

September 29, 2016

**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, October 12, 2016
Time: 10:00 a.m.
Place: Orchard Room Holiday Inn Ontario Airport 2155 East Convention Center Way Ontario, CA 91764-4452 Tel: 909-212-8000

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

Regular Meeting
COLORADO RIVER BOARD OF CALIFORNIA
Wednesday, October 12, 2016
10:00 a.m.

Holiday Inn Ontario Airport
Orchard Room
2115 East Convention Center Way
Ontario, CA 91764-4452

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)
In accordance with California Government Code, Section 54954.3(a)
3. Administration
 - a. Consideration and approval of the Minutes of the Meeting held September 14, 2016 (**Action**)
 - b. Resolution in recognition of service of Joseph Vanderhorst (**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. Presentation regarding ongoing and emergency response actions relating to water quality issues within the Colorado River Basin
6. Staff reports regarding Colorado River Basin Programs
 - a. Review status of Basin States drought contingency planning
 - b. Review status of the Colorado River Basin Water Supply and Demand Study
 - c. Review status of Minute 319 and Minute 32x
 - 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
7. Announcements/Notices
8. Executive Session
An Executive Session may be held by the Board pursuant to provisions of Article 9

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

9. Other Business

- a. Next Board Meeting: November 9, 2016
Hosted by the Imperial Irrigation District
Holiday Inn Ontario Airport
2155 East Convention Center Way
Ontario, CA 91764-4452
Tel: 909-212-8000

Minutes of Meeting
COLORADO RIVER BOARD OF CALIFORNIA
Wednesday, September 14, 2016.

A meeting of the Colorado River Board of California was held on Wednesday, September 14, 2016.

Board Members and Alternates Present

Stephen Benson
Brian Brady
Dana Bart Fisher, Jr., Chairman
Henry Kuiper
Glen Peterson
John Powell Jr.

Jack Seiler
Michael Touhey
David Vigil
Jeanine Jones, Designee
Department of Water Resources

Board Members and Alternates Absent

James Hanks
Peter Nelson
David Pettijohn

Chris Hayes, Designee
Department of Fish and Wildlife
Doug Wilson

Others Present

Steve Abbott
Melissa Baum-Haley
Tim Blair
Karen Donovan
Bill Hasencamp
Ned Hyduke
Michael Hughes
Tom Levy
Kara Mathews
Jan Matusak
Jessica Neuwerth
Vic Nguyen
Angela Rashid
Tom Ryan
Ed Smith
Philip Southard
Gary Tavetian
Rob Thomson
Tanya Trujillo
Kimverlyn Velasquez
Donnell Wilcox

Jerry Zimmerman

CALL TO ORDER

Chairman Fisher announced the presence of a quorum and called the meeting to order at 10:04 A.M.

OPPORTUNITY FOR THE PUBLIC TO ADDRESS THE BOARD

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

ADMINISTRATION

Consideration and Approval of the Minutes

Chairman Fisher asked for a motion to approve the August 11, 2016 meeting minutes. Mr. Peterson moved that the minutes be approved, seconded by Ms. Jones, and by unanimous support, the August 11, 2016 meeting minutes were approved.

COLORADO RIVER BASIN WATER REPORTS

Review and Consideration of Lower Colorado River Water Supply Project Applications

Ms. Trujillo reported that Colorado River Board technical staff had reviewed three applications for Lower Colorado River Water Supply Project water and had found that they meet the necessary criteria. Mr. Kuiper moved that the resolution recommending that the Bureau of Reclamation subcontract with these water users through the City of Needles be approved, with a second by Mr. Brady. By unanimous support, the resolution was approved.

Ms. Trujillo noted that Chris Harris had provided a report to the Board in June on the background of the Water Supply Project. Additionally, Ms. Trujillo noted that the day of the Board meeting marked 15 years since 1,000 letters were sent out notifying parties that they would need to apply for Water Supply Project water for their existing or future uses.

Colorado River Basin Water Report and State and Local Water Reports

Ms. Trujillo reported that as of September 6, Basin storage was at 51% of capacity, similar to storage levels in September of the previous year. Lake Mead was at 37% of capacity, while storage at Lake Powell was 54% of capacity. Ms. Trujillo noted that the water year was drawing to a close, with annual precipitation at 96% of average and inflows to Lake Powell at 89% of average. Ms. Trujillo reported that conditions were dry throughout the Basin in July, although the Lower Basin saw some monsoonal precipitation in August. In the Lower Basin,

Brock Reservoir has been able to save 108,000 acre-feet of water as of the beginning of September, and Senator Wash has been able to regulate about 50,000 acre-feet, through decreased excess flows to Mexico which so far this year are 2,500 acre-feet. This time last year, excess flows to Mexico were 13,000 acre-feet.

Ms. Trujillo reported that the third consultation meeting for the Annual Operating Plan was held in early September. The Plan incorporates the results of the August 24-Month Study, which indicates that the Lower Basin will not be in shortage conditions in 2017. Upper Basin releases will be at least 8.23 maf, with the possibility of a mid-year adjustment to 9.0 maf. There is predicted to be a 48% chance of shortage in 2018, with the likelihood increasing to 60% in subsequent years.

Ms. Trujillo noted that Mark Stuart, director of the Los Angeles region of the Department of Water Resources, had recently retired and the new director was coming on board soon. Board Member Jones noted that the precipitation season was over and no new water was entering reservoirs in the state. Ms. Jones noted that the San Luis reservoir reached its record low point, creating problems for Federal contractors. Ms. Jones also noted that the coming year has the potential to be a La Niña year, which has some correlation with a drier winter in Southern California. However, the exact relationship between La Niña and statewide precipitation is not very clear.

Board Member Peterson noted that the level of Diamond Valley Lake continues to rise. Mr. Peterson also noted that the level of Lake Castaic is also rising and is at about 75% of capacity, representing a significant increase since September last year. Mr. Peterson reported that water conservation continues, even though State water use restrictions have loosened.

Board Member Brady reported that conservation in the San Diego area has averaged 21% over the last 15 months. Mr. Brady reported that, although the volume of conservation has dropped in the past few months, significant conservation has continued. Mr. Brady noted that all agencies within the San Diego Water Authority had successfully passed the three-year stress test mandated by the State Water Resources Control Board.

Board Member Benson reported that IID was encouraged by the recently signed Memorandum of Understanding between the Department of the Interior and the State of California on Salton Sea management issues. Mr. Benson hoped that Federal resources will be made available to pursue geothermal development at the Salton Sea. Finally, Mr. Benson reported that the current underrun in IID is approximately 120,000 acre-feet.

Mr. Ned Hyduke reported that PVID was working on several projects, including replacing the gates at the Palo Verde Diversion Dam. Mr. Hyduke estimated that the project would be completed in mid-January 2017. Mr. Hyduke also noted that a meeting would be held in Blythe to evaluate the water use by the Lower Colorado River Multi-Species Conservation Program.

Ms. Trujillo noted that all three of the Lower Basin states were currently using less water than in previous years, and that the Lower Basin is on track to use less than its full allocation. This reduction would be due to conservation programs in place in all three states. Chairman Fisher noted that historically low farm prices may also be contributing to lower water use.

COLORADO RIVER BASIN PROGRAM REPORTS

Basin States Drought Contingency Planning

Ms. Trujillo reported that the Drought Contingency Plan negotiations between California, Arizona, Nevada, and the Bureau of Reclamation are ongoing. The goal of the plan is to keep the elevation of Lake Mead from dropping below 1,020 feet in elevation. In addition, California is interested in increasing flexibility for operations during shortage years. The group has a goal of reaching a resolution by the end of the calendar year so that an agreement can be finalized before the change in the federal administration.

Salinity Control Forum

Ms. Trujillo reported that the Salinity Control Forum is working on its triennial review, which describes the benefits of the program and the projected program goals for the next three years. Ms. Trujillo reported that the next meeting of the forum would be held in Moab, Utah, in late October. The meeting will include a tour of the Paradox well in commemoration of its 20th year of operation. Ms. Trujillo noted that, through the lifetime of the Salinity Control Program, an estimated 1.3 million tons of salt have been removed from the system.

Implementation of Minute 319 and Negotiation of Minute 32X

Ms. Trujillo noted that we are now in the fourth year of the five-year term of Minute 319. Negotiations are still underway on Minute 32X, and the new minute will build on the Minute 319 elements, with no major modifications expected. The negotiating group is targeting the extension of the Minute so that it runs parallel to the 2007 Guidelines, which expire in 2026. One goal of the new Minute is for both countries to share in shortages and surplus, including Mexican participation in the drought contingency efforts being developed by the Lower Basin states.

Ms. Trujillo reported that Secretary Jewell, Deputy Secretary Connor, and Reclamation Commissioner Lopez met with the Ambassador from Mexico in early September to discuss the negotiations and the short timeframe remaining to reach an agreement. Ms. Trujillo noted that the bi-national negotiation group would be meeting in mid-September, at which point the feasibility of completing an agreement before the change in administration would become more clear.

Glen Canyon Dam Adaptive Management Work Group

Board staff Neuwerth reported that the Adaptive Management Work Group had met August 24-25 in Flagstaff, Arizona. The group approved a work plan, hydrograph, and budget for FY17. Researchers reported that there was currently inadequate sediment to carry out a high flow experiment (HFE), but monitoring of sediment would continue. Ms. Neuwerth noted that a population of invasive green sunfish, which had prevented an HFE in 2015, had returned to a backwater area below the dam and could prevent an HFE from being carried out, even if sediment is available.

Ms. Neuwerth noted that the population of endangered humpback chub near the Little Colorado River is suspected to have skipped spawning for the second year in a row. Surveys of adult fish have indicated a stable population, but surveys of juveniles have been more mixed. Additionally, Ms. Neuwerth noted that the population of nonnative brown trout below Glen Canyon Dam has increased dramatically in recent years and could pose a threat to native fish populations.

Ms. Neuwerth noted that the Long-Term Experimental and Management Plan EIS is nearing completion, with a final EIS expected within a month and a Record of Decision and Biological Opinion expected in November or December. Finally, Ms. Neuwerth reported that the Technical Work Group plans to meet on October 18-19 in Phoenix, AZ.

Lower Colorado River Multi-Species Conservation Program

Ms. Neuwerth reported that the LCR MSCP Work Group would meet on September 29, and the Steering Committee would meet on October 26 in Las Vegas, NV. The group will discuss whether the northern Mexican gartersnake, which was recently declared threatened by the US Fish and Wildlife Service, should be added to the program as a covered species. Ms. Neuwerth noted that a gartersnake has been found at Havasu National Wildlife Refuge and a population is known to exist at the recently acquired Planet Ranch property.

Ms. Neuwerth reported that the Colorado River Board sent letters with an adjusted payment calculation to Californian contributors to the LCR MSCP who have seen their share of Hoover Power adjusted due to the recent updates to the Hoover Power contracts.

Announcements

Ms. Trujillo acknowledged and thanked Metropolitan Water District staff, and especially Tom Ryan, for organizing the morning's tour and hosting the meeting.

Ms. Trujillo noted that a MOU between the State of California and Department of Interior had been signed in late August, and that President Obama mentioned Salton Sea restoration during remarks made at the Lake Tahoe summit. The MOU commits \$30 million in Federal funding over the next ten years. An additional \$10 million in contributions from NGOs was also committed to Salton Sea activities.

Ms. Trujillo reported that Congress was likely to pass a continuing resolution to fund the government through early December. The Water Resources Development Act was also being considered on the Senate floor. The Act includes provisions addressing several California water needs.

Ms. Trujillo reported that the international Boundary and Water Commission would be holding a Citizens' Forum at IID's El Centro office on September 28 to discuss water quality on the New River. Ms. Trujillo noted that she had been appointed a member of the Citizens' Forum.

Ms. Trujillo also reported that the steering committee of Basin States representatives working on a traveling museum exhibit regarding the Colorado River would be meeting in Chicago in early October.

Ms. Trujillo made a request for Board agencies to provide photographs or videos to incorporate into presentations for the annual Colorado River Water Users Association meeting in December. Ms. Trujillo noted that the Colorado River Board meeting usually held in conjunction with the CRWUA meeting would be scheduled earlier than usual so as not to conflict with the conference. Mr. Benson inquired if the presentations given at CRWUA this year would feature a California-centric message.

ADJOURNMENT

With no further items to be brought before the Board, Chairman Fisher adjourned the meeting at 12:14 P.M.

**RESOLUTION OF THE
COLORADO RIVER BOARD OF CALIFORNIA**

HONORING

JOSEPH ANTHONY VANDERHORST

WHEREAS, the water and power resources of the Colorado River System are vital to the State of California and its citizens; and

WHEREAS, the Colorado River Board of California represents and protects California's water and power interests within the Colorado River System, consistent with the "Law of the River," through negotiations and dialogs with other Colorado River Basin States, Native American Tribes and agencies of the federal government; and

WHEREAS, The Metropolitan Water District of Southern California, established under California law in 1928, is the Nation's largest regional wholesaler that delivers water to a 5,200 square-mile service area that includes 26 member public agencies—14 cities, 11 municipal water districts, one county water authority—which in turn provides water to more than 19 million people in Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura counties. Metropolitan owns and operates an extensive water system including: the Colorado River Aqueduct, 16 hydroelectric facilities, nine reservoirs, 819 miles of large-scale pipes and five water treatment plants; and

WHEREAS, Joseph A. Vanderhorst has served The Metropolitan Water District of Southern California in its Office of the General Counsel for nearly 22 years, most recently as an Assistant General Counsel working on Colorado River issues; and

WHEREAS, major Colorado River programs and activities that Joe made significant contributions to included: the Diamond Valley Reservoir Project; development of the Lower Colorado River Multi-Species Conservation Program; development of the Palo Verde Irrigation District/MWD Fallowing Program; development of the 2007 Interim Guidelines; and, most recently, renegotiation of the Hoover Power Contracts; and

NOW THEREFORE BE IT RESOLVED that the Colorado River Board of California recognizes and commends Joseph Vanderhorst for his knowledge of Colorado River issues, legal skills, environmental expertise, his abilities to exercise leadership and professionalism in the performance of his duties at The Metropolitan Water District of Southern California, and for his many years of service to the District's member agencies and the State of California and its water users and citizens.

BE IT FURTHER RESOLVED that the Colorado River Board of California and its staff extend their very best wishes to Joe, his wife, Kristi, and his family as he embarks on his future endeavors in the years to come.

Unanimously adopted on the 12th day of October, 2016.

Dana B. Fisher, Jr., Chairman

Oct 03, 2016

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	53%	12,823	3610.92	11,200
* LAKE MEAD	37%	9,630	1075.36	8,500
LAKE MOHAVE	89%	1,612	639.78	11,900
LAKE HAVASU	93%	575	447.71	8,500
TOTAL SYSTEM CONTENTS **	51%	30,166		
As of 10/02/2016				
SYSTEM CONTENT LAST YEAR	51%	30,287		
* 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	46%	1,065		
Painted Rock Dam	0%	0	535.10	0
Alamo Dam	4%	37	1079.33	25
Forecasted Water Use for Calendar Year 2016 (as of 09/29/2016) (values in kaf)				
NEVADA			247	
SOUTHERN NEVADA WATER SYSTEM				218
OTHERS				28
CALIFORNIA			4,198	
METROPOLITAN WATER DISTRICT OF CALIFORNIA				786
IRRIGATION DISTRICTS				3,268
OTHERS				144
ARIZONA			2,512	
CENTRAL ARIZONA PROJECT				1,388
OTHERS				1,124
TOTAL LOWER BASIN USE				6,957
DELIVERY TO MEXICO - 2016 (Mexico Scheduled Delivery + Preliminary Yearly Excess ¹)				1,510
OTHER SIGNIFICANT INFORMATION				
UNREGULATED INFLOW INTO LAKE POWELL - OCTOBER FINAL FORECAST DATED 10/03/2016				
		MILLION ACRE-FEET	% of Normal	
PRELIMINARY OBSERVED WATER YEAR 2016		9.616	89%	
OBSERVED APRIL-JULY 2016		6.610	92%	
SEPTEMBER OBSERVED INFLOW		0.281	69%	
OCTOBER INFLOW FORECAST		0.450	88%	
		Upper Colorado Basin	Salt/Verde Basin	
WATER YEAR 2017 PRECIP TO DATE ²		103% (0.2")	137% (0.3")	
CURRENT BASIN SNOWPACK		NA% (NA)	NA% (NA)	

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

² Precipitation values may vary significantly from week-to-week this early in the water year.

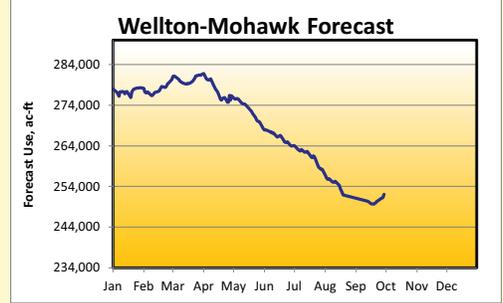
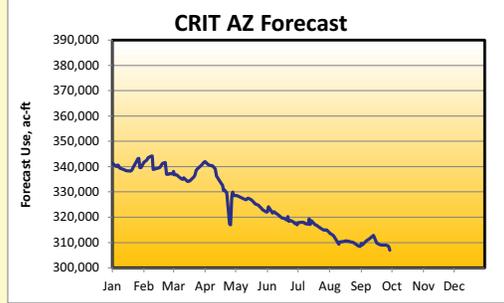
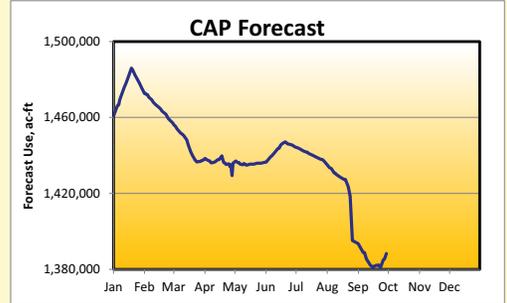
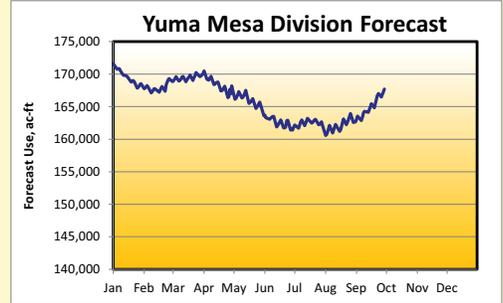
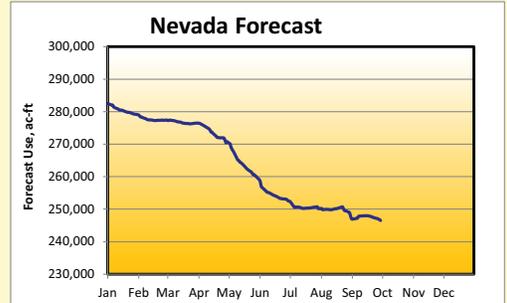
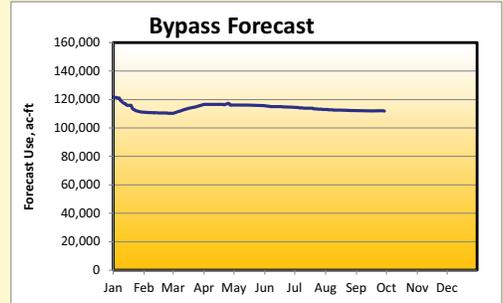
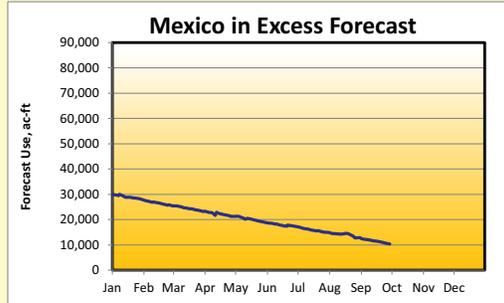
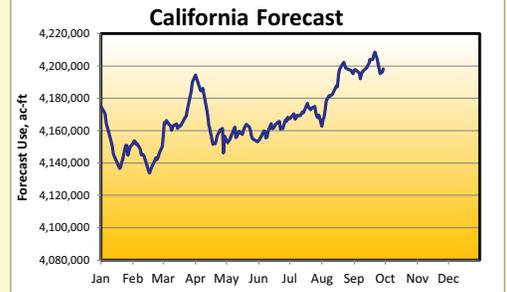
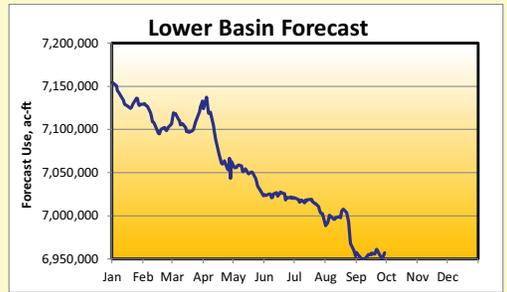
**U.S. BUREAU OF RECLAMATION
LOWER COLORADO REGION
CY 2016**

ARIZONA, CALIFORNIA, NEVADA, MEXICO
FORECAST OF END OF YEAR CONSUMPTIVE USE
FORECAST BASED ON USE TO DATE AND APPROVED ANNUAL WATER ORDERS ¹
(ACRE-FEET)

WATER USE SUMMARY

	Use To Date CY2016	Forecast Use CY2016	Approved Use ² CY2016	Excess to Approval CY2016
ARIZONA	2,014,043	2,512,455	2,625,942	-113,487
CALIFORNIA	3,477,901	4,198,132	4,175,000	23,132
NEVADA	187,821	246,527	282,500	-35,973
STATES TOTAL ³	5,679,765	6,957,114	7,083,442	-126,328
MEXICO IN SATISFACTION OF TREATY (Including downward delivery) TO MEXICO AS SCHEDULED	1,223,694 1,220,999	1,510,361 1,500,000	1,500,000	10,361
MEXICO IN EXCESS OF TREATY BYPASS PURSUANT TO MINUTE 242	2,695 70,703	10,361 111,739		
TOTAL LOWER BASIN & MEXICO	6,974,162	8,579,214		

1/ Incorporates January through July USGS monthly data and 80 daily reporting stations which may be revised after provisional data reports are distributed by the USGS. Use to date estimated for users reporting monthly and annually.
2/ These values reflect adjusted apportionments. See Adjusted Apportionment calculation on each state page.
3/ Includes unmeasured returns based on estimated consumptive use/diversion ratios by user from studies provided by Arizona Department of Water Resources, Colorado River Board of California, and Reclamation.



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

**U.S. BUREAU OF RECLAMATION
LOWER COLORADO REGION
CY 2016**

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

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 CY2016	Forecast Use CY2016	Estimated Use CY2016	Excess to Estimated Use CY2016	Diversion To Date CY2016	Forecast Diversion CY2016	Approved Diversion CY2016	Excess to Approved Diversion CY2016
ARIZONA PUMPERS	12,054	14,539	14,539	---	18,680	22,530	22,530	0
LAKE MEAD NRA, AZ - Diversions from Lake Mead	90	131	131	---	90	131	131	0
LAKE MEAD NRA, AZ - Diversions from Lake Mohave	128	169	169	---	128	169	169	0
DAVIS DAM PROJECT	2	2	2	---	46	56	56	0
BULLHEAD CITY	5,269	7,354	8,523	---	7,863	10,974	12,720	-1,746
MOHAVE WATER CONSERVATION DISTRICT	491	592	592	---	730	881	881	0
BROOKE WATER LLC	174	210	210	---	260	314	314	0
MOHAVE VALLEY IDD	15,916	20,707	21,549	---	29,474	38,345	39,905	-1,560
FORT MOJAVE INDIAN RESERVATION, AZ	28,918	34,066	47,790	---	53,552	63,085	88,500	-25,415
GOLDEN SHORES WATER CONSERVATION DISTRICT	262	316	316	---	391	472	472	0
HAVASU NATIONAL WILDLIFE REFUGE	3,800	4,214	3,563	---	31,669	36,518	41,820	-5,302
LAKE HAVASU CITY	6,112	8,087	8,370	---	9,858	13,044	13,500	-456
CENTRAL ARIZONA PROJECT	1,090,282	1,388,411	---	---	1,090,282	1,388,411	---	---
TOWN OF PARKER	293	375	392	---	656	867	916	-49
COLORADO RIVER INDIAN RESERVATION, AZ	270,793	306,967	341,393	---	472,627	591,938	662,402	-70,464
EHRENBURG IMPROVEMENT ASSOCIATION	187	226	226	---	264	318	318	0
CIBOLA VALLEY IRRIGATION DISTRICT	14,276	17,218	17,218	---	19,960	24,074	24,074	0
CIBOLA NATIONAL WILDLIFE REFUGE	10,489	12,035	12,741	-706	16,918	19,411	20,550	-1,139
IMPERIAL NATIONAL WILDLIFE REFUGE	1,509	2,265	3,019	-754	2,437	3,654	4,868	-1,214
BLM PERMITEES (PARKER DAM to IMPERIAL DAM)	816	984	984	---	1,257	1,516	1,516	---
CHA CHA, LLC	1,060	1,216	1,225	---	1,630	1,870	1,884	-14
BEATTIE FARMS	294	437	723	---	450	671	1,110	-439
YUMA PROVING GROUND	368	466	550	---	368	466	550	-84
GILA MONSTER FARMS	2,485	3,556	5,271	---	4,426	6,325	9,156	-2,831
WELLTON-MOHAWK IDD	209,639	252,098	278,000	-25,902	302,388	386,150	424,350	-38,200
BLM PERMITEES (BELOW IMPERIAL DAM)	71	86	86	0	109	132	132	0
CITY OF YUMA	9,987	13,928	16,036	-2,108	17,791	24,857	27,583	-2,726
MARINE CORPS AIR STATION YUMA	1,085	1,385	1,385	---	1,085	1,385	1,385	0
UNION PACIFIC RAILROAD	18	24	24	---	36	48	48	0
UNIVERSITY OF ARIZONA	652	795	690	---	652	795	690	105
YUMA UNION HIGH SCHOOL DISTRICT	119	151	151	---	159	201	200	1
DESERT LAWN MEMORIAL	72	87	87	---	102	123	123	0
NORTH GILA VALLEY IRRIGATION DISTRICT	9,406	10,943	10,929	---	32,001	42,308	44,000	-1,692
YUMA IRRIGATION DISTRICT	29,163	37,101	40,822	---	53,448	68,748	75,100	-6,352
YUMA MESA IDD	93,283	119,643	119,859	---	156,422	197,037	202,464	-5,427
UNIT "B" IRRIGATION DISTRICT	16,784	20,966	21,037	---	23,132	28,325	29,800	-1,475
FORT YUMA INDIAN RESERVATION	1,154	1,392	1,392	---	1,774	2,140	2,140	0
YUMA COUNTY WATER USERS' ASSOCIATION	174,669	226,099	250,443	---	262,902	355,769	386,000	-30,231
COCOPA INDIAN RESERVATION	1,851	3,188	5,778	---	1,916	3,979	8,960	-4,981
RECLAMATION-YUMA AREA OFFICE	22	26	26	---	22	26	26	0
RETURN FROM SOUTH GILA WELLS	---	---	---	---	---	---	---	---
TOTAL ARIZONA	2,014,043	2,512,455	2,625,903		2,617,955	3,338,063	3,541,005	
CAP	1,090,282	1,388,411	---	---	---	1,388,411	---	---
ALL OTHERS	923,761	1,124,044	1,236,241	---	---	1,949,652	2,151,343	---
YUMA MESA DIVISION, GILA PROJECT	131,852	167,687	171,610	-3,923	---	308,093	---	---

ARIZONA ADJUSTED APPORTIONMENT CALCULATION

Arizona Basic Apportionment	2,800,000
Creation of Protection Volume - CAWCD ¹	-134,860
Creation of Protection Volume - Reclamation ²	-13,933
System Conservation Water - CAWCD ³	-25,265
Total State Adjusted Apportionment	2,625,942
Excess to Total State Adjusted Apportionment	-113,487
Estimated Allowable Use for CAP	1,502,668

1/ In 2016, CAWCD intends to conserve no less than 134,860 AF of Colorado River water as part of its commitment under the 2014 Memorandum of Understanding for Pilot Drought Response Actions (MOU).

2/ On October 6, 2015, the Fort McDowell Yavapai Nation (Nation) and Reclamation entered into a Drought Response Agreement in which the Nation agreed to forego delivery of 13,933 AF of the Nation's CAP water entitlement in 2016. Reclamation intends to apply this volume of water toward its commitment under the MOU.

3/ On March 17, 2016, Reclamation and CAWCD entered into a System Conservation Implementation Agreement (SCIA) under the Pilot System Conservation Program. In accordance with the SCIA, CAWCD agreed to create System Conservation Water by forbearing from remarketing 25,265 AF of CAP water within the CAP service area for delivery in 2016.

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

**U.S. BUREAU OF RECLAMATION
LOWER COLORADO REGION
CY 2016**

NOTE:

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

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

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

WATER USER	Use	Forecast	Estimated	Excess to	Diversion	Forecast	Approved	Excess to
	To Date	Use	Use	Use	To Date	Diversion	Diversion	Approved
	CY2016	CY2016	CY2016	CY2016	CY2016	CY2016	CY2016	CY2016
CALIFORNIA PUMPERS	1,460	1,761	1,761	---	2,646	3,191	3,191	0
FORT MOJAVE INDIAN RESERVATION, CA	5,542	6,457	8,995	---	10,302	12,002	16,720	-4,718
CITY OF NEEDLES (includes LCWSP use)	986	1,411	1,931	-520	1,466	2,066	2,720	-654
METROPOLITAN WATER DISTRICT	747,056	786,061	591,360	---	749,116	788,921	594,451	---
COLORADO RIVER INDIAN RESERVATION, CA	2,684	3,237	3,237	---	4,446	5,362	5,362	0
PALO VERDE IRRIGATION DISTRICT	311,477	363,714	400,192	---	638,428	803,361	868,000	-64,639
YUMA PROJECT RESERVATION DIVISION	36,777	46,535	57,009	---	71,371	93,012	107,359	-14,347
YUMA PROJECT RESERVATION DIVISION - INDIAN UNIT	---	---	---	---	35,315	46,149	52,359	-6,210
YUMA PROJECT RESERVATION DIVISION - BARD UNIT	---	---	---	---	36,056	46,863	55,000	-8,137
YUMA ISLAND PUMPERS	3,764	4,540	4,540	---	6,811	8,215	8,215	0
FORT YUMA INDIAN RESERVATION - RANCH 5	550	663	663	---	996	1,201	1,201	0
IMPERIAL IRRIGATION DISTRICT	2,000,120	2,491,818	2,612,400	-120,582	1,981,909	2,503,380	2,727,875	---
SALTON SEA SALINITY MANAGEMENT	81,106	130,000	130,000	0	83,510	136,420	136,420	---
COACHELLA VALLEY WATER DISTRICT	285,624	361,024	362,000	-976	298,019	378,145	378,869	---
OTHER LCWSP CONTRACTORS	604	728	728	---	955	1,152	1,152	0
CITY OF WINTERHAVEN	56	68	68	---	81	98	98	0
CHEMEHUEVI INDIAN RESERVATION	95	115	115	---	9,402	11,340	11,340	0
TOTAL CALIFORNIA	3,477,901	4,198,132			3,859,458	4,747,866	4,862,973	

CALIFORNIA ADJUSTED APPORTIONMENT CALCULATION

California Basic Apportionment	4,400,000
Conservation for Salton Sea Restoration - 2010 ¹	
Creation of Extraordinary Conservation ICS (IID)	-25,000
Creation of Extraordinary Conservation ICS (MWD)	-200,000
Total State Adjusted Apportionment	4,175,000
Excess to Total State Adjusted Apportionment	23,132

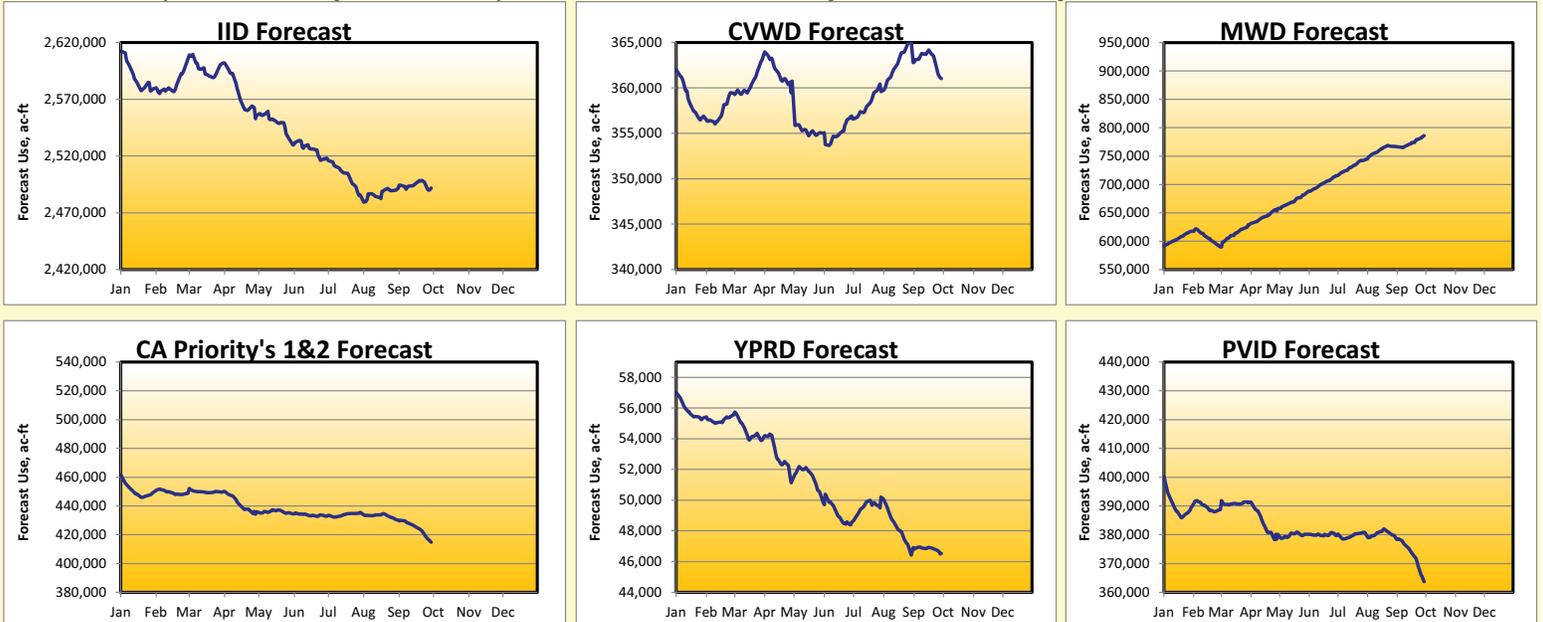
ISG ANNUAL TARGET COMPARISON CALCULATION

Priorities 1, 2, 3b Use (PVID+YPRD+Island+PVID Mesa)	414,789
MWD Adjustment	0
Total California Agricultural Use (PVID+YPRD+Island+IID+CVWD)	3,267,631
California Agricultural Paybacks	0
Misc. PPRs Covered by IID and CVWD	14,500
California ICS Creation (IID ICS)	25,000
Total Use for Target Comparison ²	3,307,131
ISG Annual Target (Exhibit B)	3,440,000
Amount over/(under) ISG Annual Target	-132,869

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

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

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



**U.S. BUREAU OF RECLAMATION
LOWER COLORADO REGION
CY 2016**

NOTE:

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- Water user with a diversion entitlement - **Excess to Approved Diversion** column indicates overrun/underrun of entitlement. Dash in this column indicates water user has a consumptive use entitlement.

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

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

WATER USER	Use	Forecast	Estimated	Excess to	Diversion	Forecast	Approved	Excess to
	To Date	Use	Use	Use		To Date	Diversion	Diversion
	CY2016							
ROBERT B. GRIFFITH WATER PROJECT (SNWS)	327,667	427,058	438,176	-11,118	327,667	427,058	438,176	-11,118
LAKE MEAD NRA, NV - Diversions from Lake Mead	273	358	403	---	273	358	403	-45
LAKE MEAD NRA, NV - Diversions from Lake Mohave	119	155	152	---	119	155	152	3
BASIC MANAGEMENT INC.	4,540	6,738	8,208	---	4,540	6,738	8,208	-1,470
CITY OF HENDERSON (BMI DELIVERY)	9,548	13,593	15,878	---	9,548	13,593	15,878	-2,285
NEVADA STATE DEPT. OF FISH & GAME	8	11	12	-1	410	505	405	---
PACIFIC COAST BUILDING PRODUCTS INC.	682	923	928	---	682	923	928	-5
BOULDER CANYON PROJECT	143	173	173	---	249	300	300	0
BIG BEND WATER DISTRICT	1,987	3,133	5,355	---	4,061	6,273	10,000	-3,727
FORT MOJAVE INDIAN TRIBE	2,447	3,134	3,886	---	3,653	4,679	5,800	-1,121
LAS VEGAS WASH RETURN FLOWS	-159,593	-208,749	-190,671	---				
TOTAL NEVADA	187,821	246,527	282,500	-11,119	351,202	460,582	480,250	-19,768
SOUTHERN NEVADA WATER SYSTEM (SNWS)	168,074	218,309				427,058		
ALL OTHERS	19,747	28,218				33,524		
NEVADA USES ABOVE HOOVER	183,387	240,260				449,630		
NEVADA USES BELOW HOOVER	4,434	6,267				10,952		

Tributary Conservation & Imported Intentionally Created Surplus

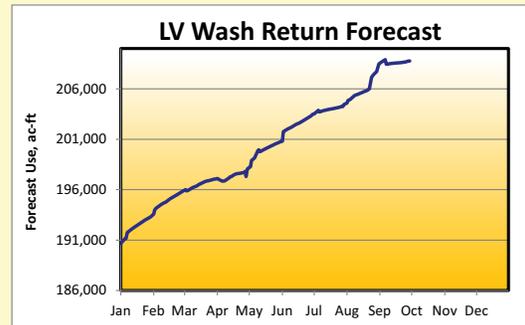
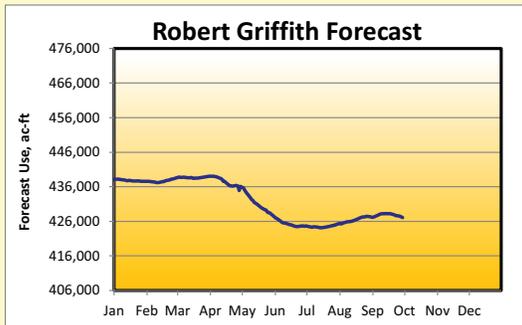
Total Requested Tributary Conservation Intentionally Created Surplus	29,500
Total Requested Imported Conservation Intentionally Created Surplus	9,000
5% System Cut for Creation of Intentionally Created Surplus	-1,925
Total Intentionally Created Surplus Left in Lake Mead	36,575

Pilot System Conservation Program

Tributary Conservation - Left in Lake Mead ¹	7,500
---	-------

NEVADA ADJUSTED APPORTIONMENT CALCULATION

Nevada Basic Apportionment	300,000
Creation of Protection Volume ²	-17,500
Total State Adjusted Apportionment	282,500
Excess to Total State Adjusted Apportionment	-35,973



1/ On June 4, 2015, Reclamation and SNWA entered into a System Conservation Implementation Agreement in which SNWA agreed to conserve 7,500 AF of Colorado River water from its Tributary Conservation projects to create System Conservation Water.

2/ In 2016, Nevada anticipates leaving 17,500 AF of its basic apportionment in Lake Mead by forgoing off-stream storage as part of SNWA's commitment under the 2014 Memorandum of Understanding for Pilot Drought Response Actions.

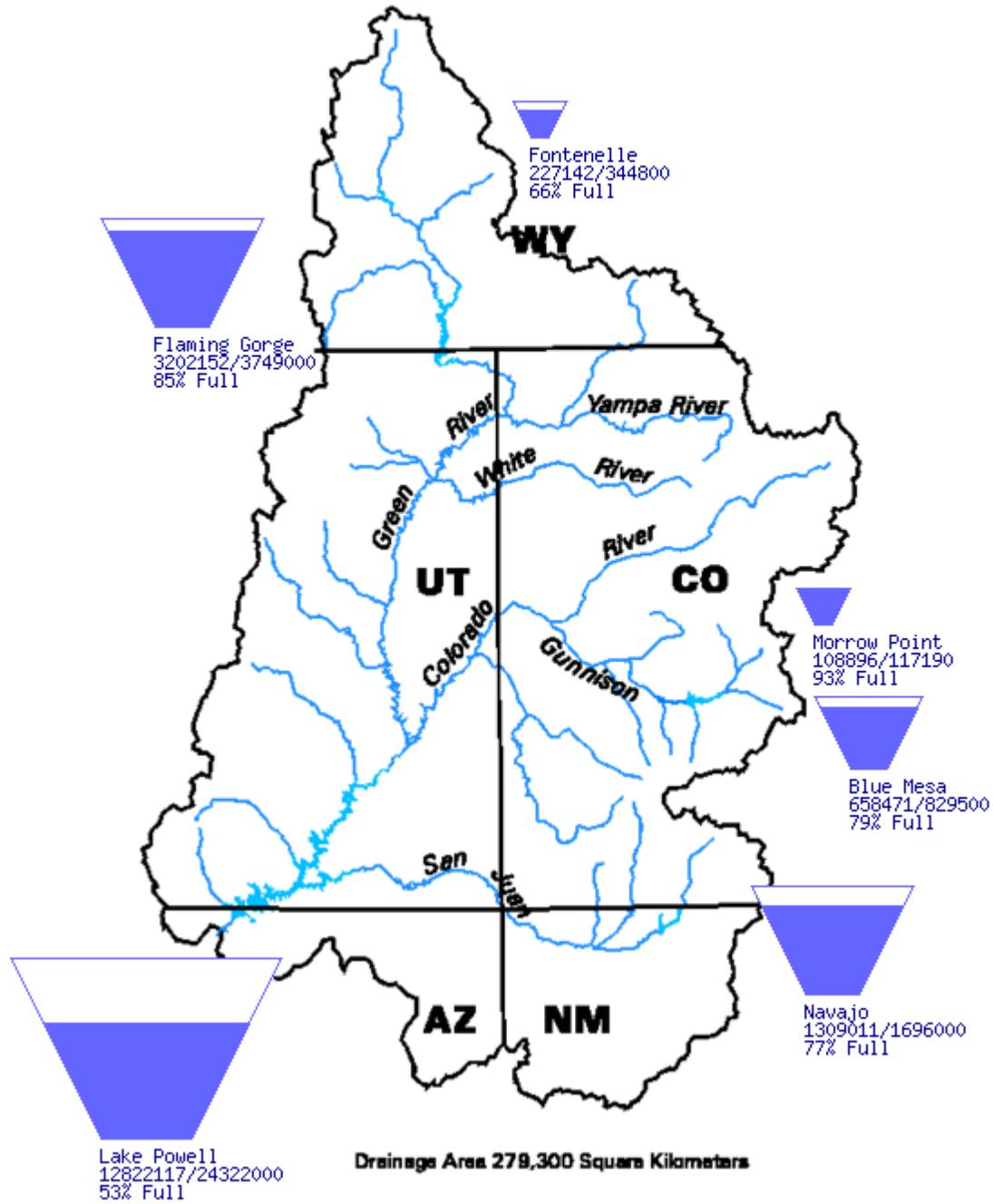
NOTES: Click on Nevada Schedules and Approvals above for incoming diversion schedules and approvals.

Upper Colorado Region Water Resources Group

River Basin Tea-Cup Diagrams

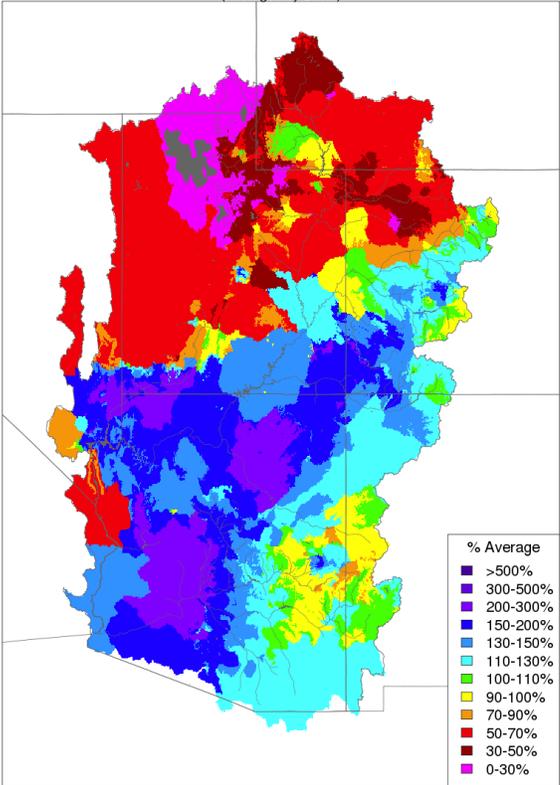
Data Current as of:
10/03/2016

Upper Colorado River Drainage Basin

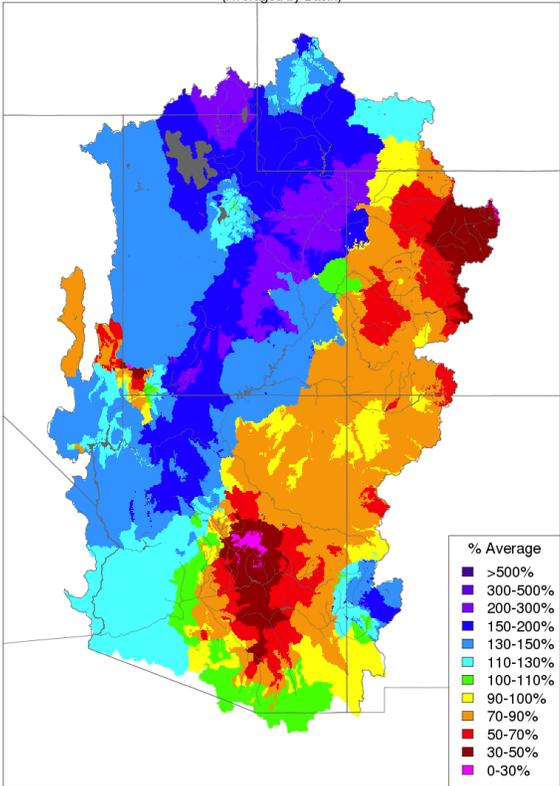


NOAA National Weather Service Monthly Precipitation Maps for August and September 2016

Monthly Precipitation - August 2016
(Averaged by Basin)



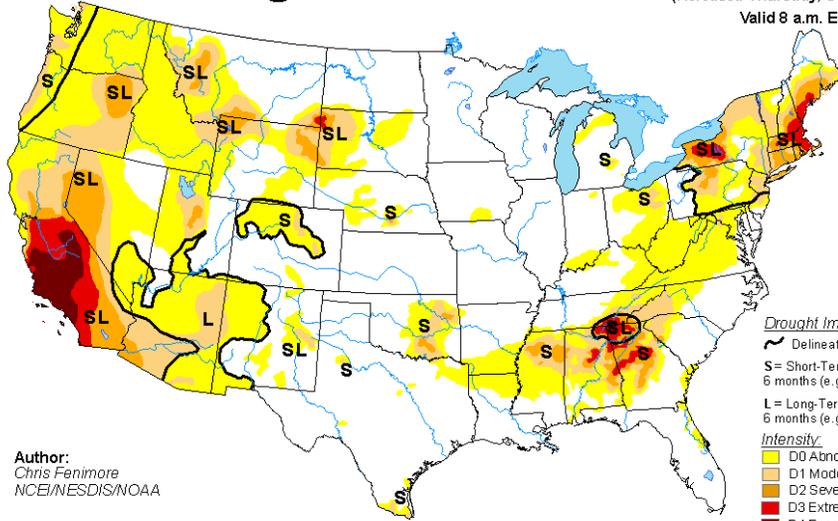
Monthly Precipitation - September 2016
(Averaged by Basin)



USDA United States Drought Monitor Map

U.S. Drought Monitor

September 27, 2016
(Released Thursday, Sep. 29, 2016)
Valid 8 a.m. EDT



Author:
Chris Fenimore
NCE/NESDIS/NOAA

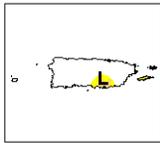
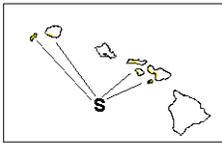
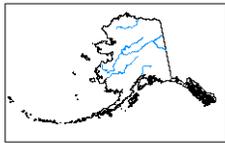
Drought Impact Types:

- ~ 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

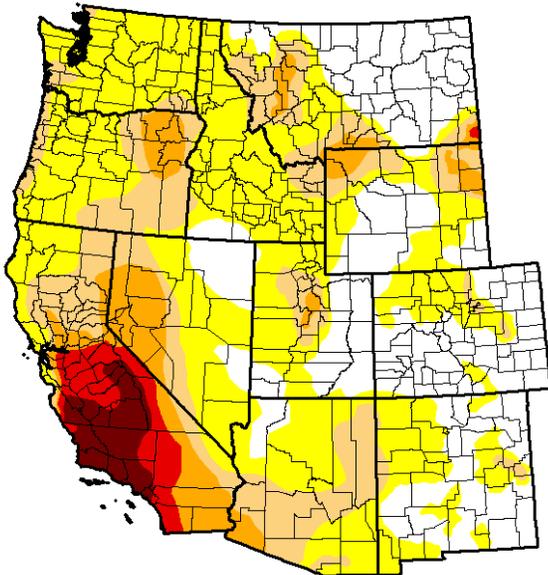
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



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

U.S. Drought Monitor West

September 27, 2016
(Released Thursday, Sep. 29, 2016)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	27.78	72.22	30.95	13.45	5.77	2.81
Last Week 9/20/2016	23.39	76.61	32.27	13.67	5.77	2.81
3 Months Ago 6/28/2016	35.80	64.20	27.65	11.08	5.80	2.81
Start of Calendar Year 1/22/2015	33.17	66.83	45.07	29.30	15.92	6.85
Start of Water Year 9/26/2015	22.77	77.23	57.81	42.42	26.50	7.62
One Year Ago 9/28/2015	22.77	77.23	57.81	42.42	26.50	7.62

Intensity:

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

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

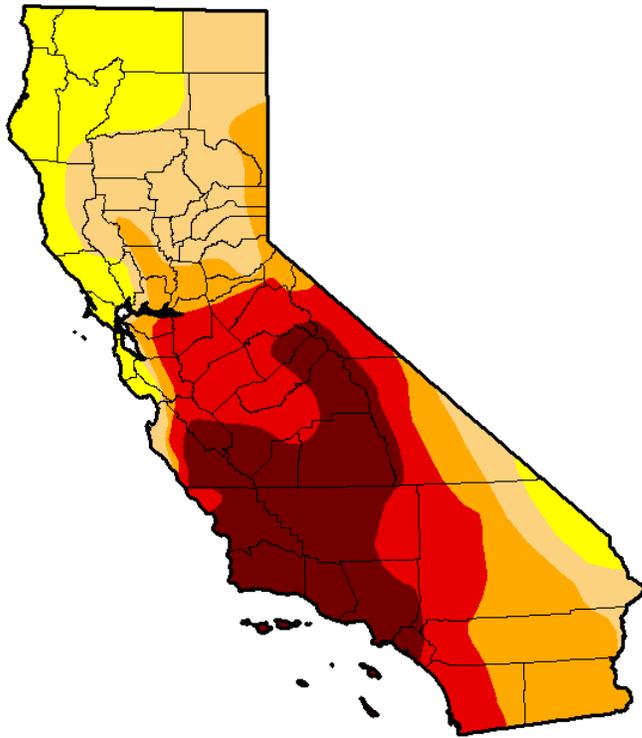
Author:
Chris Fenimore
NCE/NESDIS/NOAA



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

U.S. Drought Monitor California

September 27, 2016
(Released Thursday, Sep. 29, 2016)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	83.59	62.27	42.80	21.04
Last Week 9/20/2016	0.00	100.00	83.59	62.27	42.80	21.04
3 Months Ago 6/28/2016	0.00	100.00	83.59	59.02	42.80	21.04
Start of Calendar Year 12/29/2015	0.00	100.00	97.33	87.55	69.07	44.84
Start of Water Year 9/29/2015	0.14	99.86	97.33	92.36	71.08	46.00
One Year Ago 9/29/2015	0.14	99.86	97.33	92.36	71.08	46.00

Intensity:

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

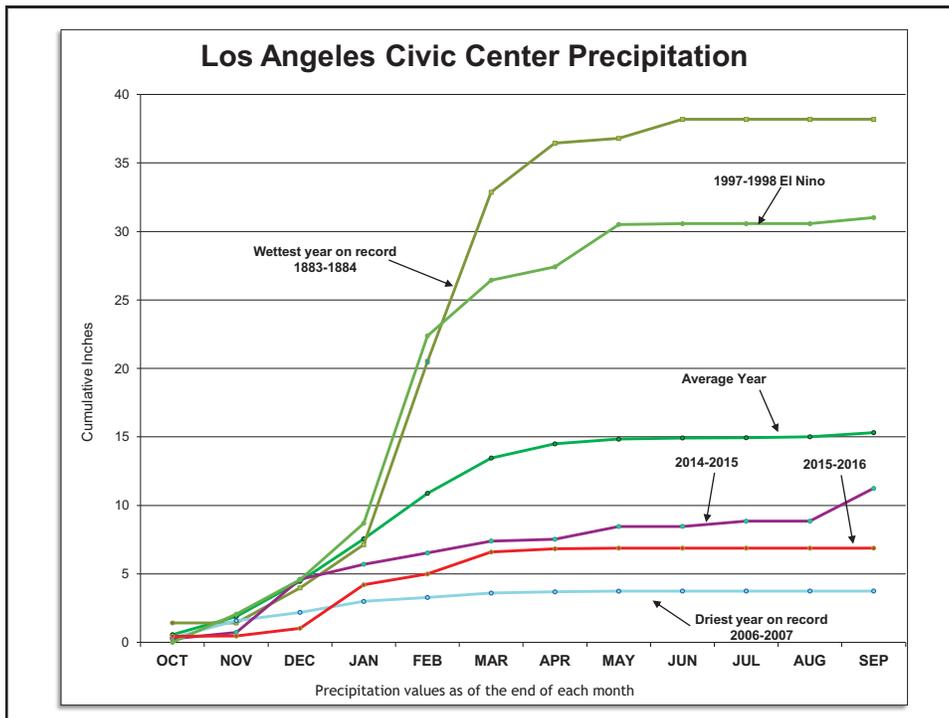
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

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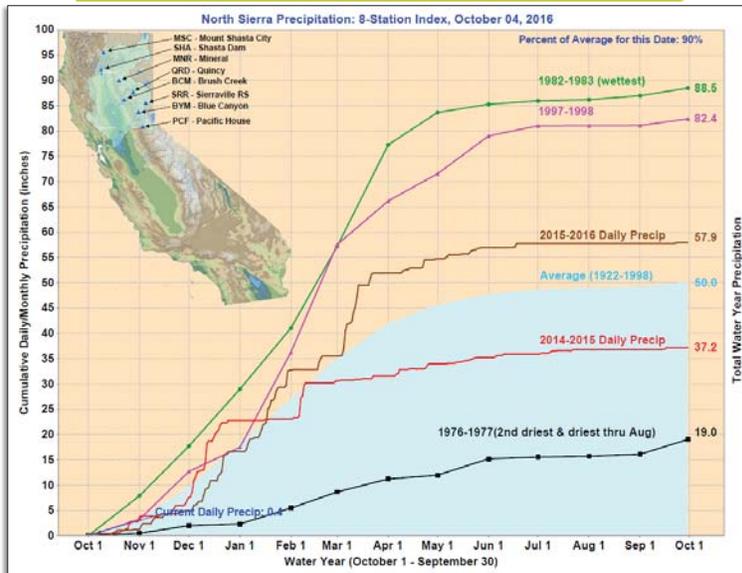


Precipitation at Six Major Stations in Southern California

From October 1, 2015 to September 30, 2016

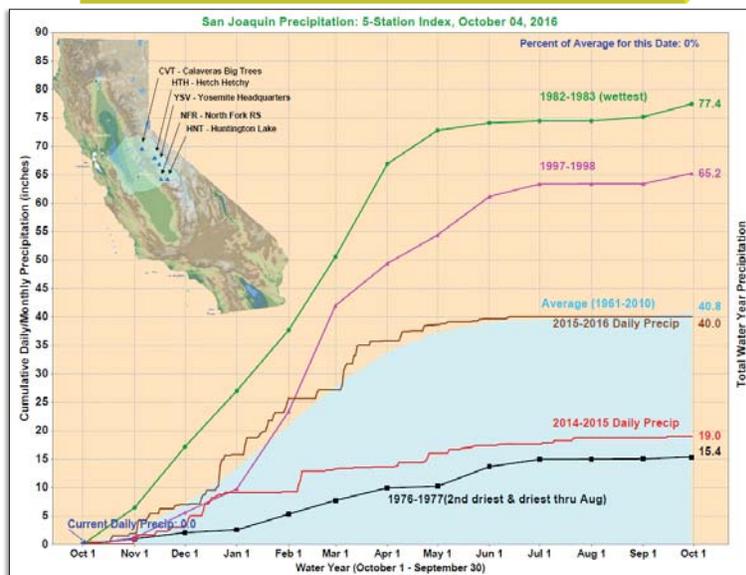
Station	Precipitation in inches		Average to Date	Percent of Average
	Sep	Oct 1 to Sep 30		
San Luis Obispo	0.00	12.55	22.44	56%
Santa Barbara	0.01	10.22	17.78	57%
Los Angeles	0.00	6.88	15.31	45%
San Diego	0.28	7.16	10.15	71%
Blythe	0.13	2.13	3.81	56%
Imperial	0.21	1.04	2.83	37%

Northern Sierra Precipitation-8 Station Index



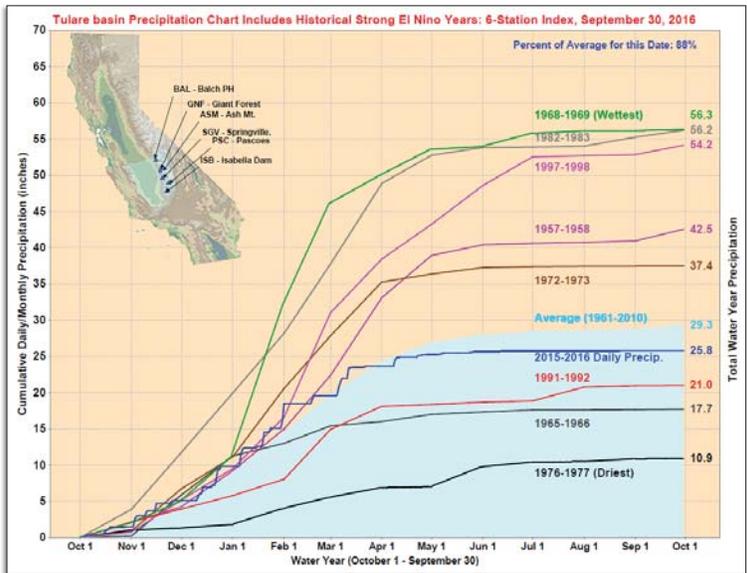
California Data Exchange Center
http://cdec.water.ca.gov/cgi-progs/products/PLOT_ESI.pdf

San Joaquin Precipitation: 5-Station Index



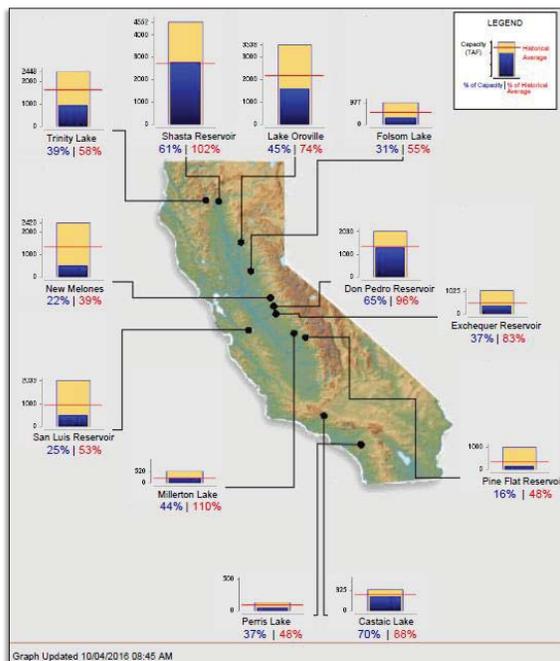
California Data Exchange Center
http://cdec.water.ca.gov/cgi-progs/products/PLOT_FSI.pdf

Tulare Basin Precipitation: 6-Station Index



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

Current Reservoir Conditions



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

Comparison of SWP Water Storage

Reservoir	Capacity	2015 Storage (acre-feet)		2016 Storage (acre-feet)	
		As of Sep 30	% of Cap.	As of Sep 30	% of Cap.
Frenchman	55,475	12,413	22%	17,775	32%
Lake Davis	84,371	37,778	45%	46,124	55%
Antelope	22,564	16,944	75%	17,284	77%
Oroville	3,553,405	1,057,837	30%	1,618,781	46%
TOTAL North	3,715,815	1,124,972	30%	1,699,964	46%
Del Valle	39,914	32,488	81%	37,106	93%
San Luis (DWR)	1,062,180	322,313	30%	439,034	41%
Pyramid	169,901	167,319	98%	167,191	98%
Castaic	319,247	114,314	36%	232,001	73%
Silverwood	74,970	67,789	90%	73,032	97%
Perris	126,841	46,851	37%	48,407	38%
TOTAL South	1,793,053	751,074	42%	996,771	56%
TOTAL SWP	5,508,868	1,876,046	34%	2,696,735	49%

State Water Project Projected Deliveries:
As of April 21, 2016, the Table-A allocations for 2016 is 60%

Oroville Storage (acre-feet)

October 1, 2007 - September 30, 2016

