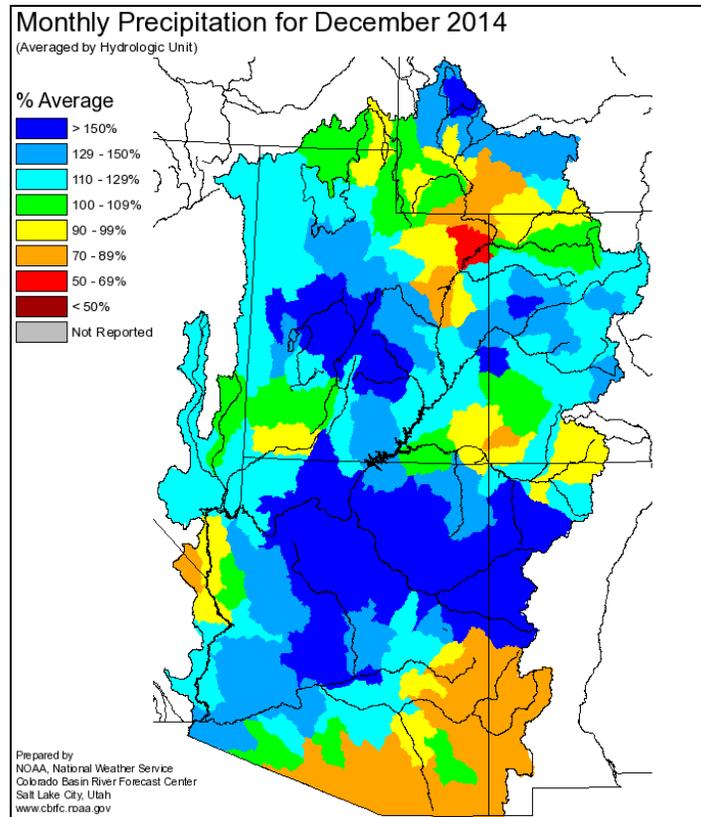
River Basin Tea-Cup Diagrams

Data Current as of:
02/02/2015

Upper Colorado River Drainage Basin



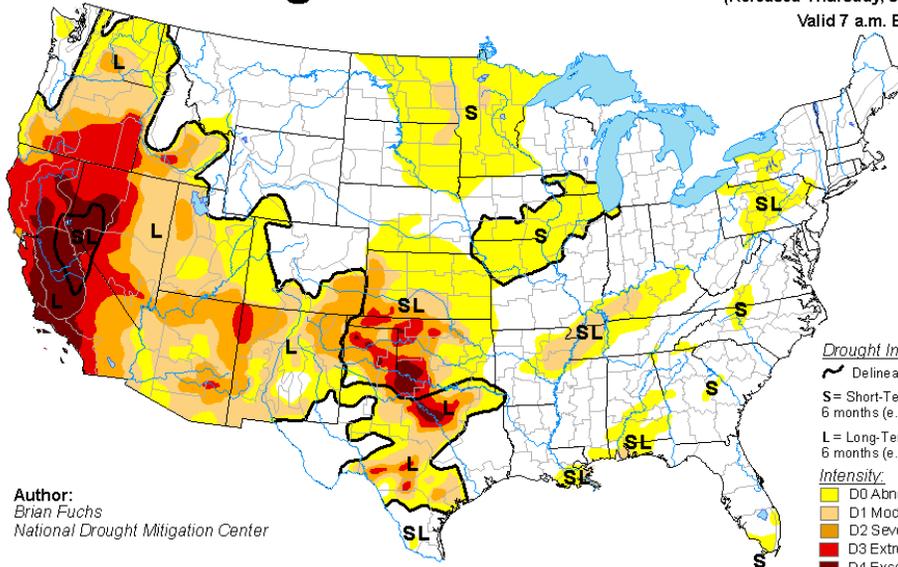
NOAA National Weather Service Monthly Precipitation Maps for December 2014 and January 2015



USDA United States Drought Monitor Map

U.S. Drought Monitor

January 27, 2015
 (Released Thursday, Jan. 29, 2015)
 Valid 7 a.m. EST

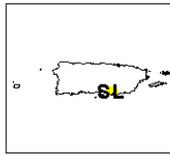
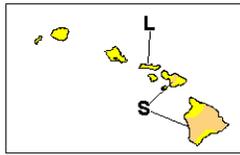
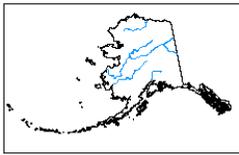


Author:
 Brian Fuchs
 National Drought Mitigation Center

Drought Impact Types:
 ~ Delineates dominant impacts
 S= Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
 L= Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:
 D0 Abnormally Dry
 D1 Moderate Drought
 D2 Severe Drought
 D3 Extreme Drought
 D4 Exceptional Drought

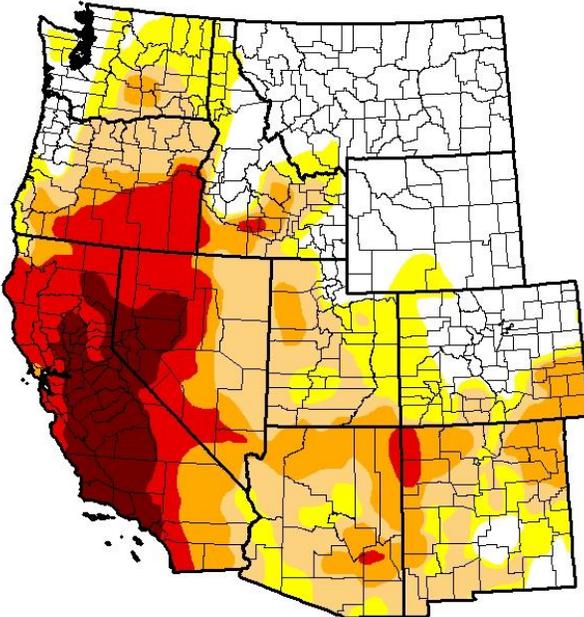
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor West

January 27, 2015
 (Released Thursday, Jan. 29, 2015)
 Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	31.10	68.90	53.77	33.36	18.72	6.96
Last Week 12/22/2014	35.52	64.48	53.09	33.62	18.52	6.35
3 Months Ago 10/29/2014	34.52	65.48	55.05	34.64	19.08	8.90
Start of Calendar Year 12/01/2014	34.76	65.24	54.48	33.50	18.68	5.40
Start of Water Year 8/30/2014	31.48	68.52	55.57	35.65	19.95	8.90
One Year Ago 12/8/2014	17.38	82.62	63.50	39.67	15.29	1.80

Intensity:
 D0 Abnormally Dry
 D1 Moderate Drought
 D2 Severe Drought
 D3 Extreme Drought
 D4 Exceptional Drought

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

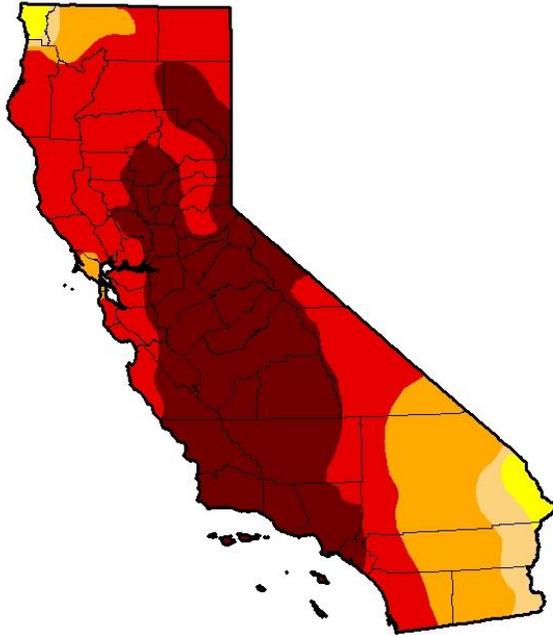
Author:
 Brian Fuchs
 National Drought Mitigation Center



<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor California

January 27, 2015
(Released Thursday, Jan. 29, 2015)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	98.13	94.34	77.52	39.99
Last Week <i>12/22/2014</i>	0.00	100.00	98.13	94.34	77.52	39.15
3 Months Ago <i>10/29/2014</i>	0.00	100.00	100.00	95.04	81.92	58.41
Start of Calendar Year <i>12/31/2014</i>	0.00	100.00	98.12	94.34	77.94	32.21
Start of Water Year <i>9/30/2014</i>	0.00	100.00	100.00	95.04	81.92	58.41
One Year Ago <i>1/28/2014</i>	1.43	98.57	94.18	89.91	67.13	8.77

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

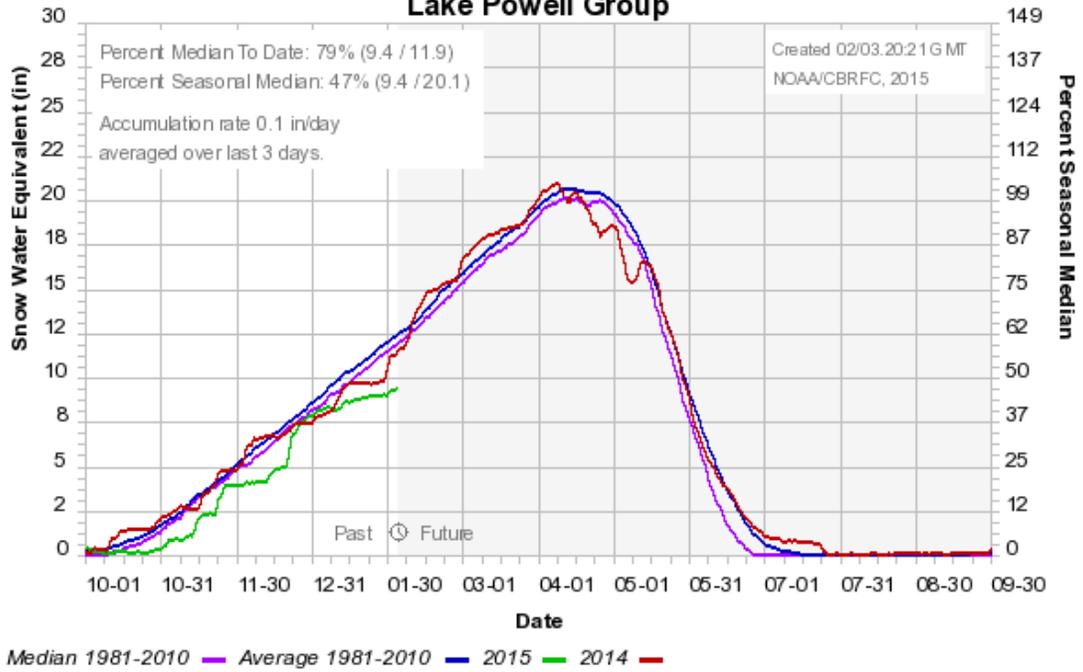
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

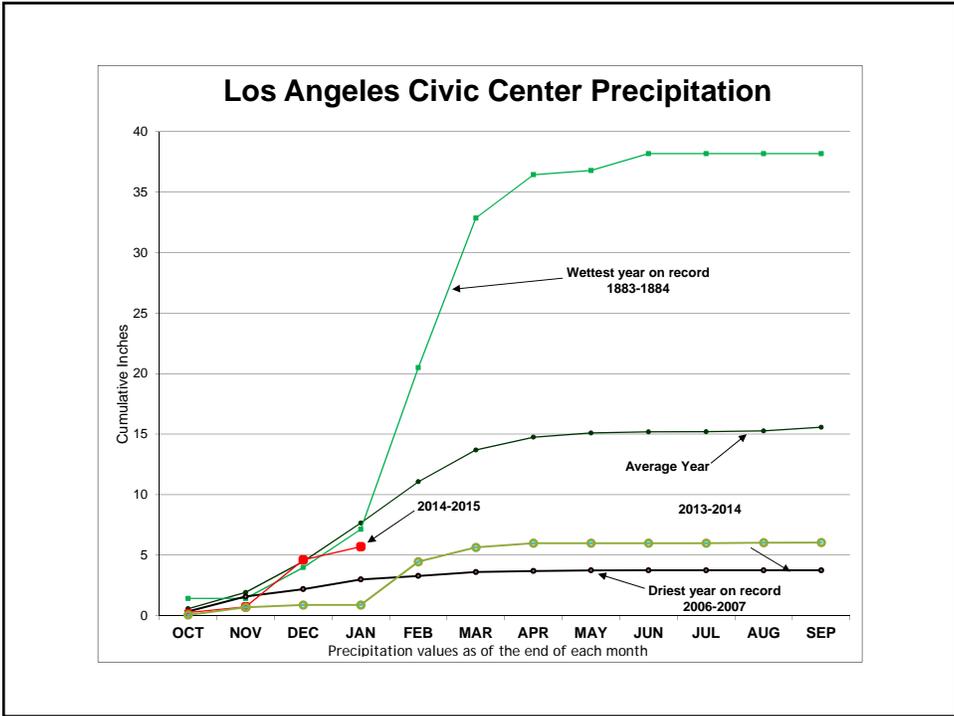
Author:
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National Drought Mitigation Center



<http://droughtmonitor.unl.edu/>

Colorado Basin River Forecast Center Lake Powell Group



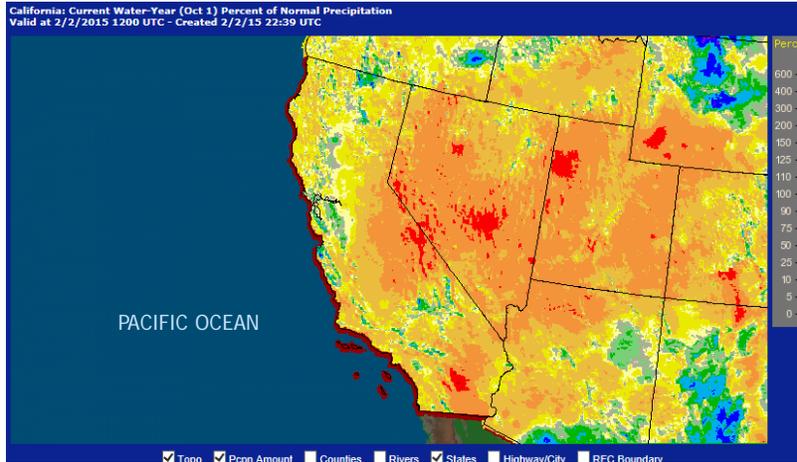


Precipitation at Six Major Stations in Southern California

From October 1, 2014 to January 31, 2015

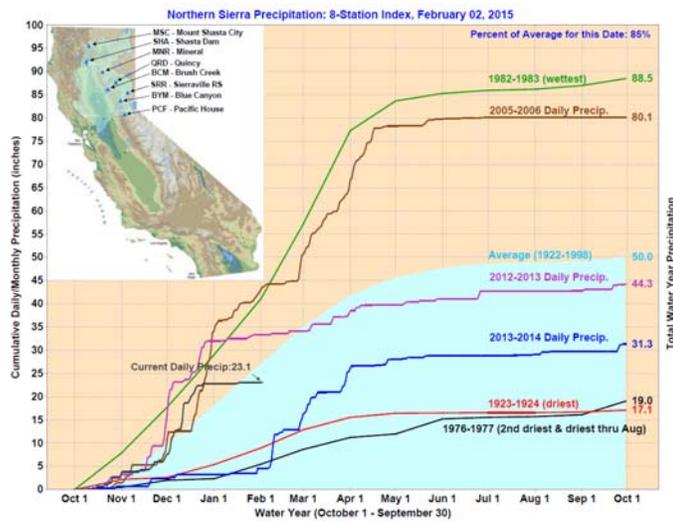
Station	Precipitation in inches		Average to Date	Percent of Average
	Jan	Oct 1 to Jan 31		
San Luis Obispo	0.07	4.23	12.04	35%
Santa Barbara	1.33	7.62	9.02	84%
Los Angeles	1.09	5.70	7.65	75%
San Diego	0.42	4.74	5.25	90%
Blythe	0.57	1.38	1.62	85%
Imperial	0.13	0.55	1.33	41%

Water Year 2014-2015: Percent of Normal Precipitation



National Weather Service –Advance Hydrologic Prediction Center
<http://water.weather.gov/precip/>

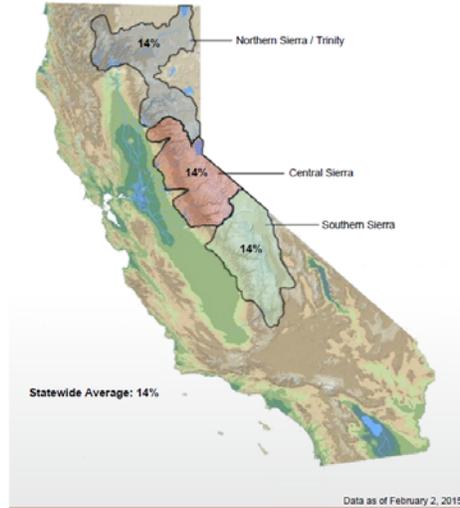
Northern Sierra Precipitation-8 Station Index



California Data Exchange Center
http://cdec.water.ca.gov/cgi-progs/products/PLOT_ESI.pdf

Snow Water Equivalent (inches)

Current Regional Snowpack from Automated Snow Sensors - % of April 1 Average



<http://cdec.water.ca.gov/cdecapp/snowapp/sweq.action>

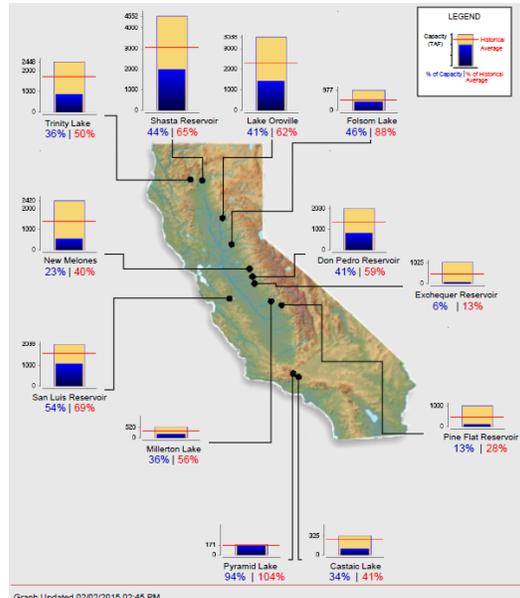
Comparison of SWP Water Storage

Reservoir	Capacity	2014 Storage (acre-feet)		2015 Storage (acre-feet)	
		As of February 1	% of Cap.	As of February 1	% of Cap.
Frenchman	55,475	27,378	49%	19,238	35%
Lake Davis	84,371	54,063	64%	44,899	53%
Antelope	22,564	17,540	78%	18,972	84%
Oroville	3,553,405	1,262,435	36%	1,445,225	41%
TOTAL North	3,715,815	1,361,416	37%	1,528,334	41%
Del Valle	39,914	29,671	74%	34,883	87%
San Luis (DWR)	1,062,180	280,662	26%	759,837	72%
Pyramid	169,901	168,023	99%	168,768	99%
Castaic	319,247	277,233	87%	111,636	35%
Silverwood	74,970	71,425	95%	71,083	95%
Perris	126,841	72,217	57%	46,545	37%
TOTAL South	1,793,053	899,231	50%	1,192,752	67%
TOTAL SWP	5,508,868	2,260,647	41%	2,721,086	49%

State Water Project Projected Deliveries:

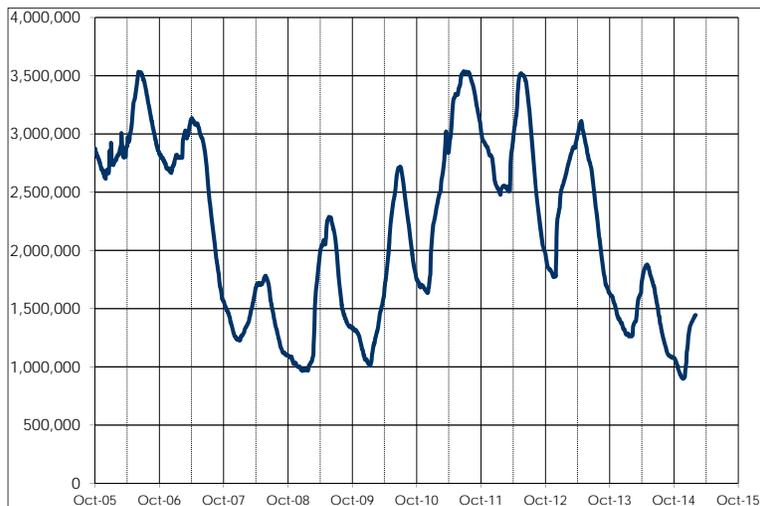
As of January 15, 2015, the Table-A allocations for 2015 is 15%

Current Reservoir Conditions

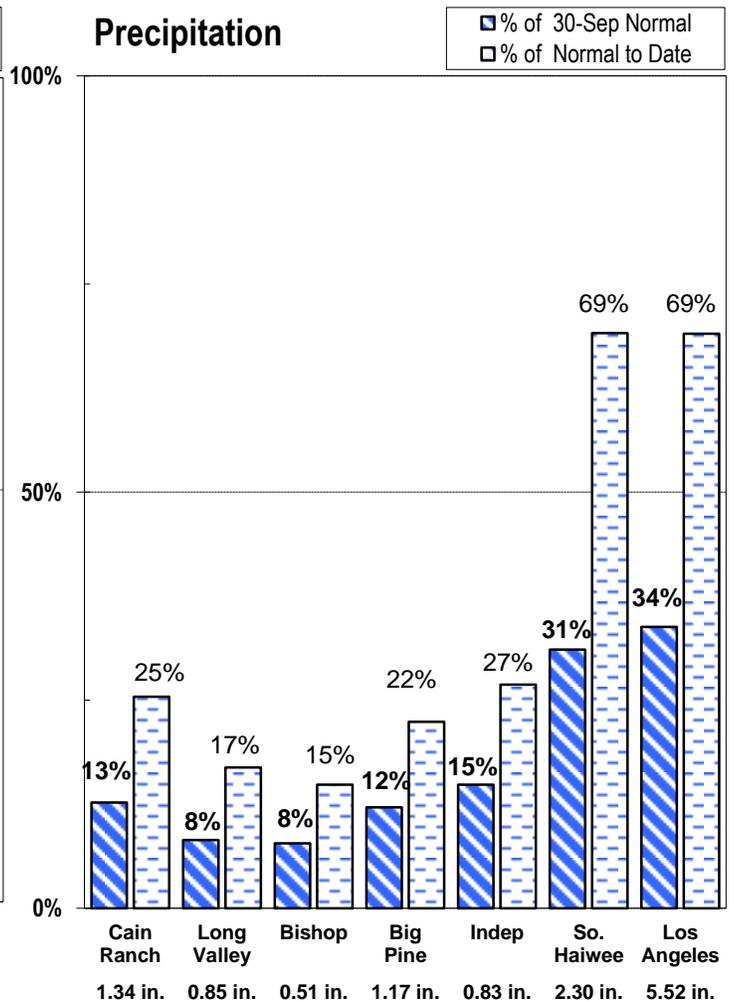
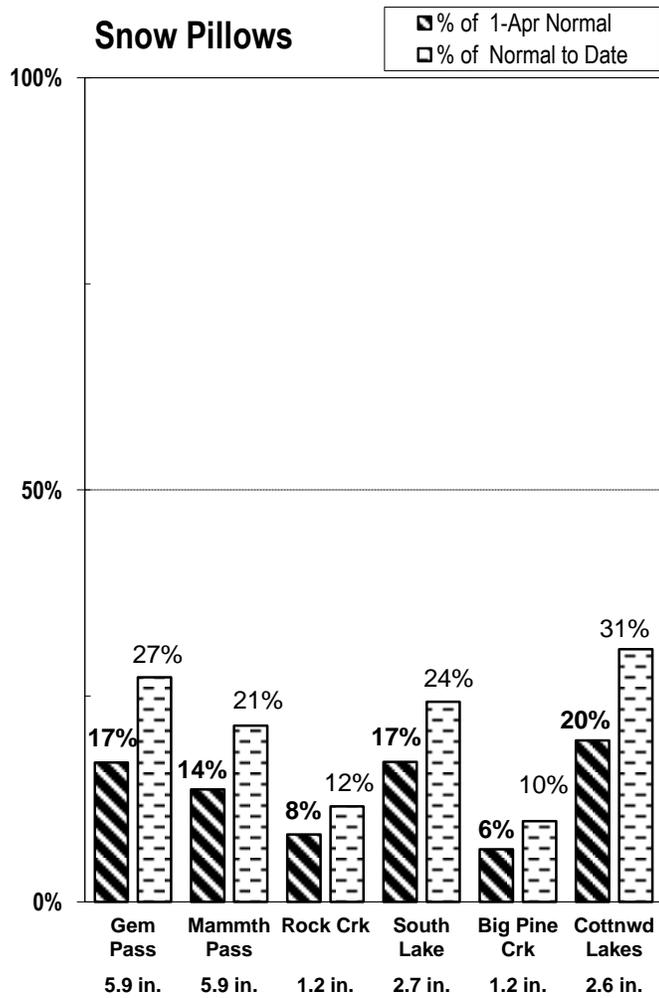
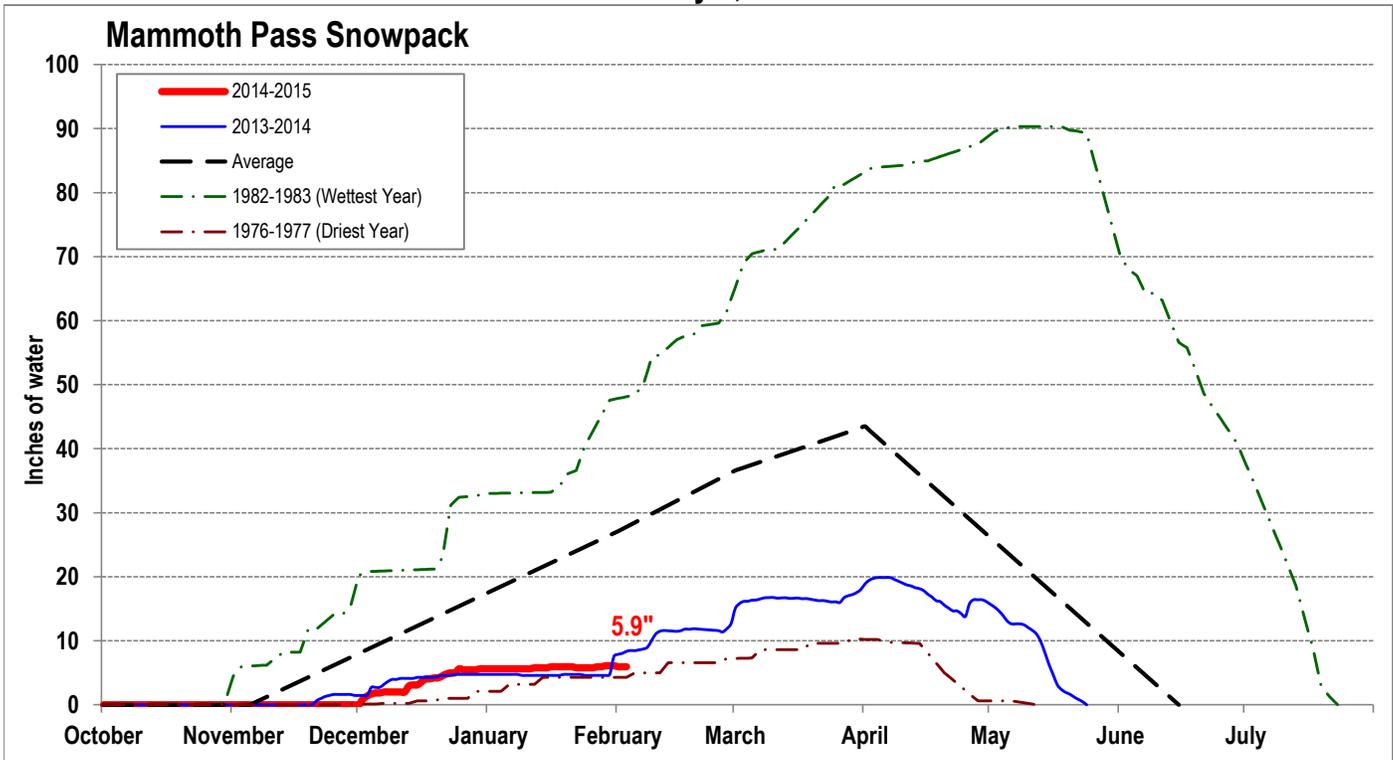


Oroville Storage (acre-feet)

October 1, 2005 - February 1, 2015



EASTERN SIERRA CURRENT PRECIPITATION CONDITIONS February 3, 2015



Measurement as Inches Water Content; Precipitation totals are cumulative for water year beginning Oct 1



Bi-Weekly Drought Brief Monday, February 2, 2015

CURRENT CONDITIONS

Recent Precipitation: This January finished as one of the driest Januaries on historical record, with very little meaningful precipitation throughout the state. In the last week, a system of subtropical moisture moved in to produce less than one-quarter inch of precipitation over the southern half of California.

Below are precipitation totals (in inches) from Monday, January 26 through Monday, February 2, and year-to-date rainfall based on the water year cycle (October 1, 2014 to September 30, 2015).

- | | |
|--------------------------------------|--|
| • Bakersfield: 0.05" (3.36") | • Pacific House: 0.00" (14.64") |
| • Folsom Dam: 0.00" (20.91") | • Redding: 0.00" (22.48") |
| • Fresno: 0.21" (3.40") | • Riverside: 0.38" (2.88") |
| • Hetch Hetchy: 0.14" (8.82") | • Sacramento: 0.01" (9.32") |
| • Los Angeles: 0.03" (5.71") | • San Diego: 0.06" (5.30") |
| • Modesto: 0.00" (7.40") | • Shasta Dam: 0.00" (35.32") |
| • Oroville: 0.00" (19.24") | • Willits: 0.00" (27.68") |

Precipitation Forecast: A light amount of precipitation is expected along the north coast and far northern California through Wednesday. A wet pattern is developing that may bring rain toward the end of the week to Northern California and southern Oregon.

Snow Survey: The most recent [snowpack survey](#), conducted on January 29, recorded California snowpack at 12% of normal. A more [recent update](#) using automated devices shows snowpack at 22% of normal as of February 2.

Reservoir Levels (% capacity): California reservoirs have had only minimal storage increases over the last two weeks, due to an absence of major storms that generate inflows. Any recent gains in storage at these reservoirs have been minor, and are mainly due to limited continued runoff from the storms in early December. As the dry weather continues, the reservoirs fall further behind of their annual averages of water supplies.

[Reservoir Levels](#) as of January 29 remain low, including: Don Pedro 41% of capacity (59% of year to date average); Exchequer 6% of capacity (13% of average); Folsom Lake 46% of capacity (89% of average); Lake Oroville 41% of capacity (62% of average); Millerton Lake 36% of capacity (56% of average); New Melones 23% of capacity (40% of average); Pine Flat 13% of capacity (28% of average); San Luis 53% of capacity (68% of average); Lake Shasta 44% of capacity (66% of average); and Trinity Lake 36% of capacity (51% of average). An update of water levels at [other smaller reservoirs](#) is also available.

Fire Activity: In 2014, CAL FIRE responded to almost 1,000 more wildfires than the 5-year average. Since the beginning of the year, CAL FIRE has responded to over 70 wildfires across the state. This past week, over 70 total acres burned on the El Dorado National Forest and 10 acres burned within the city limits of Pacifica. CAL FIRE continues to monitor the drought situation and prepare for the wildfire season ahead while maintaining staffing that meets the current threat. Should the need arise, CAL FIRE is positioned to augment staffing as required.

Statewide Open Burn Ban Update: CAL FIRE has lifted the outdoor burn bans across all 56 counties within the State Responsible Areas (SRA). Many counties still require permits, and daily fire and weather conditions will continue to dictate whether burning is permissible on any given day. The [burn ban](#), issued last July, prohibits certain outdoor burning in the SRA.

Vulnerable Water Systems: The State Water Board's [Drinking Water Program](#) continues to provide technical and funding assistance to several communities facing drinking water shortages and is monitoring water systems across the state to determine if new support is needed. As of this week, a total to date of \$14.8 million has been identified for specific emergency drinking water projects out of \$15 million appropriated in March 2014 for this purpose.

KEY ACTION ITEMS FROM THIS WEEK

- **State Water Board Warns of Water Curtailments if Dry Conditions Persist:** On Friday, January 23, the State Water Resources Control Board issued a notice of [potential curtailment](#) to more than 9,000 water rights holders that their water diversions may be curtailed in critically dry watersheds this year if conditions do not improve over the coming months. The notice also cautioned that senior riparian and pre-1914 water rights holders could potentially receive curtailment notices if the natural flow of water is not sufficient even after junior water rights holders have been curtailed.
- **DWR Plans for Possible Need of Delta Salinity Control Barriers:** On Friday, January 16, the Department of Water Resources (DWR) submitted an application to the U.S. Army Corps of Engineers for a [permit to allow the temporary installation of rock barriers](#) in three channels of the Sacramento-San Joaquin Delta, if weather remains exceedingly dry through spring. The emergency drought barriers limit saltwater intrusion, which minimizes the amount of water that must be released from upstream reservoirs to repel salt. An increase in saltwater in the interior Delta would contaminate water supplies for Delta residents and the 25 million Californians who rely on the federal and state water projects.
- **Agencies Taking Measures to Protect Winter-run Chinook, Preparing to Release Approximately 600,000 Fish:** On Monday, January 26, the California Department of Fish and Wildlife (CDFW) announced that approximately [600,000 hatchery-reared juvenile](#) winter-run Chinook salmon is anticipated to be released in early February. These juvenile salmon were produced from adults that were collected as a precautionary measure to offset anticipated in-river drought related mortality.

This is the second consecutive year that juvenile winter-run salmon have experienced extremely poor survival during incubation and/or emigration to the ocean, substantially impacting the winter-run population. A third consecutive year would have dramatic adverse effects on the population.

- **CDFA Awards \$5.8 Million to Assist Farmers in Second Phase of SWEEP:** On Wednesday, January 21, the California Department of Food and Agriculture (CDFA) awarded \$5.8 million to 70 different projects in the second phase of the [State Water Efficiency and Enhancement Program \(SWEEP\)](#) to implement on-farm water irrigation systems that reduce water and energy use, thereby reducing greenhouse gas emissions. Funding for SWEEP was enabled by emergency drought legislation (SB 103) signed in early 2014 by Governor Brown, which authorizes CDFA to distribute as much as \$10 million for eligible projects.
- **Emergency Food Aid, Rental and Utility Assistance:** The Department of Social Services (CDSS) has provided to date over 476,300 boxes of food to community food banks in drought-impacted counties. Approximately 416,700 boxes of food have been picked up by 220,407 households. By this Friday, February 6, an additional 9,817 boxes will be delivered to five counties. Local food banks continue to target food aid to residents most impacted by drought.

The non-profit group La Cooperativa continues to distribute the \$10 million state-funded emergency rental assistance to impacted families and individuals across counties most impacted by the drought. As of Thursday, January 29, the Department of Housing and Community Development (HCD) has reported that a total of \$8,488,463 is committed; and \$7,205,673 in funds has been issued to 4,421 applicants in 21 counties.

The Department of Community Services and Development (CSD) created a \$600,000 program to help families pay their water bills. This program targets families through 10 agencies that are experiencing “exceptional” drought. As of Friday, January 9, CSD has completed the Drought Water Assistance Program Pilot.

CSD has also implemented a \$400,000 Migrant and Seasonal Farmworker (MSFW) drought assistance program, in coordination with the California Human Development (CHD), Central Valley Opportunity Center (CVOC), Center for Employment Training (CET) and Proteus, which provides assistance in employment training and placement services to individuals impacted by the drought. As of Friday, January 16, 128 clients are enrolled in employment training programs, 26 clients have obtained employment, and 128 clients are receiving employment support services. CSD has also reported that a total of \$394,653 has been spent to assist participants in completing training employment programs.

- **Support for Small Communities:** DWR has contracted with the California Rural Water Association (CRWA) to provide drought-related technical assistance to small community water systems. As directed by DWR, CRWA will conduct a site visit to a drought affected small system to assess its status and offer assistance in preparing a water conservation plan or drought contingency plan, or preparing financial assistance applications to available State and federal programs.
- **Water Saving Tips Promoted Across the State:** Californians made strides in 2014 to save water during one of the worst droughts in generations. For 2015, [SaveOurWater.com](#) urges Californians to make a New Year’s resolution to save water daily as a permanent lifestyle change. Save Our Water’s newly revamped website makes it even easier for Californians to learn how to save water indoors, outdoors, and at work. The website features the theme “Conservation: California’s Year-Round Resolution.” Visitors can sign up for daily email tips and grow the public awareness campaign by sharing Save Our Water [Twitter](#) and [Facebook](#) feeds.

This campaign will expand beyond the general public to feature corporate and business efforts. Save Our Water is also building an easy-to-use digital water calculator, to be unveiled in March that will help people figure out how much water they currently use and how certain practices could cut that volume both indoors and outdoors. DWR and ACWA will update the State Water Resources Control Board on Save Our Water activities at the Board meeting on Tuesday, February 3.

- **Sacramento Region Reduces Water Use by Nearly 20% in 2014:** On Tuesday, January 27, the Regional Water Authority (RWA) announced that its' customers in Sacramento, Placer, El Dorado and Yolo counties [cut water use by 19.3% overall in 2014](#), saving 30 billion gallons of water compared to 2013. The 19.3% conservation rate aligns with Governor Brown's call last year for Californians to reduce water usage by 20%.
- **Drought Response Funding:** The \$687 million in state drought funding that was appropriated last March through emergency legislation, as well as \$142 million provided in the 2014 Budget Act, continues to advance toward meeting critical needs. To date, \$227 million has been expended, and nearly \$625 million of the emergency funds appropriated in March came from sources dedicated to capital improvements to water systems. Since March, the Department of Water Resources has expedited grant approvals, getting \$21 million immediately allocated to grantees that were pre-approved for certain projects. As planned in March, the next \$200 million of expedited capital funding was awarded in October, and the remaining \$250 million will be granted by fall 2015. The 2014 Budget Act appropriated an additional \$53.8 million to CAL FIRE over its typical budget to enhance firefighter surge capacity and retain seasonal firefighters beyond the typical fire season. In the event drought conditions continue through next year, the proposed 2015-16 Governor's Budget includes an additional \$115 million to continue critical drought response efforts.
- **Governor's Drought Task Force:** The Task Force continues to take actions that conserve water and coordinate state response to the drought.

Local Government

- **Local Emergency Proclamations:** A total of 60 local Emergency Proclamations have been received to date from city, county, and tribal governments, as well as special districts:
 - **24 Counties:** Glenn, Inyo, Humboldt, Kern, Kings, Lake, Madera, Mariposa, Merced, Modoc, Plumas, Santa Barbara, San Bernardino, San Joaquin, San Luis Obispo, Shasta, Siskiyou, Sonoma, Sutter, Trinity, Tulare, Tuolumne, Yuba, and El Dorado.
 - **13 Cities:** City of Willits (Mendocino County), City of St. Helena (Napa County), City of Calistoga (Napa County), City of American Canyon (Napa County), City of Santa Barbara (Santa Barbara County), City of Montague (Siskiyou County), City of Live Oak (Sutter County), City of San Juan Bautista (San Benito County), City of Lodi (San Joaquin County), City of Portola (Plumas County), City of Ripon (San Joaquin County), City of Rio Dell (Humboldt County), and City of West Sacramento (Yolo County).

- **9 Tribes:** Hoopa Valley Tribe (Humboldt County), Yurok Tribe (Humboldt County), Tule River Indian Tribe (Tulare County), Karuk Tribe (Siskiyou/Humboldt Counties), Sherwood Valley Pomo Indian Tribe (Mendocino County), Yocha Dehe Wintun Nation (Yolo County), Cortina Indian Rancheria (Colusa County), Kashia Band of Pomo Indians of the Stewarts Point Rancheria (Sonoma County), and Picayune Rancheria of Chukchansi Indians (Madera County).
- **14 Special Districts:** Brooktrails Township (Mendocino County), Lake Don Pedro Community Services District (Stanislaus County), Placer County Water Agency (Placer County), Twain Harte Community Services District (Tuolumne County), Carpinteria Valley Water District (Santa Barbara County), Meiners Oaks Water District (Ventura County), Mariposa Public Utility District (Mariposa County), Goleta Water District (Santa Barbara County), Montecito Water District (Santa Barbara County), Tuolumne Utilities District (Tuolumne County), Mountain House Community Service District (San Joaquin County), Nevada Irrigation District (Nevada County), Upper San Gabriel Valley Municipal Water District (Los Angeles County), and Lake Berryessa Resort Improvement District (Napa County).
- **Water Agency Conservation Efforts:** The Association of California Water Agencies (AWCA) [has identified](#) several hundred local water agencies that have implemented water conservation actions. These water agencies [are responding to the drought](#) by implementing conservation programs, which include voluntary calls for reduced water usage and mandatory restrictions where water shortages are worst.
- **County Drought Taskforces:** A total of 29 counties have established drought task forces to coordinate local drought response. These counties include: Butte, Glenn, Humboldt, Imperial, Kern, Kings, Lake, Madera, Mendocino, Merced, Modoc, Monterey, Nevada, Orange, Placer, Plumas, Sacramento, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Siskiyou, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, and Yolo.
- **Tribal Taskforce:** A total of 3 tribes have established drought task forces to coordinate tribal drought response. These tribes include: Hoopa Valley Tribe (Humboldt County), Yurok Tribe (Humboldt Counties) and Sherwood Valley Tribe (Mendocino County).

DROUGHT RELATED WEBSITES FOR MORE INFORMATION

[Drought.CA.Gov](#): California's Drought Information Clearinghouse

State's Water Conservation Campaign, [Save our Water](#)
Local Government, [Drought Clearinghouse and Toolkit](#)

California Department of Food and Agriculture, [Drought information](#)

California Department of Water Resources, [Current Water Conditions](#)

California Data Exchange Center, [Snow Pack/Water Levels](#)

California State Water Resources Control Board, Water Rights, [Drought Info and Actions](#)

California Natural Resources Agency, [Drought Info and Actions](#)

State Water Resources Control Board, Drinking Water, [SWRCB Drinking Water Program](#)

California State Water Project, [Information](#)

[U.S. Drought Monitor](#) for Current Conditions throughout the Region

[U.S. Drought Portal](#), National Integrated Drought Information System (NIDIS)

National Weather Service [Climate Predictor Center](#)

USDA Drought Designations by County [CA County Designations](#)

USDA Disaster and Drought Assistance Information [USDA Programs](#)

U.S. Small Business Administration Disaster Assistance Office: www.sba.gov/disaster

**Central Valley Project and State Water Project
Drought Contingency Plan
January 15, 2015 – September 30, 2015**

**Central Valley Project and State Water Project
Drought Contingency Plan
January 15, 2015 – September 30, 2015**

This Drought Contingency Plan (DCP) is prepared by the U.S. Bureau of Reclamation (Reclamation) and California Department of Water Resources (DWR), by working with U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and California Department of Fish and Wildlife (CDFW) (collectively “the Agencies”). This DCP is submitted to the State Water Resources Control Board (SWRCB) on January 15, 2015, as required by the SWRCB’s final Temporary Urgency Change Order dated October 7, 2014. This DCP will be updated as necessary based on changing circumstances, which could include additional proposed modifications to SWRCB permit requirements. Most importantly, the DCP, as described below, is based upon hydrologic conditions as of January 1, 2015, thus we anticipate changes in drought response actions as the year’s hydrology unfolds.

The Agencies prepared an “Interagency 2015 Drought Strategy for the Central Valley Project and State Water Project” (2015 Drought Strategy) which was released as a working draft on December 12, 2014. A copy of the 2015 Drought Strategy is included with this DCP for ease of reference (See Reference 1). The 2015 Drought Strategy describes the anticipated coordination, process, planning and potential drought response actions for 2015. Not all of those actions are described specifically in this DCP, which is focused on articulating anticipated proposed modifications to SWRCB permit requirements. Other actions described in the 2015 Drought Strategy, as well as additional actions that may be proposed by stakeholders, will continue to be considered and analyzed by the Agencies for possible implementation in 2015.

I. Introduction and Purposes of the DCP

The State’s December 30, 2014, snow survey found a Sierra Nevada snowpack that is less than half of normal in terms of the amount and water content for this time of year. Furthermore, although November and December 2014 storms brought much needed precipitation, after three dry years, the State’s overall water storage levels remain far below average. Adequate storage is needed throughout the year and especially in dry times of the year in order for the Central Valley Project (CVP) and State Water Project (SWP) to supply human needs, continue repelling saltwater in the Delta, and provide for cold water needs of Chinook salmon. On January 17, 2014, California’s Governor issued a drought State of Emergency proclamation. Nearly one year later, drought conditions and the Governor’s proclamation remain in place. Over the last year and a half, Reclamation and DWR have worked closely with the fish and wildlife agencies to develop operational and contingency plans, as well as real-time coordinated operations and monitoring, in order to responsibly manage our State’s limited water supplies.

A. Purpose of the DCP

Since December 2013, State and federal agencies that supply water, protect fish and wildlife, and regulate water quality, have worked together to balance water supply, biological protections, and water quality during this drought. Following the Governor's emergency drought proclamation, on January 29, 2014, Reclamation and DWR sought a temporary modification to their water rights permits and licenses to respond to the drought conditions. On January 31, 2014, the Executive Director of the SWRCB issued an Order that granted temporary modification to Water Rights Decision 1641 (D-1641).

According to the petition and subsequent acknowledgement in the Order, Reclamation and DWR convened a Real Time Drought Operations Management Team (RTDOMT) comprised of representatives from Reclamation, DWR, State and federal fish and wildlife agencies, and the SWRCB to discuss more flexible operations of the Projects while protecting beneficial uses. Together, these agencies worked through existing statutory and regulatory obligations so that water operations could adjust quickly to changes in the weather and environment to support and improve water supply deliveries when possible while protecting water quality and fish and wildlife as required under state and federal laws and permits. The RTDOMT agencies recognize the importance of their efforts to minimize potential impacts from drought to provide food security, economic stability, and species protection in California.

It is difficult under these very dry conditions, and low reservoir storages, to balance the multiple critical uses of the limited water supplies. The purpose of this DCP is to provide an overview of current conditions in the CVP and SWP operated reservoirs and the Delta related to salinity and threatened fisheries, as well as an overview of available supplies for multiple beneficial uses as they relate to projected flow and storage conditions using 50%, 90%, and 99% exceedence probabilities for assumed hydrology. This DCP addresses projected water operations based on various hydrologic scenarios and potential adjustments to regulatory requirements through September 30, 2015.

The primary goals of this DCP are to:

1. Operate the CVP and SWP during this extreme drought to provide for, at a minimum, essential human health and safety needs throughout the CVP and SWP service areas, and preferably to minimize water supply shortages that harm the State's economy.
2. Control saltwater intrusion in the Sacramento-San Joaquin Delta by providing enough fresh water flow out of the Delta throughout dry months to repel saltwater that pushes inland on ocean-driven tides from San Francisco Bay.
3. Preserve enough cold water deep in Shasta Lake and other reservoirs to maintain cool river temperatures for various runs of Chinook salmon.
4. Maintain protections for State and federally endangered and threatened species and other fish and wildlife resources that are suffering from unavoidable impacts due to a drought of this magnitude and necessary drought-related actions.

B. Critical Operational Considerations

The operational forecasts developed for this DCP are designed to make the most efficient use of the limited water resources in 2015 for multiple beneficial uses while managing the potential risks of continued drought conditions into next year. There are three main objectives of this DCP. First, to continue operation of the Delta pumping facilities, taking advantage of opportunities to export natural or abandoned flow while maintaining Delta water quality and providing adequate protections for listed fish. Second, to conserve reservoir storage for use later in the water year. Third, to manage reservoir releases from June through September to concurrently benefit in-stream temperature objectives, meet Sacramento Valley in-basin needs and other water supplies, and preserve carry-over storage. This DCP includes considerations on how the Projects propose to generally operate under different hydrologic conditions, but the actual operation is still uncertain at this time because of changing hydrology. The hydrologic scenarios used in this DCP are discussed in the Projected Hydrology and Runoff section later in the document.

A key consideration is that even if the overall hydrology significantly improves this year, the water supply system, particularly in regions south of the Delta, is in a severely depleted state. The ability to deliver water south of the Delta is important to support health and safety, municipal and industrial, and refuge needs as well as to help communities and the State economy to recover from the severe dry conditions from the past several years.

The following are the Projects' critical operational considerations and objectives under on-going drought conditions.

i. Health and Safety

During this continuing drought, operations of the CVP and SWP must provide for, at a minimum, essential human health and safety needs throughout the CVP and SWP service areas, and retain the capability to provide for such minimum needs throughout water year (WY) 2015 and WY2016 if drought conditions continue. For clarity, Reclamation and DWR's consideration of these essential human health and safety needs includes adequate water supplies and water quality for drinking water, sanitation, and fire suppression, but does not extend to other urban water demands such as outdoor landscape irrigation. While most Californian communities may have reserve water supplies, some communities will require continued delivery of limited amounts of water through the CVP and SWP systems to meet these basic needs.

At DWR's request, the 29 public water agencies that contract for water from the SWP quantified their needs to meet demands for drinking, hygiene, and sanitation (collectively 55 gallons per capita per day (gpcd)), plus fire protection. Most SWP contractors have alternative sources of water, including groundwater and local reservoirs. The combined initial estimated need that DWR received from its contractors this past October was approximately 330 thousand acre-feet

(TAF) for calendar year 2015. Those needs are expected to fluctuate based on changes in availability from other sources.

Reclamation currently uses its draft Municipal and Industrial (M&I) Water Shortage Policy (Draft Policy) to determine the amount of water to be provided to its M&I contractors in those years where human health and safety needs govern CVP allocations to these contractors. Under these conditions, M&I contractors are required to update population estimates and non-CVP water source information to determine how much water will be needed from the CVP to meet their overall human health and safety demand for that year. The vast majority of CVP contractors throughout the entire service area that receive M&I water from the CVP have other available supplies to help meet their demand. Based upon application of the Draft Policy approximately 180 TAF of CVP water was allocated in WY2014 to help meet their health and safety needs with consideration of other available supplies. For WY2015, Reclamation intends to again apply the Draft Policy to determine the amount of CVP water available to meet health and safety needs. For planning purposes the 180 TAF is a reasonable estimate of minimum CVP M&I needs for WY2015 if dry conditions continue, however it is anticipated these needs may fluctuate based on changes in availability from other sources.

ii. Economic Impacts

Throughout the continuing drought, CVP and SWP systems will be operated to lessen critical economic losses to agriculture, municipal, and industrial uses due to water shortages through project water deliveries and by facilitating voluntary water transfers and exchanges to the extent possible, while balancing the needs of upstream storage, fishery and wildlife resource protection, and operational flexibility. A key to minimizing water supply shortages for economic purposes will be to take advantage of opportunities to export natural or abandoned flow in the winter and spring while maintaining Delta water quality and minimizing adverse effects to listed fish. Release of stored water in summer and fall will be managed to concurrently benefit in-stream temperature and wildlife objectives, meet Sacramento Valley in-basin needs, convey water south-of-Delta to meet water supply needs, and preserve system reservoir carry-over storage to meet objectives in WY2016.

iii. Fishery and Wildlife Protection

The CVP and SWP operations outlined in this DCP will continue to maintain protections for endangered species and other fish and wildlife resources that are suffering from unavoidable impacts due to drought and drought-related operations. The 2015 Drought Strategy calls out some elements that could be modified in order to balance all needs, while providing protections required by law. Any changes in operations that are ultimately proposed by Reclamation and DWR either through a Temporary Urgency Change Petition (TUCP) or under the Endangered Species Act (ESA) will be submitted by Reclamation and DWR for concurrent review under applicable laws, including the Federal ESA (FESA), California ESA (CESA), and the California Water Code.

A goal of this DCP for operations this spring through fall is to identify a balanced approach to meeting river temperatures, instream flows, and Delta protective actions. A primary consideration involves the need to conserve enough cold water in Project reservoirs early in the year to maintain cool water temperatures in the Sacramento River and tributaries to support the various runs of Chinook salmon and steelhead. If conditions remain dry, these same water supplies may be needed to provide for other critical operational considerations throughout 2015. The timing, flow rate, and rate of any flow changes for instream fishery needs will also vary with storage and hydrologic conditions.

iv. Refuge Water Supplies

One of the requirements of the Central Valley Project Improvement Act (CVPIA) passed by Congress in 1992 included providing water for state, federal and private managed wetlands in order to maintain and improve wetland habitat areas. This DCP includes plans to provide water in order to keep conveyance channels charged; support seasonal, riparian, permanent and semi-permanent wetlands; and to provide critical ESA habitat for protected species, such as the Giant Garter Snake and Tri-Colored Blackbird, for both north and south of the Delta refuges. Deliveries for summer, fall, and winter water will be consistent with the schedules submitted by the refuges and adjusted as allocations are modified.

Refuge water supply contracts also allow for reallocation of Level 2 supplies between and among refuges to improve supply flexibility, coordination, and management between Reclamation and wetland managers, and to lessen impacts to other water users.

For south of Delta refuges, when total demand from direct diversions from the Delta are not feasible, water from San Luis Reservoir can be made available to meet refuge needs. The CVPIA and refuge water supply contracts allow for flexibility to transfer water from refuges both within basin as well as north of the Delta to south of the Delta. Water transfers from north of Delta refuges to south of Delta refuges would occur to support priority habitat needs of south of Delta refuges given available capacity to facilitate the transfer. This water could be directly diverted or stored in San Luis Reservoir and used when most needed by south of the Delta refuges.

Level 2 represents a baseline of water supply needed to manage refuge wetlands. To maximize the quality and extent of habitat with a limited water supply, system operators will strive to deliver refuge water in accordance with refuge manager schedules and in conjunction with any Incremental Level 4 water supplies. System operators will work with refuge managers to deliver summer water and to transfer, reallocate, or exchange refuge water supplies to meet management and biological needs. Absent summer water deliveries to south of Delta refuges, critical habitat for Giant Garter Snake remains dry or extremely restricted because of water quality constraints and wetlands cannot produce essential forage needed for fall and winter migratory birds.

CVPIA refuge managers will be involved regularly throughout the water supply reevaluation and adjustment process. Refuge deliveries are included in CVP operational scenarios and forecasts, and calculations regarding anticipated reservoir levels into the late fall and early winter. The Agencies will continue to work together with water districts and non-governmental organizations to identify opportunities for delivery flexibility to accommodate management of water quality and the needs of salmonids and smelt at different life stages while minimizing impacts to Project and refuge operations.

v. Operational Flexibility

An underlying objective of this DCP is to maximize regulatory flexibility of Project operations while still remaining within existing law and regulations. Maximizing such flexibility allows Project operators to adjust quickly to changes in the weather and environment and to maximize the beneficial use of water to the greatest extent possible within the law. This goal of improving water supply includes facilitating water transfers for municipal and industrial, refuge, and agriculture to ensure the most critical supply needs are met throughout the service areas of the CVP and SWP and ensuring flow standards are as flexible as possible in order to capture multiple storm events under the otherwise dry conditions. This flexibility allows for Reclamation and DWR to improve upstream reservoir storage and deliver maximum available water supplies.

II. Initial Status of Conditions

A. Water Quality

Overall water quality in the Delta is much improved since the October 15, 2014 Drought Contingency Plan was submitted due to the above average precipitation in northern California during December. Salinity conditions are likely to remain manageable through January regardless of precipitation patterns. Conditions will continue to be monitored and Delta pumping may be reduced if necessary to increase Delta outflow to levels sufficient to manage salinity intrusion. If Delta Cross Channel (DCC) gates are open and exports are reduced to minimum health and safety requirements and conditions continue to trend dry, then the Project operators will carefully consider augmentation of Delta inflow with additional releases from upstream reservoirs. However, increasing inflows is not particularly effective in influencing south Delta water quality when the DCC gates are not opened.

The Projects do not anticipate opening the DCC gates in January, however, Reclamation and DWR would request opening the DCC gates before proposing any modifications to D-1641 Table 1 salinity objectives for M&I beneficial uses and Table 2 objectives for beneficial uses in the export area. This is because exceedences of these existing water quality objectives would elevate risk to public health as a result of disinfection byproducts related to the treatment of degraded water quality constituents potentially increasing beyond permissible contaminant levels.