

COLORADO RIVER BOARD OF CALIFORNIA

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August 28, 2014

**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, September 10, 2014
Time: 10 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; while 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, September 10, 2014
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 August 13, 2014
(Action)
4. 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
5. Update regarding the 2014 California Drought
6. Presentation by Paul Jones, General Manager, Eastern Municipal Water District, regarding Allocation Based Rate Structure as a Water Demand Reduction Tool
7. Staff Reports regarding Colorado River Basin Programs
 - a. Update regarding Basin States Drought Contingency Planning efforts
 - 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 (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: October 15, 2014
Time and location details to be provided
Los Angeles Department of Water and Power
111 North Hope Street
Los Angeles, CA 90012-2694

Minutes of Meeting
COLORADO RIVER BOARD OF CALIFORNIA
Wednesday, August 13, 2014

A Meeting of the Colorado River Board of California (Board) was held in the Board Room, of the San Diego County Water Authority, at 4677 Overland Avenue, San Diego, California, on Wednesday, August 13, 2014.

Board Members and Alternates Present

Stephen Benson
Dana Bart Fisher, Jr., Chairman
Franz De Klotz
Henry Kuiper
James McDaniel
Glen Peterson
David Pettijohn

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

Board Members and Alternates Absent

James Hanks
John Powell, Jr.

Christopher Hayes, Designee
Department of Fish & Wildlife

Others Present

Steve Abbott
Martin Adams
Tim Blair
Vikki Dee Bradshaw
John Carter
Robert Cheng
Dan Denham
Matt Dessert
Lesley Dobalian
Andrew Fisher
Terry Fulp
Christopher Harris
Bill Hasencamp
George J. Janezyn
Lisa Johansen
Richard Johnson
Lori Jones
Tom Levy
Lindia Liu

Kara Mathews
Jan Matusak
Jim Murtland
Thang (Vic) Nguyen
Ken Olson
Autumn Plourd
Mojgan Poursadijhi
Larry Purcell
Angela Rashid
Eric Ruckdaschel
Tina Shields
Peter Silva
Gary Tavetian
Tanya Trujillo
Deven Upadhyay
Joseph Vanderhorst
Mark Van Vlack
Meena Westford
Jerry Zimmerman

CALL TO ORDER

Chairman Fisher announced the presence of a quorum and called the meeting to order at 10:11 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.

Mr. Doug Wilson welcomed the Colorado River Board to the San Diego County Water Authority. Mr. Wilson explained that a tour was postponed due to scheduling issues associated with the Urban Water Institute Conference. A tour may be rescheduled in the spring of some of the San Diego County Water Authority's facilities.

ADMINISTRATION

Approval of Minutes of the June 11, 2014 Colorado River Board Meeting

Chairman Fisher asked if there was a motion to approve the June 11, 2014 minutes. Mr. Kuiper moved that the minutes be approved, seconded by Mr. Wilson. By unanimous support, the June 11, 2014, meeting minutes were approved.

COLORADO RIVER BASIN WATER REPORT & DROUGHT UPDATE

Colorado River Basin Water Report

Executive Director Trujillo reported that as of August 4, 2014, the water level at Lake Mead was at 1,080 feet with 10.05 million acre-feet (maf) of storage, or 38% of capacity, while the water level at Lake Powell was at 3,608 feet with 12.53 maf of storage, or 52% of capacity. The total System active storage as of August 4th was 30.44 maf, or 51% of capacity, which is about 200,000 af more than one year ago when the System storage was also at 51% of capacity. As of August 3, 2014, the Upper Colorado River Basin reservoirs, other than Lake Powell, ranged from 67% to 100% of their capacities. The Fontenelle Reservoir in Wyoming is at 100% of capacity and is spilling. The Flaming Gorge Reservoir is at 88% of capacity and the Blue Mesa Reservoir in Colorado is similarly at 80% of capacity.

Ms. Trujillo reported that Lake Mead is currently at its lowest level since it was initially filled. Reclamation expects the elevation of the reservoir to drop to about 1,080 feet but will level out in November timeframe as the irrigation season slows down. The Board was reminded that one of the factors for the low elevation in Lake Mead is the record low release of 7.48 maf last year from Lake Powell to Lake Mead in accordance with the 2007 Interim Guidelines for the coordinated operations of Lakes Powell and Mead. Lake Mead will benefit from higher releases from Lake Powell next year.

Ms. Trujillo provided a brief overview of the current drought conditions within California. The August 5, 2014 U.S. Drought Monitor Map indicates that the Western U.S. is still experiencing significant drought. California is experiencing nearly the worst level of drought on record, with over 58% of the state in the exceptional drought category (the most severe drought category) and over 80% of the state in the extreme drought category, with no relief in sight.

Ms. Trujillo updated the Board regarding the development of the 2015 Annual Operating Plan (AOP) for the Colorado River System. This plan covers basin-wide operations and informs water managers what to expect from a hydrological perspective and facilities management standpoint. Reclamation has held two public consultation sessions with the second one on July 31, 2014. Ms. Trujillo stated that there were no significant controversies raised at the most recent consultation session. Reclamation's August 24-month study is used to determine the release amount from Lake Powell for next year, and that initial indications are that 9.0 maf will be released next year. The results of the August 24-month study will be available very soon. The next AOP consultation meeting is scheduled for September 4, 2014 at the McCarran Airport in Las Vegas, Nevada.

Ms. Trujillo referenced a few of the hydrologic slides that Reclamation presented during the last AOP consultation meeting. The snowpack reached 111% of average and the runoff peaked on April 7, 2014. The snowpack this year was significantly higher than last year, but only slightly above the 30-year median. Lake Powell elevation forecasts predict Reclamation would release between 8.23 to 9.0 maf from Lake Powell depending on how other reservoir conditions develop. For Lake Mead, projected elevation levels indicate a Normal Condition is anticipated again for next year. Shortage Conditions could be imposed by 2015 based on the latest projections.

State and Local Reports

Board Member Jeanine Jones reported that statewide reservoir storage is in the 60% range and dropping. She reported that the Governor's Drought Taskforce has been very active in meeting with city and other officials to determine what actions to take if 2015 is dry. The Task Force has wanted to deal with the public misconception that El Nino will be the answer to the state's current drought condition. She stated it is now unlikely that we will get a strong El Nino as was originally predicted. Ms. Jones explained that a weak or moderate El Nino has little predictability for precipitation in California and with a neutral condition expected for this year, anything could happen.

Ms. Jones stated that, similar to last year, a zero allocation is expected again for the State Water Project due to low reservoir storage. The only place in California that is close to average precipitation is Blythe, which has experienced a natural southwestern monsoon season.

Board Member Glen Peterson, of the Metropolitan Water District of Southern California (MWD), reported that its combined reservoir storage is at 55% (672,000 af) and is expected to decline slightly below 600,000 af by end of the year. Deliveries to date have been 109% of average. MWD has recently partnered with the Los Angeles Department of Water and Power (LADWP) to augment the LADWP program to implement a lawn replacement program. This program has been very successful. In addition, MWD has spent an additional \$20M on conservation programs and \$5M on outreach, which is more than in normal years.

Board Member James McDaniel, of LADWP, reported that LADWP was pleased to have MWD supplement its lawn replacement program by \$1.00 per square foot, raising the total incentive to \$3.00 per square foot. Additionally, Mr. McDaniel reported that conservation programs are ramping up and that LADWP and MWD continue to coordinate on consistent messaging.

California Drought Update

Ms. Trujillo stated that the Governor's Emergency Declarations are still in effect and that beginning July 29th, the State Water Resources Control Board has implemented mandatory conservation measures statewide. Fines can be imposed on water users who do not comply with the regulations. The state continues to issue weekly updates on number of wildfires, drought response activities, and key action items.

One area that is getting increased attention, not just in California, but also the Colorado River basin is groundwater resources. Ms. Trujillo noted that Coachella Valley Water District was recently featured in an article from Stanford's Water in the West program, which highlights potential problems caused by groundwater overdraft and potential solutions to managing this resource.

Progress report on Implementation of California's Colorado River Water Use Plan

Ms. Trujillo provided a progress report on California's implementation of the Colorado River Water Use Plan at the July 31st Annual Operating Plan consultation meeting in accordance with the report to the Secretary required by the 2007 Interim Guidelines. California has been successful in implementing several elements of the Quantification Settlement Agreement (QSA), including the large transfers from agricultural uses to urban uses that are continuing to ramp up over the next several years. California has kept its overall water uses within its basic apportionment of 4.4 maf. This goal was met largely due to successful storage programs that have been implemented, such as the Intentionally Created Surplus Program, that MWD has been able to implement and use over the past ten years. Other programs such as the Palo Verde

Irrigation District and MWD fallowing program has produced approximately 900,000 af of water savings over the past ten years.

One of the requirements that was included in the QSA agreements was tying agricultural reduction levels in California to the availability water during “surplus” conditions pursuant to the Interim Surplus Guidelines. Ms. Trujillo stated that the benchmark levels that were created in the 2007 Interim Guidelines have been met this year.

Ms. Trujillo reported that Imperial Irrigation District (IID) has been able to meet the overrun payback requirements pursuant to the Inadvertent Overrun and Payback Policy. IID repaid approximately 93,000 af last year and is on track to repay about 117,000 af this year, at which point the IID balance for overruns will be zero.

A significant outstanding challenge is addressing the Salton Sea mitigation issues. The QSA Joint Powers Agreement has allocated more than \$100M to this effort and to date about \$55M has been spent on mitigation activities.

Ms. Trujillo reported that state court cases challenging QSA have been dismissed and the QSA decisions have been determined to be valid. No environmental challenges have been successfully raised against the QSA. Similarly, in the federal court proceedings, the Ninth Circuit Court of Appeals recently affirmed the District Court’s decisions that there was no NEPA violation in connection with the Secretary’s approval and implementation of the QSA agreements.

Comments by Terry Fulp, Lower Colorado River Regional Director, Bureau of Reclamation

Terry Fulp, Regional Director of Reclamation’s Lower Colorado Region, reflected back over the last 15 years and believes that a lot of progress has been made on a range of complex and difficult issues. Beginning around 1999 when Lake Mead was spilling, Reclamation began developing Interim Surplus Guidelines, which was a key element for the California Colorado River Water Use Plan. As part of the QSA process, Reclamation set up the Colorado River Water Delivery Agreement that allowed for flexibility for overruns and system paybacks.

As we moved forward in the first decade of the 21st century, Reclamation worked on the Lower Colorado River Multi-Species Conservation Program. Reclamation knew it had to resolve the many environmental issues in the Basin to continue in a proactive and positive manner.

As the current multi-year drought began to kick in, Reclamation produced the 2007 Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead that are being implemented through 2026. Mr. Fulp explained that the current drought contingency planning involves taking voluntary actions to reduce the risk of reaching critical elevations at Lake Powell and Lake Mead. The last

15 years have been one of the worst periods in terms of average inflows and certainly stand out over the past 1,200 years of tree ring reconstructions of the hydrology.

Mr. Fulp added that the U.S. reached a major breakthrough in terms of cooperation with Mexico for sharing in surpluses as well as shortages. He said that the best solutions continue to involve a collaborative and consensus-based approach. Reclamation will continue to monitor drought conditions and determine what additional steps might be considered.

Mr. Peterson asked what steps will be taken beyond 2026. Mr. Fulp responded that the 2007 Interim Guidelines require that stakeholders convene no later than December 31, 2020 to address that issue. He believed that the current drought contingency planning efforts are a pre-cursor towards the development of new guidelines. He added that there would be difficult issues after 2026. Mr. Fulp concluded that a succession plan needs to be in place so that the younger generations will be able to tackle these difficult issues moving forward.

Chairman Fisher added that it is critical to get a short-term resolution in the ongoing drought contingency planning efforts. This would help with facilitating the larger negotiations that begin in the 2020 timeframe.

COLORADO RIVER BASIN PROGRAM REPORTS

Update regarding the Basin States' Drought Contingency Planning Efforts

Ms. Trujillo stated that the current multi-year drought has led to a focus on what can be done in the next five-year time frame to protect the existing 2007 Interim Guidelines. There is a goal in the Lower Basin to add or save between 1.5 to 3 maf of water in Lake Mead over the next five years. Stakeholders are brainstorming and strategizing about ideas including how to improve system efficiencies, particularly in the Yuma area, and how to reduce the over-deliveries that are made to Mexico annually.

Ms. Trujillo stated that one achievement that was completed recently was the System Conservation Agreement that was executed among MWD, Southern Nevada Water Authority, Central Arizona Project, Denver Water and the U.S. to create a pool of funding that will be used to acquire water to be reserved and maintained as system water. It will be a two-year pilot project. Another program being continued is the Weather Modification Program that is occurring in Colorado, Utah, and Wyoming. There may be other augmentation possibilities, and staff will keep Board members apprised of any progress.

Chairman Fisher again stressed the importance of reaching consensus on the drought contingency planning efforts as it would help set the stage for the larger negotiations beginning on or about 2020. Mr. Wilson stated that he would like to see a report on the price per acre-foot for the cost of the Weather Modification Program.

Colorado River Basin Water Supply and Demand Study

Board staff member Angela Rashid reported that the draft Phase I reports from the Agricultural Conservation, Productivity, and Transfer and the Environmental Flows and Recreation Workgroups were released during the first week of August. Ms. Rashid stated that the Agricultural Conservation, Productivity and Water Transfer report provided a detailed overview of agricultural water uses in the Basin as well as an analysis of water conservation programs and practice. The report also analyzed water conservation practices and programs practiced in Basin, some of which were featured as case studies in the report's appendix. Ms. Rashid noted that conservation and efficiency programs in California represented five of the thirteen case studies presented. Ms. Rashid reported that the report concluded with an evaluation of the opportunities and challenges of expanding successful conservation and efficiency programs in the Basin.

Regarding the Environmental Flows and Recreation Workgroup, Ms. Rashid reported that the Phase I draft report included a detailed description of environmental, recreational resources throughout the Basin. The report also included an assessment of four focus reaches. Three focus reaches are located in the Upper Basin and include Upper Colorado between the Gunnison and the Green Rivers, the White River below Taylor Draw Dam in Utah, and Henry's Fork Headwaters downstream of the Flaming Gorge Dam in Utah. The fourth focus reach is the Bill Williams River located in the Lower Basin, below Alamo Dam in Arizona. Each reach analysis included an in-depth analysis of environmental and recreational attributes, existing management programs, data gaps and scientific uncertainties. The report also analyzed existing environmental and recreational programs in the Basin and analyzed the opportunities and challenges for expanding these programs.

Ms. Rashid stated that the Phase I report from the Municipal and Industrial Workgroup is still under development. The status of this report, in addition to the other draft reports, will be discussed during an upcoming Coordination Committee meeting scheduled for Friday, August 15, 2014, in San Diego, California.

Minute 319 Implementation

Ms. Trujillo reported that we are currently in year two of the five-year implementation phase of Minute 319. The environmental workgroup held a status update meeting on June 26, 2014 to review the progress of the various monitoring activities associated with the pulse flow that occurred between March and May downstream of Morelos Dam. The monitoring activities will continue and a draft report will be presented later this summer. Ms. Trujillo reported that a final report will be delivered to the principal engineers at the International Boundary and Water Commission (IBWC) and its Mexican counterpart agency, CILA, at the conclusion of the Minute 319 term. Ms. Trujillo showed a map of the Delta area where water was released near Yuma at Morelos Dam for re-establishing some of the riparian areas. Ms. Trujillo also showed a few photos of downstream areas below Morelos Dam before and after the pulse flow event. The photos included an area about one mile north at the Southern International

Boundary (SIB) as well as another near the Laguna Grande, one of the key habitat restoration areas, showing dramatic difference between pre- and post-pulse flow conditions.

In addition to the environmental workgroup, the workgroup established to concentrate on the Rosarito Desalination Project has been active in discussions on whether there is a possibility for an exchange for water uses in U.S. coupled with reduced deliveries to Mexico in addition to a direct delivery option. The initial feedback from Mexico is that they are open to a discussion of the exchange possibilities and teams are currently working through those issues through the workgroup process. There is also continued coordination with Mexico on general hydrology in an attempt to better incorporate Mexico into Reclamation's annual hydrologic reporting process and the Annual Operating Plan process, building a level of trust on how we do the accounting and monitoring for our shortage and surplus determinations.

Salinity Control Forum, Work Group, and Advisory Council

Ms. Trujillo reported that the Salinity Control Forum and Advisory Council met in June in Wyoming. She indicated that one of the highlights at the meeting included a 40th anniversary of the Salinity Control Program presentation made by Jack and Don Barnett. Additionally, she reported that the Forum, through its legal subgroup, continues to work on the development of feasible alternatives or options for addressing the potential funding shortfall in the Lower Colorado River Basin Development Fund. Any option is likely to require legislation because the Congressional authorization for the Salinity Control Program is restrictive and does not allow flexibility in how funds can be contributed to the Program.

Ms. Trujillo also reported that the Forum's Work Group met in Salt Lake City, Utah, on July 28-29, 2014, and continued to finalize the draft Triennial Review of Water Quality Standards for Salinity (Review) for the period 2014 through 2017. The Review includes a Plan of Implementation that guides salinity control efforts in the upper basin, and for this Review period the Plan of Implementation would control an additional 67,000 tons of salt by 2017. She indicated that when the draft Review is finalized it will be sent out to all of the agencies for their review and comment. Ms. Trujillo reported that the Work Group has also kicked off an effort with Reclamation to update the current economic damages model. The current model is outdated and does not portray the full range of impacts that are likely occurring to Colorado River water users in the Lower Basin.

Finally, Ms. Trujillo reported that the Work Group received an update associated with Reclamation's preparation of the Paradox Valley Unit Environmental Impact Statement (EIS). She also reported that the U.S. Geological Survey is currently working on a model of the groundwater flow and transport in the Paradox Valley. This model is being used to test selected water management alternatives that could affect the concentration of total dissolved solids in the Dolores River. The modeling results are intended to help inform the development and refinement of potential alternatives to be

analyzed in the EIS. Mr. Wilson asked whether an emergency action plan was in place in case of a catastrophic failure at the Paradox well. Ms. Trujillo indicated that this is an issue being addressed by the Forum and particularly by Reclamation in the context of development of the EIS. She further indicated that while there is nothing that can be put in place immediately, there are a range of options that could be implemented over a period of time.

Glen Canyon Dam Adaptive Management Work Group and Long-Term Experimental and Management Plan EIS

Executive Director Trujillo reported that the Technical Work Group of the Glen Canyon Dam Adaptive Management Work Group (AMWG) has been meeting to review the final draft of the triennial budget (2015-2017) associated with implementation of the Glen Canyon Dam Adaptive Management Program (AMP) by Reclamation and the Grand Canyon Monitoring and Research Center (GCMRC). The proposed triennial budget will be acted upon by the AMWG at its upcoming meeting in late-August in Flagstaff, Arizona. Ms. Trujillo reported that Reclamation will be providing hydrology updates and a report on the potential for scheduling a High-Flow Experiment in late-Fall 2014 if conditions warrant.

Ms. Trujillo reported that the Basin States and their science advisors continue to work with the Department of the Interior Team in the development of a hybrid alternative for evaluation in the Long-Term Experimental and Management Plan EIS process. While there are points of tentative agreement, there are still issues that remain to be resolved (e.g., nature of experimental design, and how decision-making will be conducted). She indicated that the Basin States were meeting with the Interior team in the following week to continue the discussions.

Lower Colorado River Multi-Species Conservation Program

Ms. Trujillo reported a potential Indian water rights settlement is coming together in Arizona involving the United States, Freeport-McMoRan (Freeport), and the Hualapai Indian Tribe. Ms. Trujillo indicated that what has been proposed addresses water rights and uses in the Bill Williams River watershed in west-central Arizona. Ms. Trujillo explained that this first phase of the Hualapai Indian water rights settlement would sever and transfer some of Freeport's water rights to the LCR MSCP for use on Planet Ranch. Approximately 5,500 acre-feet of water would be leased to the LCR MSCP in exchange for \$8.3 million provided by the LCR MSCP. Freeport would donate the Planet Ranch property (3,418 acres) to the Arizona Game and Fish Commission and a portion of the ranch lands would be restored with 550 acres of new LCR MSCP habitat (cottonwood-willow and marsh). Ms. Trujillo reported that with the acquisition of the Planet Ranch and associated LCR MSCP water rights, the USFWS will credit the LCR MSCP with an additional 396 acres of habitat establishment for protecting the existing cottonwood-willow forest habitat on the Bill Williams River National Wildlife Refuge.

Mr. Harris reported that in February 2014 it was discovered that the Lower Colorado River Multi-Species Conservation Program (LCR MSCP) had been underfunded during Fiscal-Years 2011 through 2014. One of the inflation factor indices--the Gross Domestic Product Implicit Price Deflator--that is used in determining the total amount of annual contributions due to the Program had been changed by the government but had not been picked up by the Central Arizona Project's finance group when developing the annual contributions amounts. Mr. Harris indicated that over the four-year period, the LCR MSCP was underfunded by \$7,601,040.00, and that the total amount of underfunding to be repaid by the California LCR MSCP contributing entities is \$2,090,286.00. He further indicated that it is proposed to repay this amount in conjunction with California's FY-2015 contributions and schedule (i.e., quarterly payments). Mr. Harris reported that the underfunding repayment amounts contributed by both the federal and non-federal contributors will be utilized to makeup contributions to the LCR MSCP Habitat Maintenance Fund and the Remedial Measures Fund. He indicated that if any funds deposited in the Remedial Measures Fund are not utilized during the Program implementation period (2005-2055), those funds would then be refunded to each of the contributing entities.

Chairman Fisher asked Mr. Harris if the proposed Hualapai settlement and Planet Ranch acquisition alleviated any of the obligation for habitat acquisition in California. Mr. Harris responded that just over 3,000 acres of riparian habitat (i.e., cottonwood-willow and honey mesquite) still needed to be acquired and managed in California pursuant to the terms and conditions of the CESA 2081 permit.

Announcements/Notices

Ms. Trujillo reported that the Board packet included a copy of the judicial decision in Navajo Nation v. Department of the Interior. The favorable ruling at the District Court level in Federal Court in Arizona addressed the Navajo Nation's claims against the U.S., which potentially could negatively impact many of the agreements in place today such as the Interim Surplus Guidelines and the 2007 Interim Guidelines.

Ms. Trujillo also included a copy of the Protecting Lakes Against Quaggas Act of 2014 (Act) that has been introduced by Senator Heller from Nevada. The Act contains protective language advocated for by California entities to protect interstate diversions. The Board will continue to monitor the progress of that bill.

Ms. Trujillo reported that Senator Feinstein and Senator Boxer introduced the Water in the 21st Century Act, and although a hearing has not been held yet, the bill has been assigned to Senator Boxer's Environment and Public Works Committee. Ms. Trujillo said that Senator Boxer's office is open to hearing suggestions and feedback from the member agencies. Ms. Trujillo will keep the Board updated on the bill's status.

Ms. Trujillo reported that the Board packet included the 2015 ICS Creation Plans for MWD and IID, which are subject to change depending on changes agreed to between the agencies and Reclamation throughout the year. Also included in the Board packet

was the approval that CAP received from Reclamation to leave the water that was leased from the Yuma Mesa Irrigation and Drainage District, which may amount to approximately 9,000 af, in Lake Mead as system storage in 2014.

Ms. Trujillo reported that the Board packet included a recent economic report that seeks to quantify the ecosystem values in the Basin. The report estimates between \$69 billion and \$496 billion of economic benefits are provided by the ecosystem on an annual basis.

Ms. Trujillo announced the retirement of Board staff member Dr. Jay Chen, who has been with the Board for approximately 25 years. She encouraged the meeting participants to contact the Board staff with any issues they need help with.

Board Member Pocklington thanked the meeting participants for coming to the San Diego County Water Authority. He emphasized that SDCWA is expecting its first desalination plant to come on line next year, which will be the largest desalination plant in the U.S. processing 50 million gallons a day.

Chairman Fisher announced that the next meeting of the Colorado River Board will be held on Wednesday, September 10, 2014, at 10:00 a.m. at the Holiday Inn, Ontario Airport, 2155 East Convention Center Way, Ontario, California.

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. McDaniel, seconded by Mr. Benson, and unanimously carried, the meeting was adjourned at 11:42 a.m. on August 13, 2014.

Sep 02, 2014

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	51%	12,316	3605.84	12,400
* LAKE MEAD	39%	10,149	1081.66	8,900
LAKE MOHAVE	94%	1,701	643.09	11,000
LAKE HAVASU	93%	577	447.84	8,200
TOTAL SYSTEM CONTENTS **	51%	30,210		
As of 09/01/2014				
SYSTEM CONTENT LAST YEAR	50%	29,828		
* 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	48%	1,121		
Painted Rock Dam	0%	0	530.00	0
Alamo Dam	5%	52	1087.86	25
Forecasted Water Use for Calendar Year 2014 (as of 9/2/2014) (values in kaf)				
NEVADA			244	
SOUTHERN NEVADA WATER SYSTEM				215
OTHERS				29
CALIFORNIA			4,311	
METROPOLITAN WATER DISTRICT OF CALIFORNIA				827
IRRIGATION DISTRICTS				3,377
OTHERS				106
ARIZONA			2,751	
CENTRAL ARIZONA PROJECT				1,578
OTHERS				1,173
TOTAL LOWER BASIN USE				7,305
DELIVERY TO MEXICO - 2014 (Mexico Scheduled Delivery + Preliminary Yearly Excess ¹)				1,531
OTHER SIGNIFICANT INFORMATION				
UNREGULATED INFLOW INTO LAKE POWELL - SEPTEMBER FINAL FORECAST DATED 09/02/2014				
		MILLION ACRE-FEET	% of Normal	
FORECASTED WATER YEAR 2014		10.269	95%	
OBSERVED APRIL-JULY 2014		6.923	97%	
AUGUST OBSERVED INFLOW		0.517	103%	
SEPTEMBER INFLOW FORECAST		0.400	98%	
		Upper Colorado Basin	Salt/Verde Basin	
WATER YEAR 2014 PRECIP TO DATE		102% (29.8")	74% (19.3")	
CURRENT BASIN SNOWPACK		NA (NA)	NA (NA)	

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

**U.S. BUREAU OF RECLAMATION
LOWER COLORADO REGION
PROVISIONAL CY2014**

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

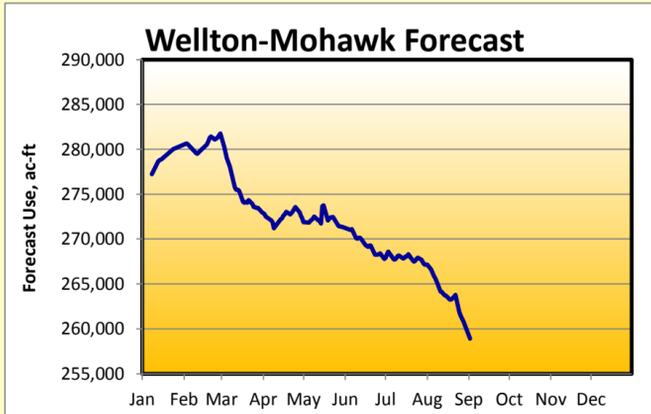
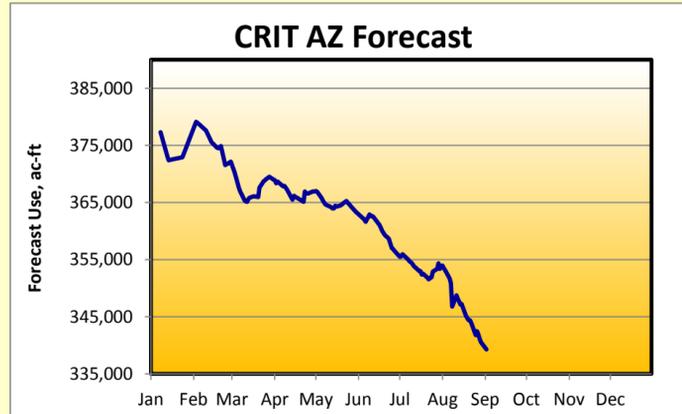
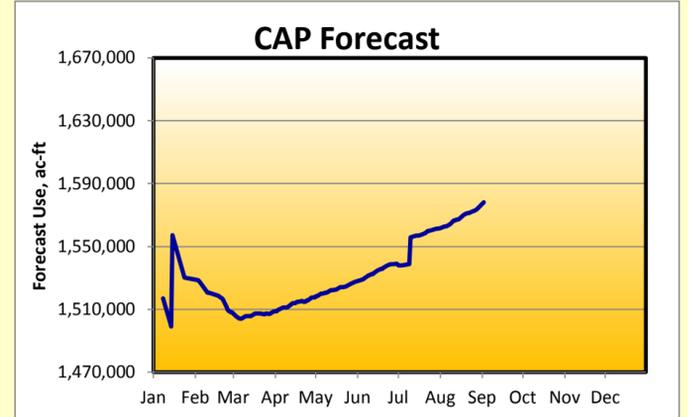
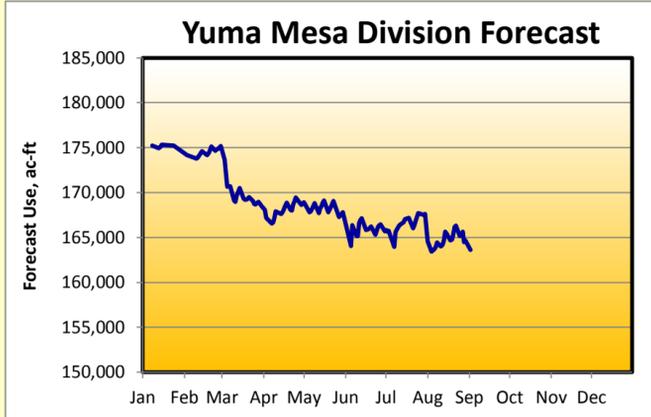
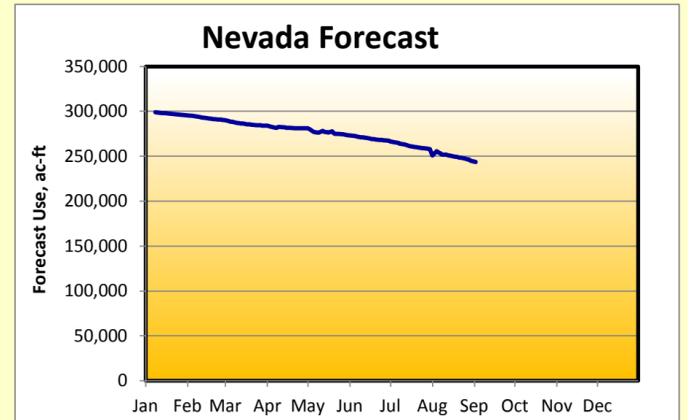
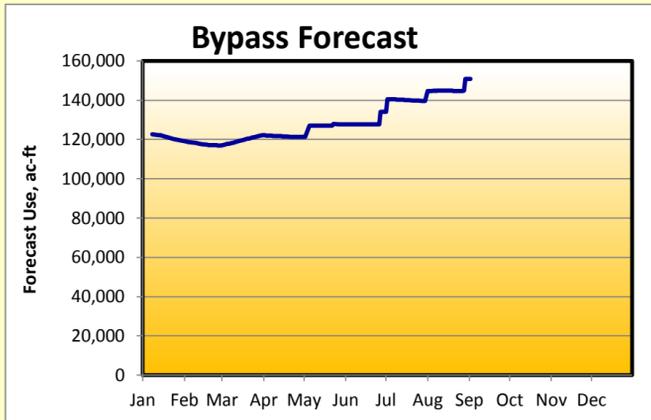
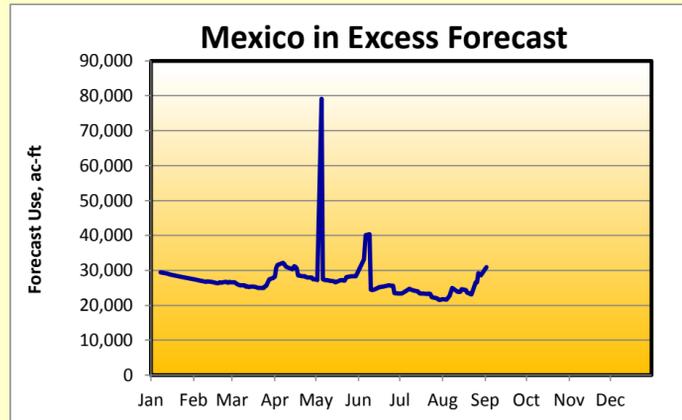
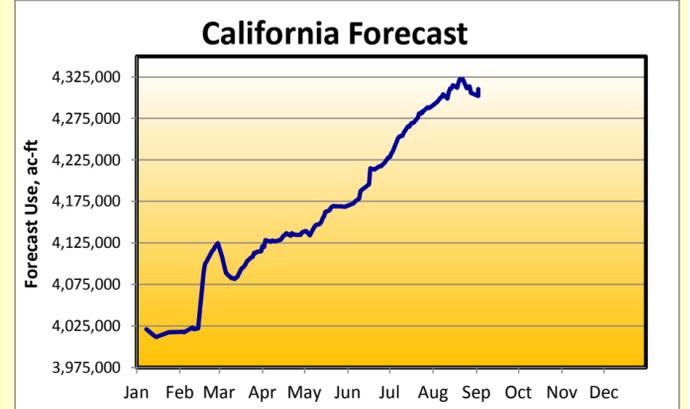
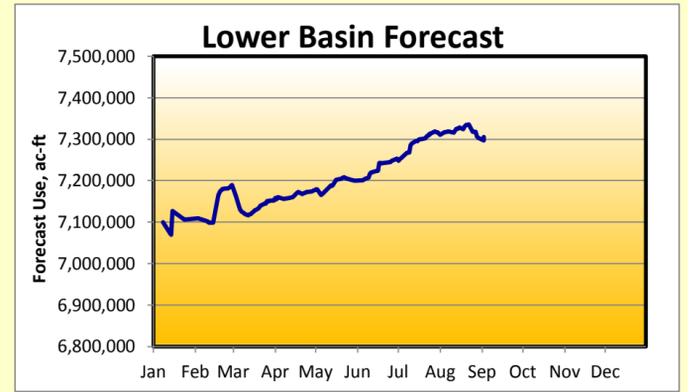
WATER USE SUMMARY

	Use To Date CY2014	Forecast Use CY2014	Approved Use² CY2014	Excess to Approval CY2014
ARIZONA	1,959,254	2,750,955	2,790,734	-39,779
CALIFORNIA	3,360,932	4,310,641	4,057,609	253,032
NEVADA	161,765	243,685	300,000	-56,315
STATES TOTAL³	5,481,951	7,305,281	7,148,343	156,938
MEXICO IN SATISFACTION OF TREATY (Including downward delivery) TO MEXICO AS SCHEDULED	1,232,973 1,212,001	1,530,889 1,500,000	1,500,000	30,889
MEXICO IN EXCESS OF TREATY BYPASS PURSUANT TO MINUTE 242	20,972 101,339	30,889 150,768		
TOTAL LOWER BASIN & MEXICO	6,816,263	8,986,938		

1/ Incorporates Jan-May 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
PROVISIONAL CY2014**

NOTE:

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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
	CY2014	CY2014	CY2014	Use	CY2014	CY2014	CY2014	Diversion
CALIFORNIA PUMPERS	1,476	1,959	1,959	---	2,636	3,499	3,499	0
FORT MOJAVE INDIAN RESERVATION, CA	6,102	7,440	8,996	---	11,341	13,828	16,720	-2,892
CITY OF NEEDLES (includes LCWSP use)	1,455	1,931	1,931	0	2,049	2,720	2,720	0
METROPOLITAN WATER DISTRICT	762,592	827,255	546,660	---	764,551	830,244	549,763	---
COLORADO RIVER INDIAN RESERVATION, CA	2,595	3,444	3,444	---	4,452	5,909	5,909	0
PALO VERDE IRRIGATION DISTRICT	342,232	418,985	454,108	---	700,760	955,760	994,500	-38,740
YUMA PROJECT RESERVATION DIVISION	45,868	57,739	47,886	---	73,092	103,379	102,700	679
YUMA PROJECT RESERVATION DIVISION - INDIAN UNIT	---	---	---	---	33,647	47,167	49,100	-1,933
YUMA PROJECT RESERVATION DIVISION - BARD UNIT	---	---	---	---	39,445	56,212	53,600	2,612
YUMA ISLAND PUMPERS	3,748	4,974	4,974	---	6,782	9,001	9,001	0
FORT YUMA INDIAN RESERVATION - RANCH 5	509	675	675	---	920	1,221	1,221	0
IMPERIAL IRRIGATION DISTRICT	1,896,078	2,545,821	2,544,150	1,671	1,879,912	2,562,234	2,645,857	---
SALTON SEA SALINITY MANAGEMENT	51,901	90,000	90,000	0	53,985	105,100	93,451	---
COACHELLA VALLEY WATER DISTRICT	245,738	349,571	352,000	-2,429	255,496	364,562	366,370	---
OTHER LCWSP CONTRACTORS	490	650	650	---	765	1,016	1,016	0
CITY OF WINTERHAVEN	52	69	69	---	78	104	104	0
CHEMEHUEVI INDIAN RESERVATION	96	128	128	---	8,544	11,340	11,340	0
TOTAL CALIFORNIA	3,360,932	4,310,641			3,765,363	4,969,917	4,804,171	

CALIFORNIA ADJUSTED APPORTIONMENT CALCULATION

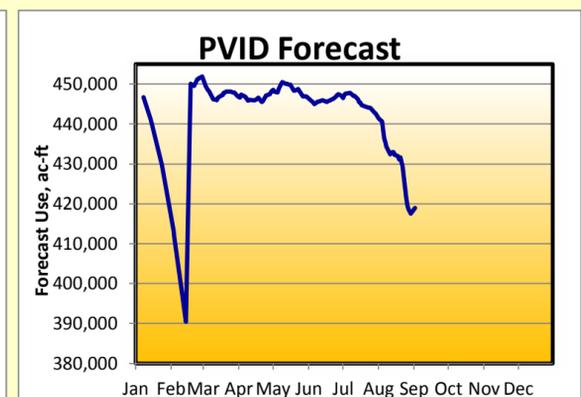
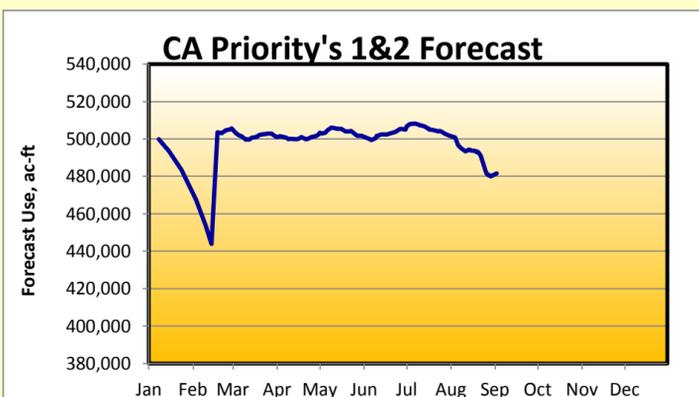
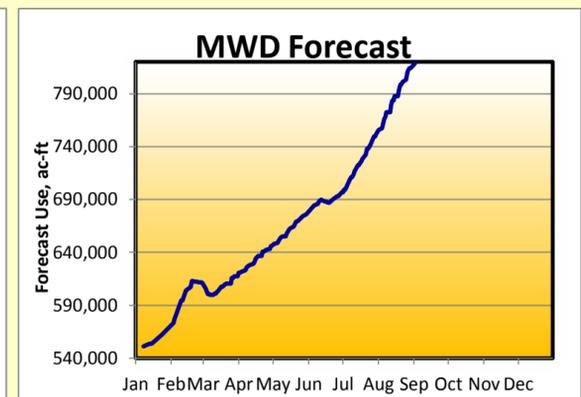
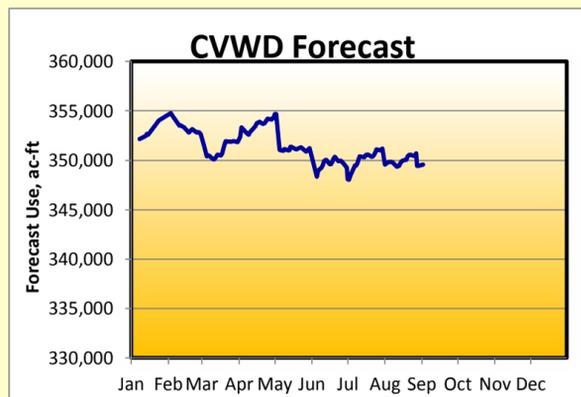
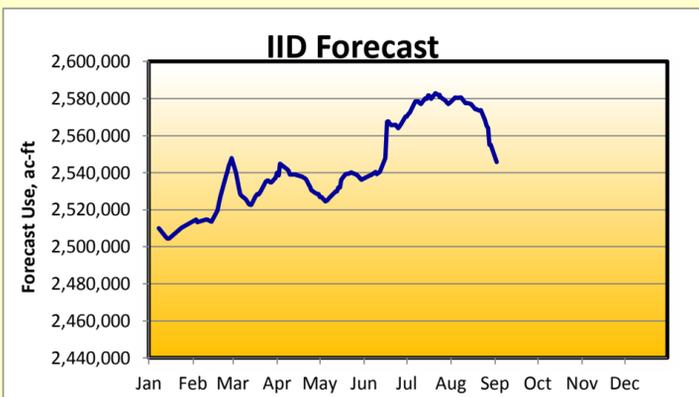
California Basic Apportionment	4,400,000
Payback of IOPP Overrun (IID)	-117,391
Intentionally Created Surplus Water (IID)	-25,000
Creation of Extraordinary Conservation ICS (MWD)	-200,000
Total State Adjusted Apportionment	4,057,609
Excess to Total State Adjusted Apportionment	253,032

ISG ANNUAL TARGET COMPARISON CALCULATION

Priorities 1, 2, 3b Use (PVID+YPRD+Island+PVID Mesa)	481,698
MWD Adjustment	-61,698
Total California Agricultural Use (PVID+YPRD+Island+IID+CVWD)	3,377,090
California Agricultural Paybacks	117,391
Misc. PPRs Covered by IID and CVWD	14,500
California ICS Creation (IID ICS)	25,000
Total Use for Target Comparison ¹	3,472,283
ISG Annual Target (Exhibit B)	3,455,000
Amount over/(under) ISG Annual Target	17,283

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

1/ 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
PROVISIONAL CY2014**

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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 \(Water Accounting Reports\)](#)

WATER USER	Use To Date CY2014	Forecast Use CY2014	Estimated Use CY2014	Excess to Estimated Use CY2014	Diversion To Date CY2014	Forecast Diversion CY2014	Approved Diversion CY2014	Excess to Approved Diversion CY2014
ARIZONA PUMPERS	13,488	17,902	17,902	---	20,869	27,698	27,698	0
LAKE MEAD NRA, AZ - Diversions from Lake Mead	111	144	144	---	111	144	144	0
LAKE MEAD NRA, AZ - Diversions from Lake Mohave	133	193	193	---	133	193	193	0
DAVIS DAM PROJECT	1	1	1	---	41	54	54	0
BULLHEAD CITY	3,750	6,565	8,523	---	5,597	9,797	12,720	-2,923
MOHAVE WATER CONSERVATION	373	495	495	---	556	738	738	0
BROOKE WATER LLC	158	210	210	---	239	317	317	0
MOHAVE VALLEY IDD	15,729	22,765	22,617	---	29,128	42,157	41,883	274
FORT MOJAVE INDIAN RESERVATION, AZ	28,171	36,163	42,120	---	52,169	66,969	78,000	-11,031
GOLDEN SHORES WATER CONSERVATION DISTRICT	179	238	238	---	269	357	357	0
HAVASU NATIONAL WILDLIFE REFUGE	4,034	4,688	3,563	---	31,423	39,089	41,820	-2,731
LAKE HAVASU CITY	5,477	8,394	9,083	---	8,835	13,538	14,650	-1,112
CENTRAL ARIZONA PROJECT	1,082,642	1,577,964	1,528,908	---	1,082,642	1,577,964	1,528,908	---
TOWN OF PARKER	270	360	359	---	592	873	935	-62
COLORADO RIVER INDIAN RESERVATION, AZ	268,234	339,284	376,964	---	464,983	625,707	662,402	-36,695
EHRENBURG IMPROVEMENT ASSOCIATION	184	244	244	---	258	343	343	0
CIBOLA VALLEY IRRIGATION DISTRICT	12,771	16,951	16,951	---	17,862	23,707	23,707	0
CIBOLA NATIONAL WILDLIFE REFUGE	9,600	12,741	12,741	0	15,483	20,550	20,550	0
IMPERIAL NATIONAL WILDLIFE REFUGE	1,971	2,616	2,616	0	3,183	4,224	4,224	0
YUMA PROVING GROUND	334	479	550	---	334	479	550	-71
GILA MONSTER FARMS	3,425	4,474	5,244	---	5,868	7,879	9,156	-1,277
WELLTON-MOHAWK IDD	191,590	258,935	278,000	-19,065	276,198	392,325	424,997	---
CITY OF YUMA	10,575	15,762	16,452	-690	17,453	26,112	26,358	-246
MARINE CORPS AIR STATION YUMA	903	1,391	1,718	---	903	1,391	1,718	-327
UNION PACIFIC RAILROAD	22	30	24	---	32	48	48	0
UNIVERSITY OF ARIZONA	398	522	536	---	398	522	536	-14
YUMA UNION HIGH SCHOOL DISTRICT	191	221	148	---	243	284	200	84
DESERT LAWN MEMORIAL	35	46	46	---	50	66	66	0
NORTH GILA VALLEY IDD	7,753	10,302	12,384	---	32,903	49,330	51,963	-2,633
YUMA IRRIGATION DISTRICT	27,153	38,198	42,991	---	48,106	69,296	76,600	-7,304
YUMA MESA IDD	86,538	115,117	119,077	---	143,075	201,680	217,488	-15,808
UNIT "B" IRRIGATION DISTRICT	14,723	20,167	20,408	---	20,464	30,354	33,450	-3,096
FORT YUMA INDIAN RESERVATION	1,052	1,396	1,396	---	1,620	2,150	2,150	0
YUMA COUNTY WATER USERS' ASSOCIATION	165,892	232,541	241,118	---	243,862	361,929	383,000	-21,071
COCOPA INDIAN RESERVATION	1,208	3,209	6,599	---	1,221	4,289	10,055	-5,766
RECLAMATION-YUMA AREA OFFICE	186	247	247	---	186	247	247	0
RETURN FROM SOUTH GILA WELLS								
TOTAL ARIZONA	1,959,254	2,750,955	2,790,810		2,527,289	3,602,800	3,698,225	
CAP	1,082,642	1,577,964				1,577,964		
ALL OTHERS	876,612	1,172,991	1,261,902			2,024,836	2,169,317	
YUMA MESA DIVISION, GILA PROJECT	121,444	163,617	250,000	-86,383		320,306		

ARIZONA ADJUSTED APPORTIONMENT CALCULATION

Arizona Basic Apportionment	2,800,000
Payback of IOPP overruns - (Cocopah and Beattie)	-266
CAGR/YMIDD Pilot Conservation Program ¹	-9000
Total State Adjusted Apportionment	2,790,734
Excess to Total State Adjusted Apportionment	-39,779
Estimated Allowable Use for CAP	1,619,096

1/ CAWCD has agreed to forebear 9,000 acre-feet during phase one of the study, during which time CAGR 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
PROVISIONAL CY2014**

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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 \(Water Accounting Reports\)](#)

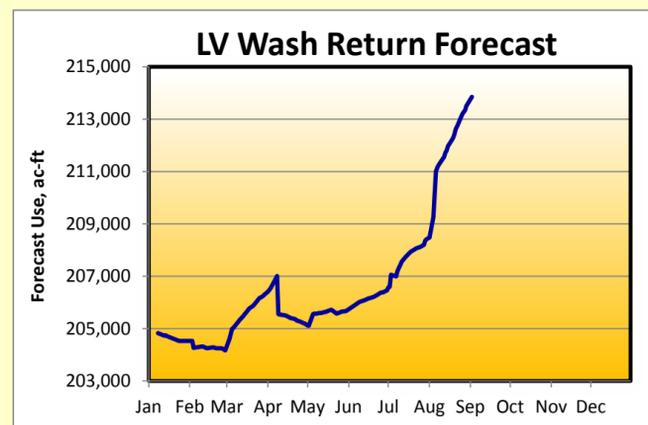
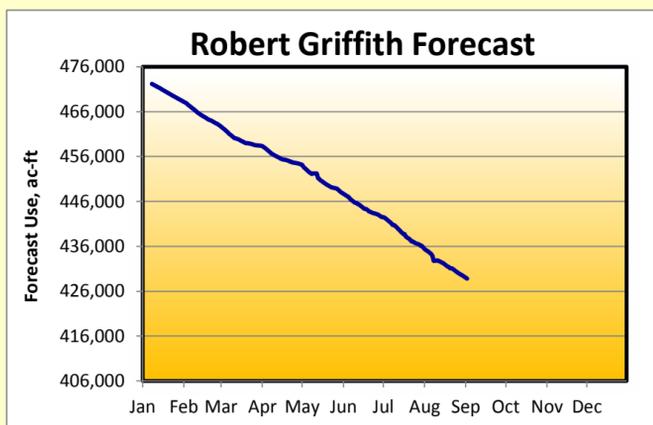
<u>WATER USER</u>	<u>Use To Date CY2014</u>	<u>Forecast Use CY2014</u>	<u>Estimated Use CY2014</u>	<u>Excess to Estimated Use CY2014</u>	<u>Diversion To Date CY2014</u>	<u>Forecast Diversion CY2014</u>	<u>Approved Diversion CY2014</u>	<u>Excess to Approved Diversion CY2014</u>
ROBERT B. GRIFFITH WATER PROJECT (SNWS)	285,100	428,775	473,360	-44,585	285,100	428,775	473,360	-44,585
LAKE MEAD NRA, NV - Diversions from Lake Mead	312	478	568	---	312	478	568	-90
LAKE MEAD NRA, NV - Diversions from Lake Mohave	109	180	224	---	109	180	224	-44
BASIC MANAGEMENT INC.	4,289	6,808	8,208	---	4,289	6,808	8,208	-1,400
CITY OF HENDERSON (BMI DELIVERY)	11,843	15,504	15,878	---	11,843	15,504	15,878	-374
NEVADA STATE DEPT. OF FISH & GAME	7	11	12	-1	281	400	300	---
PACIFIC COAST BUILDING PRODUCTS INC.	582	875	928	---	582	875	928	-53
BOULDER CANYON PROJECT	30	40	40	---	54	72	72	0
BIG BEND WATER DISTRICT	1,468	2,401	2,062	---	2,883	4,754	4,961	-207
FORT MOJAVE INDIAN TRIBE	1,677	2,470	3,685	---	2,503	3,686	5,500	-1,814
LAS VEGAS WASH RETURN FLOWS	-143,652	-213,857	-204,964	---				
TOTAL NEVADA	161,765	243,685	300,001	-44,586	307,956	461,532	509,999	-48,567
SOUTHERN NEVADA WATER SYSTEM (SNWS)	141,448	214,918				428,775		
ALL OTHERS	20,317	28,767				32,757		
NEVADA USES ABOVE HOOVER	158,620	238,814				453,092		
NEVADA USES BELOW HOOVER	3,145	4,871				8,440		

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	-56,315



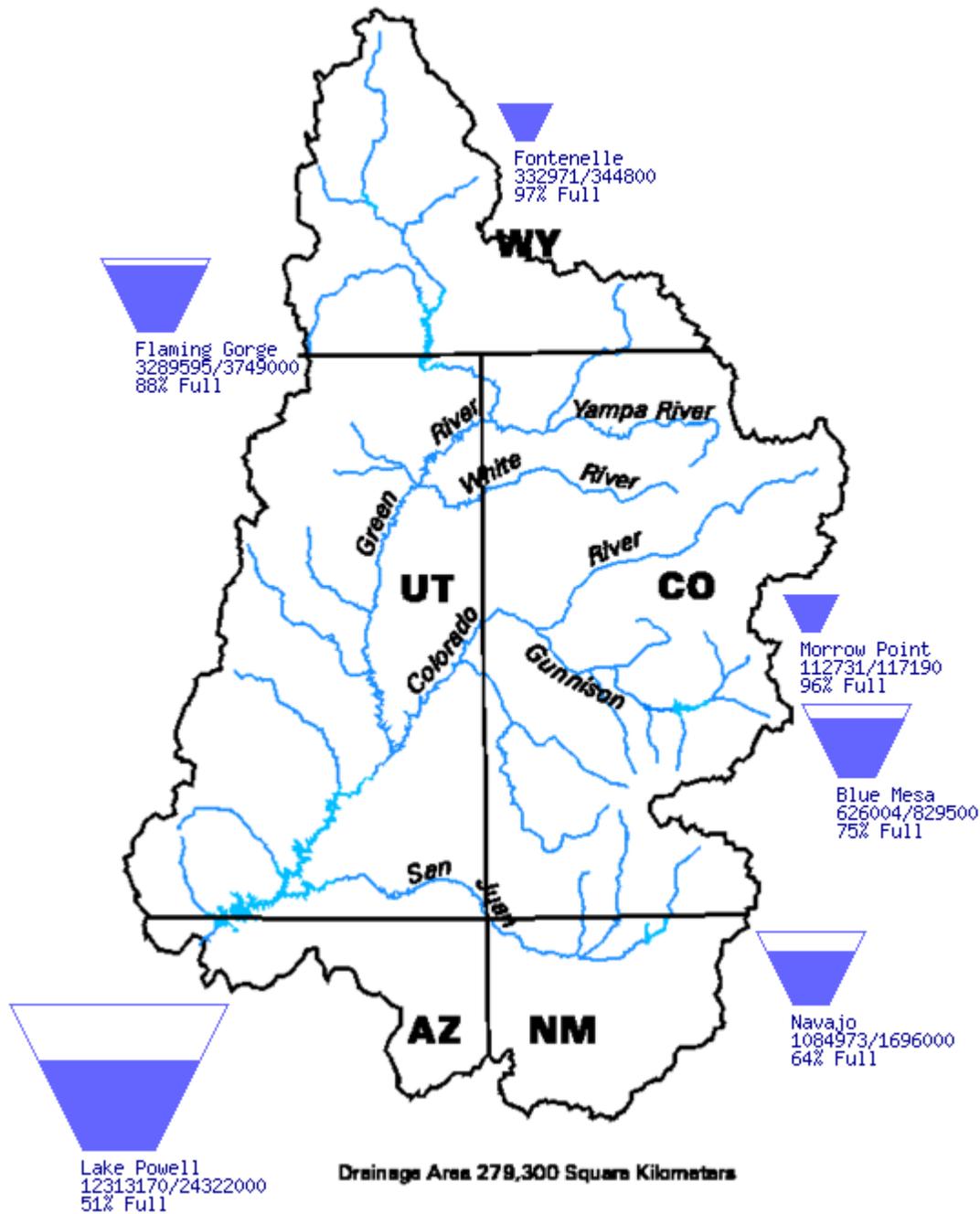
NOTES: Click on Nevada Schedules and Approvals above for incoming diversion schedules and approvals.

Upper Colorado Region Water Resources Group

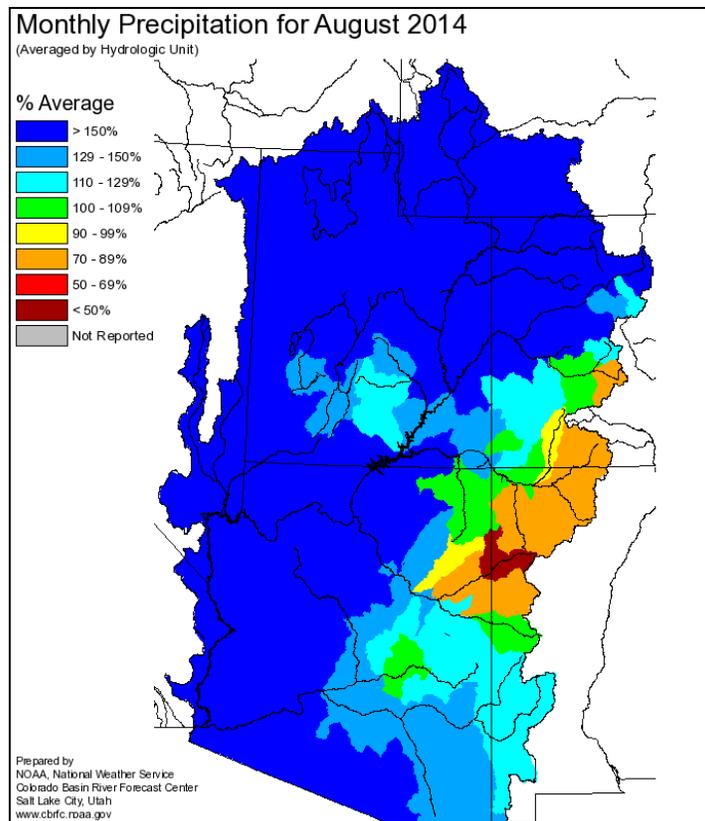
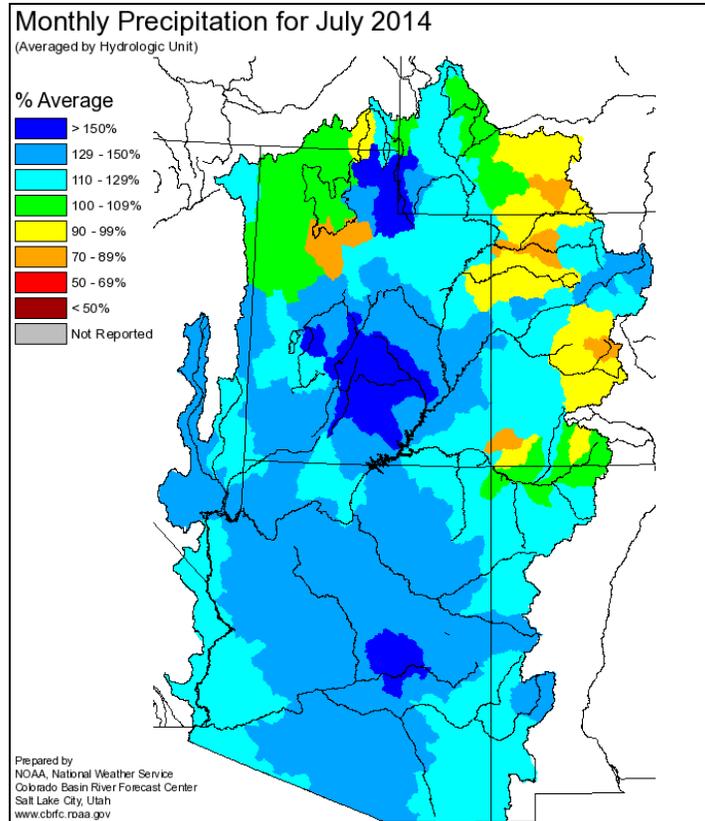
River Basin Tea-Cup Diagrams

Data Current as of:
09/02/2014

Upper Colorado River Drainage Basin

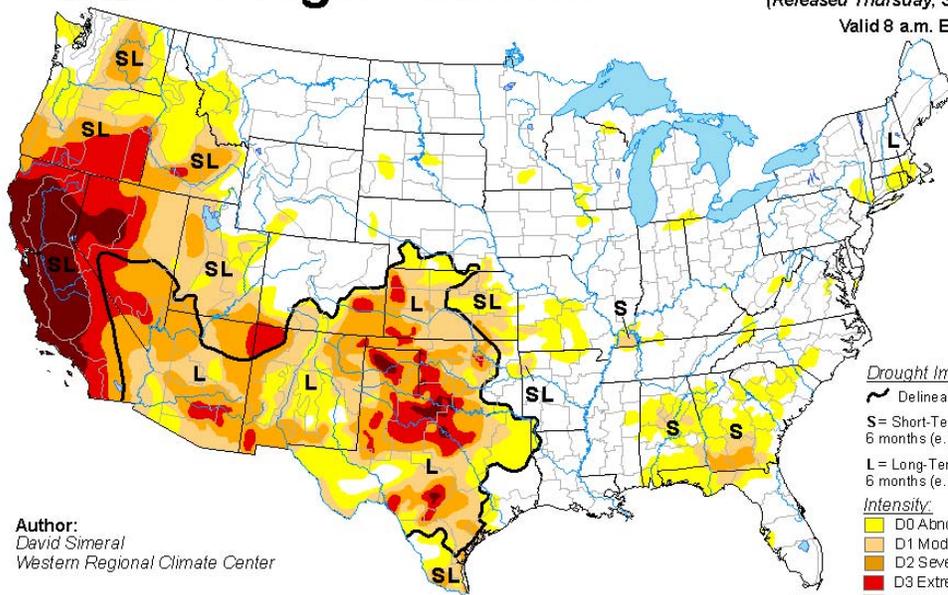


NOAA National Weather Service Monthly Precipitation Maps for July and August 2014



U.S. Drought Monitor

September 2, 2014
 (Released Thursday, Sep. 4, 2014)
 Valid 8 a.m. EDT

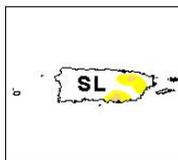
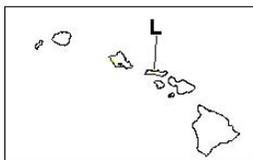
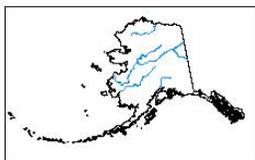


Author:
 David Simeral
 Western Regional Climate Center

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

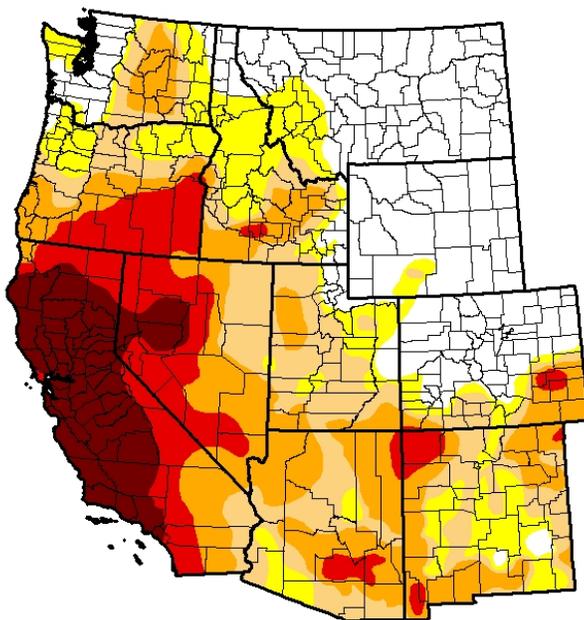
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



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

U.S. Drought Monitor West

September 2, 2014
 (Released Thursday, Sep. 4, 2014)
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Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	28.38	71.62	57.74	40.04	20.16	8.90
Last Week 8/26/2014	27.50	72.50	58.91	41.45	20.62	8.90
3 Months Ago 6/2/2014	31.84	68.16	60.32	47.21	20.20	4.31
Start of Calendar Year 12/1/2013	22.20	77.80	51.44	31.11	7.75	0.63
Start of Water Year 10/1/2013	25.25	74.75	58.96	34.18	5.57	0.63
One Year Ago 9/2/2013	14.19	85.81	76.15	53.28	16.40	1.83

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

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Author:
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 Western Regional Climate Center



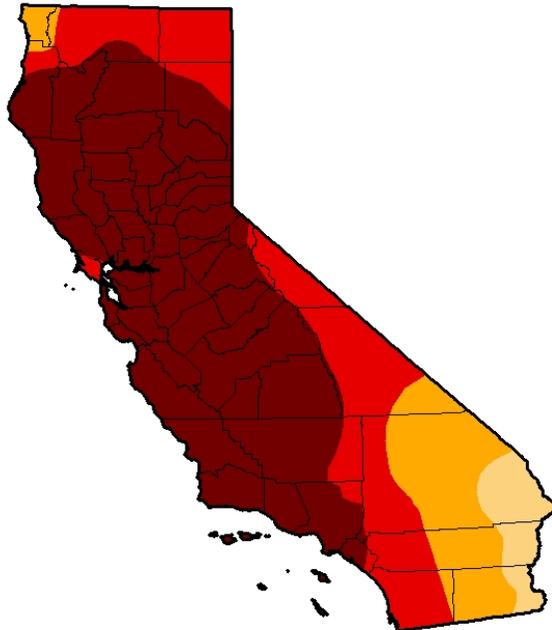
<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor California

September 2, 2014

(Released Thursday, Sep. 4, 2014)

Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	95.42	81.92	58.41
Last Week 8/26/2014	0.00	100.00	100.00	95.42	81.92	58.41
3 Months Ago 6/3/2014	0.00	100.00	100.00	100.00	76.68	24.77
Start of Calendar Year 1/23/2013	2.61	97.39	94.25	87.53	27.59	0.00
Start of Water Year 1/01/2013	2.63	97.37	95.95	84.12	11.36	0.00
One Year Ago 9/2/2013	0.00	100.00	97.08	92.94	11.36	0.00

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.

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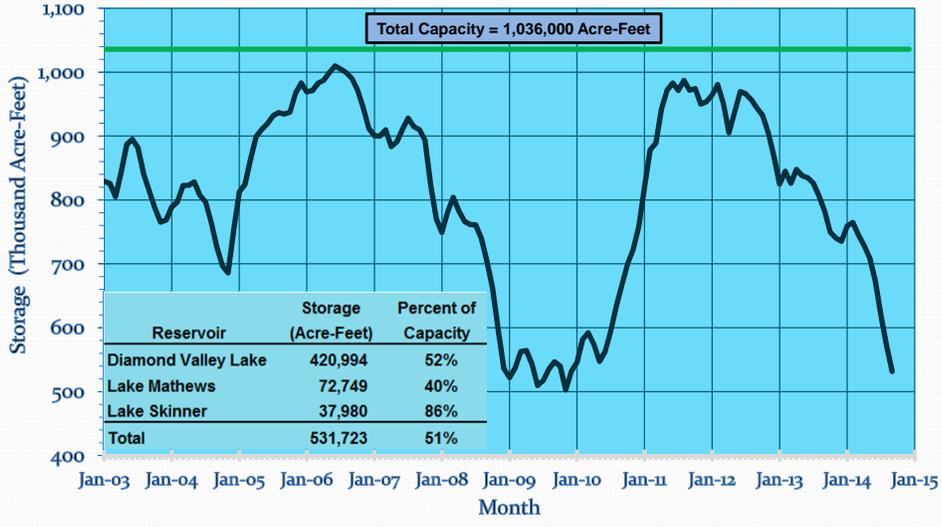
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Western Regional Climate Center

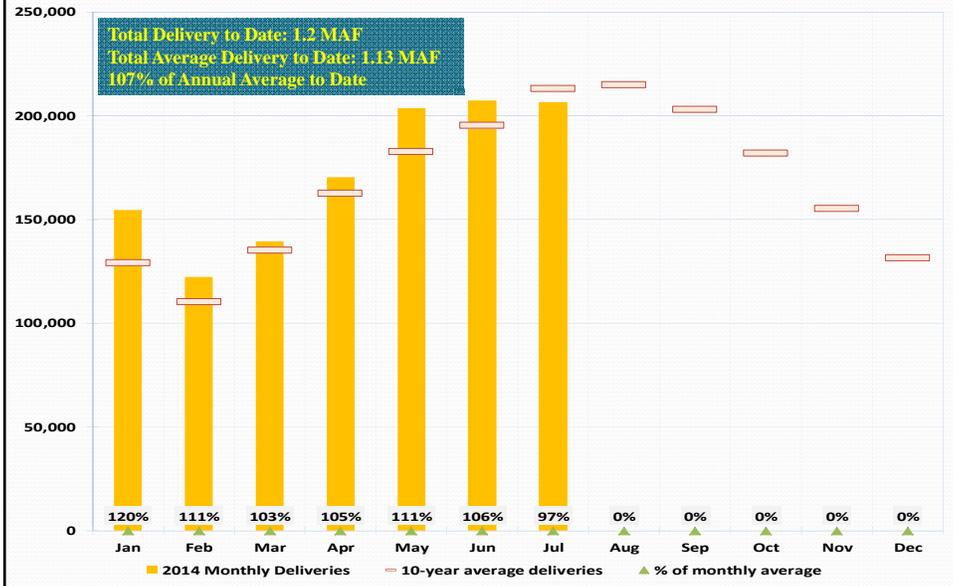


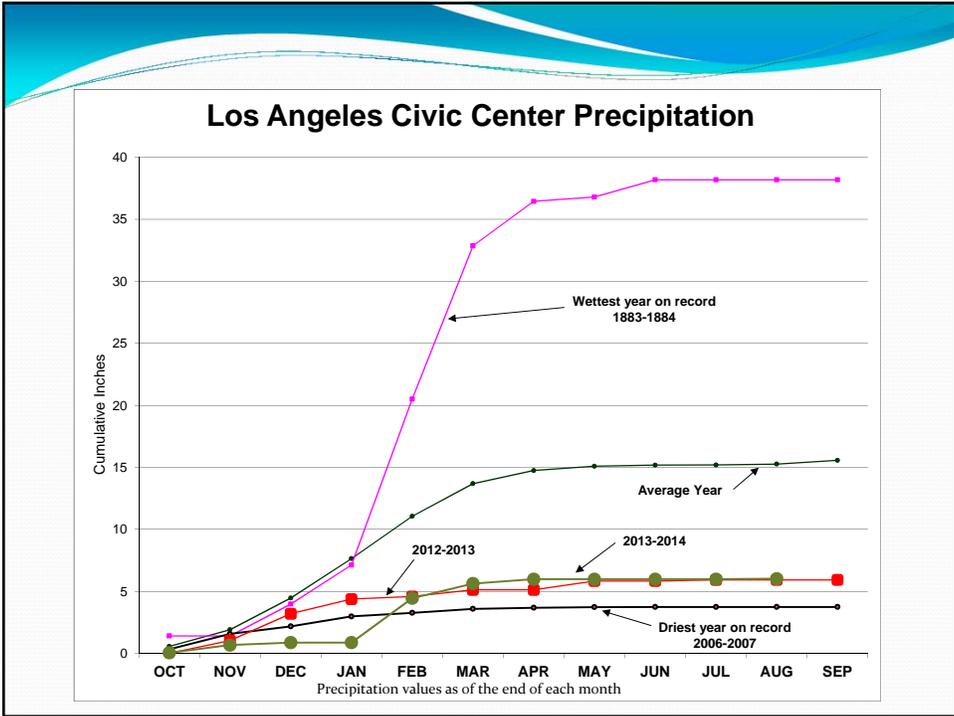
<http://droughtmonitor.unl.edu/>

MWD's Combined Reservoir Storage as of September 1, 2014 Lake Skinner, Lake Mathews, and Diamond Valley Lake



2014 Water Deliveries to Member Agencies (AF)



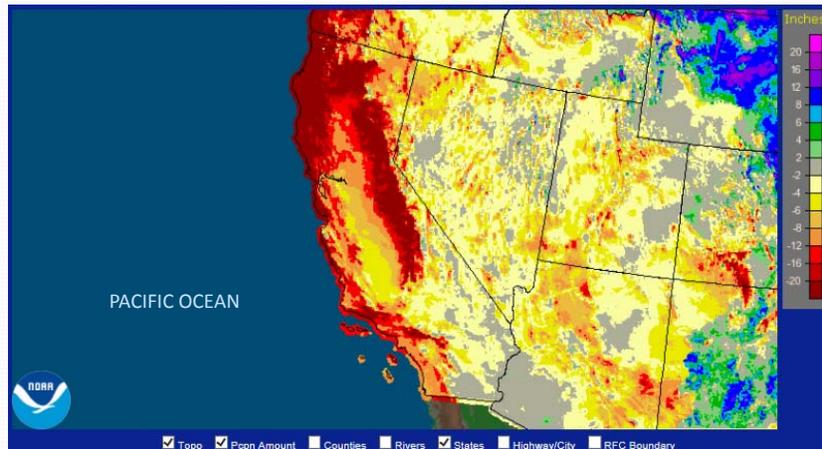


Precipitation at Six Major Stations in Southern California

From October 1, 2013 to August 31, 2014

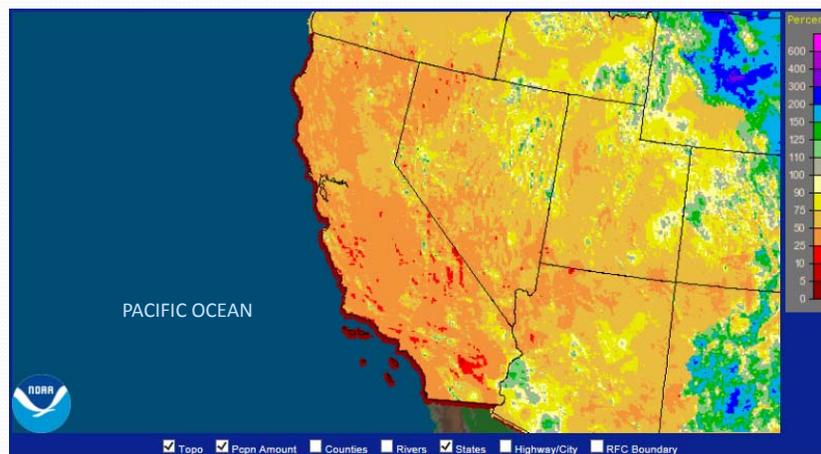
Station	Precipitation in inches		Average to Date	Percent of Average
	Aug	Oct 1 to Aug 31		
San Luis Obispo	0.00	5.36	22.18	24%
Santa Barbara	0.01	6.51	17.57	37%
Los Angeles	0.04	6.03	15.27	39%
San Diego	0.06	3.22	9.98	32%
Blythe	0.58	1.47	3.42	43%
Imperial	1.53	2.50	2.59	97%

Current Water Year: Departure From Normal Precipitation



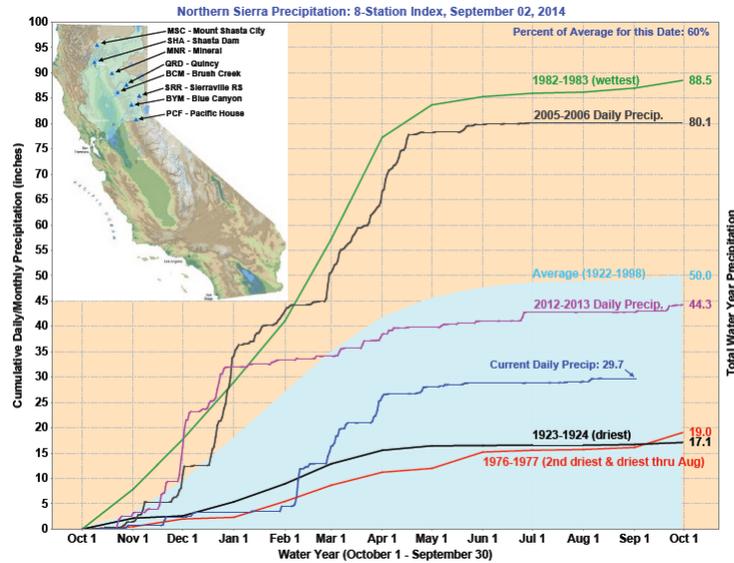
National Weather Service –Advance Hydrologic Prediction Center
<http://water.weather.gov/precip/>

Current Water Year: Percent of Normal Precipitation



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

Northern Sierra Precipitation-8 Station Index



Statewide Summary of Water-Year Data

Water Year	Precipitation (233 Stations) % of avg.	Runoff (31 Rivers) % of avg.	Res. Storage (155 Reservoirs) % of avg.	Sacto. Riv. Run-off * (MAF)
2009-10	110	90	105	15.9
2010-11	135	145	130	15.1
2011-12	75	60	95	11.8
2012-13	80	60	80	11.9
Comparison of Water Year Data as of Aug 1				
2012-13	75	60	80	11.5
2013-14	55	35	60	6.9

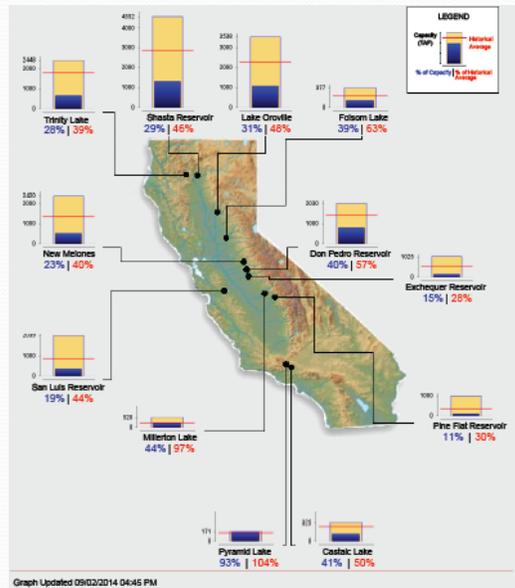
* The Sacramento River Run-off is the sum of the unimpaired water year flow from the Sacramento River above Bend Bridge near Red Bluff, Feather River inflow to Oroville, Yuba River at Smartville, and American River inflow to Folsom. The average annual run-off is 18.4 MAF.

Comparison of SWP Water Storage

Reservoir	Capacity	2013 Storage (acre-feet)		2014 Storage (acre-feet)	
		As of September 1	% of Cap.	As of September 1	% of Cap.
Frenchman	55,475	28,716	52%	20,404	37%
Lake Davis	84,371	59,335	70%	46,932	56%
Antelope	22,564	18,637	83%	18,043	80%
Oroville	3,553,405	1,706,271	48%	1,100,805	31%
TOTAL North	3,715,815	1,812,959	49%	1,186,184	32%
Del Valle	39,914	36,554	92%	39,907	100%
San Luis (DWR)	1,062,180	339,201	32%	157,200	15%
Pyramid	169,901	167,127	98%	167,025	98%
Castaic	319,247	281,085	88%	133,189	42%
Silverwood	74,970	71,853	96%	70,563	94%
Perris	126,841	71,809	57%	62,080	49%
TOTAL South	1,793,053	967,629	54%	629,964	35%
TOTAL SWP	5,508,868	2,780,588	50%	1,816,148	33%

State Water Project Projected Deliveries:
As of May 30, 2014, the Table-A allocations for 2014 is 5%

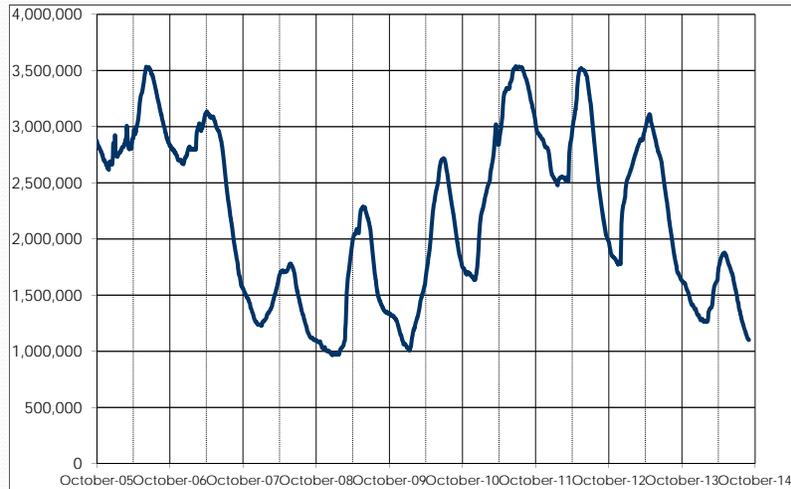
Current Reservoir Conditions



<http://cdec.water.ca.gov/cdecapp/resapp/getResGraphsMain.action>

Oroville Storage (acre-feet)

October 1, 2005 – September 1, 2014



Water Quality, Supply and Infrastructure Improvement Act of 2014 – \$7.545B AB 1471 (D-Rendon)

- It replaces the \$11.1 billion water bond.
- Signed into Law on August 13, 2014 by Gov. Brown.
- The new bond includes \$7.12 billion in new debt, plus the repurposing of existing unspent bond funds of \$425 million for a total of \$7.545 billion.
- The measure will be Proposition 1 on the November ballot.



**Water Quality, Supply and Infrastructure
Improvement Act of 2014 – \$7.545B
AB 1471 (D-Rendon)**

- Regional Water Reliability - \$810M
- Safe Drinking Water - \$520M
- Water Recycling - \$725M
- Groundwater Sustainability - \$900M
- Watershed Protection, Watershed Ecosystem Restoration,
State Settlements - \$1.495B
- Storage - \$2.7B
- Statewide Flood Management - \$395M

To: All Annual Operating Plan Recipients

From: Lower Colorado Region
Boulder Canyon Operations Office
River Operations Group
Daniel Bunk
P.O. Box 61470
Boulder City, NV 89006-1470
Phone: 702-293-8013



The operation of Lake Powell and Lake Mead in this August 2014 24-Month Study is pursuant to the December 2007 Record of Decision on Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations of Lake Powell and Lake Mead (Interim Guidelines), and reflects the 2014 Annual Operating Plan (AOP). Pursuant to the Interim Guidelines, the August 2013 24-Month Study projections of the January 1, 2014, system storage and reservoir water surface elevations set the operational tier for the coordinated operation of Lake Powell and Lake Mead during 2014.

Consistent with Section 6.C.1 of the Interim Guidelines, the Lake Powell operational tier for water year 2014 is the Mid-Elevation Release Tier with an annual release volume of 7.48 maf.

Consistent with Section 2.B.5 of the Interim Guidelines, the Intentionally Created Surplus (ICS) Surplus Condition is the criterion governing the operation of Lake Mead for calendar year 2014.

This August 24-Month study projects the January 1, 2015 Lake Powell elevation will be 3,596.62 feet, which is below the 2015 Equalization Elevation of 3,649 feet and above elevation 3,575 feet. Consistent with Section 6.B of the Interim Guidelines, Lake Powell's operations in water year 2015 will be governed by the Upper Elevation Balancing Tier, with an initial water year release volume of 8.23 maf and the potential for an April adjustment to equalization or balancing releases in April 2015. Consistent with Section 6.B.4 of the Interim Guidelines, an April adjustment to balancing releases is projected to occur and Lake Powell is currently projected to release 9.0 maf in water year 2015. This determination will be documented in the 2015 AOP, which is currently in the final stages of development.

The Interim Guidelines are available for download at: <http://www.usbr.gov/lc/region/programs/strategies/RecordofDecision.pdf>.

The 2014 AOP is available for download at: <http://www.usbr.gov/lc/region/q4000/aop/AOP14.pdf>.

Current runoff projections into Lake Powell are provided by the National Weather Service's Colorado Basin River Forecast Center and are as follows: Observed unregulated inflow into Lake Powell for the month of July was 0.838 maf or 77 percent of the 30-year average from 1981 to 2010. The forecast for August unregulated inflow into Lake Powell is 0.450 maf or 90 percent of the 30-year average. The preliminary observed 2014 April through July unregulated inflow is 6.923 maf or 97 percent of average.

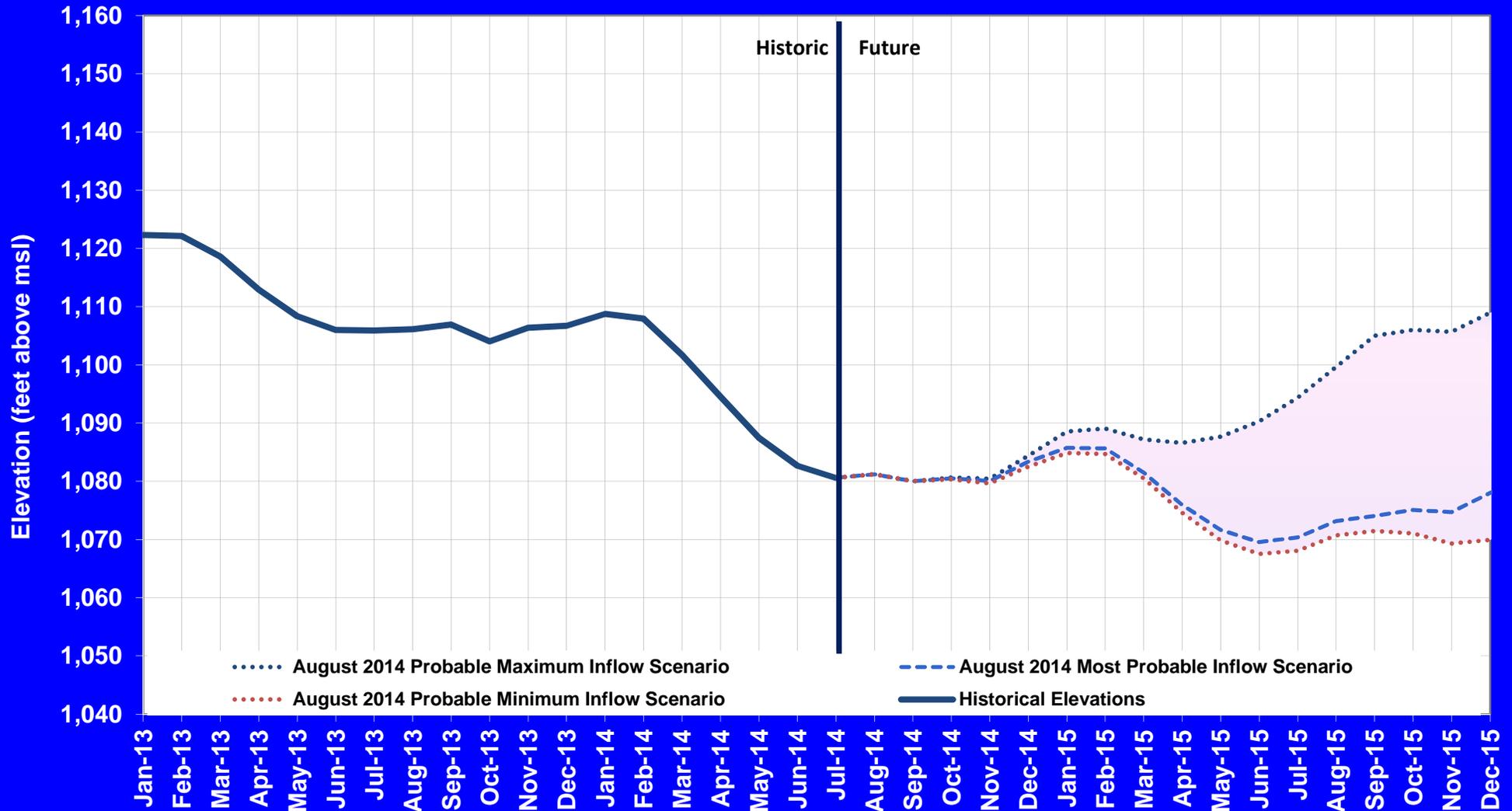
In this study, the calendar year 2014 diversion for Metropolitan Water District of Southern California (MWD) is forecasted to be 1.170 maf. The calendar year 2014 diversion for the Central Arizona Project (CAP) is forecasted to be 1.576 maf. Consumptive use for Nevada above Hoover (SNWP Use) is forecasted to be 0.226 maf for calendar year 2014.

Due to changing Lake Mead elevations, Hoover's generator capacity is adjusted based on estimated effective capacity and plant availability. The estimated effective capacity is based on projected Lake Mead elevations. Unit capacity tests will be performed as the lake elevation changes. This study reflects these changes in the projections.

Hoover, Davis, and Parker historical gross energy figures come from PO&M reports provided by the Lower Colorado Region's Power Management Office, Bureau of Reclamation, Boulder City, Nevada. Questions regarding these historical energy numbers can be directed to Larry Karr at (702) 293-8094.

Lake Mead End of Month Elevations

Projections from August 2014 24-Month Study Inflow Scenarios



* See attached page for an explanation of the three hydrologic scenarios displayed in this chart

August 2014 24-Month Study Projections Lake Mead End of Month Elevation Chart



Explanation of Hydrologic Scenarios

In addition to the August 2014 24-Month Study based on the Most Probable inflow scenario, Reclamation conducted model runs to determine a possible range of reservoir elevations under Probable Minimum and Probable Maximum inflow scenarios. The Probable Minimum inflow scenario reflects a dry hydrologic condition which statistically would be exceeded 90% of the time. The Most Probable inflow scenario reflects a median hydrologic condition which statistically would be exceeded 50% of the time. The Probable Maximum inflow scenario reflects a wet hydrologic condition which statistically would be exceeded 10% of the time. There is approximately an 80% probability that a future elevation will fall inside the range of the minimum and maximum inflow scenarios. There are possible inflow scenarios that would result in reservoir elevations falling outside the ranges indicated in these reports.

Consistent with Section 6.C.1 of the Interim Guidelines, the Lake Powell operational tier for water year 2014 is the Mid-Elevation Release Tier with an annual release volume of 7.48 maf.

Consistent with Section 2.B.5 of the Interim Guidelines, the Intentionally Created Surplus (ICS) Surplus Condition is the criterion governing the operation of Lake Mead for calendar year 2014.

The Interim Guidelines are available for download at <http://www.usbr.gov/lc/region/programs/strategies/RecordofDecision.pdf>.

The August 2014 Most Probable 24-Month Study is available for download at <http://www.usbr.gov/lc/region/g4000/24mo/2014/AUG14.pdf>.

August 2014 Probable Minimum Inflow Scenario

The water year 2015 unregulated inflow into Lake Powell under the August Probable Minimum inflow scenario is 6.50 maf, or 60 percent of average. Consistent with the Interim Guidelines, the Probable Minimum 24-Month Study results in a projected annual release volume from Glen Canyon Dam of 9.00 maf in water year 2015 and 7.48 maf in water year 2016. With intervening flows between Lake Powell and Lake Mead of 0.64 maf in water year 2015, Lake Mead's elevation is projected to be 1,071.47 feet on September 30, 2015.

August 2014 Most Probable Inflow Scenario

The water year 2015 unregulated inflow into Lake Powell under the August Most Probable inflow scenario is 9.72 maf, or 90 percent of average. Consistent with the Interim Guidelines, the August Most Probable inflow scenario results in a projected water year release volume from Glen Canyon Dam of 9.00 maf in water year 2015 and water year 2016. With intervening flows between Lake Powell and Lake Mead of 0.86 maf in water year 2015, Lake Mead's elevation is projected to be 1,074.06 feet on September 30, 2015.

August 2014 Probable Maximum Inflow Scenario

The water year 2015 unregulated inflow into Lake Powell under the August Probable Maximum inflow scenario is 17.00 maf, or 157 percent of average. Consistent with the Interim Guidelines, the Probable Maximum 24-Month Study results in a projected annual release volume from Glen Canyon Dam of 11.63 maf in water year 2015 and 11.74 maf in water year 2016. With intervening flows between Lake Powell and Lake Mead of 1.09 maf in water year 2015, Lake Mead's elevation is projected to be 1,105.00 feet on September 30, 2015.

Percent of Traces with Event or System Condition

Results from August 2014 CRSS^{1,2,3} (values in percent)

	Event or System Condition	2015	2016	2017	2018	2019
Upper Basin – Lake Powell	Equalization Tier	5	20	24	24	32
	<i>Equalization – annual release > 8.23 maf</i>	5	20	24	24	31
	<i>Equalization – annual release = 8.23 maf</i>	0	0	0	0	1
	Upper Elevation Balancing Tier	95	51	53	53	43
	<i>Upper Elevation Balancing – annual release > 8.23 maf</i>	58	43	41	41	34
	<i>Upper Elevation Balancing – annual release = 8.23 maf</i>	37	7	11	12	9
	<i>Upper Elevation Balancing – annual release < 8.23 maf</i>	0	1	1	0	0
	Mid-Elevation Release Tier	0	29	19	14	15
	<i>Mid-Elevation Release – annual release = 8.23 maf</i>	0	0	0	1	2
	<i>Mid-Elevation Release – annual release = 7.48 maf</i>	0	29	19	13	13
	Lower Elevation Balancing Tier	0	0	4	9	10
Lower Basin – Lake Mead	Shortage Condition – any amount (Mead ≤ 1,075 ft)	0	36	58	68	61
	<i>Shortage – 1st level (Mead ≤ 1,075 and ≥ 1,050)</i>	0	36	43	46	34
	<i>Shortage – 2nd level (Mead < 1,050 and ≥ 1,025)</i>	0	0	15	18	17
	<i>Shortage – 3rd level (Mead < 1,025)</i>	0	0	0	4	10
	Surplus Condition – any amount (Mead ≥ 1,145 ft)	0	0	5	7	14
	<i>Surplus – Flood Control</i>	0	0	0	1	2
	Normal or ICS Surplus Condition	100	64	37	25	25

¹ Reservoir initial conditions based on the most probable August 24-month Study projected levels for December 31, 2014.

² Hydrologic inflow traces based on resampling of the observed natural flow record from 1906-2010.

³ Percentages shown may not be representative of the full range of future possibilities that could occur with different modeling assumptions.

CRSS Results

August 2014

Description of model analyzed

Natural Flow Input

Description

Direct Natural Flow (DNF)

Indexed Sequential Method (ISM) on observed natural flow record (1906-2010) to create 105 traces

Key Modeling Assumptions Common to All Runs

1. Reservoir initial conditions based on the most probable August 24-month Study projected levels for December 31, 2014.
2. Lake Powell and Lake Mead operations according to Interim Guidelines with an ICS limit of 2.1 MAF
3. All other modeling assumptions are documented in Appendix A of the Shortage/Coordinated Operations FEIS and Appendix G2 of the Colorado River Basin Water Supply and Demand Study.
4. Upper Basin demand schedules updated to 2007 UCRC schedules in December 2009
5. Lower Basin ICS schedules updated by the Lower Basin States in December 2009



Weekly Drought Brief Tuesday, September 2, 2014

CURRENT CONDITIONS

Fire Activity: CAL FIRE has responded to 4,429 wildfires across the state since January 1, burning 84,833 acres. This year's fire activity is above the year-to-date average of 3,471 wildfires on 73,061 acres. CAL FIRE responded to over 130 new wildfires last week, including the Oregon Fire in Trinity County, which has burned 580 acres with full containment.

Reservoir Levels (% capacity): [Reservoir Levels](#) as of August 28 remain low, including: Don Pedro 41%; Exchequer 16%; Folsom Lake 39%; Lake Oroville 31%; Millerton Lake 45%; New Melones 23%; Pine Flat 11%; San Luis 19%; Lake Shasta 30%; and Trinity Lake 29%. An update of water levels at [other smaller reservoirs](#) is also available.

Vulnerable Water Systems: The State Water Board's Drinking Water Program is providing 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 over \$10.8 million has been identified for specific emergency drinking water projects out of \$15 million appropriated in March for this purpose. Updated information can be found on the [State Water Board's Drinking Water Program](#) website.

Recent Precipitation: No significant rain fell over the last week and no rain is expected soon.

KEY ACTION ITEMS FROM THIS WEEK

- **Senate Approves Groundwater Legislation:** On Wednesday, August 27, legislation aimed at advancing [sustainable management of the state's groundwater basins](#) passed on the Senate floor, which would enact the Sustainable Groundwater Management Act and provide a framework for improved management of groundwater supplies by local authorities. The bills also would provide a mechanism for limited state intervention when necessary to protect groundwater resources.
- **State Water Board Lifts Curtailments in the Van Duzen River:** On Friday, August 29, the State Water Board has notified post-1914 water right holders on the Van Duzen River, down to the confluence with the Eel River, that curtailment notices issued on June 30, would be lifted due to the end of the irrigation season and drop in demand. The State Water Board Division of Water Rights will continue to actively monitor the conditions for the remainder of the Main Stem and North Fork Eel River and will notify the affected parties if conditions change.
- **State Water Board Evaluates Urban Water Use Reports:** As of Thursday, August 28, approximately 360 urban water suppliers have submitted water production reports for both June and July. The State Water Board is currently evaluating the water production reports and will be providing the amount of water conservation achieved by region and water supplier. This information will continue to help the Water Board decide whether additional actions are necessary to expand water conservation efforts during the drought.

- **Emergency Regulations to Close Merced River Angling Now In Effect:** On Monday, August 25, the Office of Administrative Law (OAL) approved the proposal adopted by the California Fish and Game Commission on August 6, to implement [early restrictions on angling in the Merced River](#), effective immediately. This action increases the survival of juvenile and adult wild rainbow trout and steelhead by reducing fish mortality associated with hook-and-line fishing. This early closure affects only the Merced River from Crocker-Huffman Dam downstream to the Snelling Road Bridge.
- **State Water Board Approves School Stormwater Program:** In response to the Governor's Emergency Drought Proclamation, the State Water Board approved guidelines for the [Drought Response Outreach Program for Schools \(DROPS\)](#) on Tuesday, August 19. DROPS will provide approximately \$25.5 million to local educational agencies to complete projects at K-12 schools that reduce stormwater runoff and pollution by capturing stormwater for groundwater recharge or for use to offset other water sources
- **Emergency Food Aid, Rental and Utility Assistance:** The California Department of Social Services (CDSS) has provided to date over 219,300 boxes of food to community food banks in drought-impacted counties. Approximately 170,600 boxes of food have been picked up by 88,504 households. By this Friday, September 5, an additional 10,800 will be delivered to five counties. Local food banks continue to target this food aid to residents most impacted by the 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, August 21, the Department of Housing and Community Development (HCD) has reported that a total of \$3,727,201 is committed; and \$2,329,530 in funds has been issued to 1,881 applicants in 19 counties.

The Department of Community Services and Development (CSD) has 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, August 22, CSD has reported that a total of \$28,648 has been issued to 312 households.

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, August 22, 56 clients are enrolled in employment training programs, 11 clients have obtained employment, and 41 clients are receiving employment support services. CSD has also reported that a total of \$92,527 has been spent to assist participants in completing training employment programs.

- **California Major League Baseball Teams Join The Effort To Save Water:** With the second half of the Major League Baseball (MLB) season starting off strong in California, the San Francisco Giants, San Diego Padres, Oakland Athletics and Los Angeles Angels of Anaheim have joined forces with Save Our Water to encourage [baseball fans to join the water conservation effort](#) during California's extraordinary drought.

- **Save Our Water Launches Spanish Website:** The Save Our Water campaign has [launched](#) a Spanish-language website - AhorreNuestraAqua.com - to help even more Californians learn about water conservation during this extraordinary drought. The website features Spanish videos and public service announcements, daily water-saving tips and news clips, a spotlight featuring Save Our Water partner agencies, email newsletter registration options for daily tips and news, social media updates and more.
- **Landscaper Workshops Scheduled in Truckee, ‘Get Ahead or Get Parched - 6 Ways to Survive the Drought’:** On Friday, September 5, a [workshop for professional landscapers](#) has been scheduled in Truckee, CA to help them efficiently manage water during the ongoing drought. Landscape watering is a prime conservation opportunity, since improperly managed outdoor watering can be exceptionally wasteful.
- **September is National Preparedness Month:** The California Governor’s Office of Emergency Services will be hosting the [California Day of Preparedness Fair](#) with a focus on water conservation efforts on Saturday, September 6, to inform and educate the public about emergency response in California and to encourage Californians to take steps to prepare for emergencies in their homes, businesses, and communities.
- **Water Saving Tips Promoted Across the State:** The state’s newly improved water conservation website, SaveOurWater.com, is promoting the “Don’t Waste Summer” campaign. This campaign provides a new conservation tip each day for the 100 days of summer. Supporters can sign up for daily email tips, and share Save Our Water’s [Twitter](#) and [Facebook](#) feeds for this public awareness campaign.
- **Open Burn Ban in Affect across the State:** Open burning continues to be prohibited on 31 million acres of land across the state due to the [burn ban that CAL FIRE](#) has directed through the coordination of its unit chiefs. This ban on open burning in state responsibility areas (outside of cities and towns) reduces wildfire danger amidst extremely dry conditions.
- **Drought Response Funding:** \$687 million in state drought funding that was appropriated in March through emergency legislation continues to advance toward meeting critical needs. Over \$61 million of this funding addresses emergency water needs, food aid and housing assistance to drought-impacted communities. Nearly \$21 million of those funds are already in communities providing assistance and additional funds are being readied as drought impacts worsen. Nearly \$625 million of the emergency funds appropriated in March came from sources dedicated to capital improvements to water systems. Since March, state agencies have expedited grant approvals, getting over \$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 will be awarded this fall, with the remaining \$250 million granted by mid next-year. State government has also appropriated tens of millions in funding to CAL FIRE over its typical budget to enable staffing-up fire crews much earlier this fire season.
- **Governor’s Drought Task Force:** The Task Force continues to meet daily to take actions that conserve water and coordinate state response to the drought.

Local Government

- **Local Emergency Proclamations:** A total of 58 local Emergency Proclamations have been received to date from city, county, and tribal governments, as well as special districts:
 - **25 Counties:** Glenn, Inyo, Humboldt, Kern, Kings, Lake, Madera, Mariposa, Mendocino, Merced, Modoc, Napa, Plumas, Santa Barbara, San Bernardino, San Joaquin, San Luis Obispo, Shasta, Siskiyou, Sonoma, Sutter, Trinity, Tulare, Tuolumne, and Yuba.
 - **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).
 - **8 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) and Kashia Band of Pomo Indians of the Stewarts Point Rancheria (Sonoma County).
 - **12 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).
- **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 30 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, Napa, 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 2 tribes have established drought task forces to coordinate tribal drought response. These tribes include: Hoopa Valley Tribe (Humboldt County), and Yurok Tribe (Humboldt Counties).

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



FEDERAL REGISTER

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Friday,

No. 158

August 15, 2014

Part IV

Department of the Interior

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Western Distinct Population Segment of the Yellow-Billed Cuckoo; Proposed Rule

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS-R8-ES-2013-0011; 4500030114]

RIN 1018-AZ44

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Western Distinct Population Segment of the Yellow-Billed Cuckoo

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to designate critical habitat for the western distinct population segment of the yellow-billed cuckoo (western yellow-billed cuckoo) (*Coccyzus americanus*) under the Endangered Species Act. In total, approximately 546,335 acres (221,094 hectares) are being proposed for designation as critical habitat in Arizona, California, Colorado, Idaho, Nevada, New Mexico, Texas, Utah, and Wyoming. The effect of this regulation, if finalized, is to designate critical habitat for the western yellow-billed cuckoo under the Endangered Species Act.

DATES: We will accept comments received or postmarked on or before October 14, 2014. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES** section, below) must be received by 11:59 p.m. Eastern Time on the closing date. We must receive requests for public hearings, in writing, at the address shown in the **FOR FURTHER INFORMATION CONTACT** section by September 29, 2014.

ADDRESSES: You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal: <http://www.regulations.gov>. In the Search box, enter Docket No. FWS-R8-ES-2013-0011, which is the docket number for this rulemaking. Then, in the Search panel on the left side of the screen, under the Document Type heading, click on the Proposed Rules link to locate this document. You may submit a comment by clicking on "Comment Now!"

(2) *By hard copy:* Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS-R8-ES-2013-0011; U.S. Fish and Wildlife Service Headquarters, MS: BPHC, 5275 Leesburg Pike, Falls Church, VA 22041-3803.

We request that you send comments only by the methods described above. We will post all comments on <http://www.regulations.gov>. This generally means that we will post any personal information you provide us (see the Information Requested section below for more information).

The coordinates or plot points or both from which the critical habitat maps are generated are included in the administrative record for this rulemaking and are available at <http://www.regulations.gov> at Docket No. FWS-R8-ES-2013-0011, and at the Sacramento Fish and Wildlife Office at <http://www.fws.gov/sacramento> (see **FOR FURTHER INFORMATION CONTACT**). Any additional tools or supporting information that we may develop for this critical habitat designation will also be available at the Fish and Wildlife Service Web site and field office set out above, and may also be included in the preamble of this rule or at <http://www.regulations.gov>.

FOR FURTHER INFORMATION CONTACT: Jen Norris, Field Supervisor, U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, 2800 Cottage Way, Room W-2605, Sacramento, California 95825; by telephone 916-414-6600; or by facsimile 916-414-6712. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800-877-8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Under the Endangered Species Act, any species that is determined to be an endangered or threatened species requires critical habitat to be designated, to the maximum extent prudent and determinable. Designations and revisions of critical habitat can only be completed by issuing a rule. On October 3, 2013, we proposed listing the western yellow-billed cuckoo as a threatened species (78 FR 61621).

Section 4(b)(2) of the Act states that the Secretary shall designate critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The critical habitat areas we are proposing to designate in this rule constitute our current best assessment of the areas that meet the definition of critical habitat for the western yellow-billed cuckoo.

This is a proposed rule to designate critical habitat for the western yellow-billed cuckoo. This proposed designation of critical habitat identifies

areas based on the best scientific and commercial information available that we have determined are essential to the conservation of the species. The proposed critical habitat is located in the States of Arizona, California, Colorado, Idaho, Nevada, New Mexico, Texas, Utah, and Wyoming.

We have prepared a draft economic analysis of the proposed designation of critical habitat. In order to consider economic impacts, we have prepared an analysis of the economic impacts of the proposed critical habitat designation and related factors. The supporting information we used in determining the economic impacts of the proposed critical habitat is summarized in this proposed rule (see Consideration of Economic Impacts) and is available at <http://www.regulations.gov> at Docket No. FWS-R8-ES-2013-0011 and at the Sacramento Fish and Wildlife Office at <http://www.fws.gov/sacramento> (see **FOR FURTHER INFORMATION CONTACT**).

We are seeking peer review and public comment. We are seeking comments and soliciting information from knowledgeable individuals with scientific expertise to review our analysis of the best available science and application of that science and to provide any additional scientific information to improve this proposed rule. Because we will consider all comments and information we receive during the comment period, our final determination may differ from this proposal.

Information Requested

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from other concerned governmental agencies, Native American tribes, the scientific community, industry, or any other interested parties concerning this proposed rule. We particularly seek comments concerning:

(1) The western yellow-billed cuckoo's biology and range; habitat requirements for feeding, breeding, and sheltering; and the locations of any additional populations.

(2) The reasons why we should or should not designate habitat as "critical habitat" under section 4 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act), including whether there are threats to the western yellow-billed cuckoo from human activity that can be expected to increase due to the designation, and whether that increase in threat

outweighs the benefit of designation such that the designation of critical habitat may not be prudent.

(3) Specific information on:

(a) The amount and distribution of western yellow-billed cuckoo habitat;

(b) What areas occupied at the time of listing (i.e., are currently occupied), that contain features essential to the conservation of the western yellow-billed cuckoo, should be included in the critical habitat designation and why;

(c) Special management considerations or protection that may be needed in areas we are proposing as critical habitat, including managing for the potential effects of climate change; and

(d) What areas not occupied at the time of listing are essential for the conservation of the western yellow-billed cuckoo and why.

(4) For Unit 52 (*NM-8 Middle Rio Grande 1; New Mexico*), we have determined that it is appropriate to propose critical habitat into the conservation pool area of Elephant Butte Reservoir down to approximately river-mile (RM) 54. This is based on the number of yellow-billed cuckoo breeding pairs identified in the area, the amount of habitat available, and the relationship and importance of the Elephant Butte Reservoir and Rio Grande River to other yellow-billed cuckoo habitat in New Mexico and the southwest. Additional habitat and western yellow-billed cuckoo breeding occurrences are located downstream to approximately RM 42. We seek information on whether the area or portions of the area to RM 42 at Elephant Butte Reservoir in New Mexico is essential to the conservation of the species and whether we should include the area as critical habitat for the species and why.

(5) Whether any specific areas we are proposing for critical habitat designation should be considered for exclusion under section 4(b)(2) of the Act, and for those specific areas whether the benefits of potentially excluding them outweigh the benefits of including them, pursuant to section 4(b)(2) of the Act. For specific lands that we should consider for exclusion under section 4(b)(2) of the Act, please provide us management plans, conservation easements, agreements, habitat conservation plans (HCP), or other appropriate information, that describe the commitment and assurances of protection of the physical or biological features of western yellow-billed cuckoo critical habitat; property boundaries; western yellow-billed cuckoo status, distribution, and abundance; and management actions to protect the

physical or biological features of the western yellow-billed cuckoo.

(6) Land use designations and current or planned activities in the subject areas, and their possible impacts on the proposed critical habitat.

(7) Information on the projected and reasonably likely impacts of climate change on the western yellow-billed cuckoo and proposed critical habitat.

(8) Any probable economic, national security, or other relevant impacts of designating as critical habitat any particular area that may be included in the final designation and the benefits of including or excluding areas where these impacts occur.

(9) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in the **ADDRESSES** section. We request that you send comments only by the methods described in the **ADDRESSES** section.

We will post your entire comment—including your personal identifying information—on <http://www.regulations.gov>. You may request at the top of your document that we withhold personal information such as your street address, phone number, or email address from public review; however, we cannot guarantee that we will be able to do so.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on <http://www.regulations.gov>, or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Previous Federal Actions

All previous Federal actions are described in the proposal to list the western yellow-billed cuckoo as a threatened species under the Act published previously in the **Federal Register** on October 3, 2013 (78 FR 61621). Please see that document for actions leading to this proposed designation of critical habitat.

Background

It is our intent to discuss below only those topics directly relevant to the designation of critical habitat for the western yellow-billed cuckoo. For a thorough assessment of the species' biology and natural history, including limiting factors and species resource needs, please refer to the proposal to list this species as threatened published previously in the **Federal Register** on October 3, 2013 (78 FR 61621) (available at <http://www.regulations.gov> at Docket No. FWS-R8-ES-2013-0104).

Critical Habitat

Background

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures which are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management, such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the U.S. Fish and Wildlife Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow

RECLAMATION

Managing Water in the West

Planning for a Fall 2014 HFE

Glen Knowles
Bureau of Reclamation
GCDAMP AMWG Meeting
August 28, 2014



U.S. Department of the Interior
Bureau of Reclamation

HFE Decision Making Process

1. Planning and Budgeting Component

- Annual resource status assessment
 - Agency Reporting (Jan. Reporting Meeting)
 - GCDAMP Budget and Work Plan Process

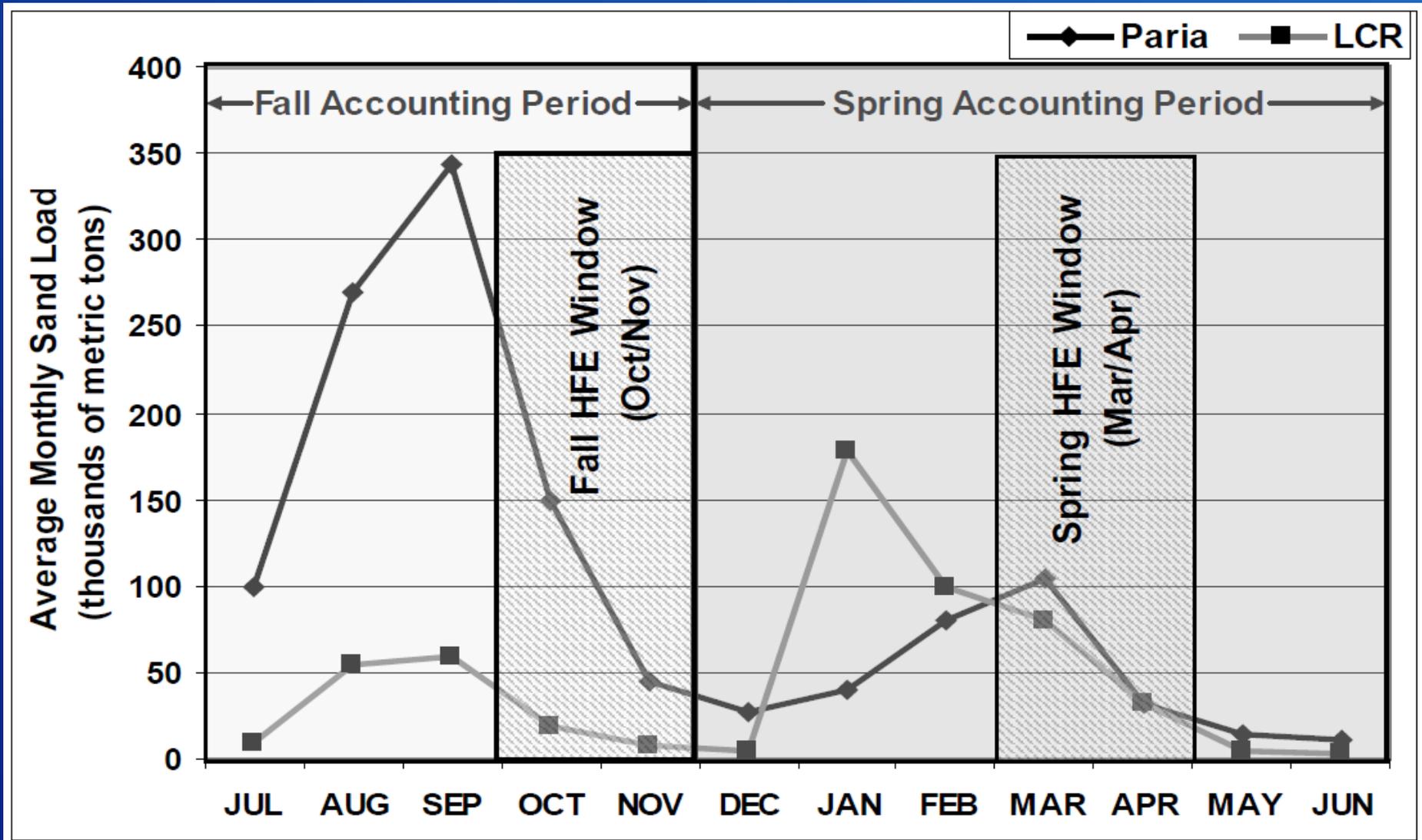
2. Modeling Component

3. Decision and Implementation Component

- Review Modeling Component
- Review Status of Resources
- Consultation with agencies and tribes, AMWG input
- Tech Team Report and Recommendation/DOI
GCD Leadership Team Recommendation

RECLAMATION

Modeling Component



RECLAMATION

HFE Protocol Parameters

Possible Timing

- March-April and October-November through 2020
- Spring HFEs will not be considered until 2015

Duration range

- 1 hr – 96 hrs (at full magnitude)
- 1 ½ days – 6 ½ days (including ramping)

Magnitude range

- 31,500 cfs – 45,000 cfs (depends on maintenance)

Ramping rates

- Ramping rates are defined by 1996 ROD and 1997 Glen Canyon Dam Operating Criteria (62 FR 9447, 4,000 cfs up and 1,500 cfs down)

Model Constraints

- “the Leadership Team's view is that it would be inappropriate to adjust the model output in a way that would increase the amount of water to be released or increase power costs associated with an HFE release.” November 7, 2012 memo from Anne Castle

Glen Canyon Dam LTEMP EIS Update

Adaptive Management Working
Group

August 28, 2014
Flagstaff, Arizona





Glen Canyon Dam

Long-Term Experimental and Management Plan EIS



Topics

- The Hybrid Alternative
- Experimental Design
- Analysis of Climate Change Effects
- Update on Process & Schedule
- NPS Value Survey
- Discussion

Preliminary Results—Do Not Cite or Distribute



Glen Canyon Dam

Long-Term Experimental and Management Plan EIS



Hybrid Alternative

This is a new alternative for LTEMP, which we hope will be able to receive consensus support. This alternative, however, is still under development and analysis. It has not yet been the subject of government-to-government consultation.

Preliminary Results—Do Not Cite or Distribute



Glen Canyon Dam

Long-Term Experimental and Management Plan EIS



Key Modeling Findings

- CDAS and RTCD have similar performance relative to most resource goals
 - Humpback chub (minimum number of adults)
 - Differences can be tied to frequency of HFEs and number of trout
 - Sediment as measured by sand load index and sand mass balance index
 - Differences can be tied to frequency of HFEs, monthly volumes, and fluctuation levels
 - Hydropower (economic value of generation and capacity)
 - Differences can be tied to frequency of HFEs and fluctuation levels

Preliminary Results—Do Not Cite or Distribute



Glen Canyon Dam

Long-Term Experimental and Management Plan EIS



Benefits of Hybrid Alternative Relative to Original Alternatives Considered

- Blends two alternatives (CDAS and RTCD) that were weighted highly by a wide variety of stakeholders in structured decision analysis process
- Uses the monthly volume pattern of RTCD that more closely matches power demand to improve hydropower performance and sediment conservation
- Represents an improvement over CDAS and RTCD in terms of sediment transport and conservation
- Proposes Trout Management Flows (TMFs) to manage the trout population and manage risks related to humpback chub
- Tests a variety of condition-dependent elements to improve sediment and humpback chub conservation

Preliminary Results—Do Not Cite or Distribute



Glen Canyon Dam

Long-Term Experimental and Management Plan EIS



Characteristics of the Hybrid Alternative

Component	Hybrid Alternative	Other Alternatives
Monthly volumes	Lower volume Aug-Oct, relatively even rest of year following CROD	Same as RTCD. More even monthly distribution of flows than all but YRSF.
Daily fluctuations	10 x kaf in June-Aug 9 x kaf in other months Maximum daily range 8,000 cfs	Fluctuation comparable to No-Action. Less than Balanced Resource and RTCD. More than others.
Proactive spring HFEs	Yes	Yes in CDAS and YRSF. No in others.
Spring HFEs	Yes, possible in all 20 years	Same as CDAS, SASF, and YRSF. More than No-Action, Balanced Resource, and RTCD.
Fall HFEs	Yes, possible in all 20 years	Same as CDAS, RTCD, SASF, and YRSF. More than No-Action and Balanced Resource.
Extended duration fall HFE	Yes, up to 250 hr	Yes in CDAS and YRSF. No in others.
Rapid response HFE	No	Test in No-Action and Balanced Resource. Implement in RTCD.
Load-following curtailment	Test before and after fall HFEs	Yes in CDAS (spring and fall) and RTCD (before fall only). No in others.
Trout management flows	Test and implement if successful	Test and implement if successful in most. Test only in No-Action. No in SASF.
Low summer flows	Test possible in years 11-20	Same as RTCD. Test possible in all 20 years in CDAS. No test in others.
Mechanical removal of trout	Yes	Yes in all but SASF.

Preliminary Results—Do Not Cite or Distribute



Glen Canyon Dam

Long-Term Experimental and Management Plan EIS



Process & Schedule

Preliminary Results—Do Not Cite or Distribute

Current Schedule

Task	Date
Administrative Draft EIS	October 10
Complete Hydropower Analysis	November 7
CA Draft Distributed	December 1
CA Review Complete (15 business days)	December 22
Public Draft	January 30